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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS UNITED STATES SENATE

NINETY-THIRD CONGRESS

SECOND SESSION

ON

H.R. _____

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF DEFENSE FOR THE FISCAL YEAR ENDING JUNE 30, 1975, AND FOR OTHER PURPOSES

Printed for the use of the Committee on Appropriations

PART 1

Department of Defense
Defense Agencies
Public Witnesses

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Staff Assistants, Department of Defense Appropriations Subcommittee

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

TUESDAY, MARCH 5, 1974

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10:30 a.m., in room 1223, Everett McKinley Dirksen Office Building, Hon. John L. McClellan (chairman) presiding.

Present: Senators McClellan, Stennis, Young, Fong, Brooke, Symington, and Thurmond.

DEPARTMENT OF DEFENSE

STATEMENTS OF:
HON. JAMES R. SCHLESINGER, SECRETARY OF DEFENSE
ADM. THOMAS H. MOORER, U.S. NAVY, CHAIRMAN, JOINT CHIEFS OF STAFF

ACCOMPANIED BY:
HON. TERENCE E. McCLARY, ASSISTANT SECRETARY OF DEFENSE (COMPTROLLER)
ROBERT K. WOLTHUIS, DEPUTY ASSISTANT SECRETARY OF DEFENSE (LEGISLATIVE AFFAIRS)
COL. R. M. LUCY, U.S. MARINE CORPS, ASSISTANT LEGAL ADVISER AND LEGISLATIVE ASSISTANT TO THE CHAIRMAN, JOINT CHIEFS OF STAFF
LT. COL. HARRY P. DUNN, U.S. AIR FORCE, OFFICE OF ASSISTANT SECRETARY OF DEFENSE (LEGISLATIVE AFFAIRS)

INTRODUCTION OF WITNESSES

Chairman MCCLELLAN. The subcommittee will come to order.

We begin our hearings on the fiscal year 1975 Defense Budget today, and we are glad indeed to have with us this morning as our leadoff witnesses the Secretary of Defense, Dr. Schlesinger; Admiral Moorer, Chairman of the Joint Chiefs of Staff, and Mr. Terrence E. McClary, Assistant Secretary of Defense, Comptroller of the Defense Department.

Gentlemen, we welcome you.

PREPARED STATEMENT OF CHAIRMAN MCCLELLAN

The Chair has prepared a comparatively brief statement for the record. I am not going to take time to read it, but with the consent of my colleagues, I will insert it in the record at this point.

[The statement follows:]

The Senate Defense Appropriations Subcommittee begins hearings today on the Administration's request for a national defense budget for fiscal 1975 of $85.8 billion in outlays.

Not only is the total budget request of $304.4 billion for fiscal 1975 the largest in the history of our Nation, but this defense budget is also a new record high in terms of dollar outlays. The previous defense record was $80.4 billion voted thirty years ago during fiscal 1945 at the height of World War II.

The survival of America and of the entire free world was on the line in 1945. We all were willing then to make any sacrifice, to meet any demands, and to go to any length to repel the global threat to freedom that was posed in that catastrophic conflict.

But the world -- and America -- has drastically changed since those days.

Since then, we have fought two bitter wars, both marked by a no-win policy -- a policy that is contrary both to national tradition and to national character. We have now been thrust into free world leadership. Indeed, we stand today as a bulwark of defense against totalitarian aggression and conquest.

This largest-ever peacetime budget will serve to reinforce and fortify our defense posture in this era of detente. We must maintain an adequate and impressive military arsenal while urgently seeking further arms limitations. This presents a dilemma -- a paradox -- that is confusing and not readily understood by many of our citizens.

They ask -- if we have peace -- why we do not spend more money for our peaceful pursuits and less for weapons of war.

They ask -- if we have detente -- why we must continue to improve and strengthen our ability to make war.

The answer is that world peace is not secure and that detente is not permanent. It is only a temporary expedient -- an arresting experiment -- while the superpowers probe the possibilities or arms limitations and other actions calculated to promote peace and understanding.

At the same time, the American people must understand that the cost of maintaining a formidable defense is increasing. Military costs, like all other costs, are going up. For example, this budget reflects the accelerated cost of the voluntary army and the pay of personnel, the rapidly increasing price of sophisticated weaponry, vitally needed maintenance and modernization delayed and deferred through the years of Vietnam; and the compelling necessity of maintaining a viable national defense in a time of international tensions and uncertainties.

A clear indication of the effect of inflation and increased pay on military personnel costs is illustrated by the following: In fiscal 1964, it cost $12.3 billion to pay for an active duty force of 2,685,000; in fiscal 1975, it will cost $22.9 billion to pay for an active duty force of 2,152,000. Thus, we are now having to pay almost twice as much for a force only 80 percent the size of the one we had in 1964.

Since fiscal 1973, the defense budget has climbed $12 billion -- with the current request for outlays $6.3 billion larger than in fiscal 1974. The greater part of this increase is directly attributable to the factors cited above.

Comparing the fiscal year 1975 budget with that of fiscal year 1973, it should be noted that three general pay increases have added $4.6 billion and that the cost of subsistence will be at least a half billion dollars more. The ration rate on January 1, 1972, was $1.46 per man per day; on January 1, 1973, it was $1.65; and on January 1, 1974, it had risen to $2.28, the rate reflected in the FY 1975 budget. That is what it is costing today for food for each of our military personnel.

Petroleum prices paid by defense agencies on February 1, 1974, were 123% above FY 1973 prices. The FY 1975 budget is based on this February 1, 1974 price. This alone adds $1.7 billion to the FY 1975 defense budget.

Inflation added 7% to the defense budget from FY 1973 to FY 1974, and the FY 1975 budget is premised on a further rise of 5% over FY 1974 -- adding $4.7 billion to the FY 1975 budget. Yet, the current rate of inflation may be double this estimate -- further complicating the problems of fiscal management.

Thus far, I have been discussing total outlays for military spending. The Subcommittee will also consider requests for new supplemental obligational authority for fiscal 1974 which is in two parts.

Part one is a supplemental request of $6.2 billion for fiscal year 1974. Of this amount, $3.4 billion is for pay and rate increases. The January 1, 1973, increase for military and civilian personnel will cost $1.5 billion. The October 1, 1973, pay increase will add another $1 billion. Cost-of-living increases for retired personnel, wage board increases, and increased food and postal costs make up the remainder of the $3.4 billion.

Part two contains $2.8 billion to improve force readiness, cover fuel price increases and extra costs of U. S. arms supplied to Israel during the recent conflict.

This Subcommittee must consider the request of $85.6 billion in new budget authority for Department of Defense functions for fiscal year 1975.

Without objection, I shall include in the record at the conclusion of my statement a tabulation setting out the fiscal year 1974 appropriations, the pending supplemental request thereto, and the request for fiscal year 1975.

Last year, in an effort to improve fiscal responsibility, the Senate Committee on Appropriations, acting through its 13 Subcommittee Chairmen, set tentative appropriations and expenditure ceilings to be observed during its consideration of the various appropriations bills.

We were able to meet the goals we then established -- in fact, we exceeded them. After extensive hearings and judicious examination of the President's spending proposals, the Congress reduced new obligational authority by a total of $3,262,696,451.

On April 16, 1973, I announced a tentative ceiling of $74,124,000,000 for the FY 1974 defense appropriation bill, a reduction of $3 billion below the original budget request. On September 21, 1973, however, the Congress received a budget amendment from the Administration which added $126.5 million more to its request.

The bill as passed by the Senate provided $73,264,627,000 plus $503,300,000 in transfers from other accounts. Thus, the Senate bill was $3.5 billion below the amended budget request, and the bill as finally passed and signed by the President was $3 billion below the total of his revised budget.

In view of that measure of success, the Senate Appropriations Committee will again undertake to establish tentative appropriations ceilings for fiscal 1975.

The Defense Appropriations Subcommittee will endeavor to trim obligational authority by an estimated $3.5 billion -- or 4.09 per cent of the total $85.6 billion earmarked for this purpose. I am hopeful that once again we will meet -- or exceed -- these goals.

But it will be our purpose to propose spending cuts only where we are convinced they can be made without unduly diminishing or weakening our defense posture.

Traditionally, after each of our major wars, we have followed a naive and reckless policy of quick disarmament. After World War I, World War II, and Korea, we put down our arms and indulged the unwarranted assumption and false hope that military preparedness was not essential to our future security and world peace.

And once again -- this time after Vietnam -- the same pressures are being exerted. There are many well-intentioned and patriotic Americans -- some of them in the Congress -- who are convinced that defense spending is wasteful and unnecessary in a period of detente. Military spending, they claim, consumes a disproportionate share of our national wealth while outlays for health, education, housing, and other domestic programs are being shortchanged.

Our people need to know the facts. By any yardstick, spending on defense has been and is now substantially declining as a percentage of the Gross National Product, as a share of the Federal budget, and most dramatically, as a percentage of all Federal spending.

-- In 1964, defense outlays consumed 8.3% of the gross national product; in 1975, the percentage is 5.9%. Stated in dollars, if the fiscal year 1975 budget took the same share of the gross national product as fiscal year 1964, defense outlays for FY 1975 would be $120.8 billion instead of $85.8 billion as requested in the President's budget.

-- In 1964, defense outlays represented 41.8% of the total Federal budget; in FY 1975, defense outlays will be only 27.2% of the total budget.

-- Defense spending has been rising far less rapidly than any other major category within the budget. While total Federal outlays for all purposes have increased by about 157% since 1964 -- from $118.6 billion in 1964 to an estimated $304.4 billion for 1975 -- defense spending

increased by only 73% during that same period -- from $49.6 billion to $85.8 billion.

We hear much talk today of detente -- as if it relieves us of the need to maintain a strong defense. We must not equate or confuse detente with disarmament.

Even with detente we must maintain -- pending hopes for effective arms limitation agreements -- a military force that provides a sufficient deterrent to insure peace and our security.

It will be the purpose of these hearings to determine the proper level of military strength that we should maintain for adequate preparedness and which is consistent with our national resources.

TABULATION OF DEFENSE REQUESTS FOR FISCAL YEAR 1975

Chairman MCCLELLAN. Also at this point I shall include a tabulation showing the fiscal year 1974 appropriations and the fiscal year 1975 budget estimates for that portion of the Department of Defense requests contained in the bill presently being considered.

[The table follows:]

[COMMITTEE PRINT]

Table No. 1

DEPARTMENT OF DEFENSE APPROPRIATION BILL FOR FISCAL YEAR 1975

February 4, 1974

By functional components (1)	Enacted fiscal year 1974, Public Law 93-238 and Public Law 93-245 (2)	Supplemental appropriation request fiscal year 1974 (3)	Adjusted fiscal year 1974 total (4)	Budget request fiscal year 1975 (5)	Remarks (6)
TITLE I—MILITARY PERSONNEL					
Military Personnel, Army	$7,109,950,000	$651,850,000	$7,761,800,000	$7,914,800,000	
Military Personnel, Navy	5,271,350,000	458,650,000	5,730,000,000	5,765,200,000	
Military Personnel, Navy, 1969, 1971, 1972 deficiencies				51,026,000	
Military Personnel, Marine Corps	1,547,000,000	129,534,000	1,676,534,000	1,728,700,000	
Military Personnel, Air Force	6,863,350,000	624,550,000	7,487,900,000	7,450,000,000	
Reserve Personnel, Army	452,408,000	41,692,000	494,100,000	490,600,000	
Reserve Personnel, Navy	209,403,000	13,897,000	223,300,000	209,700,000	
Reserve Personnel, Marine Corps	61,173,000	3,827,000	65,000,000	73,000,000	
Reserve Personnel, Air Force	126,962,000	10,085,000	137,047,000	148,565,000	
National Guard Personnel, Army	555,900,000	51,600,000	607,500,000	621,700,000	
National Guard Personnel, Air Force	177,500,000	14,583,000	192,083,000	198,577,000	
Total, Title I—Military Personnel	22,374,996,000	2,000,268,000	24,375,264,000	24,651,868,000	
TITLE II—RETIRED MILITARY PERSONNEL					
Retired Pay, Defense	4,681,900,000	468,800,000	5,150,700,000	5,687,600,000	
TITLE III—OPERATION AND MAINTENANCE					
Operation and Maintenance, Army	6,214,697,000	483,200,000	6,697,897,000	6,837,400,000	
Operation and Maintenance, Navy	[1] 6,076,950,000	561,100,000	6,638,050,000	7,291,000,000	
Operation and Maintenance, Marine Corps	410,645,000	31,000,000	441,645,000	446,300,000	
Operation and Maintenance, Air Force	6,504,294,000	455,000,000	6,959,294,000	7,519,400,000	
Operation and Maintenance, Defense Agencies	1,454,898,000	93,580,000	1,548,478,000	1,876,800,000	
Operation and Maintenance, Army Reserve	253,900,000	10,790,000	264,690,000	279,700,000	
Operation and Maintenance, Navy Reserve	170,750,000	33,500,000	204,250,000	238,400,000	
Operation and Maintenance, Marine Corps Reserve	11,000,000	80,000	11,080,000	11,400,000	
Operation and Maintenance, Air Force Reserve	221,900,000	15,120,000	237,020,000	278,200,000	
Operation and maintenance, Army National Guard	524,400,000	25,080,000	549,480,000	608,400,000	
Operation and maintenance, Air National Guard	514,250,000	33,250,000	547,500,000	596,100,000	
National Board for the Promotion of Rifle Practice	159,000	11,000	170,000	178,000	
Claims, Defense	49,100,000		49,100,000	54,600,000	
Contingencies, Defense	5,000,000		5,000,000	5,000,000	
Court of Military Appeals	864,000	53,000	917,000	1,065,000	
Total, Title III—Operation and Maintenance	22,412,807,000	1,741,764,000	24,154,571,000	26,043,943,000	

See footnotes at end of table.

Table No. 1—Continued

DEPARTMENT OF DEFENSE APPROPRIATION BILL FOR FISCAL YEAR 1975—Continued

February 4, 1974

By functional components (1)	Enacted fiscal year 1974, Public Law 93-238 and Public Law 93-245 (2)	Supplemental appropriation request fiscal year 1974 (3)	Adjusted fiscal year 1974 total (4)	Budget request fiscal year 1975 (5)	Remarks (6)
TITLE IV—PROCUREMENT					
Aircraft Procurement, Army	$138,400,000	$22,000,000	$160,400,000	$339,500,000	
Transfer from other accounts	(21,400,000)				
Missile Procurement, Army	525,100,000	84,400,000	609,500,000	459,200,000	
Transfer from other accounts	(22,000,000)				
Procurement of Weapons and Tracked Combat Vehicles, Army	224,300,000	121,800,000	346,100,000	385,300,000	
Procurement of Ammunition, Army	784,300,000	268,000,000	1,052,300,000	1,344,800,000	
Transfer from other accounts	(146,100,000)				
Other Procurement, Army	461,690,000	56,700,000	518,390,000	786,200,000	
Transfer from other accounts	(39,500,000)				
Aircraft Procurement, Navy	2,722,700,000	219,200,000	2,941,900,000	2,960,600,000	
Transfer from other accounts	(106,800,000)				
Weapons Procurement, Navy	800,700,000	28,600,000	829,300,000	833,900,000	
Shipbuilding and Conversion, Navy	3,468,100,000	24,800,000	3,492,900,000	3,562,600,000	
Other Procurement, Navy	1,204,200,000	224,200,000	1,428,400,000	1,684,500,000	
Transfer from other accounts	(45,000,000)				
Procurement, Marine Corps	173,932,000	40,700,000	214,632,000	228,800,000	
Transfer from other accounts	(5,000,000)				
Aircraft Procurement, Air Force	2,720,400,000	445,000,000	3,165,400,000	3,496,600,000	
Transfer from other accounts	(54,000,000)				
Missile Procurement, Air Force	1,393,300,000	39,000,000	1,432,300,000	1,610,800,000	
Transfer from other accounts	(30,000,000)				
Other Procurement, Air Force	1,542,700,000	197,700,000	1,740,400,000	2,071,800,000	
Transfer from other accounts	(30,000,000)				
Procurement, Defense Agencies	66,000,000		66,000,000	102,017,000	
Total, Title IV—Procurement	16,225,822,000	1,772,100,000	17,997,922,000	19,866,617,000	
Transfer from other accounts	(499,800,000)				

See footnotes at end of table.

Table No. 1—Continued

DEPARTMENT OF DEFENSE APPROPRIATION BILL FOR FISCAL YEAR 1975—Continued

February 4, 1974

By functional components (1)	Enacted fiscal year 1974, Public Law 93-238 and Public Law 93-245 (2)	Supplemental appropriation request fiscal year 1974 (3)	Adjusted fiscal year 1974 total (4)	Budget request fiscal year 1975 (5)	Remarks (6)
TITLE V—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION					
Research, Development, Test, and Evaluation, Army	$1, 912, 100, 000	$55, 043, 000	$1, 967, 143, 000	$1, 985, 976, 000	
Transfer from other accounts	(3, 500, 000)				
Research, Development, Test, and Evaluation, Navy	2, 651, 805, 000	67, 828, 000	2, 719, 633, 000	3, 261, 933, 000	
Research, Development, Test, and Evaluation, Air Force	3, 042, 000, 000	83, 766, 000	3, 125, 766, 000	3, 518, 860, 000	
Research, Development, Test, and Evaluation, Defense Agencies	457, 900, 000	10, 852, 000	468, 752, 000	528, 700, 000	
Director of Test and Evaluation, Defense	24, 600, 000		24, 600, 000	27, 000, 000	
Total, Title V—Research, Development, Test, and Evaluation	8, 088, 405, 000	217, 489, 000	8, 305, 894, 000	9, 322, 469, 000	
Transfer from other accounts	(3, 500, 000)				
TITLE VI—SPECIAL FOREIGN CURRENCY PROGRAM					
Special Foreign Currency program	2, 600, 000		2, 600, 000	2, 900, 000	
TITLE VII—NAVAL PETROLEUM RESERVE					
Naval petroleum reserve	[1]		[1]	6, 900, 000	
TITLE VIII—GENERAL PROVISIONS					
Additional transfer authority	(625, 000, 000)		(625, 000, 000)	(750, 000, 000)	
GRAND TOTAL	[2] 73, 786, 930, 000	6, 200, 421, 000	[2] 79, 987, 351, 000	85, 582, 297, 000	
Transfers from other accounts				(750, 000, 000)	

[1] In the Supplemental Appropriations Act, Fiscal Year 1974 (Public Law 93-245), $72,000,000 was included in Operation and Maintenance, Navy, for the Naval Petroleum Reserve.

[2] Includes $400,000 for the Defense Manpower Commission. No funds have been requested for fiscal year 1975.

ANNUAL DEFENSE REPORT

Chairman McCLELLAN. I will ask if any of the members have any comment before the Secretary begins?

Senator YOUNG. I don't believe I have, Mr. Chairman.

Chairman McCLELLAN. Mr. Stennis?

Senator STENNIS. No, I have no comments. I will read your remarks though.

Senator BROOKE. No, sir, I have nothing at this time.

Chairman McCLELLAN. We will proceed.

Mr. Secretary, we welcome you and you may proceed. I believe you have a prepared statement. Is this a copy of it that I hold in my hand?

Secretary SCHLESINGER. That is the Defense Report. There is also a prepared statement you may insert in the record, but I am prepared to go forward.

Chairman McCLELLAN. Is this the prepared statement you wish inserted in the record?

Secretary SCHLESINGER. No, sir, there is a different one.

Chairman McCLELLAN. We will receive the annual Defense Report.

PREPARED STATEMENT OF SECRETARY SCHLESINGER

Do we have the statement, gentlemen? If you have a copy of the statement you intend to make to the subcommittee, we would appreciate having a copy of it before us.

Admiral MOORER. One is classified and one is unclassified.

Chairman McCLELLAN. Which is unclassified?

Admiral MOORER. The one on the table.

Chairman McCLELLAN. The classified one will be received and held in confidence by the committee.

You may proceed, Mr. Secretary, with your presentation.

[The statement appears on p. 46.]

DEPARTMENT OF DEFENSE BUDGET

Secretary SCHLESINGER. Mr. Chairman, I think the best way to proceed basically is for me to be as brief as possible and to provide maximum opportunities for the members of the committee to interrogate me. I will provide a copy of my report for the record at this point, along with answers to the specific questions on it that you may submit.

IMPACT OF RISING PRICES ON PURCHASING POWER

Mr. Chairman, there is little else that I can do with regard to the overall defense spending issues than to point to your own lucid remarks on the subject. We in the United States have not recognized as frequently as we should the impact of rising prices on the real purchasing power of the Defense Department budget. This is a subject you addressed in the past in regard to the fiscal year 1973 and 1974 budgets. Since you did that so eloquently, I merely call the attention of the committee to those remarks that you have already made.

At the present time, Mr. Chairman, the United States spends less than 6 percent of its gross national product on defense matters.

Chairman McCLELLAN. Less than 6 percent?

Secretary SCHLESINGER. Yes, sir.

We are using about 5 percent of the Nation's labor force. Six fiscal years ago we were using almost 10 percent of the Nation's labor force, so the real burden of the defense on the economy has been cut approximately in half.

Senator YOUNG. May I ask a question for clarification?

Chairman McCLELLAN. Yes.

Senator YOUNG. Do you mean just the budget itself when you mention spending less than 6 percent of the gross national product or do you include the veterans and other costs?

Secretary SCHLESINGER. No, just the Defense Department budget.

Chairman McCLELLAN. You do not include veterans' payments in the 6 percent?

RETIREMENT AND MEDICAL BENEFITS

Secretary SCHLESINGER. No, sir. The only item of that sort is the item for retired military personnel which is now absorbing about 8 percent of our total defense budget.

Chairman McCLELLAN. You do include retired pay for military personnel in your defense budget in this 6 percent?

Secretary SCHLESINGER. Yes, sir.

Chairman McCLELLAN. Of the total budget, how much is that?

Secretary SCHLESINGER. It is about $6 billion. With the medical benefits that we give to the retired military personnel, it amounts to about 8 percent, and it is a growing burden on the Department.

Chairman McCLELLAN. In other words, of the $85.6 billion, about $6 billion goes for retirement benefits?

Secretary SCHLESINGER. Yes, sir.

Chairman McCLELLAN. How much is included for medical care?

Secretary SCHLESINGER. There is about an additional $750 million or a billion we are spending on medical benefits for retired military personnel. I can give a more precise figure on that, but we are now spending about $6.75 to $7.0 billion on retired military personnel.

Chairman McCLELLAN. That item is fixed by law. We have very little if any discretion in trying to reduce that cost or obligation.

Secretary SCHLESINGER. That is correct, sir. Of course this is unique within the Government in that essentially an income maintenance program is included within the budget of the department. So, when we talk about the "real program value," we purposefully leave out the retired pay item as it contributes nothing at all to our current defense capabilities. Of course, it is a burden on the taxpayer. It is a burden on the economy, but it contributes nothing to our defense program.

Chairman McCLELLAN. In dollar outlays, how much does that amount to?

Secretary SCHLESINGER. About $6.75 to $7 billion, with the medical benefits.

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. As a consequence, I think that we must recognize this is a reasonable budget request if we are to maintain a defense establishment of 2.1 million military personnel, which is roughly in the right ball park. This 2.1 million man force is already 600,000 less than we had in 1964—before Vietnam. Also, we have about

a million civil servants on the rolls. I believe that if we had greater flexibility we would be able to shave that somewhat.

Chairman McCLELLAN. What do you mean by greater flexibility?

Secretary SCHLESINGER. I was informed the other day as I pursued this subject that it takes about a man-year work to get a civil servant off the rolls.

Chairman McCLELLAN. How much?

Secretary SCHLESINGER. About a man-year.

Chairman McCLELLAN. Of efforts to remove one civil servant from the rolls?

Secretary SCHLESINGER. Yes. For that reason there is great reluctance on the part of supervisors to call them as they see them. My own feeling is that greater flexibility in this area would permit us to reduce our civilian personnel somewhat. Moreover, I think it would provide the proper incentives for people in the civil service system. We have about a million of those people. We are employing in defense industry about 1.7 million. This amounts to a total, Mr. Chairman, of approximately 4.8 million people, or about 5 percent of the Nation's labor force.

In addition, we purchase fuel and other items. As long as we maintain an establishment of this size, we are going to require approximately 5½ or 6 percent of the gross national product. In a free market economy where one is not relying on "conscripted labor," as we have in the past, if we have approximately 5 or 6 percent of the Nation's labor force, we are going to have to spend approximately 5 or 6 percent of the GNP, irrespective of inflation, pay increases, rises in prices and the like.

DEFENSE OUTLAYS

Now you have discussed this matter at length, Mr. Chairman, as have other members of the committee. I would like to call to your attention a number of items.

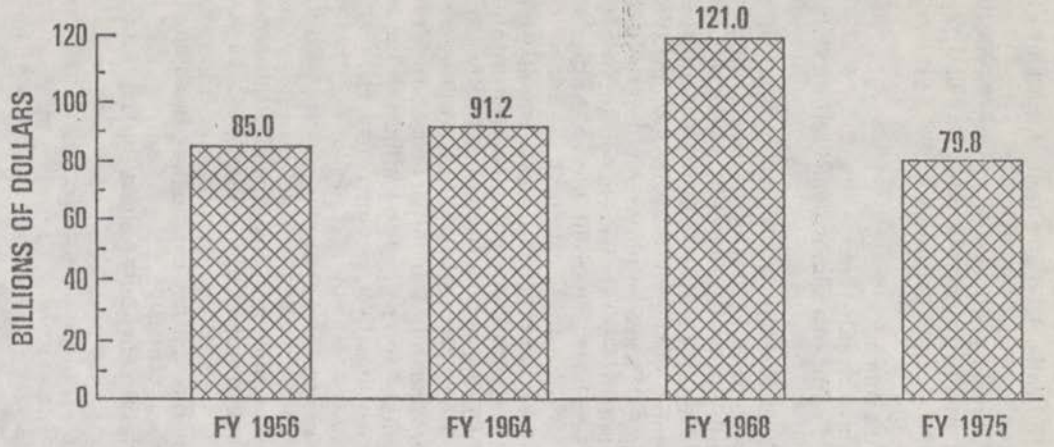
We have, as you have pointed out, Mr. Chairman, reduced our budgets by about one-third since fiscal year 1968.

Chairman McCLELLAN. Please provide the chart for the record.

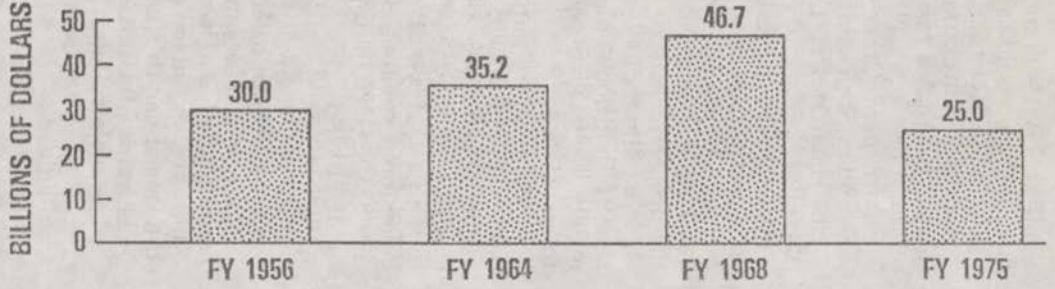
[The chart follows:]

DEFENSE OUTLAYS IN CONSTANT FY 1975 PRICES

TOTAL OUTLAYS, EXCLUDING RETIRED PAY



INVESTMENT (PROCUREMENT, RDT&E & CONSTRUCTION)



DOLLAR OUTLAYS

Secretary SCHLESINGER. Since fiscal year 1968 we have reduced by about one-third the real dollar outlays of the Department, excluding retired pay. This is measured in fiscal year 1975 constant dollars.

Chairman MCCLELLAN. This excludes retired pay?

Secretary SCHLESINGER. Yes, sir. These numbers exclude retired pay. In fiscal year 1968 the real budget of the Department was more than 50 percent higher than it is today and the same trend can be noted for military personnel whose numbers have been reduced from 3.5 million men to 2.2 million men.

The thing I would like to call to your attention, Mr. Chairman and members of the committee, is the set of figures in the lower part of the chart, which indicates our investment measured in billions of constant fiscal year 1975 dollars. We are down almost 50 percent, about 45 percent in terms of purchases from the outside since fiscal year 1968, and we are down about $10 billion as compared to before the war in Vietnam. I do not want to call any particular attention to this as a matter that causes us immediate concern, but I should like to emphasize that we did acquire a vast array of new equipment during the Vietnamese war. The Army acquired a fleet of helicopters. The Air Force refitted its tactical air wings with F–4's to replace the F–105's and F–100's that were in the force beforehand. These two services, but not the Navy which has had a serious problem, were able to extensively replace equipment.

The thing that we must keep in mind is that much of this re-equipping occurred in 1968 and 1969. By the end of this decade we are going to be faced with block obsolescence of the equipment we acquired during the Vietnamese war, and consequently the procurement figure, which is low in real terms at the present time, will have to rise toward the end of the decade, simply because equipment that is now perfectly sound to operate will, as time passes, become more difficult to operate.

Chairman MCCLELLAN. Within how many years will all that have to be replaced?

Secretary SCHLESINGER. We normally would prefer to keep a tactical fighter in the active inventory about 12 years.

Chairman MCCLELLAN. So in about 10 years it will have to be replaced?

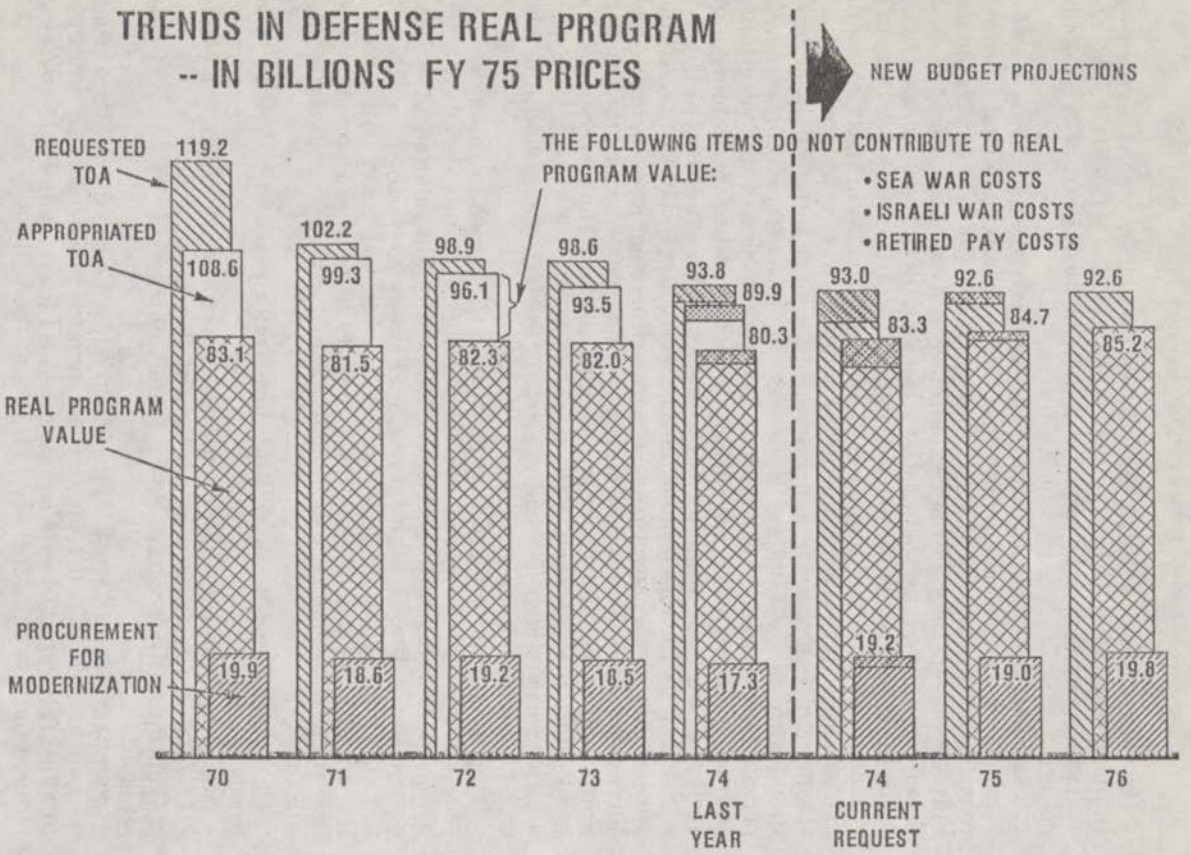
Secretary SCHLESINGER. More like 6 or 7. We acquired a lot of that equipment in 1968 and 1969. It is an item of considerable significance for the Appropriations Committee. As I have indicated, we have reduced outlays substantially in terms of the real program value.

May I have slide B–1, please?

Chairman MCCLELLAN. Let this chart be a part of the record.

[The chart follows:]

32-382 O - 74 - 2


TRENDS IN DEFENSE REAL PROGRAM
-- IN BILLIONS FY 75 PRICES
NEW BUDGET PROJECTIONS
REQUESTED TOA
APPROPRIATED TOA
REAL PROGRAM VALUE
PROCUREMENT FOR MODERNIZATION
THE FOLLOWING ITEMS DO NOT CONTRIBUTE TO REAL PROGRAM VALUE:
• SEA WAR COSTS
• ISRAELI WAR COSTS
• RETIRED PAY COSTS
119.2
108.6
83.1
19.9
102.2
99.3
81.5
18.6
98.9
96.1
82.3
19.2
98.6
93.5
82.0
18.5
93.8
89.9
80.3
17.3
93.0
83.3
19.2
92.6
84.7
19.0
92.6
85.2
19.8
70
71
72
73
74 LAST YEAR
74 CURRENT REQUEST
75
76

TRENDS IN DEFENSE REAL PROGRAM

Secretary SCHLESINGER. This chart indicates the trends in real program values. I would underscore in this chart that the request for 1975 will maintain our real program value at about the same level as in the revised fiscal year 1974 request.

The request for the Department, as you know, in terms of outlays is up $6.3 billion. About $5.5 billion of that represents pay and price increases. These are particularly large as we go from 1974 to 1975, not only because of the relatively rapid rate of inflation of which you are keenly aware, but also because of the especially rapid increase in the price of fuels for which the Department of Defense is a substantial consumer.

Chairman MCCLELLAN. I believe I pointed out in my statement that the price of fuel that you purchase has gone up 120 some-odd percent in the last year.

Secretary SCHLESINGER. Yes, sir. We have reduced our consumption about 20 percent, and yet it will still cost us a billion dollars more for fuel.

Senator YOUNG. How much higher is your proposed budget for 1975 over last year's appropriation, including supplementals? We had several supplementals on pay raises. I am trying to get a comparison with the total budget you are proposing.

Secretary SCHLESINGER. A–10 please.

[The chart follows:]

TOA SUMMARY
FY 1974 & FY 1975
(BILLIONS)

	FY 1974	FY 1975
ORIGINAL ESTIMATE	85.0 *	92.6 **
ISRAELI SUPPLEMENTAL	+ 2.2	–
ADDED PAY COSTS, ETC.	+ .4	–
ADJUSTED REQUEST	87.6	92.6
CONGRESSIONAL CUT	– 3.3	
STATUS AFTER CUT	84.3	
READINESS SUPPLEMENTAL	+ 2.8	
CURRENT REQUEST	87.1	

* INCLUDES $3.4 BILLION FOR ANTICIPATED PAY INCREASES.
** INCLUDES $2.2 BILLION FOR ANTICIPATED PAY INCREASES.

TOA SUMMARY FOR FY 1974 AND 1975

Secretary SCHLESINGER. This is a subject that we can go into immediately. The number that you see at the top for fiscal year 1974 was the number that was requested by the President. This $85 billion included at the time that the budget came up a year ago, 15 months ago, the supplemental for pay. That $3.4 million pay supplemental was not forwarded because of certain OMB procedures, but it is part of the 1974 budget and was included in the 1974 item.

As you can see, the congressional cut amounted to $3.3 billion last year, so that as compared to the original estimate we would have received about $82 billion, Senator Young.

In addition to that there was a supplemental for Israel of $2.2 billion, and we have asked the Congress this year for a readiness supplemental of $2.8 billion. This latter supplemental was discussed with people in Congress soon after the attack on Israel in the fall of 1973.

My own way of looking at the problem would be that as compared to the original request of a year ago we are asking for an increase in obligational authority of $7.6 billion.

Senator YOUNG. If you deduct from that inflation and higher costs, the budget including retirement would be about the same?

Secretary SCHLESINGER. That is correct, sir. Approximately $5.5 billion of that increase goes directly for pay and price increases. We have a number of expanded areas in this budget and a number of areas in which we have attempted to contract, but let me stress the two areas where we are attempting to increase our capability: force readiness, which reflects lessons learned from the war in the Middle East last year; and Strategic R. & D. hedges. These hedges are designed to give us the opportunity to match whatever may emerge in the Soviet Strategic force posture in the next decade.

Those are two areas in which we have a growth in our program. There are a number of areas in which there is a shrinkage in the program, most notably, I think, in the air defense area with which I think you are familiar. We have reduced our expenditures on air defense because in an era of Soviet missilery the marginal protection provided by air defense would not reduce significantly the mortalities in the American population were an all out nuclear war to occur. We must rely on deterrence for the protection of our cities.

Senator BROOKE. This supplemental, isn't this a new idea? Why do we have to include a readiness item? I thought the Defense Department was always ready. Now you have a readiness supplemental. What causes the necessity for that?

Secretary SCHLESINGER. May I have the chart on the supplemental?

[The chart follows:]

DEPARTMENT OF DEFENSE BUDGET

FY 1974 SUPPLEMENTALS

(S MILLIONS)

PURPOSE		
Force Readiness		
Fuel Price Increase	480	
Middle East Payback	231	
Augmented Force Readiness	1,397	
Increased Airflift Capability	169	
Accelerated Modernization	516	
Strategic Program Changes	25	2,818
Military and Civilian Pay Increases		
1 January 1973	1,495	
1 October 1973	1,060	2,555
Retired Pay Cost of Living Increase		
1 July 1973	287	
1 January 1974	182	469
Wage Board Pay Increases		236
Basic Allowance for Subsistence		107
Postal Costs		48
Total		6,233
TITLE		
Military Personnel		2,000
Retired Pay		469
Operation and Maintenance		1,742
Procurement		1,772
Research, Dev., Test and Evaluation		217
Military Construction		29
Family Housing		4
Total		6,233
COMPONENT		
Army		1,872
Navy		1,866
Air Force		1,918
Defense Agencies		104
Defense-Wide		473
Total		6,233

READINESS SUPPLEMENTAL

Secretary SCHLESINGER. That is flattery, Senator Brooke. "Semper paratus" is our guide, but not always our reality.

The $2.8 billion readiness supplemental includes the items that are listed at the top of the chart. Part of it is the fuel price increase that I mentioned before. We do not have the money in our budget to keep the fleet and the aircraft going for the entire fiscal year in view of the rise in fuel prices the chairman referred to.

Another item is the Middle East payback. As you know, we are required to supply items at the price at which those items entered our inventory. If we purchased an M–60 tank in 1968 and we sell such a tank to Israel in 1973, and then attempt to acquire another tank to replace it, because of inflation we have to pay a higher price for the new replacement tank. And the second item in the readiness supplemental is simply the difference between the current cost of replacing items that went out of our inventory and their original cost—the original cost being the purchase price that we get back under the Israel assistance supplemental.

Augmented force readiness is the item that most directly applies to what you have said. Let me underscore what these items typically include, Senator Brooke.

SHIP OVERHAUL

For many years we have neglected the overhaul of our ships, so that the number of ships that are queued up for overhaul probably exceeds that of any prior period in American history. Even though the Navy has been reduced in size by about 40 percent since fiscal year 1968 we have not been adequately overhauling our remaining ships. Consequently those ships become harder and more costly to operate, and less efficient in battle. There are a number of reasons we have not been overhauling our ships. One of the reasons is that the Navy has felt that the OSD or the OMB or the Congress would take some overhaul dollars away, and they therefore, prefer to put that money into new weapons.

We feel the time has come to face the issue of ship overhaul so the Navy is ready to fight. Aircraft rework is a similar problem.

Also, related to the heading of augmented force readiness, was the condition of hostilities we encountered in the Middle East where we discovered that many of the items which were most useful under those combat conditions were items which are very short in our inventories: for example, the Maverick, Shrike, TOW, and Walleye. These items are immensely effective. This is one of the lessons in the Middle East war. These items were highly effective, but they were items in which we acquired only 3 to 25 percent of our objectives. Consequently, we think we should bring our war reserves up to the inventory objectives at an accelerated rate.

In the past I think the tendency has been, for a variety of reasons, to neglect readiness. Those reasons differ among various groups. I think the Congress has had a continuing interest in the support structure, the base structure, and sometimes in modernization. The military services are particularly interested in the force structure and modernization. Given those two proclivities, the tendency has been to allow material readiness to suffer, and we think it should be repaired in the budget.

Senator BROOKE. This is my first time serving on the subcommittee, and I am asking whether a readiness supplemental is an unusual item?

Secretary SCHLESINGER. No, sir.

Senator BROOKE. Number two, will we have to live with it every year? And number three, if the Congress cuts back on the proposed budget submitted by the Defense Depatment, will you make this up in a readiness supplemental every year?

Secretary SCHLESINGER. No, sir.

Senator BROOKE. Why this year?

Secretary SCHLESINGER. I think the reasons for this have been laid out very carefully in prior conversations. We learned a number of lessons that occurred--may I have chart B-3 back—during the Middle East war.

[The chart follows:]

CHANGING PERCEPTIONS IN NEW BUDGET FORMULATION:

- DRAW DOWNS FROM MIDDLE EAST INVOLVEMENT SHOULD BE RAPIDLY REPLACED
- SUBSTANTIAL FORCE READINESS IS REQUIRED DESPITE DETENTE
- INCREASED AIRLIFT CAPABILITY IS NEEDED FOR EUROPE OR MIDDLE EAST
- EXISTING INFLATION/FUEL COST FACTORS ARE INADEQUATE
- INCREASED RATE OF MODERNIZATION IS REQUIRED TO OFFSET "AGING" OF CONVENTIONAL FORCES
- STRATEGIC FORCE DEVELOPMENTS MUST PROVIDE OPTIONS TO:
  - MATCH SOVIET ADVANCES IN APPARENT FORCE CAPABILITIES
  - MOST ECONOMICALLY SUSTAIN WHATEVER FORCE BALANCE EVOLVES FROM SALT
  - PERMIT RAPID CAPABILITY IMPROVEMENT TO ASSURE SALT SUCCESS

LOW INVENTORIES

Secretary SCHLESINGER. There are a number of areas in which we have very low inventories. It was desirable for us to restore those inventories. Those were some of the lessons learned in the Middle East. The very items that turned out to be the most useful under those conditions of combat were the items in shortest supply in our inventories. These include between 3 and 4 percent for Mavericks, if I recall, 26 percent for the TOW missiles and about 14 percent for TOW launchers. These are items which are highly effective, and consequently we believe their inventories should be brought up closer to the appropriate level. These are items you can attend to directly in the course of your deliberations on the 1975 budget as well as the 1974 supplemental.

We think that it is in the interest of the United States, indeed it is necessary for the United States, to have a balance between force structure and readiness.

Senator BROOKE. Wouldn't it be more candid to put it in the regular budget and say this is an emergency, and this is what we need, rather than coming under the readiness supplemental? That is what I am asking.

Secretary SCHLESINGER. I don't understand your reference to candor.

Senator BROOKE. You are bringing this to us in a readiness supplemental. It seems you are saying the condition of the fleet or the condition of certain weapons is such that we need more money at this time. That is what you are saying, isn't it?

Secretary SCHLESINGER. I believe we should not allow the military services to operate with inventory levels that are as low as they are at the present time. We can defer these readiness items again, as we have in the past, but I think it is not consistent with the interests of the United States.

Senator BROOKE. We won't be ready, in other words?

Secretary SCHLESINGER. Yes, sir.

Chairman MCCLELLAN. Admiral Moorer?

Admiral MOORER. Senator, I would like to make three points. First with respect to the ship overhauls and aircraft reworks, subsequent to the invasion costs of the DMZ in March of 1972, in particular, we had a very high deployment rate. By that I mean that the 7th Fleet was almost doubled in size from March of 1972, until around January 27, 1973, when the agreement was signed. This meant that the ships were not back in the continental United States where they could be overhauled but rather were out on station, and this put quite a delay in the overhaul schedule, this very high tempo of operations. Also, some moneys that were to be expended for overhauls and upkeep had to be used to support the ships operations.

The second point is that twice during 1973 we were called upon to provide a large quantity of supplies, first to the South Vietnamese prior to the signing of the agreements on January 27, 1973, and second to the Israelis during the Arab-Israeli war, which of course was not anticipated when the budget was made out. So the net effect of this was to draw down on some of the war reserves in our inventories. And finally, particularly with respect to the Arab-Israeli war, those equipments the Secretary mentioned in some cases were items which

were just coming into our inventory. Obviously they were the ones desired by the Israelis because of their superior performance, which was demonstrated during this war.

What we are saying here is that we want to build the inventories of these more sophisticated weapons up to a level which will provide us which staying power—that is what I like to call it—in the event that we were to become involved in any kind of military operation, sir. That is what we mean by readiness. That is ready in terms of staying power.

Senator FONG. May I ask a question before I leave.

Chairman MCCLELLAN. Certainly, sir.

MILITARY PAY

Senator FONG. As you know, we are debating the question of pay. In checking over some of the figures, in the past 5 years Government employees have received 42 percent-increase in their salaries, whereas the military personnel has increased its pay 580 percent in the past 5 years. Now 56 percent of your budget goes for personnel, and then there is a law which says that every time the statutory system gets a pay raise—which is every year now because of the inflation and because of the comparability principle—the military gets a raise also.

Now could you give us some idea as to whether the military is now overpaid in comparison to the civilian sector and other Federal employees, and what is your recommendation in this regard in the yearly raises which will come to the statutory employees because of the comparability principle?

Secretary SCHLESINGER. Well, the recommendation of the Department is to change the existing law which requires a comparability pay increase be put only into the military's basic pay with nothing allocated to the allowances for quarters and subsistence. The administration transmitted to the Congress a proposed change which would continue the comparability principle but would allow part of future pay raises to be allocated to the allowances for quarters and subsistence.

As a general proposition, Senator Fong, the regular military compensation has risen dramatically in recent years, but most of that increase in military compensation is due to the fact that over a period roughly from the Korean war to the middle 1960's the lower grade military personnel received no increases in their basic pay. If one considers all sectors of the economy, going back to 1950, military compensation which has risen dramatically since the middle 1960's still has not risen as much as other sectors of our economy have.

Now I don't think we are in bad shape with regard to pay, but we are dealing with the All-Volunteer Force concept where there is a need to recruit people on the basis of competition with the private sector. Unless we have rates of pay which are roughly comparable with the private sector, and that continues to be comparable with the private sector, we will not be able to recruit the appropriate level of people. We think the minor adjustments which the administration has suggested will ease the growth of costs in the years ahead, but at this stage of the game, I think that is the only suggestion I would make with regard to a change in the pay factors.

Senator FONG. When the statutory system receives, say a 5-percent increase because it is comparable to industry, how would that work with the military?

Secretary SCHLESINGER. At the present time when the civil service gets an increase of, say, 6 percent, the military to get an equal raise

will receive an increase of, say, 7 percent because the calculation for the military is based upon basic pay which is only about 75 percent of regular military compensation and does not include that portion of pay which is subsistence and quarters. As a result of this and separate raises in quarters allowances the military pay has probably been growing slightly more rapidly than has civilian pay on a comparative basis and we would like to have strict comparability and this could be achieved by the kind of change recommended.

As a general proposition, Senator Fong, as long as we do not wish to have conscripted labor, if we have 5 percent of the labor force working for the Department of Defense directly or indirectly, we are going to have to spend about 5 percent of the GNP, and that is going to be reflected in the overall pay bill of the Department.

REPLACEMENT BUDGET

Chairman McClellan. In reference to the readiness budget, would it be more appropriate and more descriptive to call it a replacement budget?

Secretary Schlesinger. No, sir, it would not be entirely appropriate. I think the term has elements of appropriateness, but when we overhaul a ship we are not replacing a ship. One of the biggest arrears we have had in the Department and one we think we should get to work on immediately is the question of naval ship overhauls.

As you can see, since 1973 the number of ships that are queued up for overhaul has grown dramatically. We hope over the period of time up to the 1980's to get that number of ships down.

Chairman McClellan. Then I don't understand why you say we will not have it each year. I thought you said you would not require it each year.

Secretary Schlesinger. The Senator asked about a supplemental each year. What I am saying is that we recognize that we have not been sufficiently balanced with regard to the readiness issue in the past. This correction will be included in the regular budgets in the future. It is already included in the 1975 budget. These items are taken care of for fiscal year 1975 in our fiscal year 1975 request.

Chairman McClellan. So that means this is simply for the purpose of emphasizing and identifying the need for this supplemental request?

Secretary Schlesinger. Yes, sir.

Chairman McClellan. And that is to bring us up to the proper readiness level?

Secretary Schlesinger. Yes, sir.

Chairman McClellan. In the 1975 budget, you have taken care of those needs without designating them as readiness expenditures?

Secretary Schlesinger. Yes, sir, and that is why I responded to Senator Brooke that unless the Congress were to deeply cut the moneys that we have requested for readiness, there would be no justification for coming back with a supplemental.

Senator Brooke. Then you do not anticipate a readiness supplemental in fiscal 1975?

Secretary Schlesinger. No, sir.

Senator Brooke. If Congress should cut your proposed fiscal 1975 budget, that would still be the case?

Secretary Schlesinger. If the Congress were to cut in the readiness area deeply, then it is conceivable. But we have no present intention of coming back with that kind of request.

Senator BROOKE. You are saying that the readiness program is not a separate area, that it is grounded in the budget? You will be able to identify what the readiness area is?

Secretary SCHLESINGER. Yes, sir. What I am saying is that this is one problem we intend to deal with continually in our budget requests. If for some reason or other the Congress were to selectively reduce in that area in a way which impaired readiness and we thought that was undesirable, it is conceivable we would come back with a supplementary request. I think the case for improvements of readiness is overpowering. I think it will be overpowering to the members of this committee, and I would not expect the need for those kinds of supplementals in the future.

Senator BROOKE. Why don't you call it a supplemental rather than a readiness supplement? We, in our judgment, may cut the FY 1975 DOD request. I don't know what the Congress will do, but say we cut it back in 1975. What you have historically done is come back to Congress for a supplemental. Now you come back and submit a readiness supplemental. That has another connotation. It means, if we don't pass the readiness supplemental, it means the United States is not ready.

Secretary SCHLESINGER. I don't intend to push in any way an issue where we might get hung up on semantics. I am glad to call it a supplemental. I was trying to underscore the elements in the supplemental that we figure merit attention now in 1974. It is partly the lessons learned from the Middle East and partly arrears in our material readiness.

Chairman MCCLELLAN. I was trying to explore whether some word other than "readiness" might be equally descriptive to identify it and indicate the necessity for it.

Secretary SCHLESINGER. Shortages, backlog.

Chairman MCCLELLAN. Practically all of our appropriations to the Defense Department are for a readiness status in one sense or another.

Very well, I think we can go ahead now.

ELEMENTS OF ALLOCATED RESOURCES

Secretary SCHLESINGER. Let me attempt to clarify the terminology. There are five broad elements, Mr. Chairman, under which we allocate resources, as I mentioned in my response to Senator Brooke. The services will tend, when under budget pressure, to retain force structure, and attempt to modernize. I think I am not indiscreet if I say that the Congress also takes a basic interest in our force structure. Those items of readiness which are deferrable tend, under budget pressure, to be deferred, and therefore suffer.

If the term "readiness" gives the wrong connotation, we will change it. The problem we face is that as the budgets come down in the way I indicated at the outset, we have been inclined to preserve the force structure and we have been inclined to modernize. We have preserved much of the base structure, but allowed readiness to suffer, and I think it came as a distinct shock—perhaps it should not have—at the time of the outbreak of the war in the Middle East. But we were keenly aware of the low status—particularly as the Israelis pressured us for deliveries—in those inventories, and we had to take some items from active units. The fleet operations have suffered. We have aircraft that

are part of the force structure, but they are not in a condition to fly. That is the kind of issue under that readiness heading.

DRAW DOWN ON RESERVES

Senator YOUNG. I think we have gone too far in drawing down on reserves and we should have replaced them.

Secretary SCHLESINGER. We did some of that. The Navy is most obviously the case. I mentioned that the Air Force and the Army had improved their air situation during the Vietnam War, but the Navy was unable to replace ships. The ship overhaul item was one of the areas in which ship construction funds declined after the outbreak of the war. One of the things the Navy has attempted in the recent years is to build up ship construction money so we could replace these vessels which 30 years after the Second World War should be going out of service.

Chairman MCCLELLAN. That is because the ships were out on station and they had to remain there. Thus during that period of time there was a lapse or slowdown in overhauling the ships, was there not?

Secretary SCHLESINGER. Yes, sir; that is the overhaul problem. In addition, there is a ship construction problem. Construction had declined during the Vietnam war.

Chairman MCCLELLAN. Didn't that deferral go all the way across the operations and maintenance area?

Secretary SCHLESINGER. Yes, sir; both suffered, and we are talking about maintenance here. That might be a word that would be a substitute for "readiness." Characteristically, when there was an increase in bombing sorties that had not otherwise been funded the way that those sorties were funded was to reach into the O and M accounts as you suggested, Senator Young.

Admiral MOORER. I think you will see that in 1968 the Navy shipbuilding program was at the lowest level since the Korean war, I think it was less than $1 billion.

Chairman MCCLELLAN. 1968?

Secretary SCHLESINGER. Yes, sir.

Chairman MCCLELLAN. All right, let's move on to the next item.

Secretary SCHLESINGER. Mr. Chairman, I have talked about the general level of program costs. May I have chart B–3?

[The chart follows:]

CHANGING PERCEPTIONS IN NEW BUDGET FORMULATION:

- DRAW DOWNS FROM MIDDLE EAST INVOLVEMENT SHOULD BE RAPIDLY REPLACED
- SUBSTANTIAL FORCE READINESS IS REQUIRED DESPITE DETENTE
- INCREASED AIRLIFT CAPABILITY IS NEEDED FOR EUROPE OR MIDDLE EAST
- EXISTING INFLATION/FUEL COST FACTORS ARE INADEQUATE
- INCREASED RATE OF MODERNIZATION IS REQUIRED TO OFFSET "AGING" OF CONVENTIONAL FORCES
- STRATEGIC FORCE DEVELOPMENTS MUST PROVIDE OPTIONS TO:
  - MATCH SOVIET ADVANCES IN APPARENT FORCE CAPABILITIES
  - MOST ECONOMICALLY SUSTAIN WHATEVER FORCE BALANCE EVOLVES FROM SALT
  - PERMIT RAPID CAPABILITY IMPROVEMENT TO ASSURE SALT SUCCESS

CHANGED PERSPECTIVES

Secretary SCHLESINGER. Overall our perceptions in formulating this budget are the ones that we have indicated here, and I think as you look for changes in the budget as between fiscal year 1974 which you have previously reviewed, and fiscal year 1975, that these are the areas that most merit your attention because these are the areas in which our perspectives have changed to some extent.

The first item is straightforward: the drawdowns that occurred after October 1973 should be replaced.

I have already talked about the force readiness and material readiness issue. Those are areas where we have requested considerable additional funding.

The third perception that has guided us is that we should make greater use of airlift capabilities. Those played a dramatic role in the Middle East engagement. They placed a dramatic role in the reinforcement of South Vietnam some years ago. Airlift adds not only to the capability for rapid reenforcement. The existence of such a capacity tends to deter actions which might otherwise take place.

The fuel problem is one that you feel as keenly as we do.

We are, as I indicated, worried about the obsolescence, block obsolescence of items in the force structure toward the end of the decade.

Finally, there are the strategic force changes which I have referred to previously. These are the changes which I think you will find most significant as you appraise the fiscal year 1975 budget.

Chairman MCCLELLAN. Senator Young?

PETROLEUM SUPPLIES

Senator YOUNG. As I understand it we received a considerable amount of our petroleum supplies through Singapore until the Middle East crisis?

Secretary SCHLESINGER. We were cut off there.

Senator YOUNG. Cut off entirely?

Secretary SCHLESINGER. That is a little murky. At the outset we were cut off entirely but then we began to move our own fuel through commercial storage in Singapore.

Senator YOUNG. Are we moving fuel to South Vietnam?

Secretary SCHLESINGER. Most of the petroleum for South Vietnamese military requirements is now purchased by the Government of South Vietnam with funds provided by the United States. The petroleum, I believe, comes from refineries in Singapore. The sources of crude oil supply are diverse.

Admiral MOORER. Some is from Saudi Arabia and Iran. None is coming from the United States or U.S. military stocks.

Senator YOUNG. Where does fuel for our forces come from, all from the United States or do we get some from Indonesia?

Admiral MOORER. And Iran.

Secretary SCHLESINGER. Some has been obtained from Iran, but mostly we have had greater recourse to domestic supplies. We are building up the amount of petroleum we are acquiring overseas. As the overseas supplies build up, the amount of drain by the Department of Defense on domestic sources will diminish.

Mr. Chairman, I am perfectly willing to talk on and on and on, but I think it would be most profitable for me to respond to any particular questions the members of the committee have.

BUDGET PADDING

Chairman McCLELLAN. Very well, the Chair recognizes any member who wishes to ask questions.

Senator THURMOND. Some people have charged, and I want to get this on the record, that the Defense budget is padded and therefore they expect Congress to cut it. I just want to ask you a direct question, is your request what you feel that the Defense Department essentially needs or is it padded in any way?

Secretary SCHLESINGER. No, sir; it is essentially what we need. It is more than $1 billion below the costs of the programs approved last summer by the Office of the Secretary of Defense. It is lower than the Defense program called for, because of budgetary pressure. It is a little bit higher, however, than we would have gotten if there had not been the relaxation in the overall Federal budget which reflects general economic conditions. But I submit that the requests that are before you are requests that are essential in the bulk.

There may be some item or other that you will disagree on, but the overall requests are those that are necessary for the United States to maintain its posture in the world and to maintain a worldwide military equilibrium which is the underpinning of détente.

Senator THURMOND. I have had a number of people state to me, especially at some of the colleges, why should we reverse priorities now that the war is over in Vietnam and we are at peace with the world. I have attempted to explain the way to avoid war is to remain strong militarily, that strength means our survival. I cite the fact—and I want you to check these figures to see if I am right—that in 1968 about 42.5 percent of the entire budget went to Defense, whereas now it is about 28 percent. Is that approximately correct?

Secretary SCHLESINGER. Yes, sir.

As I indicated earlier, in real terms we have reduced Defense outlays by about 35 percent since fiscal year 1968. We are now at the lowest level that we have been since before Korea in terms of the percentage of the GNP, in terms of manpower, in terms of total public spending, Senator Thurmond. We are spending about 17 percent of net public spending, if you add in State and local expenditures, which is the lowest it has been since before Pearl Harbor.

We have not reversed priorities, as the questioner on the college campus suggested. We are still shrinking in terms of the Gross National Product, shrinking in terms of the Federal budget, and shrinking in terms of total public expenditures.

What we suggest is that the further movement toward reduction of Defense cannot take place in the world environment in which the United States finds itself. There is no dramatic reversal here, as the questions have suggested. Virtually all the increase in the budget request represents increases for pay and in prices. There are areas where we have some growth.

DEFENSE REQUEST

Senator THURMOND. One more question: What is the amount of the Defense request?

Secretary SCHLESINGER. $92.6 billion, including anticipated pay increases for fiscal year 1975.

Senator THURMOND. $92.6 billion?

Secretary SCHLESINGER. Yes, sir.

Senator THURMOND. Now, in 1968, if I recollect correctly, Defense spending amounted to about $78 billion?

Secretary SCHLESINGER. Yes, sir.

Senator THURMOND. Last year I believe the outlay request was about $79 billion.

Secretary SCHLESINGER. Yes, sir; fiscal year 1974.

Senator THURMOND. $1 billion more, only $1 billion more than in 1968. Not the request, but what was actually appropriated.

Secretary SCHLESINGER. The initial request for fiscal year 1974 was $85 billion.

Senator THURMOND. Maybe I am thinking of 1974 spending. I believe the 1974 budget was about $79 billion. So the 1968 budget compared with 6 years later, 1974, only increased $1 billion?

Secretary SCHLESINGER. Yes sir; fiscal year 1974 outlays are expected to be about $1 billion more than fiscal year 1968.

Senator THURMOND. But during that time the $78 billion in 1968 would have bought about $39 billion more worth of equipment than the $79 billion would in 1974. Is that correct?

Secretary SCHLESINGER. Yes, sir; that is correct.

Senator THURMOND. In other words, I just want to bring out the point that equipment—and it seems Defense equipment anything about machinery, steel and so forth, have gone up more in proportion to other things, and that accounts for the inflation situation. It has caused the Defense budget to go up more, probably, than any other facet of the entire budget.

Secretary SCHLESINGER. I think probably our pay increases have been over the period of years you referred to the largest area of growth; about 100 percent. Defense equipment prices have risen by about 38 percent in that period of time.

Senator THURMOND. The pay increases were merely to bring in line the military with the civilian?

Secretary SCHLESINGER. Yes, sir.

MILITARY/CIVILIAN PAY IN WINE

Senator THURMOND. I want to ask this direct question. It may have been asked already. Is the military out of line now with civilian pay?

Secretary SCHLESINGER. I think it is approximately in line. I think it may be a little lower but we are roughly comparable.

Senator THURMOND. So the increases in military pay were necessary in order to bring the pay of the military in line with civilians?

Secretary SCHLESINGER. Yes, sir.

Chairman MCCLELLAN. Senator Stennis.

Senator STENNIS. I think the Chair should have the opportunity to ask questions. I will yield.

Chairman MCCLELLAN. The Chair has indicated its intention to yield to the members first.

I have prepared some hundred questions to submit to the Secretary. I thought in the interest of saving time, I would submit the questions, the answers would then be provided, we would review them, and then I will have you, Mr. Secretary, return.

I also have a number of questions for you, Admiral Moorer. Perhaps not as many as for the Secretary, but the Chair will follow the same procedure with you; submit these questions to you and let you respond to them, and then after reviewing the answers, perhaps we will have you come back for further questioning.

Today I wanted to yield to the different members who may be present and give them the opportunity to ask questions.

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Senator YOUNG. May I make the same request to submit questions?

Chairman MCCLELLAN. Yes, any Senator may do so.

Who is next, Senator Stennis.

Senator STENNIS. I will be quite brief. I want first to commend the Secretary for his fine grasp of these problems. After all, you have been there only a little over 6 months, and you have shown a fine knowledge and grasp of the problems.

I want to say to Senator Brooke: You have just come on this subcommittee?

Senator BROOKE. Yes.

Senator STENNIS. As I see it, gentlemen, we can't get very far making comparisons with previous years. In the first place, the inclusion of trust funds, such as social security, in the overall budget make a meaningful comparison most difficult, since they are actually not a part of the Federal funds accounts.

Another difficulty is anticipating the present and future effect of inflation, which makes it very difficult for the Department to know at this time just how much it is going to be able to buy with the money presently in the budget. I know this is markedly true in the construction area, and I believe it is true across the board.

There is one point, however, that I would like to question you about. Over a period of years we have increased military pay very substantially. It has, of course, been authorized by law and I am not critical of it. But you also are requesting funds, are you not, for approximately 30,000 new civilian employees? Would you speak to that?

CIVILIAN PERSONNEL AND HEADQUARTERS REDUCTIONS

Secretary SCHLESINGER. From end fiscal year 1973 to end of 1974, there is a growth of about 31,000 in civilian employment. That is for this fiscal year. For the next fiscal year there is a slight reduction. The growth in civilian employment in fiscal year 1974 is primarily a result of the civilianization of certain tasks in the Army as a result of the reduction of Army military manpower.

Senator STENNIS. The growth in civilian personnel may have been over a 2-year period. But my point is that we should carefully weigh all the facts before making largescale changes. Military personnel are being paid a fine salary presently. In addition, they receive a variety of fringe benefits, such as educational opportunities, which I favor. But we should examine closely programs that reduce military personnel and increase civilian personnel to perform the more menial duties. It reduces our military manpower. This should not be interpreted as meaning we should not strive for a net overall reduction.

Secretary SCHLESINGER. Yes, sir.

Senator STENNIS. Last year, as a part of the authorization legislation, it was required that, beginning in fiscal year 1975, civilian manpower levels would be subject to authorization. We plan to hold hearings on the matter. However, such an increase, even over a 2-year period is mighty large.

Secretary SCHLESINGER. Mr. Chairman, as you know, we have attempted in equity to reduce the number of officers in the military services and we hope you will give us some assistance there.

Senator STENNIS. You are making some headway on that? It is an Appropriations Committee matter. The chairman and Senator Young will remember, in conference last fall I had to argue very forcibly that the Department should be given one more chance to reduce headquarters personnel. They are doing a good job of it.

Chairman MCCLELLAN. And overseas?

Senator STENNIS. Overseas and other places. They are doing a good job of it.

HEADQUARTERS PERSONNEL REDUCTION

Secretary SCHLESINGER. May I say to you gentlemen that today we have ordered the following reductions in DOD headquarters: a 15-percent reduction for the Office of the Joint Chiefs of Staff, a 15-percent reduction for the Office of the Secretary of Defense, a 20-percent reduction for Army headquarters worldwide, 7-percent reduction for Navy headquarters worldwide, a 15-percent reduction for the Air Force, and a 10-percent reduction for the Marine Corps. These reductions will be announced today.

You are aware, Mr. Chairman, of course, of the reductions the Army has taken so we are reviewing that very earnestly.

Chairman MCCLELLAN. How much are the total reductions in both civilian and military personnel?

Secretary SCHLESINGER. These specific headquarters reductions I mentioned here probably amount to about 14,000 people. About 9,000 are reflected in the "Headquarters Exhibit" portion of the fiscal year 1975 O. & M. budgets and about 5,000 headquarters reductions are beyond those reflected in the fiscal year 1975 budget.

Senator STENNIS. In the Army alone, gentlemen, the service was able to create a new brigade with the savings accomplished. That illustrated my point. It is a powerful argument, I think, in that you are shaving these figures down to what you think is a minimum, with safety.

Secretary SCHLESINGER. Yes, sir.

Chairman MCCLELLAN. I wanted to make this comment. I think the Congress, certain members, at least, and the American people are willing to give you whatever is necessary in weaponry and equipment, to keep us in a military posture that is sufficient to provide an adequate deterrent.

But what exasperates us and the American people is to find so much waste and extravagance and inefficiency in the military establishment. It simply lacks management. If you can make these substantial reductions and inform the American people of it, you will reduce the demands for large reductions in the military services and the demands that the funds be used elsewhere.

I have said this before, but I will repeat it. We ask you to review your operations, your management, and your administration and cut out those items that can be eliminated without impairing efficiency and effectiveness. Failure to do this has caused at least part of our trouble today. I join Senator Stennis in commending you for this effort. It is not only commendable, it is absolutely essential, as we face the future, for the military establishment to provide efficiency in economic management.

Senator BROOKE. I would like to associate myself with that statement. I had the pleasure of serving under Chairman Stennis on the Armed Services Committee before coming to Appropriations. I re-

member when I first started questioning, the Senator agreed with me and said, Look, we will cut out every dollar's worth of fat and get dollar for dollar. We don't want to spend any money for planes and tanks that is unnecessary, but we want to keep this country ready to fight.

I think the American people are interested in that but want to have it done in an efficient manner.

Secretary SCHLESINGER. We have a program called "beating fat into swords." We have the collaboration of the Army and I believe the other Services will also perform. The Army has been out in front in the way Senator Stennis refers. We can get additional capabilities out of the resources and the dollar levels we are getting. We ought to have that. I believe we are a little thin on the general purpose forces side because of the reduction we have taken over the past 5 years. We recognize the limitations on the resources that can be given to the Department and we must, if we are to fulfill our responsibilities with regard to maintaining the combat capabilities, make these kinds of changes.

In addition, as you say, we cannot go to the American public and say be tolerant of the waste and give us the additional resources. We must make a meaningful effort wherever we are using resources inefficiently to make that use efficient. This is frequently a difficult job.

OFFICER LEVELS

Let me just refer to the officer level problem. We have scaled down military establishment since 1968 from more than 3.5 million to less than 2.2 million men and reduced the officer strength approximately the same, one-third. We have a number of objectives the Congress has given to us: One is to reduce the size of the Militaray Establishment, another to maintain a proper ratio of officers to enlisted men. But at the same time the Congress has provided laws to govern the officer corps on the assumption that the Military Establishment would not be shrunk to the degree that it has been. A major is entitled to 20 or 21 years' service, a lieutenant colonel to 26 or 28 years' service, and a colonel to 30 years' service. Unless we have the tools to make adjustments, we will have difficulty scaling down.

Senator Stennis and his committee are now reviewing that.

Senator STENNIS. Did Congress ever require that you give a major 20 or 21 years of service, or was that something built up through custom in the military and which the Congress tolerated?

Secretary SCHLESINGER. I think it is in the law.

Senator STENNIS. In the hard law?

Secretary SCHLESINGER. Yes, sir, that is what gives us the difficulty at the present time. A major has the right to 20 or 21 years, a lieutenant colonel to 26 or 28 years, and a colonel to 30 years.

We plan to reduce senior officer strength more than is shown in our budget submission to you, if we get that change in the law. We are particularly heavy at the lieutenant colonel and colonel and Navy captain and commander levels. We would like to make those kinds of reductions, but we need the change in the law.

Senator STENNIS. We should be able to accomplish this by individual application. A great deal can be brought about through annual attrition if the effort is made.

Chairman McCLELLAN. Many officers have wished to make it a career.

Secretary SCHLESINGER. We must retain what Senator Brooke referred to: the continuing combat capability. Through a dependence on normal attrition one gets an aging officer structure. We must retain the opportunity to promote good younger people to senior positions. If we waited until the whole thing shrank naturally, we would discover many of your younger people, whom we must retain, would be inclined to leave the service because of lack of promotion opportunities. There are these objectives that the Congress holds out to us, and there is some inconsistency among them unless the law is changed.

Chairman McCLELLAN. Mr. Secretary, did I understand that you are going to make an announcement today of these reductions?

Secretary SCHLESINGER. Yes, sir, the headquarters reduction announcement will be made today.

Chairman McCLELLAN. I hope you will make it under circumstances that will give it the greatest publicity throughout the country if you can.

Secretary SCHLESINGER. Yes, sir.

Chairman McCLELLAN. I think it will help the image of the Defense Department, and it will certainly lighten our difficulties in considering these appropriations.

Secretary SCHLESINGER. We are making that effort. This is an effort in just one area. Admiral Moorer has under review the unified command plan which Senator Symington as acting chairman last year mentioned in discussing headquarters problems. The civil service is an area where we are probably a little heavy. We sometimes are forced to close bases in their entirety because we cannot selectively reduce under the existing ground rules. A little more flexibility in that area would enable us to have a more efficient establishment.

Senator STENNIS. Mr. Chairman, I have asked Senator Symington to hold hearings on this supplemental request that we must consider. He handled the whole bill last year and I have the figures here for him and your committee. That $1.07 billion of these supplemental requests does require an authorization. We have a hearing set for next week for we want to consider that in advance of your needs.

Chairman McCLELLAN. Very well.

Mr. Secretary, if you would, we would like you to supply us with a copy of your announcement either in advance of or simultaneously with making the announcement. I think it might merit some comment from members of the committee. As the chairman, I would like to make some comment about it and maybe others would, too, if you would supply us with a copy of your announcement.

Senator Symington, you are next.

Senator SYMINGTON. Mr. Secretary, on page 41 of your classified statement you state: "Strategic programs, in turn, affect prospects for arms control. And specific weapons systems are the coins of this particular realm. Not only are such systems the mediums of exchange; they are also the basis for expanding or contracting the forces."

Please list the specific programs either in production or research and development status contained in this budget that you believe are essential coins in supporting the U.S. negotiating position at SALT II. You can do that for the record and save time.

Secretary SCHLESINGER. Yes, sir.

Senator SYMINGTON. I would also like to ask how much is requested in both the fiscal year 1974 supplemental and fiscal year 1975 budget for these specific items.

Secretary SCHLESINGER. Yes, sir.

[The information follows:]

If the implication of these questions is that "coins" means "bargaining chips", that implication is incorrect. The paragraph in the FY 1975 Defense Report to which reference is made, reads in full as follows:

"Finally, an important connection exists between U.S. arms control efforts and the size and composition of the strategic nuclear forces. Arms control agreements are, of course, designed deliberately to constrain the freedom of the parties in the planning of their offensive and defensive capabilities. Strategic programs, in turn, affect the prospects for arms control. And specific weapons systems are the coin of this particular realm. Not only are such systems the mediums of exchange; they are also the basis for expanding or contracting the forces. As a consequence, arms control objectives must have a major impact on our planning."

The thrust of the paragraph is that we must take our arms control objectives fully into account in our force planning and that we must do so in terms of specific weapon systems. Consequently, *all* of our strategic weapon systems "are the coin of this particular realm", and all of them must be consistent with our arms control objectives. The amounts requested in FY 1974 and 1975 for these strategic weapon systems are shown in the FY 1975 Defense Report and delineated in much greater detail in the Budget Justification books prepared by the Services for the Appropriations Committees.

SALT II NEGOTIATIONS

Senator SYMINGTON. On page 67 you state: "None of this should be taken to mean that exact symmetry must exist between the two offensive forces. The United States is willing to tolerate the existence of asymmetries provided that, in an era of alleged parity, they do not all favor one party."

In this connection, perhaps you are aware that last month Senators Mansfield and Mathias introduced a resolution, which I cosponsored, incidentally, to express the sense of the Senate in an effort to reach agreement at the SALT II negotiations:

A mutually agreed upon deterring quality of the forces of the two countries will necessarily involve an overall balance in their respective forces taking into account the following elements, among others; quantitative factors, number of launchers, qualitative differences (accuracy, reliability), and geographical factors.

In view of the above statement, would you support the Senate resolution?

Secretary SCHLESINGER. I agree. I thought it was a commendable statement.

Senator SYMINGTON. If I may say so, I get worried about these arms control bargaining chips. We had a close vote on the ABM and it lost 50 to 50, and now it has been scrapped at a cost to date of $9,670 million. That was the figure we were given as the total for the ABM method, the Sentinel, the Safeguard, et cetera; that was the figure we received in the committee last week.

Secretary SCHLESINGER. May I respond to one small detail in that question? You asked the total request for the strategic programs in the the 1974 supplemental and the 1975 budget. The figure for the 1974 supplemental is about $25 million.

Senator SYMINGTON. I didn't ask that.

Secretary SCHLESINGER. You asked that I supply it for the record.

Senator SYMINGTON. You are going back to the first question, the coin of the realm. I said please list specific programs either in production or the research and development status contained in this budget that you believe are essential coins in supporting the U.S. negotiating position at SALT II.

On page 53 you quote a statement by President Nixon in 1970 on the need for options in terms of nuclear response.

One option you mentioned in your statement today is improved accuracy of nuclear warheads in order to increase the capability to hit hardened military targets.

This is disturbing to some of us because in 1971 Deputy Secretary of Defense Packard told the committee that the current administration, "has made a deliberate decision not to improve the accuracy of our MIRV, thereby improving hardened target destructive capability to what was and is technically possible."

In that same year, General Holloway, in charge of SAC, testified before the House Armed Services Committee in support of a program to significantly improve the accuracy of Minuteman III and said his request for funds for this program had been denied before both the Air Force superiors and the Secretary of Defense.

Since these two statements, what new factors have been added to the decisionmaking process which now make it necessary that the United States seek greater accuracy, as well as throw weight in developing a hard target kill capability, which implies the word "counterforce" or "first strike"?

Secretary SCHLESINGER. As you know, Senator, I spent about 3 hours yesterday with the Subcommittee of the Foreign Relations Committee on these matters, going over them in great detail.

Senator SYMINGTON. Will you supply a reply for the record?

Secretary SCHLESINGER. Yes. But basically the point that should be kept in mind is that there is no possibility of either the United States or the Soviet Union acquiring a disarming first-strike capability. I gave some data yesterday which underscored this point.

Even if one were to acquire the nominal accuracy reflected here and even if there were not forces other than ICBM's, there is no such thing available to any power for the foreseeable future as a high confidence disarming first-strike capability even against ICBM's. I think there has been misunderstanding on this question over a number of years.

POSITION CHANGE OF 1971 AS OPPOSED TO 1974

Senator SYMINGTON. I listened with interest to your presentation yesterday afternoon. I was asking today: Why the change in the position of 1971 as against the position in 1974. If you would, please describe that for the record. I would appreciate the reasons for it:

[The information follows:]

There have been two aspects in the development of Soviet strategic forces, one long-term and the other more recent, that affect our present strategic forces planning and the deterrent value of our strategic systems. The long-term and quite well known factor is that over many years the Soviets have been steadily closing the gap in nuclear capabilities between themselves and us.

A development of more recent years is the accelerated improvement in Soviet missile technology. The Soviet Union now has the capability in its missile forces

to undertake selective attacks against targets other than cities. This poses for us an obligation, if we are to ensure the credibility of our strategic deterrent, to be certain that we have a comparable capability in our strategic systems, and to be certain that the USSR has no misunderstanding on this point.

There remains a serious potential problem for the future of our strategic policy and forces. The USSR has been pursuing in recent years a vigorous strategic R&D program. We have seen in the past year the testing of four new ICBMs—three of which have been tested with MIRV warheads—and the development of their first MIRV submarine launched missile.

Our concern for the future is that the technologies now emerging in their R&D programs will be coupled to the increased throw weight represented by the missiles under development, giving them on the order of 7,000 relatively accurate and high-yield warheads in their ICBM force. They would then possess a major, one-sided counterforce capability against the U.S. ICBM force. Such a major asymetry in strategic capability is impermissible from our point of view. There must be essential equivalence between the strategic forces of the U.S. and the USSR—an equivalence perceived not only by ourselves, but by the Soviet Union and third audiences as well.

KISSINGER STUDY

Senator SYMINGTON. A recent article in the New York Times, August 5, by William Beecher, stated President Nixon recently named Secretary Kissinger to chair a top level interdepartmental group to come up with additional nuclear war options. Are the options you are proposing in your posture statement today based on that Kissinger study?

Secretary SCHLESINGER. It is based on the conclusions of an interdepartmental study exercise and that was one set off by Dr. Kissinger; yes, sir.

Senator SYMINGTON. On page 144 of your classified statement you note that:

While it is essential to theorize about the nature of tactical nuclear warfare, we must acknowledge that, as a practical matter, the initiation of a nuclear engagement would involve many uncertainties. Acceptable boundaries in such a conflict would be extremely difficult to establish. A nuclear engagement in the theater could well produce much higher military and civilian casualties and more widespread collateral damages than its non-nuclear counterpart, depending, of course, on the character and length of engagement.

Are you saying, therefore, the theory of limited tactical nuclear war is questionable?

Secretary SCHLESINGER. No, sir, what I am saying is that it is far more preferable that we keep it at the lowest possible level, if we can do so. It is for this reason we urge that we have such a capability. It is difficult to work out boundaries in tactical nuclear warfare, but I think those are difficult things that we must grapple with.

Senator SYMINGTON. In effect you are asking for approval to conduct a limited strategic nuclear war through selective targeting of military targets rather than the use of massive retaliation.

Would not the same problems with respect to a tactical nuclear war stress the same potentialities?

Secretary SCHLESINGER. The point that is being made here, Senator, is that we are trying to scale down from a strategy that is based upon inevitable mass destruction to one that holds up a prospect of keeping mortalities at a relatively low level, so the direction is different. What we are trying to get away from is the inevitability of the 180 or 200 million mortalities. The difficulties that you referred to do apply.

Senator SYMINGTON. I understand. I want you to understand my

position. I am for giving everything necessary for the security of the United States just like every other member of this committee, and there is discussion whether we should put it in social, perhaps, or military programs and there is a cleavage in the Senate on that that is clear over the years. Based on present value of the dollar, the price of gold that is going on abroad, there is something else we can do, or either put it back in the Treasury and not take it out. I think that will have a lot to do with it.

On the Diego Garcia question, if could could—off the record.

INDONESIAN MILITARY AID

[Discussion off the record.]

Senator SYMINGTON. A recent newspaper article in the Los Angeles Times said:

> The American policy of "keeping a low profile" in Indonesia is disintegrating under pressure from the Pentagon; and the United States Military Aid to Indonesia has risen from around $5 million in '71 to $18 million in '74.

It states also the U.S. military logistical advisory group in Indonesia has inceased fom 20 to 100 men in the last 3 yeas.

Wou'd you comment on the accuracy of that article?

Secretary SCHLESINGER. I think the trend has been up, Senator, but it certainly has not been under the pressure from the Pentagon. The policy decisions with regard to such issues are under the perview of the Department of State, but I will check the details for the record.

[The information follows:]

> Our military assistance to Indonesia has increased from $5.4 million in FY 1970 to an estimated $19 million in FY 1974. This increase in assistance recognizes the growing importance of Indonesia as a major power in Southeast Asia and is intended to permit the Indonesians to concentrate on their economic development while meeting their legitimate defense requirements.
>
> There are now 56 military personnel authorized in the Defense Liaison Group (DLG) to administer the Indonesia MAP program. Additionally, from time to time, temporary duty personnel are necessary to assist with technical projects such as aircraft maintenance.

FUNDING FOR MILITARY AND ECONOMIC AID TO INDONESIA

Senator SYMINGTON. What is the funding for military and economic aid in the fiscal 1975 budget for Indonesia?

Secretary SCHLESINGER. I don't really know, but I will supply it for the record.

[The information follows:]

The amount of military and economic assistance, including PL–480, for FY 1975 is now under review. The FY 75 request to Congress for military assistance will probably not be too different from that of FY 74 except for the possible inclusion of a modest FMS credit request.

MILITARY ADVISERS IN INDONESIA

Senator SYMINGTON. Do you know how many military advisers the United States has in Indonesia at the present time?

Secretary SCHLESINGER. I can supply that for the record.

[The information follows:]

Currently, our military advisory group in Indonesia, which is properly called the U.S. Defense Liaison Group (DLG), has an authorized strength of 56 military. That number includes a recent increase of 11 military. As of 1 March 1974 there were 54 military personnel assigned on a full time basis to these authorized positions. As of 1 March 1974 there were 33 military personnel on temporary duty in-country in conjunction with technical assistance relating to MAP Projects, such as upgrading of aircraft repair facilities.

PLANS FOR INCREASE

Senator SYMINGTON. Are there any plans to increase that?

Secretary SCHLESINGER. We are not aware of that, Senator, but we will supply that for the record if there is such a plan.

[The information follows:]

The State Department advises that there is no plan to add more personnel to the Defense Liaison Group at this time.

U.S. COMMITMENTS TO INDONESIA

Senator SYMINGTON. Could you tell the committee what is the reason for the increased U.S. presence in Indonesia?

Secretary SCHLESINGER. We will supply the answer for the record. Those are typically questions for the State Department.

[The information follows:]

The State Department advises, quote: "Our major interest in Indonesia is the stabilizing role this largest and potentially richest Southeast Asian nation can and does play in the region. We are of course also interested in Indonesian raw material resources and in our growing trade with Indonesia. Our modest military assistance program—about $18 million for the past several years—is designed to help Indonesia meet essential security requirements while concentrating its resources on its top priority, which is economic development."

AUTHORIZED MILITARY ADVISER IN INDONESIA

Senator SYMINGTON. Yes. Except they are military matters. I only mention this because in one country—we put $150 billion into South Vietnam and practically nothing in Indonesia and they took care of the Communists by themselves. I don't know how they did it.

Secretary SCHLESINGER. That was cost effective.

Admiral MOORER. There was a slight increase in authorized military advisers between 1971 and 1972, an increase to 45, and just recently an additional 11 military advisers were approved.

Senator SYMINGTON. You are talking about people?

Admiral MOORER. Yes, sir. The military group in Indonesia.

Chairman MCCLELLAN. Senator Brooke.

Senator BROOKE. I am concerned about the statement the Secretary made with respect to retargeting and accuracy. I sent the Secretary a letter and he graciously invited me to breakfast and we had quite an informative discussion.

I submitted certain questions in writing. The Secretary did respond. I did not find the responses satisfactory. They were very general in scope and the Secretary admitted they were general in scope and said he would supply more specific and detailed answers at a subsequent date. I would want to press for those for the record for the Appropriations Committee.

Chairman MCCLELLAN. Have you supplied your questions?

Senator BROOKE. No, I have not.

Chairman MCCLELLAN. When you get the answers, we will place the questions and answers in the record.

QUESTIONS SUBMITTED BY SENATOR BROOKE

Senator BROOKE. I want to refer the Secretary to two letters. The response to the first I considered unsatisfactory. The second I have not received an answer to as yet. I have additions to the questions contained in both of those letters. Some of these additional questions bear upon the matters raised by Senator Symington.

I have five questions that I would like to have you answer for the record, Mr. Secretary, in addition to the questions that you have already received.

The chairman has suggested I submit them. I will submit the questions for the record but you have them already in your possession. The questions are in a letter dated February 8 of 1974. I don't have the second letter with me at the present time but you have a copy of that. I would appreciate your submitting that for the Appropriations Committee record.

Secretary SCHLESINGER. Yes, sir.

[The questions and answers follow:]

TARGETS FOR INCREASED ACCURACY

Question. Exactly what targets would be the focus of increased accuracy capabilities?

Answer. No specific classes of targets are the focus of any increased capabilities that we may acquire. To enhance deterrence, we are modifying our strategic targeting doctrine to provide for more selectivity and flexibility. While increased accuracy is not essential for the new targeting doctrine, it would be helpful, especially to improve our capabilities for more discriminate targeting and minimization of unintended collateral damage, thus to aid in control of escalation.

Accuracy improvements could well be necessary to maintain essential equivalence with the Soviet Union. If the Soviets proceed to exploit fully their great advantage in missile numbers and throw-weight by MIRVing and improving the accuracy of their ICBMs, as their present development program portends, they will have a very substantial and greatly asymmetrical hard-target kill capability compared with the United States. Under these circumstances, in order to maintain essential equivalence, we would have to put more stress on improved accuracy because of the constraints on payload and yields which have resulted from our lower missile throw-weights.

We hope, in the SALT context, to persuade the Soviets to accept mutual limitations on those deployments which imply counter-ICBM capabilities; without such US R&D programs as we have proposed, the Soviets would have little incentive to accept such limitations. However, keep in mind that even if we undertook deployments of improved capabilities following failure to reach mutual agreement on limitations, we would still fall far short of acquiring a first-strike disarming capability.

Question. At what stage is the effort to improve the accuracy capabilities of our land-based ICBM forces? Of our sea-based forces? Specifically, what CEP capability do we now have and what are we striving for?

Answer. As stated in the Annual Defense Department Report, there are basically three development programs underway which would contribute to improved accuracy capabilities of our ICBM and SLBM forces:

1. We propose to develop the option for some additional refinements in the existing MINUTEMAN guidance system, mostly in the software program, which should further reduce the CEP. Development of these refinements would cost about $100 million, of which the first $32 million is included in the fiscal year 1975 MINUTEMAN program.

2. We plan to initiate development of a terminally guided MARV for possible retrofit into both ICBMs and SLBMs. This MARV could give the MINUTEMAN III a better accuracy than the refinements of present guidance systems would, if such a capability should be needed in the future. The $20 million required to start this program is included in the fiscal year 1975 amount shown for the Advanced Ballistic Reentry System (ABRES) program.

3. Within the Fleet Ballistic Missiles (FBM) program, associated with the TRIDENT missile program, we plan to undertake a development program which will define our capability to improve and measure the accuracy of our SLBMs and which, if implemented by retrofit, could lead to improved accuracy in the future.

The CEP capabilities available and possible have been provided to the Congress in the classified version of the Annual Defense Department Report.

Assured Destruction Capability

Question. Does interest in greater accuracy represent a move away from reliance on "assured destruction" as a fundamental component of our strategic thinking?

Answer. No. An assured destruction capability is still the highest priority requirement in our strategic program. We are seeking an assured destruction capability *plus* other less drastic retaliatory options, particularly smaller, more selective options. We can achieve a great deal of the selectivity and flexibility we want in our targeting doctrine within existing capabilities, including command and control improvements now being installed.

Our interest in greater accuracy is related principally to the force sizing problem, i.e., to the design of our future forces. How far we go in the direction of greater missile accuracy depends in large part upon the actions of the Soviet Union with regard to the deployment of their new family of ICBMs as replacements for their current ICBMs. If we cannot dissuade the Soviet Union from greatly increasing their counterforce capability (by their introduction of more accurate, MIRVed ICBMs), then we want to place ourselves in a position to deter the Soviet Union more surely from exploiting that increase in counterforce capability against us or our allies.

Question. Secretary Schlesinger's recent statements indicate that existing capabilities used in the proper manner could essentially achieve the "necessary" adjustments in our strategic posture. If this is the case, is there really a need for "new technologies" to improve our accuracy capabilities to levels that threaten to alter some of the basic "rules of the game" in the strategic arena?

Answer. The reference to "existing capabilities" is related to the new targeting doctrine which pertains to the use of our current forces. Here, greater accuracy would be useful but is not essential: for instance, it would permit us to be even more selective (i.e., discriminating) in matching weapons to the task assigned, such as the destruction of a particular target with a minimum of uninteded collateral damage.

The R&D initiatives proposed in the FY 1975 Defense budget will not alter the "rules of the game." The essence of the initial SALT agreement signed in Moscow in 1972 was that there should be essential equivalence between the strategic forces of the US and the USSR. Since then, the Soviets have been pursuing a very aggressive ICBM development program which, while permissible under the terms of SALT I, is worrisome for the future. Indeed, it is the Soviet program that has become potentially the pacing item in what is referred to as the arms race. Our R&D programs, which include lower yield as well as higher yield technology, are in response to these Soviet developments. We have made no production decisions. On the contrary, our hope is to persuade the Soviets in SALT II to exercise restraint with regard to the exploitation of their throw weight potential and consequently to avoid the necessity for the buildup of forces on both sides. In order for them to be persuaded, I think that they must believe that

we are prepared either to go up in number if they persist, or to restrain ourselves at present levels, or to go to a lower level if they will do so.

Question. How does one "enhance deterrence" by increasing options that appear to make a nuclear exchange on a limited basis a more reasonable proposition?

Answer. We do not believe that any kind of nuclear war, limited or unlimited, is a reasonable proposition. The initiation of such a war would be the most agonizing decision any national leader would ever make; the damage caused by even a limited nuclear exchange would be enormous by past standards. That is precisely why we want to foreclose every foreseeable circumstance in which the initiation of such a war might appear feasible to the Soviet Union.

If we rely principally on the threat of massive retaliation against Soviet cities to deter any kind of a nuclear attack on us or our allies, then, for example, an attack on some element of our military forces which clearly avoided our cities might appear feasible to the Soviet Union in the midst of an intense international crisis where great issues were at stake. Under these circumstances the Soviet leadership might well conclude that we would not retaliate against their cities, knowing full well that our cities would be destroyed in return.

Considering the enormity of the consequences of such a U.S. retaliatory strike, it seems to me eminently prudent to provide ourselves with some less horrendous retaliatory options. Such options, because they are more commensurate with the nature of the provocation, are more credible to our opponents, ourselves and all interested third parties. They are likely to deter far more effectively the range of threats short of an all-out nuclear attack. They raise, rather than lower, the nuclear threshold. That is why I maintain that the new targeting doctrine will enhance deterrence.

Deterrent Doctrine

Question. If assured destruction is not a doctrine but a technological condition, exactly what are our deterrent doctrines as opposed to our deterrent objectives?

Answer. Our *objective* is always deterrence of any armed conflict at any level. If deterrence fails, our *objective* is control of escalation and the rapid termination of war at the lowest feasible level. By deterrent *doctrine*, I assume you refer to the strategic targeting doctrines which I have been publicly discussing. There I have said that we have the capabilities to be more discriminate and to target a greater variety of smaller target sets. With this flexibility, we believe we can demonstrate to the Soviets—who also have a good deal of flexibility in their forces—that we are able to respond as necessary to any kind of attack, rather than relying principally on a massive response that would cause a great deal of collateral damage. Given the emergence of Soviet flexibility, they could conceivably conclude, in a crisis, that they could carry out some limited attack—on a particular part of US forces, or against our allies, for instance—without a punishing and appropriate US response. Our revisions of targeting doctrine convey a message to them that they could not get away with such an initiative.

Question. What exactly does Secretary Schlesinger mean by "selectivity and flexibility of relatively small-scale options across the spectrum of possible targets?" This rather general statement could cover an accuracy capability ranging from a one mile CEP to the 700 feet CEP mentioned in *Aviation Week*. Therefore, a more detailed explanation of the meaning of this statement is desired.

Answer. What we mean by such options is a series of measured responses to aggression which are appropriate to the provocation, have some prospects of limiting escalation and of terminating hostilities before general nuclear war breaks out. The present lack of many options between massive response and doing nothing, now that the Soviets have built up their strategic forces, has prompted the President's concerns and those of our allies.

As for targets, we have always had a long list of targets, and our weapons have always been aimed at a mixture of urban industrial and military targets. Targets for nuclear weapons may include not only cities and silos, but also airfields, many other types of military installations, and a variety of other important assets including economic targets that are not necessarily collocated with urban populations. In accordance with the new targeting doctrine, we are now grouping those targets into smaller and more selective operations plans which would be more responsive to the range of challenges that might face us.

Which option we might choose in a limited conflict would depend on the nature of an enemy's attack, on his perceived objectives and upon the military and political situation existing at the time. Many types of targets can be pre-programmed in options—cities, other targets of value, military installations of many different kinds, soft strategic targets, hard strategic targets and so on. A number of so-called counterforce targets, such as aircraft and facilities at airfields, are quite soft and could be destroyed without pinpoint accuracy. In some circumstances, a

set of hard targets might be the most appropriate objective for our retaliation. The selection of weapons to aim at targets may well depend upon the capabilities of the weapons, including, of course, accuracy.

Question. In exactly what ways will anticipated alterations in employment doctrine as well as accuracy improvements increase the confidence of our allies in our nuclear guarantee? I am particularly interested in Secretary Schlesinger's views on the possible perceptions of individual allies rather than on some non-existing entity called "the Europeans."

Answer. The U.S. strategic forces since the end of World War II have always been, and still are, an indispensible element in the overall NATO deterrent to a Soviet (or Warsaw Pact) attack on Western Europe.

As the Soviet Union moved toward strategic parity with the United States during the late 1960s and early 1970s, the credibility of our assured destruction (i.e., countercity) doctrine as a deterrent to a Warsaw Pact attack on Western Europe became increasingly dubious. Some have felt that under conditions of strategic parity no U.S. President was likely to retaliate against Soviet cities for anything short of an attack on U.S. cities. Thus, if U.S. strategic forces are to continue to play their indispensible role in the deterrence of aggression against Western Europe, they will have to be targeted in a more flexible and selective manner. The new targeting doctrine is designed in part with this requirement in mind.

We have briefed our allies in NATO on the new targeting doctrine, and we have discussed it informally with other allies. The reaction in Europe to the change in targeting doctrine has been uniformly favorable. Many of the governmental responses have been expressed to us in confidence, and few governments have had the occasion to speak out publicly on the matter. We believe that the following views of the Foreign Minister of the Federal Republic of Germany, expressed at the Wehrkunde Conference in Munich recently, are representative:

"Much has been said and written precisely about the adjustment of the (flexible response) doctrine ever since Defense Secretary Schlesinger spoke about new target planning for the American nuclear weapons. His comments are based on American considerations that are absolutely comprehensible. Parity of the superpowers would be tantamount in an all out war to mutual suicide. The selective use of strategic nuclear weapons against purely military objectives therefore means nothing more than further differentiation of the deterrent. This is clearly in Europe's interest for it can but increase the credibility of the deterrent."

Retargeting and Accuracy Improvements

Question. Would the Defense Department supply for the record a detailed listing of items and amounts requested in the fiscal year 1975 budget that it considers to be either directly or indirectly related to "retargeting" and "accuracy improvements?"

Answer. Items in the fiscal year 1975 Defense Budget related to the change in targeting doctrine include $33 million to complete development and to continue procurement of the Command Data Buffer; and $65 million for the following development efforts:

Improvements to the capabilities for on-board retargeting of POSEIDON warheads.

Improvements in our ability to detect and process information concerning enemy missile launches;

Development of a survivable nuclear burst reporting system;

Increased data handling and communications capability to improve the flexibility of our forces.

Items in the fiscal year 1975 Defense Budget related to improvements in accuracy include:

Development of some additional refinements in the existing MINUTEMAN guidance system, mostly in the software program, which should further reduce the CEP. Development of these refinements will cost about $100 million, of which the first $32 million is included in the fiscal year 1975 MINUTEMAN program;

Initiation of development of a terminally guided MARV for possible retrofit into both ICBMs and SLBMs. This MARV could give the MINUTEMAN III a better accuracy than refinements of the present guidance systems would, if such a capability should be needed in the future. The $20 million required to start this program is included in the fiscal year 1975 amount shown for the Advanced Ballistic Reentry System (ABRES) program.

Within the Fleet Ballistic Missiles (FBM) program, associated with the TRIDENT missile program, a development program which will define our ca-

pability to improve and measure the accuracy of our SLBMs and which, if implemented by retrofit, could lead to improved accuracy in the future.

Question. What is the linkage between Secretary Schlesinger's ideas on "retargeting" and "accuracy" and increased emphasis by the Navy on ASW capabilities? What are the risks in the conjunction of these two developments vis-a-vis the giving to others the impression that steps are being taken by the United States toward eventually attaining some form of "first-strike" capability?

Answer. There is no particular linkage between changes in strategic targeting doctrine, improvements in accuracy, and improvements in ASW capabilities. I have, in answer to previous questions, explained the relationship between the changes in targeting doctrine and improvements in accuracy.

Improvements in ASW capabilities have been pursued for many years. Our ASW forces are designed in large part to protect our sea lines of communications against the considerable Soviet general purpose submarine forces. These sea lines are of crucial importance to the overall naval balance between the U.S. and the USSR, and to our ties to our allies.

The notion that we could conduct a coordinated disarming first strike, that is, destroy virtually all of the Soviet ICBMs, and intercontinental bombers at once, not to speak of their cruise missiles and medium bombers, is wholly mistaken. In the first place, even with accuracy an order of magnitude better than we now have, we simply could not have the assurance that we could take out the entire Soviet ICBM force at one blow. Even under the most favorable assumptions about accuracy, our calculations show that the Soviets would still have enough land-based missiles left to devastate U.S. cities. Furthermore, even a small degradation of accuracy would greatly increase the number of Soviet ICBMs surviving, and therefore greatly increase the Soviet potential for destruction of the United States. As for the ASW part of the equation, although the U.S. has a good capability to destroy enemy submarines in a protracted war at sea, it has no realistic prospect of being able to destroy in a sudden attack a major part of the deployed Soviet force of missile-launching submarines, certainly not before they could launch their missiles in retaliation.

In summary, there is no possibility, as far ahead as we can see, of either the U.S. or the USSR acquiring a disarming first-strike capability. The Soviets are quite capable of making their own calculations—the calculations are relatively straight-forward—and I am certain they would come to the same conclusion.

Question. What are the present intentions of the Department of Defense regarding a possible "marriage" of increased megatonnage and higher accuracy on our land-based ICBMs?

Answer. We are conducting research and development on both better accuracy and improved yield-to-weight ratios in our strategic missile warheads. Both kinds of research are essential and may help to deter Soviet deployments which could threaten major elements of our forces. Whether we eventually decide to deploy either high accuracy and low yield weapons, or are forced to move toward an improved accuracy-yield combination for an increased hard-target kill capability than we now deploy, will depend upon Soviet actions. As I have said, we would prefer not to be forced into such deployments, but we should be prepared to match Soviet deployments if a satisfactory agreement with them is not reached.

You will note on pages 53–57 of the Annual Defense Department Report that several research and development programs are underway for MINUTEMAN, Advanced ICBM, and TRIDENT missiles. These involve various combinations of throw-weight, accuracy, number of MIRVs, and characteristics of reentry vehicles. No decisions have been made with regard to which combinations, if any, we might deploy.

CLASSIFIED POSTURE STATEMENTS

Secretary SCHLESINGER. As Senator Symington knows, we spent about 3 hours on these issues yesterday in the Foreign Relations Committee. Much of this material, of course, is included in the classified posture statements. What we will do is to gather together the existing material and also look at the specific questions you have asked and see that all of them have a precise response.

Senator BROOKE. I would appreciate that because I believe that is what we agreed on at our breakfast discussion. I am very grateful for the time you spent with me and that you felt this matter should be a

matter for congressional debate as well as for national debate because it is a very important issue. I hope you will supply those answers.

One additional question on another subject: Could you give us some indication of how recruitment is going? You have increased pay capabilities now. Would you rate it as a very successful program or are you having difficulty, as we have heard you have had in the past?

Secretary SCHLESINGER. We are having some difficulties but I think the recruiting is going better than I might have anticipated. The Air Force and Navy have been able to get all their requirements. The Marines have had some difficulties, I think because they are precluded from taking a larger portion of men if they do not have a high school diploma. We may be back to the Hill for changes in the law.

The Army has had periodic difficulties. In February it received 89 percent of its quota, I think, as opposed to the 2 of the 3 previous months when they made their quota.

Repeatedly we had shortfalls on the Army side. They are disappointing but we will attempt to try harder.

Generally speaking, despite the fact we are having difficulties, the difficulties were anticipated.

Senator BROOKE. I for one would be willing to correct the law. The Army, you say, had 89 percent. That is good.

Chairman MCCLELLAN. Senator Thurmond, any more questions?

Senator THURMOND. No, Mr. Chairman.

Senator SYMINGTON. This posture statement, are there any changes from the one given the Armed Services Committee, or is it the same?

Secretary SCHLESINGER. The classified statement is the same. There was a little polishing up on the unclassified statement, and there will be wording discrepancies between the two.

PREPARED STATEMENT

Chairman MCCLELLAN. The prepared statement of the Secretary of Defense together with questions submitted by the committee and the responses thereto will be included in the record at this point.

[The statement and questions and answers follow:]

Secretary SCHLESINGER. It is my privilege to present to you the FY 1975 Defense Program and Budget. This is the first budget in a decade or more that does not include support of United States forces in combat. At the same time, it is a budget that must carry us, through maintenance of a military equilibrium, on the passage from the cold war toward a period of enduring peace. In such a difficult period of transition, I have a special duty to review with you the fundamental strategic issues that we face and the basis on which we are developing what we consider to be the lowest prudent peacetime defense posture.

Admiral Thomas H. Moorer, the Chairman of the Joint Chiefs of Staff, will present his customary report on our military posture. He will discuss in more detail than I shall here the current and developing balance of military power.

A. THE INTERNATIONAL SITUATION AND THE DEFENSE ESTABLISHMENT

Our defense budget proposals, of necessity, reflect our perspective on the United States role in the world. It is understandable, of course, that there will be divergencies in judgment among Americans on that role, and those divergencies will be reflected in different estimates of what the defense budget should be. As the Psalmist tells us, "Where there is no vision the people perish". Hence, I would like to share with you our vision.

The United States today, as opposed to the period before 1945, bears the principal burden of maintaining the worldwide military equilibrium which is the foundation for the security and the survival of the Free World. This is not a role

we have welcomed; it is a role that historical necessity has thrust upon us. The burden of responsibility has fallen on the United States, and there is nobody else to pick up the torch if the United States fails to carry it.

In fulfilling this responsibility we recognize that we are dealing in a world which is militarily dominated by two states—ours and the Soviet Union. There is no other nation that possesses a military capability comparable to these two states. Consequently, in judging the military balance, and in deciding upon our own force posture, we do so primarily with the Soviet Union in mind.

This does not suggest that we are not hopeful with regard to the future peaceful evolution of world politics; quite the contrary. Considerable progress has been made during the last five years in improving the international political climate. The President has taken many important initiatives: opening up new lines of communication with the Soviet Union and with the Peoples' Republic of China, helping to settle long-standing disagreements between East and West such as Berlin, beginning in practical ways to put limits on armaments, and ending our military involvement in the hostilities in Indochina. There has been a new spirit of cooperation between East and West, reflected in these practical arrangements, that offers the possibility—as yet it is no more than that—of a more durable peace in the future. And as you know, United States force levels have declined substantially in the wake of these Presidential initiatives, and the share of our national resources committed to defense has been significantly reduced.

Neither am I suggesting that the difficulties in the international situation imply that there will be an unconstrained arms race or frequent confrontations between East and West. It is precisely to avoid these circumstances, and to put boundaries around arms competition, that we are engaged with the Soviet Union in SALT II. And it is to achieve a similar objective, through a more stable balance at lower force levels in Central Europe, that we and our NATO Allies are engaged in negotiations on Mutual and Balanced Force Reductions with the Warsaw Pact states.

While we pursue negotiations about mutual reductions of arms, in furtherance of detente, it is my judgment that we must maintain a worldwide military equilibrium. Short of that, we create the possibility of vacuums and temptations that could undermine detente and the hope for improved political relations with the East.

A policy requiring us to maintain our military strength and alliances while we are actively pursuing detente with the Soviet Union and the Peoples' Republic of China may appear to some as incongruous. We have a long tradition in this country of arming with great haste when war comes upon us, and disarming with even greater haste when the war is over; and we have tended, often, to view our relations with other nations in terms of absolutes—friend or foe, ally or adversary, cold war or detente.

Unfortunately, the real world is more complicated. Today, I hardly need argue that a feast and famine approach to national defense is no longer feasible, let alone desirable. Our experience in this century has amply demonstrated that satiating our military establishment in wartime and starving it in peacetime brings us neither peace nor long-term alleviation of the heavy burden of defense. In both blood and treasure, it will cost us less to maintain a reasonably stable level of defense effort until it is possible to achieve genuine mutual reductions in armaments.

The Soviet Union shows that it, at least, sees no inconsistency between detente and increasing military capabilities. We see continuing increases in Soviet budgets, forces and forward deployments. The Soviet Union is making significant improvements in its strategic nuclear forces and, in concert with its partners in the Warsaw Pact, maintains large and ready general purpose forces. These forces are, in fact, the most usable elements of their considerable and diversified military power. We would serve ourselves and our Allies poorly indeed if we relied solely on fond hopes or soft words while failing to take practical account of improving Soviet capabilities.

The Soviet Union has historically been a relatively prudent and sober power and I trust it will continue to be so. I hope that as a result of our mutual recognition that there is no good alternative to peaceful cooperation, we shall gradually achieve a world in which security is based upon something more than a balance of arms. But until such a time arrives we must recognize the need for a stable balance of military forces. As a minimum, we must keep a visible strategic nuclear balance, contribute to a balance of general purpose forces in

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central Europe where the bulk of Soviet and Warsaw Pact forces are arrayed against NATO, and together with our Allies maintain a balance of naval forces to ensure the freedom of the seas and the protection of our sea lines of communication, as has been the long tradition of the United States.

The Strategic Nuclear Balance

There have been two aspects in the development of Soviet strategic forces, one long-term and the other more recent, that affect our present strategic forces planning and the deterrent value of our strategic systems. The long-term and quite well known factor is that over many years the Soviets have been steadily closing the gap in nuclear capabilities between them and us.

For a period of time prior to 1960 the United States had a virtual nuclear monopoly. By 1960 it was perceived that our monopoly advantage would ebb; and, in fact, it not only began to ebb, but by 1966–67 the Soviet Union had a very substantial intercontinental counter deterrent. During the early 1960's it was stated quite clearly by President Kennedy—and also by a large majority of Americans in both parties—that the United States needed alternatives other than suicide or surrender, that it needed options which did not imply immediate escalation to major nuclear war.

If anything, the need for options other than suicide or surrender, and other than escalation to all out nuclear war, is more important for us today than it was in 1960, because of the growth of the capabilities possessed by other powers. These additional options do not include the option of a disarming first strike. Neither the USSR nor the United States has, or can hope to have, a capability to launch a disarming first strike against the other, since each of us possesses, and will possess for the foreseeable future, a devastating second-strike capability against the other. This almost certainly will deter the deliberate initiation of a nuclear attack against cities, for it would bring inevitable retaliatory destruction to the initiator. Thus, this basic deterrent remains intact.

A development of more recent years is the accelerated improvement in Soviet missile technology. The Soviet Union now has the capability in its missile forces to undertake selective attacks against targets other than cities. This poses for us an obligation, if we are to ensure the credibility of our strategic deterrent, to be certain that we have a comparable capability in our strategic systems and in our targeting doctrine, and to be certain that the USSR has no misunderstanding on this point.

It is true that in addition to retaliatory targeting against urban and industrial centers, our war plans have always included military targets. The purpose of having war plans whose dimensions are generally understood by potential foes is, first, to deter rash actions. But secondly, if deterrence fails, the war plans provide the National Command Authorities—the President and his advisers—with well thought-out, detailed sets of options.

In the past, most of those options—whether the principal targets were cities, industrial facilities, or military installations—have involved relatively massive responses. Rather than massive options, we now want to provide the President with a wider set of much more selective targeting options. Through possession of such a visible capability, we hope to reinforce deterrence by removing the temptation for an adversary to consider any kind of nuclear attack. Therefore, the changes we are making in our strategic planning this year are specifically intended to shore up deterrence across the entire spectrum of risk. We believe that by improving deterrence across the broad spectrum, we will reduce to an even lower point the probability of a nuclear clash between ourselves and other major powers.

But if, for whatever reason, deterrence should fail, we want to have the planning flexibility to be able to respond selectively to the attack in such a way as to (1) limit the chances of uncontrolled escalation, and (2) hit meaningful targets with a sufficient accuracy-yield combination to destroy only the intended target and to avoid widespread collateral damage. If a nuclear clash should occur—and we fervently believe that it will not—in order to protect American cities and the cities of our allies, we shall rely into the wartime period upon reserving our "assured destruction" force and persuading, through intrawar deterrence, any potential foe not to attack cities. It is through these means that we hope to prevent massive destruction even in the cataclysmic circumstances of nuclear war.

Intrawar Deterrence

Chairman McClellan. Would you explain precisely what is meant by the term "intrawar deterrence"?

Secretary Schlesinger. The term "intrawar deterrence" is used in the context of a limited nuclear conflict, in which a major objective of the United States is to keep that conflict from escalating to greater levels of violence. It involves deterring the enemy from escalating by withholding a substantial residual nuclear force which has a capability to exercise a variety of options.

Chairman McClellan. Proceed.

Secretary Schlesinger. This adjustment in strategic policy does not imply major new strategic weapon systems and expenditures. We are simply ensuring that in our doctrine, our plans, and our command and control we have—and are seen to have—the selectivity and flexibility to respond to aggression in an appropriate manner. We do not intend that the Soviet Union should have a wider range of options than we do.

Even after these adjustments to our present policy, there remains a serious potential problem for the future of our strategic policy and forces. In recent years, the USSR has been pursuing a vigorous strategic R&D program. This we had expected. But its breadth, depth, and momentum as now revealed comes as something of a surprise to us.

During the past year alone, the Soviets have tested four new ICBM's (the SS–X–16, SS–X–17, SS–X–18, and SS–X–19), and have developed their first MRV-submarine-launched missile. The new ICBM's are of especial interest. Three of the four have been flown with MIRV's, and all of them are being designed for increased accuracy. The very large SS–X–18 will have about thirty percent more throw-weight than the currently deployed SS–9. The SS–X–17 and SS–X–19 are considered as successors to the relatively light SS–11. They will have from three-to-five times the throw-weight of the earlier model SS–11's, which now constitute the bulk of the Soviet ICBM force. If all three new and heavier missiles are deployed, Soviet throw-weight in their ICBM force will increase from the current 6–7 million pounds to an impressive 10–12 million pounds.

This throw-weight, combined with increased accuracy and MIRV's could give the Soviets on the order of 7,000 one-to-two megaton warheads in their ICBM force alone.

The Interim SALT Agreement

Chairman McClellan. Under the interim SALT agreement, how many ICBM warheads could we have in comparison to the Soviet order of 7,000?

Secretary Schlesinger. US programmed forces call for 550 Minuteman III with a capability for three RVs each and 450 Minuteman II and 54 Titan II with one RV each to be deployed by the end of FY 75. Thus, by October 1977 when the five year term of the Interim Agreement ends, the US programmed ICBM force could have 2154 warheads.

If the US exercised the option to continue Minuteman III production and deployment at a highly accelerated rate, then 1000 Minuteman III ICBMs could be deployed by 1978, resulting in a maximum total ICBM warhead level of 3054. The Air Force is currently developing plans to demonstrate the feasibility of placing [deleted] small RVs on Minuteman III; however, there are currently no plans for such a deployment nor could such a capability be reasonably developed for deployment prior to expiration of the Interim Agreement.

Chairman McClellan. Proceed.

Secretary Schlesinger. They would then possess a major one-sided counterforce capability against the United States ICBM force. This is impermissible from our point of view. There must be essential equivalence between the strategic forces of the United States and the USSR—an equivalence perceived not only by ourselves, but by the Soviet Union and third audiences as well. This was the essence of the SALT I agreements.

Summary of ABM Treaty and Interim Agreement on Strategic Offensive Arms

Chairman McClellan. Last year we included a summary of just what the U.S. and USSR can and cannot do under the terms of the ABM treaty and the Interim Agreement on Strategic Offensive Arms. This proved most helpful. Will you provide the complete summary of the agreements for this record?

Secretary Schlesinger. Yes, sir.

[The information follows:]

I. TREATY ON ANTI-BALLISTIC MISSILE SYSTEMS OF 26 MAY 1972

The United States and the Union of Soviet Socialist Republics hereinafter referred to as the parties,

Proceeding from the premise that nuclear war would have devastating consequences for all mankind,

Considering that effective measures to limit anti-ballistic missile systems would be a substantial factor in curbing the race in strategic offensive arms and would lead to a decrease in the risk of outbreak of war involving nuclear weapons,

Proceeding from the premise that the limitation of anti-ballistic missile systems, as well as certain agreed measures with respect to the limitation of strategic offensive arms, would contribute to the creation of more favourable conditions for further negotiations on limiting strategic arms,

Mindful of their obligations under Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons,

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to take effective measures toward reductions in strategic arms, nuclear disarmament, and general and complete disarmament,

Desiring to contribute to the relaxation of international tension and the strengthening of trust between states, have agreed as follows:

Article I

1. Each party undertakes to limit anti-ballistic missile (ABM) systems and to adopt other measures in accordance with the provisions of this treaty.

2. Each party undertakes not to deploy ABM systems for the defence of the territory of its country and not to provide a base for such a defence and not to deploy ABM systems for defence of an individual region except as provided for in Article III of this treaty.

Article II

1. For the purposes of this treaty an ABM system is a system to counter strategic ballistic missiles of their elements in flight trajectory, currently consisting of:

(A) ABM interceptor missiles, which are interceptor missiles constructed and deployed for an ABM role, or of a type tested in an ABM mode;

(B) ABM launchers, which are launchers constructed and deployed for launching ABM interceptor missiles; and

(C) ABM radars, which are radars constructed and deployed for ABM role, or of a type tested in an ABM mode.

2. The ABM system components listed in paragraph 1 of this article include those which are: (A) operational; (B) under construction; (C) undergoing testing; (D) undergoing overhaul, repair or conversion; or (E) mothballed.

Article III

Each party undertakes not to deploy ABM systems or their components except that:

(A) Within one ABM system deployment area having a radius of 150 kilometres and centred on the party's national capital, a party may deploy: (1) no more than 100 ABM launchers and no more than 100 ABM interceptor missiles at launch sites, and (2) ABM radars within no more than six ABM radar complexes. The area of each complex being circular and having a diameter of no more than three kilometres; and

(B) Within one ABM system deployment area having a radius of 150 kilometres and containing ICBM silo launchers, a party may deploy: (1) no more than 100 ABM launchers and no more than 100 ABM interceptor missiles at launch sites; (2) two large phased-array ABM radars comparable in potential to corresponding ABM radars operational or under construction on the date of signature of the treaty in an ABM system deployment area containing ICBM silo launchers; and (3) no more than 18 ABM radars, each having a potential less than the potential of the smaller of the above-mentioned two large phased-array ABM radars.

Article IV

The limitations provided for in Article III shall not apply to ABM systems or their components used for development or testing, and located within current or additionally agreed test ranges. Each party may have no more than a total of fifteen ABM launchers at test ranges.

Article V

1. Each party undertakes not to develop, test, or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based.

2. Each party undertakes not to develop, test or deploy ABM launchers for launching more than one ABM interceptor missile at a time from each launcher, nor to modify deployed launchers to provide them with such a capability, nor to develop, test or deploy automatic or semi-automatic or other similar systems for rapid reload or ABM launchers.

Article VI

To enhance assurance of the effectiveness of the limitations on ABM systems and their components provided by this treaty, each party undertakes:

(A) Not to give missiles, launchers, or radars, other than ABM interceptor missiles, ABM launchers, or ABM radars, capabilities to counter strategic ballistic missiles or their elements in flight trajectory and not to test them in an ABM mode; and

(B) Not to deploy in the future radars for early warning of strategic ballistic missile attack, except at locations along the periphery of its national territory and oriented outward.

Article VII

Subject to the provisions of this treaty, modernization and replacements of ABM systems or their components may be carried out.

Article VIII

ABM systems or their components in excess of the numbers or outside the areas specified in this treaty, as well as ABM systems or their components prohibited by this treaty, shall be destroyed or dismantled under agreed procedures within the shortest possible agreed period of time.

Article IX

To assure the viability and effectiveness of this treaty, each party undertakes not to transfer to other states, and not to deploy outside its national territory, ABM systems or their components limited by this treaty.

Article X

Each party undertakes not to assume any international obligations which would conflict with this treaty.

Article XI

Each of the parties undertakes to continue active negotiations for limitations on strategic offensive arms.

Article XII

1. For the purpose of providing assurance of compliance with the provisions of this treaty, each party shall use national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law.

2. Each party undertakes not to interfere with the national technical means of verification of the other party operating in accordance with Paragraph 1 of this article.

3. Each party undertakes not to use deliberate concealment measures which impede verification by national technical means of compliance with the provisions of this treaty. This obligation shall not require changes in current construction, assembly, conversion or overhaul practices.

Article XIII

1. To promote the objectives and implementation of the provisions of this treaty, the parties shall establish promptly a standing consultative commission, within the framework of which they will:

(A) Consider questions concerning compliance with the obligations assumed and related situations which may be considered ambiguous:

(B) Provide on a voluntary basis such information as either party considers necessary to assure confidence in compliance with the obligations assumed:

(C) Consider questions involving unintended interference with national technical means of verification:

(D) Consider possible changes in the strategic situation which have a bearing on the provisions of the treaty:

(E) Agree upon procedures and dates for destruction or dismantling of ABM systems or their components in cases provided for by the provisions of this treaty:

(F) Consider, as appropriate, possible proposals for further increasing the viability of this treaty, including proposals for amendments in accordance with the provisions of this treaty:

(G) Consider, as appropriate, proposals for further measures aimed at limiting strategic arms.

2. The parties through consultation shall establish, and may amend as appropriate, regulations for the standing consultative commission governing procedures, composition and other relevant matters.

Article XIV

1. Each party may propose amendments to this treaty. Agreed amendments shall enter into force in accordance with the procedures governing the entry into force of this treaty.

2. Five years after entry into force of this treaty, and at five-year intervals thereafter, the parties shall together conduct a review of this treaty.

Article XV

1. This treaty shall be of unlimited duration.

2. Each party shall, in exercising its national sovereignty, have the right to withdraw from this treaty if it decides that extraordinary events related to the subject matter of this treaty have jeopardized its supreme interests. It shall give notice of its decision to the other party six months prior to withdrawal from the treaty. Such notice shall include a statement of the extraordinary events the notifying party regards as having jeopardized its supreme interests.

Article XVI

1. This treaty shall be subject to ratification in accordance with the constitutional procedure of each party. The treaty shall enter into force on the day of the exchange of instruments of ratification.

2. This treaty shall be registered pursuant to Article 102 of the Charter of the United Nations.

Done at Moscow on 26 May 1972, in two copies, each in the English and Russian languages, both texts being equally authentic.

II. INTERIM AGREEMENT AND PROTOCOL ON STRATEGIC OFFENSIVE MISSILES OF 26 MAY 1972

The Union of Soviet Socialist Republics and the United States of America, hereinafter referred to as the parties,

Convinced that the treaty on the limitation of anti-ballistic missile systems and this interim agreement on certain measures with respect to the limitation of strategic offensive arms will contribute to the creation of more favourable conditions for active negotiations on limiting strategic arms as well as to the relaxation of international tension and the strengthening of trust between states,

Taking into account the relationships between strategic offensive and defensive arms,

Mindful of their obligations under Article VI of the Treaty on the Non-proliferation of Nuclear Weapons, have agreed as follows:

Article I

The parties undertake not to start construction of additional fixed land-based intercontinental ballistic missiles (ICBM) launchers after 1 July 1972.

Article II

The parties undertake not to convert land-based launchers for light ICBMs or for ICBMs of older types deployed prior to 1964 into land-based launchers for heavy ICBMs of types deployed after that time.

Article III

The parties undertake to limit submarine-launched ballistic missile (SLBM) launchers and modern ballistic missile submarines to the numbers operational and under construction on the date of signature of this interim agreement, and in addition launchers and submarines constructed under procedures established by the parties as replacements for an equal number of ICBM launchers of older types deployed prior to 1964 or for launchers on older submarines.

Article IV

Subject to the provisions of this interim agreement, modernization and replacement of strategic offensive ballistic missiles and launchers covered by this interim agreement may be undertaken.

Article V

1. For the purpose of providing assurance of compliance with the provisions of this interim agreement, each party shall use national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law.

2. Each party undertakes not to interfere with the national technical means of verification of the other party operating in accordance with paragraph 1 of this article.

3. Each party undertakes not to use deliberate concealment measures which impede verification by national technical means of compliance with the provisions of the interim agreement. This obligation shall not require changes in current construction, assembly, conversion or overhaul practices.

Article VI

To promote the objectives and implementation of the provisions of this interim agreement, the parties shall use the standing consultative commission established under Article 13 of the Treaty on the Limitation of Anti-ballistic Missile Systems in accordance with the provisions of that article.

Article VII

The parties undertake to continue active negotiations for limitations on strategic offensive arms. The obligations provided for in this interim agreement shall not prejudice the scope of terms of the limitations on strategic offensive arms which may be worked out in the course of further negotiations.

Article VIII

1. This interim agreement shall enter into force upon exchange of written notices of acceptance by each party, which exchange shall take place simultaneously with the exchange of the instruments of ratification of the Treaty on the Limitation of Anti-ballistic Missile Systems.

2. This interim agreement shall remain in force for a period of five years unless replaced earlier by an agreement on more complete measures limiting strategic offensive arms. It is the objective of the parties to conduct active follow-on negotiations with the aim of concluding such an agreement as soon as possible.

3. Each party shall, in exercising its national sovereignty, have the right to withdraw from this interim agreement if it decides that extraordinary events related to the subject matter of this interim agreement have jeopardized its supreme interests. It shall give notice of its decision to the other party six months prior to withdrawal from this interim agreement. Such notice shall include a statement of the extraordinary events the notifying party regards as having jeopardized its supreme interests.

Done at Moscow on 26 May 1972, in two copies, each in the Russian and English languages, both texts being equally authentic.

PROTOCOL TO THE INTERIM AGREEMENT

The United States of America and the Union of Soviet Socialist Republics, hereinafter referred to as the parties,

Having agreed on certain limitations relating to submarine-launched ballistic missile launchers and modern ballistic missile submarines, and to replacement procedures, in the Interim Agreement have agreed as follows:

The parties understand that, under Article 3 of the Interim Agreement for the period during which that agreement remains in force:

The United States may have no more than 710 ballistic missile launchers on submarines (SLBMs) and no more than 44 modern ballistic missile submarines. The Soviet Union may have no more than 950 ballistic missile launchers on submarines and no more than 62 modern ballistic missile submarines.

Additional ballistic missile launchers on submarines up to the above-mentioned levels, in the United States over 656 ballistic missile launchers on nuclear-powered submarines, and in the Soviet Union over 740 ballistic missile launchers on nuclear-powered submarines, operational and under construction, may become operational as replacements for equal numbers of ballistic missile launchers of older types deployed prior to 1964 or of ballistic missile launchers on older submarines.

The deployment of modern SLBMs on any submarine, regardless of type, will be counted against the total level of SLBMs permitted for the United States and the Soviet Union.

This protocol shall be considered an integral part of the interim agreement.

III. AGREED INTERPRETATIONS, COMMON UNDERSTANDINGS AND UNILATERAL AGREEMENTS

AGREED INTERPRETATIONS

ABM TREATY

(a) The parties understand that, in addition to the ABM radars which may be deployed in accordance with sub-paragraph (a) of article III of the Treaty, those non-phased-array ABM radars operational on the date of signature of the Treaty within the ABM system deployment area for defence of the national capital may be retained.

(b) The parties understand that the potential (the product of mean emitted power in watts and antenna area in square metres) of the smaller of the two large phased-array ABM radars referred to[1] in sub-paragraph (b) of article III of the Treaty is considered for purposes of the Treaty to be three million.

(c) The parties understand that the centre of the ABM system deployment area centred on the national capital and the centre of the ABM system deployment area containing ICBM silo launchers for each party shall be separated by no less than thirteen hundred kilometres.

(d) The parties agree not to deploy phased-array radars having a potential (the product of mean emitted power in watts and antenna area in square metres) exceeding three million, except as provided for in articles III, IV and VI of the Treaty, or except for the purposes of tracking objects in outer space or for use as national technical means of verification.

(e) In order to insure fulfilment of the obligation not to deploy ABM systems and their components except as provided in article III of the Treaty, the parties agree that in the event of ABM systems based on other physical principles and including components capable of substituting for ABM interceptor missiles, ABM launchers, or ABM radars, are vetoed in the future. Specific limitations on such systems and their components would be subject to discussion in accordance with article XIII and agreement in accordance with article XIV of the Treaty.

(f) The parties understand that article V of the Treaty includes obligations not to develop, test or deploy ABM interceptor missiles for the delivery by each ABM interceptor missile of more than one independently guided warhead.

(g) The parties understand that article IX of the Treaty includes the obligation of the US and the USSR not to provide to other states technical descriptions of blueprints specially worked out for the construction of ABM systems and their components limited by the Treaty.

INTERIM AGREEMENT ON OFFENSIVE WEAPONS

(h) The parties understand that land-based ICBM launchers referred to in the interim agreement are understood to be launchers for strategic ballistic missiles capable of ranges in excess of the shortest distance between the North-Eastern

border of the continental US and the North-Western border of the continental USSR.

(i) The parties understand that fixed land-based ICBM launchers under active construction at the date of signature of the interim agreement may be completed.

(j) The parties understand that in the process of modernization and replacement the dimensions of land-based ICBM silo launchers will not be significantly increased.

(k) The parties understand that dismantling or destruction of ICBM launchers of older types deployed prior to 1964 and ballistic missile launchers on older submarines being replaced by new SLBM launchers on modern submarines will be initiated at the time of the beginning of sea trials of a replacement submarine, and will be completed in the shortest possible agreed period of time. Such dismantling or destruction, and timely notification thereof, will be accomplished under procedures to be agreed in the standing consultative commission.

(l) The parties understand that during the period of the interim agreement there shall be no significant increase in the number of ICBM or SLBM test and training launchers, or in the number of such launchers for modern land-based heavy ICBMs. The parties further understand that construction or conversion of ICBM launchers at test ranges shall be undertaken only for purposes of testing and training.

COMMON UNDERSTANDINGS

(a) Increase in ICBM Silo Dimensions

Ambassador Smith made the following statement on 26 May 1972: 'The parties agree that the term "significantly increased" means that an increase will not be greater than 10–15 per cent of the present dimensions of land-based ICBM silo launchers'.

Minister Semenov replied that this statement corresponded to the Soviet understanding.

(b) Location of ICBM Defences

The US delegation made the following statement on 26 May 1972: 'Article III of the ABM Treaty provides for each side one ABM system deployment area centred on its national capital and one ABM system deployment area containing ICBM silo launchers. The two sides have registered agreement on the following statement: "The parties understand that the centre of the ABM system deployment area centred on the national capital and the centre of the ABM system deployment area containing ICBM silo launchers for each party shall be separated by no less than thirteen hundred kilometres." In this connection, the US side notes that its ABM system deployment area for defence of ICBM silo launchers, located West of the Mississippi River, will be centred in the grand forks ICBM silo launcher deployment area'.

(c) ABM Test Ranges

The US delegation made the following statement on 26 April 1972: 'Article IV of the ABM Treaty provides that "The limitations provided for in article III shall not apply to ABM systems or their components used for development or testing, and located within current or additionally agreed test ranges". We believe it would be useful to assure that there is no misunderstanding as to current ABM test ranges. It is our understanding that ABM test ranges encompass the area within which AEM components are located for test purposes. The current US ABM test ranges are at White Sands, New Mexico, and at Kwajalein Atoll, and the current Soviet ABM test range is near Sary Shagan in Kazakhstan. We consider that non-phased array radars of types used for range safety or instrumentation purposes may be located outside of ABM test ranges. We interpret the reference in article IV to "Additionally agreed test ranges" to mean that ABM components will not be located at any other test ranges without prior agreement between our government that there will be such additional ABM test ranges'.

On 5 May 1972, the Soviet delegation stated that there was a common understanding on what ABM test ranges were, that the use of the types of non-ABM radars for range safety or instrumentation was not limited under the Treaty, that the reference in Article IV to 'additionally agreed' test ranges was sufficiently clear, and that national means permitted identifying current test ranges.

(d) Mobile ABM System

On 28 January 1972, the US delegation made the following statement: 'Article V (1) of the joint draft text of the ABM Treaty includes an undertaking not to develop, test, or deploy mobile land-based ABM systems and their components. On 5 May 1971, the US side indicated that, in its view, a prohibition on deployment of mobile ABM systems and components would rule out the deployment of ABM launchers and radars which were not permanent fixed types. At that time, we asked for the Soviet view of this interpretation. Does the Soviet side agree with the US side's interpretation put forward on 5 May 1971?'

On 13 April 1972, the Soviet delegation said there is a general common understanding on this matter.

(e) Standing Consultative Commission

Ambassador Smith made the following statement on 23 May 1972: 'The United States proposes that the sides agree that, with regard to initial implementation of the ABM Treaty's article XIII on the Standing Consultative Commission (SCC) and of the consultation articles to the interim agreement on offensive arms and the accidents agreement*, agreement establishing the SCC will be worked out early in the follow-on SALT negotiations; until that is completed, the following arrangements will prevail: when SALT is in session, any consultation desired by either side under these articles can be carried out by the two SALT delegations; when SALT is not in session, *ad hoc* arrangements for any desired consultations under these articles may be made through diplomatic channels'.

Minister Semenov replied that, on an *ad referendum* basis, he could agree that the US statement corresponded to the Soviet understanding.

(f) Standstill

On 6 May 1972, Minister Semenov made the following statement: 'In an effort to accommodate the wishes of the US side, the Soviet delegation is prepared to proceed on the basis that the two sides will in fact observe the obligations of both the interim agreement and the ABM Treaty beginning from the date of signature of these two documents'.

In reply, the US delegation made the following statement on 20 May 1972: ' The US agrees in principle with the Soviet statement made on 6 May concerning observance of obligations beginning from date of signature but we would like to make clear our understanding that this means that, pending ratification and acceptance, neither side would take any action prohibited by the agreements after they had entered into force. This understanding would continue to apply in the absence of notification by either signatory of its intention not to proceed with ratification or approval.'

The Soviet delegation indicated agreement with the US statement.

UNILATERAL STATEMENTS

(A) The following noteworthy unilateral statements were made during the negotiations by the US delegation:

(a) Withdrawal from the ABM Treaty

On 9 May 1972, Ambassador Smith made the following statement: 'The US delegation has stressed the importance the US government attaches to achieving agreement on more complete limitations on strategic offensive arms, following agreement on an ABM Treaty and on an interim agreement on certain measures with respect to the limitation of strategic offensive arms. The US delegation believes that an objective of the follow-on negotiations should be to constrain and reduce on a long-term basis threats to the survivability of our respective strategic retaliatory forces. The USSR delegation has also indicated that the objectives of SALT would remain unfulfilled without the achievement of an agreement provided for more complete limitations on strategic offensive arms. Both sides recognize that the initial agreements would be steps toward the achievement of more complete limitations on strategic offensive arms. The US Executive will inform the Congress, in connection with congressional consideration of the ABM Treaty and the interim agreement of this statement of the US position'.

* See article 7 of agreement to reduce the risk of outbreak of nuclear war between the United States of America and the Union of Soviet Socialist Republics, signed 30 September 1971 (reprinted in *Survival*, December 1971).

(b) Land-Mobile ICBM Launchers

The US delegation made the following statement on 20 May 1972: 'In connection with the important subject of land-mobile ICBM launchers, in the interest of concluding the interim agreement the US delegation now withdraws its proposal that article 1 or an agreed statement explicitly prohibit the deployment of mobile land-based ICBM launchers. I have been instructed to inform you that, while agreeing to defer the question of negotiations on more complete limitations on strategic offensive arms, the US would consider the deployment of operational land-mobile ICBM launchers during the period of the interim agreement as inconsistent with the objectives of that agreement'.

(c) Covered Facilities

The US delegation made the following statement on 20 May 1972: 'I wish to emphasize the importance that the United States attaches to the provisions of Article V [of the Interim Agreement – Ed.], including in particular their application to fitting out or berthing submarines'.

(d) 'Heavy' ICBMs

The US delegation made the following statement on 26 May 1972: 'The US delegation regrets that the Soviet delegation has not been willing to agree on a common definition of a heavy missile. Under these circumstances, the US delegation believes it necessary to state the following: The United States would consider any ICBM having a volume significantly

greater than that of the largest light ICBM now operational on either side to be a heavy ICBM. The Us proceeds on the premise that the Soviet side will give due account to this consideration'.

(e) *'Tested in an ABM Mode'*
On 7 April 1972, the US delegation made the following statement: 'Article II of the joint draft text uses the term "tested in an ABM mode", in defining ABM components, and Article VI includes certain obligations concerning such testing. We believe that the sides should have a common understanding of this phrase. First, we would note that the testing provisions of the ABM Treaty are intended to apply to testing which occurs after the date of signature of the Treaty, and not to any testing which may have occurred in the past. Next, we would amplify the remarks we have made on this subject during the previous Helsinki phase by setting forth the objectives which govern the US view on the subject, namely, while prohibiting testing of non-ABM components for ABM purposes: not to prevent testing of ABM components, and not to prevent testing of non-ABM components for non-ABM purposes. To clarify our interpretation of "tested in an ABM mode", we note that we would consider a launcher, missile or radar to be "tested in an ABM mode" if, for example, any of the following events occur: (1) A launcher is used to launch an ABM interceptor missile; (2) an interceptor missile is flight tested against a target vehicle which has a flight trajectory with characteristics of a strategic ballistic missile flight trajectory, or is flight tested in conjunction with the test of an ABM interceptor missile or an ABM radar at the same test range, or is flight tested to an altitude inconsistent with interception of targets against which air defences are deployed; (3) a radar makes measurements on a co-operative target vehicle of the kind referred to in item (2) above during the re-entry portion of its trajectory or makes measurements in conjunction with the test of an ABM interceptor missile or an ABM radar at the same test range. Radars used for purposes such as range safety or instrumentation would be exempt from application of these criteria'.

(f) *No-Transfer Article of ABM Treaty*
On 18 April 1972, the US delegation made the following statement: 'In regard to this Article (IX), I have a brief and I believe self-explanatory statement to make. The US side wishes to make clear that the provisions of this article do not set a precedent for whatever provision may be considered for a treaty on limiting strategic offensive arms. The question of transfer of strategic offensive arms is a far more complex issue, which may require a different solution'.

(g) *No Increase in Defence of Early Warning Radars*
On 28 July 1970, the US delegation made the following statement: 'Since Hen House Radars (Soviet ballistic missile early warning radars) can detect and track ballistic missile warheads at great distances, they have a significant ABM potential. Accordingly, the US would regard any increase in the defences of such radars by surface-to-air missiles as inconsistent with an agreement'.

(B) *The following noteworthy unilateral statement was made by the delegation of the USSR and is shown here with the US reply:*

On 17 May 1972, Minister Semenov made the following unilateral 'Statement of the Soviet Side': 'Taking into account that modern ballistic missile submarines are presently in the possession of not only the US, but also of its NATO allies, the Soviet Union agrees that for the period of effectiveness of the interim "freeze" agreement the US and its NATO allies have up to 50 such submarines with a total of up to 800 ballistic missile launchers thereon (including 41 US submarines with 656 ballistic missile launchers). However, if during the period of effectiveness of the agreement US allies in NATO should increase the number of their modern submarines to exceed the numbers of submarines they would have operational or under construction on the date of signature of the agreement, the Soviet Union will have the right to a corresponding increase in the number of its submarines. In the opinion of the Soviet side, the solution of the question of modern ballistic missile submarines provided for in the Interim Agreement only partially compensates for the strategic imbalance in the deployment of the nuclear-powered missile submarines of the USSR and the US. Therefore, the Soviet side believes that this whole question, and above all the question of liquidating the American missile submarine bases outside the US, will be appropriately resolved in the course of follow-on negotiations'.

On 24 May 1972, Ambassador Smith made the following reply to Minister Semenov: 'The United States side has studied the "Statement made by the Soviet side" of 17 May concerning compensation for submarine basing and SLBM submarines belonging to third countries. The United States does not accept the validity of the considerations in that statement'.

On 26 May 1972, Minister Semenov repeated the unilateral statement made on 17 May. Ambassador Smith also repeated the US rejection on 26 May.

BASIC PRINCIPLES OF RELATIONS

Basic principles of relations between the United States of America and the Union of Soviet Socialist Republics.

The United States of America and the Union of Soviet Socialist Republics, guided by their obligations under the Charter of the United Nations and by a desire to strengthen peaceful relations with each other and to place these relations on the firmest possible basis,

Aware of the need to make every effort to remove the threat of war and to create conditions which promote the reduction of tensions in the world and the strengthening of universal security and international co-operation,

Believing that the improvement of US–Soviet relations and their mutually advantageous development in such areas as economics, science, and culture, will meet these objectives and contribute to better mutual understanding and business-like co-operation, without in any way prejudicing the interests of third countries,

Conscious that these objectives reflect the interests of the peoples of both countries, have agreed as follows:

First. They will proceed from the common determination that in the nuclear age there is no alternative to conducting their mutual relations on the basis of peaceful coexistence. Differences in ideology and in the social systems of the USA and the USSR are not obstacles to the bilateral development of normal relations based on the principles of sovereignty, equality, non-interference in internal affairs and mutual advantage.

Second. The USA and the USSR attach major importance to preventing the development of situations capable of causing a dangerous exacerbation of their relations. Therefore, they will do their utmost to avoid military confrontations and to prevent the outbreak of nuclear war. They will always exercise restraint in their mutual relations, and will be prepared to negotiate and settle differences by peaceful means. Discussions and negotiations on outstanding issues will be conducted in a spirit of reciprocity, mutual accommodation, and mutual benefit.

Both sides recognize that efforts to obtain unilateral advantage at the expense of the other, directly or indirectly, are inconsistent with these objectives. The prerequisites for maintaining and strengthening peaceful relations between the USA and the USSR are the recognition of the security interests of the parties based on the principle of

The Soviet–American Summit, May 1972

COMMUNIQUÉ OF 29 MAY 1972

The discussions covered a wide range of questions of mutual interest and were frank and thorough. They defined more precisely those areas where there are prospects for developing greater co-operation between the two countries, as well as those areas where the positions of the two sides are different.

BILATERAL RELATIONS

Guided by the desire to place US–Soviet relations on a more stable and constructive foundation, and mindful of their responsibilities for maintaining world peace and for facilitating the relaxation of international tension, the two sides adopted a document entitled: 'Basic principles of mutual relations between the United States of America and the Union of Soviet Socialist Republics', signed on behalf of the USA by President Nixon and on behalf of the USSR by General Secretary Brezhnev.

Both sides are convinced that the provisions of that document open new possibilities for the development of peaceful relations and mutually beneficial co-operation between the USA and the USSR.

Having considered various areas of bilateral US–Soviet relations, the two sides agreed that an improvement of relations is possible and desirable. They expressed their firm intention to act in accordance with the provisions set forth in the above-mentioned document.

As a result of progress made in negotiations which preceded the Summit meeting, and in the course of the meeting itself, a number of significant agreements were reached. This will intensify bilateral co-operation in areas of common concern as well as in areas relevant to the cause of peace and international co-operation.

Limitation of strategic armaments: The two sides gave primary attention to the problem of reducing the danger of nuclear war. They believe that curbing the competition in strategic arms will make a significant and tangible contribution to this cause.

The two sides attach great importance to the treaty on the limitation of anti-ballistic systems and the interim agreement on certain measures with respect to the limitation of strategic offensive arms concluded between them. These agreements, which were concluded as a result of the negotiations in Moscow, constitute a major step towards curbing and ultimately ending the arms race.

They are a concrete expression of the intention of the two sides to contribute to the relaxation of international tension and the strengthening of confidence between States, as well as to carry out the obligations assumed by them in the Treaty on the Non-Proliferation of Nuclear Weapons (article VI). Both sides are convinced that the achievement of the above agreements is a practical step towards saving mankind from the threat of the outbreak of nuclear war. Accordingly, it corresponds to the vital interests of the American and Soviet peoples as well as to the vital interests of all other peoples.

The two sides intended to continue active negotiations for the limitation of strategic offensive arms and to conduct them in a spirit of goodwill, respect for each other's legitimate interests, and observance of the principle of equal security.

Both sides are also convinced that the agreement on measures to reduce the risk of outbreak of nuclear war between the USA and the USSR, signed in Washington on 30 September 1971, serves the interests not only of the Soviet and American peoples, but of all mankind.

Disarmament issues: The two sides expressed their positions on arms limitation and disarmament issues. The two sides note that in recent years their joint and parallel actions have facilitated the working out and conclusion of treaties which curb the arms race or ban some of the most dangerous types of weapons. They note further that these treaties were welcomed by a large majority of the States in the world, which became parties to them.

Both sides regard the convention on the prohibition of the development, production and stockpiling of bacteriological (biological) and toxic weapons and on their destruction, as an essential disarmament measure. Along with Britain, they are the depositories for the convention which was recently opened for signature by all States. The USA and the USSR will continue their efforts to reach an international agreement regarding chemical weapons.

The USA and the USSR, proceeding from the need to take into account the security interests of both countries on the basis of the principle of equality, and without prejudice to the security interests of third countries, will actively participate in negotiations aimed at working out new measures designed to curb and end the arms race. The ultimate purpose is general and complete disarmament, including nuclear disarmament, under strict international control. A world disarmament conference could play a role in this process at an appropriate time.

Public Law 92-448
92nd Congress, H. J. Res. 1227
September 30, 1972

Joint Resolution

Approval and authorization for the President of the United States to accept an Interim Agreement Between the United States of America and the Union of Soviet Socialist Republics on Certain Measures With Respect to the Limitation of Strategic Offensive Arms.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Congress hereby endorses those portions of the Declaration of Basic Principles of Mutual Relations Between the United States of America and the Union of Soviet Socialist Republics signed by President Nixon and General Secretary Brezhnev at Moscow on May 29, 1972, which relate to the dangers of military confrontation and which read as follows:

U.S.-U.S.S.R. Strategic arms, limitation.

"The United States of America and the Union of Soviet Socialist Republics attach major importance to preventing the development of situations capable of causing a dangerous exacerbation of their relations . . ." and "will do their utmost to avoid military confrontations and to prevent the outbreak of nuclear war" and "will always exercise restraint in their mutual relations," and "on outstanding issues will conduct" their discussions and negotiations "in a spirit of reciprocity, mutual accommodation and mutual benefit." and

"Both sides recognize that efforts to obtain unilateral advantage at the expense of the other, directly or indirectly, are inconsistent with these objectives." and

"The prerequisites for maintaining and strengthening peaceful relations between the United States of America and the Union of Soviet Socialist Republics are the recognition of the security interests of the parties based on the principle of equality and the renunciation of the use or threat of force."

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SEC. 2. The President is hereby authorized to approve on behalf of the United States the interim agreement between the United States of America and the Union of Soviet Socialist Republics on certain measures with respect to the limitation of strategic offensive arms, and the protocol related thereto, signed at Moscow on May 26, 1972, by Richard Nixon, President of the United States of America and Leonid I. Brezhnev, General Secretary of the Central Committee of the Communist Party of the Soviet Union.

86 STAT. 747

SEC. 3. The Government and the people of the United States ardently desire a stable international strategic balance that maintains peace and deters aggression. The Congress supports the stated policy of the United States that, were a more complete strategic offensive arms agreement not achieved within the five years of the interim agreement, and were the survivability of the strategic deterrent forces of the United States to be threatened as a result of such failure, this could jeopardize the supreme national interests of the United States; the Congress recognizes the difficulty of maintaining a stable strategic balance in a period of rapidly developing technology; the Congress recognizes the principle of United States-Soviet Union equality reflected in the antiballistic missile treaty, and urges and requests the President to seek a future treaty that, inter alia, would not limit the United States to levels of intercontinental strategic forces inferior to the limits provided for the Soviet Union; and the Congress considers that the success of these agreements and the attainment of more permanent and comprehensive agreements are dependent upon the maintenance under present world conditions of a vigorous research and development and modernization program as required by a prudent strategic posture.

SEC. 4. The Congress hereby commends the President for having successfully concluded agreements with the Soviet Union limiting the production and deployment of antiballistic missiles and certain strategic offensive armaments, and it supports the announced intention of the President to seek further limits on the production and deployment of strategic armaments at future Strategic Arms Limitation Talks. At the same time, the Senate takes cognizance of the fact that agreements to limit the further escalation of the arms race are only preliminary steps, however important, toward the attainment of world stability and national security. The Congress therefore urges the President to seek at the earliest practicable moment Strategic Arms Reduction Talks (SART) with the Soviet Union, the People's Republic of China, and other countries, and simultaneously to work toward reductions in conventional armaments, in order to bring about agreements for mutual decreases in the production and development of weapons of mass destruction so as to eliminate the threat of large-scale devastation and the ever-mounting costs of arms production and weapons modernization, thereby freeing world resources for constructive, peaceful use.

SEC. 5. Pursuant to paragraph six of the Declaration of Principles of Nixon and Brezhnev on May 29, 1972, which states that the United States and the Union of Soviet Socialist Republics: "will continue to make special efforts to limit strategic armaments. Whenever possible, they will conclude concrete agreements aimed at achieving these purposes"; Congress considers that the success of the interim agreement and the attainment of more permanent and comprehensive agreements are dependent upon the preservation of longstanding United States policy that neither the Soviet Union nor the United States should seek unilateral advantage by developing a first strike potential.

Approved September 30, 1972.

LEGISLATIVE HISTORY:

HOUSE REPORT No. 92-1324 (Comm. on Foreign Affairs).
SENATE REPORT No. 92-979 accompanying S. J. Res. 241 (Comm. on Foreign Relations).
CONGRESSIONAL RECORD, Vol. 118 (1972):
Aug. 11, 14-16, S. J. Res. 241 considered in Senate.
Aug. 18, H. J. Res. 1227 considered and passed House.
Sept. 6, 7, 13, 14, considered and passed Senate, amended, in lieu of S. J. Res. 241.
Sept. 25, House agreed to Senate amendment.

BASIC PRINCIPLES OF NEGOTIATIONS ON FURTHER LIMITATION OF STRATEGIC OFFENSIVE WEAPONS

21 JUNE 1973

The General Secretary of the Central Committee of the CPSU, L. I. Brezhnev, and the President of the United States of America, Richard Nixon,

Having thoroughly considered the question of the further limitation of strategic arms, and the progress already achieved in the current negotiations,

Reaffirming their conviction that the earliest adoption of further limitations of strategic arms would be a major contribution in reducing the danger of an outbreak of nuclear war and in strengthening international peace and security,

Have agreed as follows:

1. The two sides will continue active negotiations in order to work out a permanent agreement on more complete measures on the limitation of strategic offensive arms, as well as their subsequent reduction, proceeding from the Basic Principles of Relations between the USSR and the USA signed in Moscow on 29 May 1972, and from the Interim Agreement between the USSR and the USA of 26 May 1972, on Certain Measures with Respect to the Limitation of Strategic Offensive Arms.

Over the course of the next year the two sides will make serious efforts to work out the provisions of the permanent agreement on more complete measures on the limitation of strategic offensive arms with the objective of signing it in 1974.

2. New agreements on the limitation of strategic offensive armaments will be based on the principles of the Soviet-American documents adopted in Moscow in May 1972 and the agreements reached in Washington in June 1973, and in particular, both sides will be guided by the recognition of each other's equal security interests and by the recognition that efforts to obtain unilateral advantage, directly or indirectly, would be inconsistent with the strengthening of peaceful relations between the USSR and the USA.

3. The limitations placed on strategic offensive weapons can apply both to their quantitative aspects as well as to their qualitative improvement.

4. Limitations on strategic offensive arms must be subject to adequate verification by national technical means.

5. The modernization and replacement of strategic offensive arms would be permitted under conditions which will be formulated in the agreements to be concluded.

6. Pending the completion of a permanent agreement on more complete measures of strategic offensive arms limitation, both sides are prepared to reach agreements on separate measures to supplement the existing Interim Agreement of 26 May 1972.

7. Each side will continue to take necessary organizational and technical measures for preventing accidental or unauthorized use of nuclear weapons under its control in accordance with the agreement of 30 September 1971, between the United States of America and the Union of Soviet Socialist Republics.

SOVIET–AMERICAN RELATIONS

The second summit meeting between the General Secretary of the Central Committee of the Communist Party of the Soviet Union, Mr Brezhnev, and President Nixon took place in Washington and San Clemente from 18–22 June 1973. Bilateral nuclear arms control, as in the Moscow Summit of 1972, again took the centre of the stage, with an Agreement on the Prevention of Nuclear War and Basic Principles for further SALT negotiations; a resulting strategic arms limitation has become, for both sides, not only a matter for arms control but a vehicle for defining their overall political relationship. The Communiqué reaffirms that Soviet–American consultations should continue at the highest level on a regular basis, with Mr Nixon accepting an invitation to visit the USSR in 1974.

AGREEMENT BETWEEN THE USSR AND THE USA ON THE PREVENTION OF NUCLEAR WAR

22 JUNE 1973

The Union of Soviet Socialist Republics and the United States of America hereinafter referred to as the parties,

Guided by the objectives of strengthening world peace and international security,

Conscious that nuclear war would have devastating consequences for mankind,

Proceeding from the desire to bring about conditions in which the danger of an outbreak of nuclear war anywhere in the world would be reduced and ultimately eliminated,

Proceeding from their obligations under the Charter of the United Nations regarding the maintenance of peace, refraining from the threat or use of force, and the avoidance of war, and in conformity with the agreements to which either party has subscribed,

Proceeding from the basic principles of relations between the Union of Soviet Socialist Republics and the United States of America signed in Moscow on May 29, 1972,

Reaffirming that the development of relations between the Union of Soviet Socialist Republics and the United States of America is not directed against other countries and their interests,

Have agreed as follows:

Article 1

The Soviet Union and the United States agree that an objective of their policies is to remove the danger of nuclear war and of the use of nuclear weapons.

Accordingly, the parties agree that they will act in such a manner as to prevent the development of situations capable of causing a dangerous exacerbation of their relations, so as to avoid military confrontations, and to exclude the outbreak of nuclear war between them and between either of the parties and other countries.

Article 2

The parties agree, in accordance with Article 1 and to realize the objective stated in that Article, to proceed from the premise that each party will refrain from the threat or use of force against the other party, against the allies of the other party and against other countries in circumstances which may endanger international peace and security. The parties agree that they will be guided by these considerations in the formulation of their foreign policies and in their actions in the fields of international relations.

Article 3

The parties undertake to develop their relations with each other and with other countries in a way consistent with the purposes of this agreement.

Article 4

If at any time relations between the parties or between either party and other countries appear to involve the risk of a nuclear conflict, or if relations between countries not parties to this agreement appear to involve the risk of nuclear war between the USSR and the USA or between either party and other countries, the Soviet Union and the United States, acting in accordance with the provisions of this agreement, shall immediately enter into urgent consultations with each other and make every effort to avert this risk.

Article 5

Each party shall be free to inform the Security Council of the United Nations, the Secretary-General of the United Nations and the governments of allied or other countries of the progress and outcome of consultations initiated in accordance with Article 4 of this agreement.

Article 6

Nothing in this agreement shall affect or impair:

(a) The inherent right of individual or collective self-defence as envisaged by Article 51 of the Charter of the United Nations,

(b) The provisions of the Charter of the United Nations, including those relating to the maintenance or restoration of international peace and security, and,

(c) The obligations undertaken by either party towards its allies or other countries in treaties, agreements and other appropriate documents.

Article 7

This agreement shall be of unlimited duration.

Article 8

This agreement shall enter into force upon signature.

Done at Washington on 22 June 1973, in two copies, each in the English and Russian languages, both texts being equally authentic.

JOINT SOVIET–US COMMUNIQUÉ

24 JUNE 1973

At the invitation of the President of the United States, Richard Nixon, extended during his official visit to the USSR in May 1972, and in accordance with a subsequent agreement, the General Secretary of the Central Committee of the Communist P ty of the Soviet Union, Leonid Brezhnev, paid an official visit to the United States from 18 June to 25 June . . .

General Secretary Brezhnev and President Nixon held thorough and constructive discussions on the progress achieved in the development of Soviet–American relations and on a number of major international problems of mutual interest . . .

I. The General State of Soviet–US Relations

Both sides expressed their mutual satisfaction with the fact that the Soviet–American summit meeting in Moscow in May 1972, and the joint decisions taken there, have resulted in a substantial advance in the strengthening of peaceful relations between the USSR and the USA and have created the basis for the further development of broad and mutually beneficial co-operation in various fields of mutual interest to the peoples of both countries and in the interests of all mankind. They noted their satisfaction with the mutual effort to implement strictly and fully the treaties and agreements concluded between the Soviet Union and the United States and to expand areas of co-operation.

They agreed that the process of reshaping relations between the USSR and the USA on the basis of peaceful co-existence and equal security, as set forth in the basic principles of relations between the USSR and the USA signed in Moscow on 29 May 1972,* is progressing in an encouraging manner. They emphasized the great importance that each side attaches to these basic principles. They reaffirmed their commitment to the continued scrupulous implementation and to the enhancement of the effectiveness of each of the provisions of that document.

Both sides noted with satisfaction that the outcome of the Soviet–US Meeting in Moscow in May 1972, was welcomed by other states and by world opinion as an important contribution to strengthening peace and international security, to curbing the arms race and to developing businesslike co-operation among states with different social systems.

Both sides viewed the return visit to the USA of the General Secretary of the Central Committee of the CPSU, L. I. Brezhnev, and the talks held during the visit as an expression of their mutual determination to continue the course toward a major improvement in Soviet–US relations.

Both sides are convinced that the discussions they have just held represent a further milestone in the constructive development of their relations.

Convinced that such a development of Soviet–American relations serves the interests of both of their peoples and all of mankind, it was decided to take further major steps to give these relations maximum stability and to turn the development of friendship and co-operation between their peoples into a permanent factor for world-wide peace.

II. The Prevention of Nuclear War and the Limitation of Strategic Armaments

Issues related to the maintenance and strengthening of international peace were a central point of the talks between General Secretary Brezhnev and President Nixon.

Conscious of the exceptional importance for all mankind of taking effective measures to that end, they discussed ways in which both sides could work towards removing the danger of war, and especially nuclear war, between the USSR and the USA and between either party and other countries. Consequently, in accordance with the Charter of the United Nations and the basic principles of relations of 29 May 1972, it was decided to conclude an Agreement between the USSR and the USA on the Prevention of Nuclear War. That agreement was signed by the General Secretary and the President on 22 June 1973 (see p. 244). The text has been published separately.

The General Secretary and the President, in appraising this agreement, believe that it constitutes an historical landmark in Soviet–American relations and substantially strengthens the foundations of international security as a whole. The Soviet Union and the United States state their readiness to consider additional ways of strengthening peace and removing forever the danger of war, and particularly nuclear war.

In the course of the meetings, intensive discussions were held on questions of strategic arms limitation. In this connection both sides emphasized the fundamental importance of the Treaty on the Limitation of Anti-Ballistic Missile Systems and the Interim Agreement on Certain Measures with Respect to the Limitation of Strategic Offensive Arms† signed between the USSR and the USA in May 1972, which for the first time in history, placed actual limits on the most modern and most formidable types of armaments.

Having exchanged views on the progress in the implementation of these agreements, both sides reaffirmed their intention to carry them out and their readiness to move ahead jointly toward an agreement on the further limitation of strategic arms.

Both sides noted that progress has been made in the negotiations that resumed in November 1972, and that the prospects for reaching a permanent agreement on more complete measures limiting strategic offensive armaments are favourable.

Both sides agreed that the progress made in the limitation of strategic armaments is an exceedingly important contribution to the strengthening of Soviet–American relations and to world peace.

On the basis of their discussions, the General Secretary and the President signed on 21 June 1973, Basic Principles of Negotiations on the Further Limitation of Strategic Offensive Arms.

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The USSR and the USA attach great importance to joining with all states in the cause of strengthening peace, reducing the burden of armaments and reaching agreements on arms limitation and disarmament measures.

Considering the important role which an effective international agreement with respect to chemical weapons would play, the two sides agreed to continue their efforts to conclude such an agreement in co-operation with other countries.

The two sides agree to make every effort to facilitate the work of the committee on disarmament which has been meeting in Geneva. They will actively participate in negotiations aimed at working out new measures to curb and end the arms race. They reaffirm that the ultimate objective is general and complete disarmament, including nuclear disarmament, under strict international control. A world disarmament conference could play a role in this process at an appropriate time.

III. International Questions: the Reduction of Tensions and Strengthening of International Security

General Secretary Brezhnev and President Nixon reviewed major questions of the current international situation. They gave special attention to the developments which have occurred since the time of the Soviet–American summit meeting in Moscow. It was noted with satisfaction that positive trends are developing in international relations toward the further relaxation of tensions and the strengthening of co-operative relations in the interests of peace. In the opinion of both sides, the current process of improvement in the international situation creates new and favourable opportunities for reducing tensions, settling outstanding international issues and creating a permanent structure of peace.

Strategic Balance

Senator Young. Mr. Secretary, Secretaries Laird and Richardson testified before the Committee that although the SALT agreement permitted the Soviets to have more strategic weapons than the U. S. that our weapons are technically better. Would you please comment on the balance of our strategic weapons?

Secretary Schlesinger. The Interim Agreement signed in 1972 at the conclusion of SALT I provided a roughly equal balance between the strategic offensive forces of the two sides. The Soviet lead in numbers of ICBMs and SLBMs and in missile throw-weight was counterbalanced by a U.S. lead in MIRVs and in numbers of bombers. Since 1972 the Soviets have initiated flight testing of three new MIRVed ICBMs with which they could in time eliminate or surpass the present U.S. lead in MIRVs. In addition, the Soviet Backfire bomber has entered series production.

Since the equitable balance in strategic weapons which existed in 1972 depended on a U.S. lead in MIRVs and bombers, Soviet actions to eliminate that lead will change the balance in their favor. We are seeking in SALT II to preserve equivalence in the strategic balance and I have proposed to the Congress a series of new initiatives which will preserve equivalence in the event that we are unable to obtain that by an agreement.

Chairman McClellan. Proceed.

Secretary Schlesinger. With these things in mind, we are seeking in SALT II to ensure that the principle of essential equivalence is upheld. We are also proposing in the FY 1975 budget several strategic R&D programs conducted within the SALT I agreements as hedges against the unknown outcome of SALT II and the uncertain actions of the USSR. The United States is prepared to reduce, stay level, or if need be increase our level of strategic arms, but in any case that level will be fixed by the actions of the Soviet Union. If the Soviet Union insists on moving ahead with a new set of strategic capabilities, we will be forced to match them. We would prefer, however, to reduce the present balance in such a way that strategic eqivalence can be achieved at the lowest cost and least destabilizing level of forces.

SALT Talks

Senator Young. What is the status on the on-going SALT talks as you view them?

Secretary Schlesinger. As you are aware, the SALT talks recently resumed in Geneva. In the resumed talks the U.S. has offered for Soviet consideration new conceptual approaches which would provide for essential equivalence between the strategic offensive forces of the two sides. We believe progress was made during Dr. Kissinger's current visit to Moscow. I continue to be hopeful that we will be able to resume progress in negotiating toward a new agreement.

Chairman McClellan. Proceed.

The Nato-Warsaw Pact Balance

Secretary Schlesinger. There are some who feel that the United States entered indiscriminately into security commitments in the post-World War II period, and that it is time to review those commitments. I agree that we ought to review our commitments. But the worst thing of all would be if the United States, in reviewing commitments now believed by some to have been entered into indiscriminately in an earlier period, were to abandon these commitments indiscriminately—because many of those commitments are vital to our security, and to the place and role of the United States in the world today. We can retreat to the North American continent, and we can perhaps survive there indefinitely. But it would be a changed world, and one in which many of the better aspects of the American society would be increasingly subject to strain.

NATO is perhaps our most important commitment. I hardly need remind this Committee of the fundamental ties between the United States and Europe, or to recall for you all we have done in this century to help ensure European freedom and vitality. Nor need I tell you that American and European interests in the larger issues of mankind are indivisible. It is for these larger reasons, as well as our own immediate national interests, that we have worked so hard, over so many years, under so many Administrations, both Democratic and Republican, to establish a solid foundation for Western security, and to help ensure political stability and economic well-being.

As far as I am aware, there is no fundamental disagreement with these basic assumptions of our European policy. It is instead on certain manifestations of that policy about which there is disagreement—whether the NATO conventional forces are adequate for deterrence and defense, and whether the United States is bearing a disproportionate share of the collective defense burden of the Alliance.

It is precisely to these two aspects of our NATO policy that I have devoted so much attention in my discussions with the NATO Defense Ministers. My purpose has been to begin a process aimed at achieving over the next three years two fundamental security objectives necessary to sustain an adequate defense posture:

First, the construction of a satisfactory basis for maintaining an adequate overall NATO security posture for the long haul, including balanced forces with rational missions credible to our adversaries and ourselves.

Second, an equitable adjustment of burdens to put United States participation in NATO, and the United States military presence in Europe, on a solid, durable foundation acceptable both to the United States Congress and public, and to our Allies.

The objective of NATO strategy is deterrence, and the forces we field to achieve deterrence are both nuclear and conventional forces. The role of these forces has changed over time. In NATO's early days, the United States enjoyed a clear superiority in nuclear forces. This allowed early NATO strategy to be based on the "tripwire" concept, by which conventional ground forces in Europe were designed to serve primarily to trigger nuclear retaliation by the United States against a Warsaw Pact attack.

Now, as the Soviet Union reaches nuclear parity with the United States, deterrence will be strongly reinforced if there is a balance of conventional as well as of nuclear forces. This clearly does not mean that we no longer require a nuclear deterrent. Nor does it mean that the American nuclear commitment to the security of the Alliance has been outdated. The commitment is firm. But it does mean that our nuclear forces may no longer carry the same dominant weight in the balance of deterrence that they did in an earlier period, and this places a higher value on NATO's conventional military capabilities. Thus a strong conventional capability is more than ever necessary—not because we wish to wage conventional war but because we do not wish to wage any war.

I have discussed with our NATO Allies what I call the "NATO triad", which is different in concept from our strategic triad. It is based upon strategic forces primarily provided by the United States, tactical nuclear forces that would be available in the event that Western Europe started to be overrun, and a stalwart conventional capability. I believe that the European Allies are aware of the implications of nuclear parity, and are now more interested in a stalwart conventional capability than they have been since the inception of NATO in 1949. This new perception is vitally important because the decision to use nuclear weapons will be an agonizing decision not lightly entered into by anybody nor lightly concurred in by the member nations of NATO.

While many agree with the need and importance of conventional forces, there is controversy over the balance of military forces between NATO and the Warsaw Pact. It has sometimes been suggested that NATO does not have, and cannot afford to acquire, a conventional option which does more than serve as a trip-wire for nuclear war. I disagree. Our analysis suggests that NATO has the essential ingredients for such a balance. If the NATO countries do not falter in their defense programs, and if we can concert our defense efforts more effectively, there is no reason why NATO should not be able to achieve and sustain an adequate defense posture for the long haul.

NATO has fielded a large military force of high quality. It is a force of considerable strength. It continues to improve. In many respects it is not the equal of the Warsaw Pact force opposing it—for instance, in maneuver divisions and tanks. NATO's main reinforcements, those from the United States, are not so close as those of the Soviet Union. But NATO has some strengths of its own, such as tactical air forces, and the Warsaw Pact has some weaknesses and vulnerabilities, such as logistics and the uncertain reliability of some Pact members. NATO could give a good account of itself in defense, provided NATO gives itself the defensive weapons and military cohesion it needs. Of course, NATO is dependent on each member keeping up its individual efforts. All must do their fair share if the present disparities between NATO strength and that of the Warsaw Pact are not to become insuperable.

This realistic and positive assessment of NATO's conventional defense capabilities does not mean the existing correlation of forces between NATO and the

Warsaw Pact is satisfactory for our security. While NATO does have substantial conventional defense capabilities—and it is important that the Soviet Union realize this—there remain objective disparities, and any Mutual and Balanced Force Reduction agreement must address these disparities if it is to enhance stability.

NATO Conventional Defense Capabilities

Chairman McClellan. What are the objective disparities which remain in the NATO conventional defense capabilities?

Secretary Schlesinger. A comparison of NATO's and the Warsaw Pact's Gross National Products, defense expenditures, populations, and numbers of men under arms reveals no inherent reason for NATO to be inferior.

The Warsaw Pact's total tank inventory is about [deleted] and NATO's is about [deleted]. Further, more Pact tanks are deployed forward—in the NATO MBFR Guidelines Area there are 15,500 Pact tanks and 6,000 NATO tanks. The Pact tank advantage is offset at least in part by NATO's larger number of anti-tank weapons. Combat aircraft numbers present a more symmetrical picture. NATO has a total of [deleted] and the Pact about [deleted]; each side has about [deleted] aircraft that can be employed in the East-West border area from their peacetime locations. Other measures of conventional capability show rough parity, but in general a greater proportion of the Pact's forces are deployed forward. For example, NATO has a total of 2.9 million ground force personnel, and the Pact has 2.3 million, but in the NATO MBFR Guidelines Area the East outnumbers the West 925,000 to 777,000.

The East does have a geographical advantage, because their reinforcements are located close to potential areas of conflict while many of NATO's are across the Atlantic Ocean. This, coupled with the likelihood that the Pact would have the initiative in any conflict makes it important that, we recognize a crisis quickly, react to it, and have the capability to rapidly deploy ready U.S. forces.

Chairman McClellan. Proceed.

Allies' Contribution to NATO

Secretary Schlesinger. The second major objective I have pursued with our European Allies is the achievement of an equitable adjustment of the defense burden. In fairness, we should acknowledge at the outset that NATO defense has been far from a single-handed effort by the United States. Of the peacetime forces deployed in the European area, our allies contribute approximately 90 percent of NATO's ground forces, 80 percent of the ships, and 75 percent of the aircraft. In the critical central region of Europe, the United States contributes only 23 percent of NATO's manpower—compared, for example, with the Soviet Union's share of 46 percent of Warsaw Pact manpower.

I am confident, from my meetings with the Defense Ministers, that the Allies do appreciate the need to achieve a more equitable sharing of the defense burdens. In fact, they have been moving in this direction for the past several years, as evidenced by the real increases in their defense budgets—increases that have occurred notwithstanding the process of detente, and at a time when our own defense budget and forces have shown substantial real reductions. I am hopeful that allied defense budgets will continue to increase overall during the next few years, although the present economic prospects in some countries are discouraging.

Chairman McClellan. Have recent increases in our NATO allies' defense budgets actually provided more men and better weapons or have the increases merely attempted to keep up with the inflationary spiral?

Secretary Schlesinger. The increased defense budgets of our NATO allies have permitted the introduction of modern weapons, both as replacement for obsolescent systems and in some cases as additional systems. Manpower has not increased; the emphasis has been on improved weapons.

In 1974 the EuroGroup countries (Belgium, Denmark, the Federal Republic of Germany, Greece, Italy, Luxembourg, the Netherlands, Norway, Turkey and the United Kingdom) are introducing the following new modern equipment:

Armor/Anti-Armor Capability.—474 main battle tanks, 1,074 other armored vehicles, 199 anti-armor weapons.

Air Capability.—195 modern combat and maritime patrol aircraft, 140 land based helicopters, 820 anti-aircraft guided missiles, 853 anti-aircraft guns.

Naval Credibility.—5 destroyers/escorts, 15 submarines (including one nuclear powered), 10 fast patrol boats, 33 maritime helicopters.

In 1973, the EuroGroup countries introduced into their forces the following modern equipment:

Armor/Anti-Armor Capability.—387 main battle tanks, 1,610 other armored vehicles, 205 anti-armor weapons, including missile launchers.

Air Capability.—115 modern combat and maritime patrol aircraft, 18 heavy tactical transport aircraft, 125 land based helicopters, 1,936 anti-aircraft guided missiles, 930 anti-aircraft guns.

Naval Capability.—3 destroyers/escorts, 11 submarines (including two nuclear-powered), 4 minelayers/sweepers/hangars, 6 patrol boats, 7 vessels for amphibious operations, 28 maritime helicopters.

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. The Allies are of course also aware of the present Congressional requirement that full offset of the United States balance of payments deficit on defense account in FY 1974 be obtained and that compensatory reductions in United States forces stationed in Europe as part of our NATO commitment be made if offset arrangements are inadequate. I believe, although I cannot at this time promise, that offset arrangements with the Federal Republic of Germany and with our other Allies will fulfill the requirement of the law without requiring unilateral redeployments of United States forces from Europe. These arrangements will make an important contribution to the burden sharing objective we seek.

I do not intend, however, to rest our burden sharing objective on the Defense balance of payments account. The balance of payments accounts are only one indicator of the respective burdens being borne by each Ally. What we seek, as I have mentioned, is an adjustment of general burdens which will put United States participation in NATO, and the United States military presence in Europe, on a more solid footing.

But after a more equitable sharing of the defense burden, there is, frankly, no satisfactory alternative in the near term to the continued presence in Europe of substantial numbers of United States forces. Reductions in United States forces in Europe would be prudent only through successful negotiation with the Warsaw Pact. While we are seeking greater efficiencies in the use of our forces, and are working with our Allies to achieve a more efficient and effective allocation of our collective resources, early improvements of this nature are not likely to permit unilateral United States force reductions so long as the Warsaw Pact continues to improve its capabilities.

The Mutual and Balanced Force Reduction negotiations do hold out a real prospect for reductions. It is not a certain prospect, for we do not seek reductions at any cost, but only reductions that contribute to security in Europe. We and our NATO Allies have put forward proposals which would achieve both a more stable balance and reduced levels of forces and we hope progress can be made. Neither purpose would be served by mechanical reductions yielding a precarious correlation of forces. Both are served by the approach to negotiations being taken by us and our Allies.

U.S.–U.S.S.R. NAVAL BALANCE

The third area in which we and our Allies want to maintain a perceived balance with the Soviet Union (and its allies) is in the forces that can be employed at sea. As a maritime nation, dependent upon the sea for the vitality of our economy and for mutual support with our Allies, the sea is more important to us than to the Soviet Union. Therefore, a balance at sea implies more than a strict numerical balance, for together with our Allies we would need to protect a minimum essential level of shipping against a sustained interdiction effort by the Soviet Union and its allies.

Historically, Soviet Navy planning has emphasized force to support its land campaigns by interdicting the opponents' navies, and thereby interrupting the projection of opposing power by sea. Soviet forces have therefore stressed small surface combatants, many submarines, antiship cruise missiles, a large patrol vessel force particularly suited to coastal defense, and naval long-range and medium bombers.

In the past ten years, however, we have seen a growing deployment of Soviet naval forces to distant waters. The Soviet Navy began continuous out-of-area deployments in 1964 in the Mediterranean; these deployments were expanded later to the Indian Ocean, the Caribbean, and the west coast of Africa. The overall level of Soviet deployment activity measured in ship-days increased roughly six-fold from 1965 to 1970. There has been some leveling off since 1970,

but we anticipate a modest increase in Soviet sea-going activities in the future. ("Ship-days" measure only activity, of course, and not direct combat capability.)

The Soviet Navy, contrary to some opinion, is not presently growing in numbers. It is growing in capability. The Soviet Navy has a vigorous ship-building program to replace older combatant ships with new, more capable types. By 1979 the Soviet Union could have several aircraft carriers of the KURIL-class, the first of which is now approaching operational status.

Soviet KURIL-Class Carrier

Chairman McClellan. The Soviet KURIL-Class Aircraft carrier is comparable to which U.S. carrier class?

Secretary Schlesinger. The KURIL-class carrier is designed to fill uniquely Soviet roles, e.g., anti-submarine warfare and fleet air defense with limited capability for air cover for naval interdiction forces. The aircraft loads would vary according to mission and would probably include helicopters and V/STOL aircraft. However, the mix and ratio cannot be firmly predicted at this time. If one assumes that the emphasis would be on antisubmarine warfare, helicopters would predominate. Under this assumption, the KURIL carrier would most closely approximate, in mission, a U.S. Navy Sea Control Ship. In size alone, the KURIL-class carrier is slightly smaller than U.S. ESSEX-class carriers. Overall, the U.S. has no carrier class fully comparable to the KURIL class.

Chairman McClellan. Proceed.

Secretary Schlesinger. We expect their major surface combatants to continue for the next several years at a level of about 200 ships, nearly the same as the United States now has. We are seeing a decline in the overall size of the Soviet submarine force, as they retire older diesel ships at a greater than one-for-one rate as new nuclear submarines come into the fleet. Even so, we estimate that by the early 1980s the USSR will have approximately twice the planned United States submarine level. This relatively large Soviet submarine force will continue to pose the primary threat to our sea lanes throughout the decade.

In sum, as we look ahead we see a Soviet Navy that is becoming increasingly capable of overseas deployment, whose submarines could pose a significant threat to free world shipping, and whose surface combatants, with their considerable antiship cruise missile capability, could inflict serious damage on our naval forces in a surprise attack. Admiral Moorer will discuss the naval situation in greater detail.

United States naval forces have been improving in quality since the 1950s. Increased emphasis has been given to protection of sea lanes of communication as a hedge against the possibility of a Soviet campaign against military and economic resupply shipping. Major ASW development programs have been carried out, providing a good surveillance and warning capability and a good capability to counter the Soviet submarine threat in a sustained conflict. Despite these improved capabilities, the numerical size of the Soviet submarine force indicates it could be a significant threat to shipping and naval forces during the early stages of any major conflict.

Numerically, the United States Navy has been declining steadily in recent years, and indeed has been reduced by about 45 percent since 1969. This reduction primarily reflects the retirement of many aging World War II-construction ships, including some early retirements which were made to provide funds for future procurement. Our carrier forces are declining from a total of 26 in 1962 to a projected 15 in 1975. (Because our new carriers are larger than their World War II-construction predecessors, the total number of shipboard naval aircraft has only declined by about a third rather than by half.) There has been a parallel and related reduction in the number of major surface combatants from more than 300 to the present level of about 200 ships. Amphibious lift ships, submarines, and support ship forces also have declined numerically from highs reached during the 1960s. These numerical reductions have been offset to some extent by the significantly improved individual capabilities of the ships and aircraft.

The current vigorous naval modernization program, funded in part by the savings achieved from retiring older ships, should result in surface combatant force levels climbing back to about 230 ship by the end of this decade. The number of general purpose nuclear-powered attack submarines is projected to increase from 59 at end FY 1974 to about 90 by the early 1980s.

These increased force levels are possible in large part because of the decision to pursue the high-low mix concept. Larger numbers of new units with relatively

lower capability can be acquired for the same cost as a smaller number of high capability forces. Thus the planned overall force mix takes into account the different threat levels, enabling us to buy both sophisticated multi-purpose aircraft carriers and smaller, less sophisticated and less costly Sea Control Ships; nuclear-powered guided missile frigates as well as smaller patrol frigates; and so forth.

These planned modernization programs, together with continuing research and development leading toward advanced weapons and sensor systems, give us confidence that we and our allies can maintain an adequate naval balance with respect to the USSR into the early 1980s. Planned maritime forces, sea and air, will be capable in general of defending essential worldwide sea lanes, providing a strong capability to project power ashore in selected areas, and sustaining current levels of forward deployments.

Middle East Lessons

Soviet actions during the October 1973 Middle East War show that detente is not the only, and in certain circumstances not the primary, policy interest of the USSR. The immediate Soviet arms shipments to Egypt and Syria at the outset of hostilities, the deployment of nuclear-capable SCUD missile launchers, the peremptory Soviet note to the United States Government implying the possibility of direct Soviet military intervention with ground and air forces, and the forward deployment of sizeable Soviet naval forces—over 90 Soviet ships in the Mediterranean at the height of the hostilities and smaller naval forces in the Indian Ocean—provided another lesson in Soviet willingness to take risks with world peace.

We also learned useful military lessons from the October hostilities. For example, the value of United States military capabilities—our capacity to airlift and sealift needed munitions and equipment over long distances, and the deterring presence of the Sixth Fleet—was proved. Our quick logistical response capabilities and large naval presence had much to do with moderating the effects of the war.

We learned both from our last campaigns in Vietnam and the ensuing force reductions after Vietnam, as well from the Middle East crisis, that the readiness and level of modernization of our forces were not wholly adequate. With the support of the Congress, we are taking steps to correct this. Also, while our Middle East airlift effort was splendidly executed, we found our dependence on airlift highlighted. We need to increase that capability.

Given the present situation in the Middle East and the growth in the Soviet naval capabilities and deployments worldwide, we have decided also that United States interests would be served by our presence in the Indian Ocean on a more regular basis, i.e., by making more frequent deployments in that area in the coming year. In consonance with that decision, we are recommending to the Congress a budget supplement for $29 million for the expansion of our support facilities on the Indian Ocean island of Diego Garcia. This will limit the costs of Indian Ocean deployments and provide greater flexibility in the types of forces we would have available in that area of the world.

Diego Garcia

Chairman McClellan. What is the present US force on Diego Garcia? How much have we spent there? What is the US force objective there, and what will the cost be?

Secretary Schlesinger. At the persent time, we have a total of 157 US personnel on Diego Garcia to operate the communications facility there, with a programmed force objective of 500 communications and support personnel. There are also 800 Naval Construction Battalion (SEABEE) personnel who are temporarily on Diego Garcia for the purpose of completing previously scheduled construction. Operating and equipment costs associated with these construction personnel have amounted to $42.1 million to date. In addition to these regular and recurring expenses in support of active duty construction units, appropriations of $20.4 million for military construction and $2.8 million for communications equipment have been required, for a combined total of approximately $65.3 million.

The FY 1974 supplemental and FY 1975 budget for expansion of facilities on Diego Garcia total $32.3 million, to include an enlarged anchorage, a lengthened runway, pier construction, enlarged POL storage capacity, a modest maintenance capability, and increased quarters and other structures related to the support of

an increased number of personnel. Operating and equipment expenses for the SEABEE forces to carry out this construction work will approximate $63 million for the follow-on efforts in FY 1974–75, in addition to about $1 million for miscellaneous operating and equipment costs apart from SEABEE operations.

We now anticipate some $5 to $6 million in FY 1976 future appropriations requests for the improvement of personnel support facilities. When this program is completed, these facilities will provide the barebones support to permit us to operate military forces in the third largest ocean of the world from time to time without being forced to rely on a length logistical "tail". Specifically, they would be sufficient to support a carrier task force for a period of about 30 days. The location of this installation on a small British island with no native population at a distance of nearly a thousand miles from the nearest land insures a considerable measure of security and reduces the likelihood that we would have to turn to the littoral nations for assistance.

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. In addition, the Middle East war confirmed prior judgments about various aspects of modern warfare. The principal points are:

The importance of advanced warning and its assessment, and the ready forces available to take advantage of it.

The heavy attrition of equipment and supplies than can result from modern, intense conventional conflict.

The need for balanced, mutually supporting forces, i.e., not just tanks and aircraft, but infantry, antitank weapons, artillery and ground air defenses as well.

The new importance of modern antitank and air defense weapons.

The importance of defense suppression weapons, equipment and tactics.

The importance of a warm production base, and sufficient reserve stocks of ammunition, spare parts and equipment.

The importance of trained manpower.

None of these lessons is surprising. The Department has been working for some time to improve our capabilities in each of these areas.

PRIOR JUDGMENTS AND PROGRAMS

Chairman McCLELLAN. You indicate that the recent conflict in the Middle East confirmed prior judgments about seven aspects of modern warfare and furthermore that the Department has been working for some time to improve our capabilities in each of these areas. Please explain specifically how these seven capabilities have been improved by FY 1973 and FY 1974 programs. Also, indicate where those FY 1973 and FY 1974 programs were insufficient, thereby necessitating the need for a sizeable FY 1974 force readiness supplemental request.

Secretary SCHLESINGER. It should be recognized that the seven aspects of modern warfare cited in the Annual Defense Department Report (pp. 14–15), plus the lessons for airlift and for readiness, encompass a large part of the activity related to our general purpose forces. The supplemental request in fact covers only a small part of this activity, especially in the areas of Middle East payback for equipment sold to Israel, for readiness, and for accelerating the filling of inventory objectives for certain ammunition stocks. These will be highlighted in the discussion that follows.

ADVANCED WARNING

1. *The importance of advanced warning and its assessments, and the ready forces to take advantage of it.* Advanced warning is obtained from a great variety of intelligence and surveillance sources. Examples of significant programs in the FY 1973–FY 1975 programs include the continued development of the OTH–B radar, development and acquisition of the SLBM phased array radar warning system, continued procurement of P–3C maritime patrol aircraft, acquisition of the AN/BQQ–5 sonar system, and development and deployment of SOSUS and improved SOSUS and of TASS undersea surveillance systems. There are also the acquisition of the Navy's E–2C fleet early warning aircraft, and the development and procurement of the AWACS (E–3A). Of these programs, only the procurement of six additional P–3C aircraft has been proposed in the supplemental request for FY–1974. This is in response to greatly expanded Soviet naval activities, including those in the Indian Ocean. It is also timely to go ahead with this additional P–3C purchase now because additional production in FY 1974 will lower the overall unit cost of these aircraft. On warning, one of the lessons of

the Middle East was the need for political recognition of the preparations of war. No programs can solve this problem, but only attentive political leadership.

On readiness, we had proposed $1,397 million in the supplemental request to make inroads into our backlog of deferred maintenance, especially for ships and aircraft.

ATTRITION OF EQUIPMENT AND SUPPLIES

2. *The heavy attrition of equipment and supplies that can result from modern, intense, conventional conflict.* The enormous expenditure of missiles, artillery shells, and anti-tank munitions, together with the level of equipment attrition, demonstrates once again the necessity of building up and maintaining ample stocks of conventional munitions and equipment.

Critical shortages of equipment and secondary items have existed, given fiscal constraints, and despite continuing efforts to build stocks. Especially critical were the modern munitions like SHRIKE and TOW which had just been entering the inventory, and which could be used up fast if the recent Middle East war is an example of the tempo of modern warfare. We have also needed to make up in our own inventories for those items shipped to Israel. Included in this category are M–60 tanks, M–113A1 armored personnel carriers, A–4 aircraft, and C–130 aircraft.

BALANCED, MUTUALLY SUPPORTING FORCES

3. *The need for balanced, mutually supporting forces, i.e., not just tanks and aircraft, but infantry, anti-tank weapons, artillery, and ground air defenses as well.* We have long recognized the need to improve in balance the several arms of each of the Services. Significant improvements have been provided for in the FY 73–75 programs. The most significant item in this respect in the FY 1974 supplemental has been acceleration of the lagging TOW anti-tank missile procurement, to enhance the anti-tank capabilities of our forces. Development programs are also underway to improve our ground to air defenses, notably for SHORADs, for which we are investigating several European-developed systems, and SAM–D. These do not appear in the supplemental request.

ANTI-TANK AND AIR DEFENSE WEAPONS

4. *The new importance of modern anti-tank weapons and air defense weapons.* Under the previous heading, we have noted the emphasis on TOW, SHORADs, and SAM–D. We had long recognized the need for such systems, but these aspects had been more strikingly demonstrated in the recent Middle East war. The Israelis had possessed highly streamlined tank and aircraft forces, which turned out to be highly vulnerable to Arab anti-tank and SAM missiles in the first few days of that war.

SUPPRESSION WEAPONS, EQUIPMENT, AND TACTICS

5. *The importance of defense suppression weapons, equipment, and tactics.* We have long had development efforts underway in this area. Several ongoing programs are described below.

The current inventory of tactical aircraft with the primary mission of defense suppression consists of two squadrons of F–105G Wild Weasel aircraft, two squadrons of F–4C Wild Weasel aircraft, and 35 EA–6Bs. The F–105Gs are scheduled to be replaced with advanced F–4 Wild Weasel aircraft in the late 1970s, and, as noted earlier, the authorized inventory of EA–6Bs is scheduled to increase.

The F–105G and F–4C Wild Weasel systems were developed using off-the-shelf hardware as a quick-reaction counter to the surface-to-air missile (SAM) threat in North Vietnam. Combat experience in that conflict, however, disclosed a number of deficiencies which the advanced F–4 Wild Weasel system, now under development, is intended to correct. But as the Middle East conflict demonstrated, our tactical air forces should be prepared to operate in a very intense air defense environment. To be able to do so effectively, the Air Force needs an airborne jammer with a much greater capacity than can be fitted into an F–4. The EF–111A, which would be an Air Force F–111A equipped with ALQ–99 jammers of the type used in the Navy EA–6B, is intended to fulfill that requirement. The $37 million included in the FY 1975 Budget for this program would permit a continuation of the prototype development effort now in progress.

In addition to specialized electronic countermeasure aircraft, defense suppression involves a wide variety of weapons and equipment, and these also deserve greater emphasis than they have been receiving. Accordingly, funds are included in both the FY 1974 Supplemental and the FY 1975 Budget to augment our capabilities in these areas.

The following are some examples of the increases that are provided in the FY 1974 Supplemental:

$31 million to procure the Advanced Location Strike System (ALSS). The ALSS is an airborne/ground-based, all-weather system designed to locate air defense electronic emissions at extended ranges and to guide an air-to-ground weapon against the emitters. It uses time-of-arrival (TOA) techniques for emitter location an distance-measuring equipment (DME) for guidance of air-to-ground weapons.

$3 million to improve the capability of ALSS to locate and identify electronic emitters more rapidly, to control simultaneously a greater number of DME guided weapons, and to make it more mobile.

$75 million for new pods and modification of existing pods to improve the capability of our tactical aircraft to cope with the Soviet tactical air defense threat.

$5 million to procure additional chaff dispensers for our tactical aircraft. As the Israeli Air Force has demonstrated, chaff, if used properly and in sufficient quantities, is an effective means of aircraft self-protection even against high density SAM defenses.

$20 million to procure Radar Homing and Warning (RHAW) receivers for Air Force F/RF–4s, A–7s and F–111s.

$23 million to procure 800 additional SHRIKE (AGM–45A) missiles. The SHRIKE is the major air-launched, anti-radiation missile (ARM) in our current inventory.

$4 million to accelerate development of the High-speed Anti-Radiation Missile (HARM), a follow-on to the current ARM.

$18 million to accelerate the development of guided glide bombs, initiate development of a long-range stand-off defense-suppression missile, and make other improvements in defense-suppression weapons.

Among the defense-suppression efforts included in the FY 1975 Budget are the following:

$25 million to develop a Precision Emitter Location and Strike System (PELSS) based on Time of Arrival/Distance Measuring Equipment (TOA/DME) techniques. This system may be a modified ALSS or a new PELSS, depending on the cost effectiveness of possible improvements.

$9 million to continue development of the Modular Guided Glide Bomb (MGGB–II). The MGGB–II is currently being developed as an area stand-off weapon for use with ground and airborne locator and strike systems.

$18 million to continue development of HARM.

Warm Production Base

6. *The importance of a warm production base, and sufficient reserve stocks of ammunition, spare parts, and equipment.* The importance of reserve stocks has been treated under heading (2) above. Our responsiveness to Israeli needs has been in part dictated by the risks we have been willing to undertake in depleting own own stocks of certain items, which risks have been governed by the existence of a warm production base. A prime example is that of the M–60 tank. There was a real possibility that the M–60 production line would shut down a few years ago, in favor of MBT–70 or XM–803 production. Since those developments proved too costly, and given the need to modernize the tanks in the Army reserves and in the Marines, the line had been kept open. With the drawdowns to provide for Israeli needs, and the still unfilled needs of the reserves and Marines, we find that we can indeed accelerate M–60 production, and have so requested in the FY 1974 supplemental. Other examples of warm production lines of older, tried and tested systems include those for the M–113A1 APC, the A–4 attack aircraft, and the C–130 transport aircraft.

Trained Manpower

7. *The importance of trained manpower.* This is one of those intangibles that greatly affect the outcome of any conflict. The Israelis faced a force with quantitative and some qualitative advantages. In fact, Arab personnel performed much better than expected, both in their bravery and in their ability to operate

modern equipment like the SA–6 and the wire-guided SAGGER missile. However, the Israelis, fighting for survival, displayed great adaptability and flexibility in their leadership. They also seemed to have very significant advantages in their pilot and tank crew training.

For the last several years, and especially in the FY 1973 and FY 1974 programs, the attainment of a high state of readiness has been emphasized for Active, National Guard, and Reserve forces. This depends in large part on training and on the attraction of high quality personnel. A large part of the Defense budget is devoted to "pay and allowances" for this purpose. In fact, the greater part of the FY 1974 supplemental is to accommodate previously authorized pay increases.

The need for continued sophisticated training, in the face of the fuel crisis heightened by the recent Middle East war, has led to a renewed emphasis on the fullest development and utilization of training simulators. We have included in the FY 1974 supplemental request $18 million for Navy aircraft simulators, $6.4 million for a Navy ship ASW attack trainer, and $34.0 million for Air Force simulators.

Middle-East Lessons

Senator Young. The Arab-Israeli War demonstrated effective counter weapons systems to some of our first-line equipment. Can you briefly give us your appraisal of the more significant weapons and the lessons learned?

Secretary Schlesinger. Senator, you are quite correct in suggesting that the Soviet Union has developed some advanced systems that, to some extent, provided a counter to our systems. We also have systems that, to some extent, provided a counter to Soviet-supplied systems in the Middle East War. The War of October 1973 was an intense conflict of relatively short duration. It resulted in very high expenditure rates consequently high attrition rates of weapon systems both on the ground and in the air.

I will discuss how several of these systems, both Soviet-supplied and U.S.-supplied, performed and I will discuss the lessons learned or re-affirmed by the war.

Concerning ground warfare, I believe our tanks and anti-tank weapons were as good as or better than the Soviet equipments. Much has been said about the Soviet anti-tank weapons—SAGGER and RPG–7—employed to counter tanks and armored vehicles. They are effective weapons but, even in the large numbers employed by the Arabs, they do not force a change in the role of armor in ground warfare. Indeed our doctrine of the use of combined arms—armor, infantry, artillery and aircraft— remains viable. One of the armored personnel carriers, the BMP, with its 73 mm gun, a SAGGER missile and firing ports, is heavier armed than our M–113 and is, therefore, more versatile. The proliferation of night vision equipment among Arab infantry and armored units suggests a strong emphasis on night operations.

Captured Soviet vehicles contained an impressive variety and quantity of sophisticated chemical, biological, and radiological defensive equipment. Examples include automatic radiological warning devices, air filtration systems, decontamination kits, individual protective masks, dosimeters, and atropine kits. We have not provided our forces with such equipment to this extent.

Another area in which the Soviets have systems to counter our systems is air defense. The SA–7 infra-red homing missile was used in great numbers by both the Syrians and Egyptians. The ZSU–23–4, the "Quad 23" self-propelled anti-aircraft gun, also was deployed with the Arab forward forces. These weapons were effective in the sense that they forced the Israelis to alter their employment of close-air support, minimizing the number of passes made by each aircraft, increasing the altitude of bomb release, and limiting the use of ordnance requiring low-level attacks.

These air defense weapons also destroyed a few aircraft [deleted].

The SA–6 was also used extensively on both fronts. [Deleted.] It is apparently a very good weapon, being similar to the U.S. HAWK in its method of guidance and its capability to engage targets down almost to the ground. Its effectiveness per missile fired in the Middle East War was not as good as that of HAWK, but this may have resulted from poor fire discipline. In any event, the need for a capability to locate and destroy mobile SAM defenses from appropriate standoff ranges was strongly reaffirmed. At the same time, we learned that HAWK was a very effective weapon under the conditions of the Middle East War. [Deleted.]

As has been reported, Israeli pilots, mostly flying F–4s and MIRAGES, destroyed [deleted] Arab aircraft in the air. Only [deleted] Israeli aircraft were lost in the engagements. U.S. SIDEWINDER (AIM–9D/G), SPARROW (AIM–

7E) and the Israeli SHAFRIR IR Missile accounted for [deleted] of the kills. Guns accounted for the remainder. This success is attributed to the combination of skilled IAF pilots, good aircraft and somewhat better weapons than those possessed by the Arabs.

In the 1967 war the Arabs lost a major portion (370 aircraft) of their air forces on the ground in the first day. They learned the lesson well, building many covered aircraft shelters of concrete, defending airfields with SAM/AAA weapons for effective high/low coverage, dispersing their aircraft, and employing camouflage and decoys. In 1973 the Arabs lost only [deleted] parked aircraft [deleted] despite an extensive campaign by the Israeli Air Force against airfields. The ability to destroy, with conventional weapons, similarly defended aircraft on the ground is questionable. The opportunity to decrease the vulnerability of parked aircraft on our airfields by similar measures is great.

Late in the War the Israelis employed a limited number of precision-guided weapons provided by the U.S. (MAVERICK, HOBO, and WALLEYE). While they were not employed in intense environments, the Israelis reported hits [deleted] which is comparable to results we observed in our operational test and evaluation firings.

We have been impressed by the sophistication and the obvious high cost of a number of the Soviet produced weapons. Examples include the SA–6 missile system, the ZSU 23–4 AA gun, BMP armored personnel carrier, various EW systems, and CBR defensive equipment.

With regard to lessons learned, there are covered in my FY 1975 Defense Report (p. 14–15), Admiral Moorer's FY 1975 Military Posture Statement (p. 81–91), and the FY 1975 statement by the Director of Defense Research and Engineering (p. 3–1 to 3–9.)

Chairman McCLELLAN. Proceed.

SETTLING DOWN FOR THE LONG HAUL

Secretary SCHLESINGER. As I mentioned at the outset of this introduction, this is our first peacetime defense budget in a decade. It is, therefore, an appropriate time to consider how best to settle down for the long haul, for the continuing, steady task of providing an adequate defense for the United States and its interests. During the next few years, we must search for and assess the best R&D, weapons acquisition, and other strategies for the long haul. In doing so, we must ask such questions as how we can most efficiently compete with our major potential opponents, and what constitutes our own major strengths and weaknesses.

In our adjustment to a long haul posture, there are five basic principles which, in my view, should guide the future conduct of this department. They are that:

The safety of the United States, its citizens, and their lawful pursuits continues to depend on the maintenance of a strong defense establishment. Accordingly, we who represent this department must not be reticent in stating the needs we have or the pride we feel in the performance of the duties for our nation.

We have the responsibility, not only to the United States itself but also to our friends throughout the world, to assure the military balance so necessary to deterrence and a more enduring peace. Other nations led in that responsibility for most of the first two centuries of our national existence; now the cloak of leadership unavoidably embraces us, and we must make the long-term effort to bear it.

The men and women of the Department of Defense are without peers as servants of the nation. It does not follow, however, that patriotism can proceed without respect. We must give them the respect, dignity and support that are their due. Equal opportunity will continue to be a DOD watchword.

To stress our needs is not to ignore an equal obligation, to use our citizens' resources wisely. We must continue to improve the efficiency and effectiveness of our forces and to add to the arsenal of deterrence.

We can and must become increasily competitive with potential adversaries in a more fundamental sense. We must not be forced out of the market—on land, at sea or in the air. Eli Whitney belongs to us, not to our competitors. He, rather than the medieval craftsmen of Mont St. Michel and Chartres—however magnificent and unique their art—must once more become our model.

I cannot say at this juncture exactly what the long haul holds for this Department. But I can say that unless we are to plan only by intuition, we must con-

tinue to build our peace structure on the hard facts of the international environment rather than on gossamer hopes for the imminent perfectability of mankind.

B. The Proposed Defense Budget

The President's Defense budget proposals transmitted to the Congress on 4 February were developed within this overall international context, and with the existing economic and fiscal constraints well in mind. These proposals include requests for FY 1974 Supplementals—the result of pay and price increases and necessary readiness improvements—as well as funds for FY 1975.

FY 1974 Supplementals

The FY 1974 Supplemental requests total $6.2 billion in addition to the amounts already appropriated by the Congress, raising the proposed FY 1974 obligation authority (TOA) to $87.1 billion. As shown on the following table, $3.4 billion of this Supplemental amount is required for pay and rate increases (most of which was included under Allowances for Civilian and Military pay raises in the original FY 1974 budget request last year); the balance of $2.8 billion is required to achieve the desired readiness level for U.S. forces.

Fiscal Year 1974 Supplemental Appropriations Request

[Total obligational authority in millions of dollars]

Force readiness:	
Fuel price increase	480
Middle East payback	231
Augmented force readiness	1,397
Increased airlift capability	169
Accelerated modernization	516
Strategic program changes	25
Total, force readiness	2,818
Pay and rate changes:	
January 1, 1973, pay increase (military and civilian)	1,495
October 1, 1973, pay increase (military and civilian)	1,060
Military retired pay cost-of-living increases:	
July 1, 1973	287
January 1, 1974	182
Wage board pay increases	236
Increased food costs	107
Postal costs	48
Total, pay and rate changes	3,415
Total supplemental request	6,233

The "readiness supplemental" includes fuel price increases in the amount of $480 million as well as $231 million in extra costs of our arms supply to Israel. These extra costs result from our increased operations and maintenance activities and the additional cost incurred in replacing in U.S. inventories the material provided to Israel.

Middle East Payback Costs

Chairman McClellan. What dollar amount has Israel purchased from the U.S. since the beginning of the latest Middle East hostilities? Is this $231 million for "payback" the difference between what Israel paid us and what it will now cost to replace the items in U.S. inventories? Will there be additional "Middle East payback" costs?

Secretary Schlesinger. Military material approved for emergency security assistance to Israel for the period October 6, 1973 through January 31, 1974 totals $923.4 million. The FY 1974 Readiness Supplemental Request includes $231 million for equipment replacement costs ($141 million) and U.S. operations support costs ($90 million). Although the $231 million will cover the differential cost of items already shipped to Israel, it cannot be stated with certainly that there will not be additional differential costs for items yet to be provided.

Chairman McClellan. Proceed.

Secretary SCHLESINGER. The Supplemental Request also reflects the most urgent deficiencies in the condition of our forces that were made apparent by the Middle East hostilities. With these deficiencies in mind, I have included $1,397 million to improve the readiness of our forces, $169 million to increase our airlift capability, and $516 million to buy certain high-value weapons and equipment which are now in short supply in our Services.

FISCAL 1974 SUPPLEMENTAL

Chairman MCCLELLAN. You identify over $2 billion in the FY 1974 Supplemental request to improve force readiness, increase our airlift capability, and buy items now in short supply. How much of the FY 1975 request can be attributed to correcting these deficiencies? Why wasn't the $2 billion added to the latter amount and lumped together in the FY 1975 request?

Secretary SCHLESINGER. We have included $1.6 billion in our FY 1975 Budget Request for augmented force readiness ($.8), increased airlift capability ($.4), and accelerated force modernization ($.4). These FY 1975 funds will permit continuation of the initiatives we will undertake in these important areas upon receipt of FY 1974 readiness supplemental funds. Since many of the readiness projects we plan to initiate are new, we would need to wait until the FY 1975 Budget Request has been reviewed and enacted by all appropriate Congressional Committees before we proceed. I feel that we must start these efforts as soon as possible and therefore I have included enough funds in the FY 1974 Supplemental Request to allow commencement of effort in the last quarter of FY 1974. In the case of ongoing programs such as aircraft reworks and ship overhauls, FY 1974 supplemental funds will enable us to add to our previously approved FY 1974 levels, gain valuable time in our restoration of these items to our forces, and yet not disrupt industrial output.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. The readiness improvements include adding to our ammunition stocks, reducing the maintenance backlog on our ships and equipment, making sure prepositioned equipment is ready for use, improving our defense suppression capabilities, and purchasing short-supply items important for overall readiness.

The airlift improvements I recommend are modest first steps to a more fundamental examination of our airlift capabilities which I believe is necessary. These first steps include expanding C–5 and C–141 utilization rates, developing a stretched version of the C–141, and seeking relatively inexpensive modifications to civil aircraft to permit them to carry military cargoes in an emergency.

The additional high value weapons and equipment purchases proposed in the Supplemental include TOW antitank missiles for the Army and Marines, M–60 tanks and M113A1 armored personnel carriers for the Army, vehicles for the Marines, P–3C antisubmarine warfare aircraft for the Navy, air munitions for the Navy and Air Force, and improvements to a number of USAF aircraft. An increase in RDT&E funds is also proposed for all of the Services.

Finally, the FY 1974 Supplemental includes $25 million for long lead time items for the second Trident submarine.

THE FISCAL YEAR 1975 BUDGET

The FY 1975 Budget request in total obligational authority (TOA) amounts to $92.6 billion, an increase of $5.5 billion over FY 1974 and $12.1 billion over FY 1973. Outlays for FY 1975 are estimated at $85.8 billion, an increase of $6.3 billion over FY 1974 and $12 billion over FY 1973. These FY 1975 totals include the amounts transmitted to the Congress by the President, plus estimates for pay raises expected to become effective during the year and the costs of proposed new legislation.

This request is a substantial one, but I offer no apologies for its size. The FY 1975 Budget bears directly on the question of whether or not the United States will continue to fulfill the responsibilities it has around the world. In real terms, moreover, it is somewhat smaller than the amount actually provided for FY 1973. As shown in the following table, the increase of about $12.1 billion in TOA over FY 1973 (in current dollars) is almost wholly consumed by pay and price increases.

Pay and price increases: fiscal year 1973 to fiscal year 1975 excluding retired pay

	Millions
Pay increases: January 1973 pay increase (in effect for 6 months of fiscal year 1973 and all 12 months of fiscal year 1975); October 1973 pay increase, October 1974 pay increase; wage board (blue collar) pay increase	$4,598
Increased subsistence costs and other military allowances (existing legislation)	743
Petroleum price increases	1,698
Inflation on other purchases (7 percent from fiscal year 1973 to fiscal year 1974 and 4.6 percent estimated from fiscal year 1974 to fiscal year 1975)	4,689
Space rental to GSA (required starting in fiscal year 1975)	183
Proposed legislation (military allowances)	187
Total	12,098

Fiscal Year 1975 Appropriation Requests

DOD basic appropriation bill

Chairman McClellan. In order to avoid confusion regarding amounts needed in FY 75 but not transmitted to Congress, would you provide a table showing, by appropriation, the amounts transmitted to Congress, the amounts included in the contingency account of the President's Budget, and the grand total. ($85.6B transmitted for titles in the current bill being considered by this committee; $87.8B included with contingencies).

Secretary Schlesinger. I will provide that for the record.

[The information requested follows:]

Appropriation (TOA) Requested With President's Budget Transmitted on February 4, 1974

Appropriation	*Thousands*
Military personnel:	
Military personnel, Army	$7,914,800
Military personnel, Navy	5,765,200
Military personnel, Marine Corps	1,728,700
Military personnel, Air Force	7,450,000
Reserve personnel, Army	490,000
Reserve personnel Navy	209,700
Reserve personnel, Marine Corps	73,000
Reserve personnel, Air Force	148,565
National Guard personnel, Army	621,700
National Guard personnel, Air Force	198,577
Total, military personnel	24,600,842
Retired military personnel:	
Retired pay, defense	5,687,600
Operation and Maintenance:	
Operation and maintenance, Army	6,837,400
Operation and maintenance, Navy	7,291,000
Operation and maintenance, Marine Corps	446,300
Operation and maintenance, Air Force	7,519,400
Operation and maintenance, Defense Agencies	1,876,800
Operation and maintenance, Army Reserve	279,700
Operation and maintenance, Navy Reserve	238,400
Operation and maintenance, Marine Corps Reserve	11,400
Operation and maintenance, Air Force Reserve	278,200
Operation and maintenance, Army National Guard	608,400
Operation and maintenance, Air National Guard	596,100
Rifle practice, Army	178
Claims, Defense	54,600
Contingencies, Defense	5,000
Court of Military Appeals, Defense	1,065
Total, operation and maintenance	26,043,943

	Thousands
Procurement:	
Research, development, test and evaluation, Army	1,985,976
Missile procurement, Army	459,200
Procurement of weapons and tracked combat vehicles	385,300
Procurement of ammunition, Army	1,344,800
Other procurement, Army	786,200
Aircraft procurement, Navy	2,960,600
Weapons procurement, Navy	833,900
Shipbuilding and conversion, Navy	3,562,600
Other procurement, Navy	1,684,500
Procurement, Marine Corps	228,800
Aircraft procurement, Air Force	3,496,600
Missile procurement, Air Force	1,610,800
Other procurement, Air Force	2,071,800
Procurement, Defense Agencies	102,017
Total, procurement	19,866,617
Research, development, test and evaluation:	
Research, development, test and evaluation, Army	1,985,976
Research, development, test and evaluation, Navy	3,261,933
Research, development, test and evaluation, Air Force	3,518,860
Research, development, test and evaluation, Defense Agencies	528,700
Director of test and evaluation, Defense	27,000
Total, research, development, test and evaluation	9,322,469
Special foreign currency program:	
Special foreign currency program, Defense	2,900
Naval petroleum reserve:	
Naval petroleum reserve	24,200
Total appropriations requested in DOD basic appropriation bill, February 4, 1974	85,548,571

Appropriations to be requested at a later date, but included in the defense segment of the President's budget allowances (contingency) account

To finance future pay raises:	Thousands
October 1, 1974, military and civilian pay raise	$1,525,000
Fiscal year 1975 wage board pay raises	215,000
Retired pay CPI increase	260,000
Subtotal	2,000,000
To finance proposed legislation not yet enacted:	
Retired pay reform	55,000
Volunteer force	153,000
Flight pay	25,000
Selective continuation of officers	9,000
Subtotal	242,000
Total contingency	2,242,000
Grand total	87,790,571

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. The three general pay increases (military and white-collar civil service) and the blue-collar (wage board) pay increases which take place regularly over this period will add about $4.6 billion to the FY 1975 budget.

PAY INCREASES

Chairman MCCLELLAN. The analyses of pay increases, FY 1973 to FY 1975, implies that all pay increases are unproductive in the sense that they are not a result of any "real" increases in workers' productivity but are merely higher pay for the same work. Is this really true? Is there no increase in worker productivity in Defense, as there is in all other parts of the American economy? Have you taken any of these productivity increases into account in your analyses?

Secretary SCHLESINGER. There is no implication that pay raises are unproductive. There are three points which must be kept separate, which tend to be intermingled in the question.

The first point is this: for a given number of workers, with no changes in grade or longevity step, what is the effect of pay rates upon payroll costs? From FY 1973 to FY 1975, the answer is that pay raises added $4,598 million to our costs. Similarly, POL price increases added $1,698 million, other purchase inflation $4,689 million, and so forth. In listing the items in this way, we are merely saying that for a given mix of inputs—privates, barrels of fuel, pieces of equipment—pay and price increases have had a certain impact. We are not implying anything at all about productivity. We are not implying that there has been no change in productivity for our manpower or, for that matter, our equipment.

The second point is this: what is the manpower trend? Average employment, military and civil service, drops by 161,000 (5 percent) from FY 1973 to FY 1975. To this point, we have shown why payroll costs are rising. Costs per man are up 15%, and manpower has only fallen 5%. This is in no sense a measure of productivity, but it suggests caution in implying that we are treating pay raises as a direct add to the budget.

The third point, and the most difficult of all, is this: what is the value of real output? You cannot determine productivity without answering this question and, unfortunately, we can't answer it for DoD as a whole. For example, we are using 95% as much manpower as we used in FY 1973. How does the value of total Defense output compare. FY 1973 to FY 1975? If our output is, say, 90% of what it was in FY 1973, then our labor is about 5% less productive (we are inputting 95% as much and getting 90% as much out). Conversely, if our output is equal to that of FY 1973, then our labor is about 5% (100/95) more productive.

The important point is this: one cannot measure productivity without being able to relate real input to real output. We can measure the former, but in many cases not the latter. To measure the real value of defense output—the aggregative worth of all the combat units, aircraft, ships, missiles, communications facilities, etc.—on some kind of a common denominator over time, would be an

impossible job. We are not alone in this. The same problem is faced in the entire public sector of the economy (schools, fire departments, roads, etc.) and large parts of the private sector.

However, productivity is taken into account wherever feasible in determining manpower requirements throughout the DoD. For example, output per man is considered in setting the budgets for such specific activities as supply depots, shipyards, and maintenance operations. We purchase equipment, including certain weapons, with relative manpower requirements very much in mind. At those activities where we have finite outputs, our productivity trends compare very favorably with those of other government activities, according to studies by the General Accounting Office.

Chairman McCellan. Proceed.

Secretary Schlesinger. The cost of subsidence will be almost a half billion dollars higher in FY 1975 than in FY 1973. The ration rate was $1.46 per man per day on January 1, 1972, $1.65 on January 1, 1973, and $2.28 on January 1, 1974—the rate reflected in the FY 1975 Budget. Higher costs for clothing, certain station allowances, and travel and transportation costs bring the total add-on for subsistence and other military allowances to $743 million in FY 1975. Petroleum prices on February 1, 1974, were 123 percent above the prices we paid in FY 1973. Even assuming no further price increases, as we have in the FY 1975 budget estimates, this is an add-on of $1.7 billion.

Reduction in Fuel Consumption

Chairman McClellan: Deputy Secretary Clements directed on November 16, 1973 an immediate reduction of 20 to 25 percent in the fuel consumption of National Guard and Reserve elements below that programmed for FY 1974. In addition, reductions were ordered for the active military forces. Please provide for the record the number of barrels consumed and the cost by appropriations for FY 1973, the estimate in the FY 1974 budget, the current program reflected by the FY 1974 supplemental request, and the FY 1975 estimate.

Secretary Schlesinger: The data in the following table reflect our current estimated petroleum consumption and costs. It should be noted that Deputy Secretary Clement's memorandum of November 16 was superseded by a directive issued on 6 February 74 establishing the Guard and Reserve fuel consumption level at 10 percent less than that planned in the Guard and Reserve programs reflected in the FY 1974 President's Budget. The FY 1974 and FY 1975 budget figures included in the table for the Guard and Reserve are based upon Secretary Clements' memorandum and do not reflect the program level established in the February directive. However, the program data are now being analyzed so the necessary changes can be made and the data revised to coincide with the currently approved program level.

POL CONSUMPTION–DOD SUMMARY

[Barrels and dollar amounts in millions]

	Fiscal year 1973 actual		Fiscal year 1975 President's budget			
			Fiscal year 1974		Fiscal year 1975	
	Barrels	Amount	Barrels	Amount	Barrels	Amount
O. & M. Active Forces:						
Aircraft operations	135.851	$662.3	110.147	$948.6	117.037	1,324.8
Ship operations	36.700	137.5	26.200	191.3	27.200	269.1
Ground equipment operations	19.117	145.9	17.150	198.8	15.743	706.5
Other	18.900	107.9	19.700	157.9	18.800	179.8
Total consumption	210.568	1,053.6	173.197	1,496.6	178.780	1,980.2
O. & M. Reserve Forces:						
Aircraft operations	4.367	22.8	4.620	38.7	4.048	47.2
Ship operations	.800	2.8	.800	4.9	.700	6.7
Ground equipment operations	.318	2.9	.345	3.2	.280	3.5
Other	.200	1.8	2.07	1.9	.165	2.0
Total consumption	5.685	30.3	5.972	48.7	5.193	59.4
O. & M. Guard forces:						
Aircraft operations	8.400	44.0	8.300	61.6	7.300	89.5
Ship operations	0	0	0	0	0	0
Ground equipment operations	.900	9.1	1.100	15.0	1.200	16.9
Other	.300	1.5	.200	1.8	.200	1.8
Total consumption	9.600	54.6	9.600	78.4	8.700	108.2
O. & M. Defense agencies:						
Aircraft operations	.104	.5	.176	1.5	.434	4.9
Ship operations	.160	.6	.200	1.5	.192	1.9
Ground equipment operations	.133	1.1	.157	1.9	.212	3.1
Other	.029	.5	.136	1.3	.135	1.8
Total consumption	.426	2.7	.669	6.2	.973	11.7
Total DOD O. & M.:						
Aircraft operations	148.722	729.6	123.243	1,050.4	128.819	1,466.4
Ship operations	37.660	140.9	27.200	197.7	28.092	277.7
Ground equipment operations	20.468	159.0	18.752	218.9	17.435	230.0
Other	19.429	111.7	20.243	162.9	19.300	185.4
Total consumption	226.279	1,141.2	189.438	1,629.9	193.646	2,159.5
Total DOD industrial fund:						
Aircraft operations	24.827	116.1	23.042	230.6	27.441	344.3
Ship operations	15.008	47.0	9.706	52.4	8.906	72.3
Ground equipment operations	.141	1.4	.304	4.3	.287	4.0
Other	8.405	45.0	9.013	62.3	8.951	75.9
Total consumption	48.381	209.5	42.065	349.6	45.585	496.5
R.D.T. & E., Army, Navy, Air Force:						
Aircraft operations	2.200	11.3	1.900	18.1	2.100	21.5
Ship operations	.100	.6	.100	.7	.100	.9
Ground equipment operations	1.200	10.2	1.000	10.1	.900	10.3
Other	.800	4.6	.500	4.0	.600	4.4
Total consumption	4.300	26.7	3.500	32.9	3.700	37.1
Aircraft procurement, Air Force: Aircraft operations (only) and total consumption	.500	2.4	.500	3.0	.500	2.9
Total DOD as reported:						
Aircraft operations	176.249	859.4	148.685	1,302.1	158.860	1,835.1
Ship operations	52.768	188.5	37.006	250.8	37.098	350.9
Ground equipment operations	21.809	170.6	20.056	233.3	18.622	244.3
Other	28.634	161.3	29.756	229.2	28.851	265.7
Total consumption	279.460	1,379.8	235.503	2,015.4	243.431	2,696.0
Recap:						
Army	24.327	182.1	22.417	249.4	21.341	267.2
Navy	98.563	442.7	82.363	626.9	85.063	850.8
Marine Corps	1.644	10.4	1.654	15.4	1.454	17.4
Air Force	154.500	741.9	128.400	1,117.5	134.600	1,548.9
Defense agencies	.426	2.7	.669	6.2	.973	11.7
Total DOD as reported	279.460	1,379.8	235.503	2,015.4	243.431	2,696.0

The initial FY 1974 budget as amended, did not provide data on fuel consumption comparable to that shown in the previous table, because specific amounts of funds for fuel were not used as a basis for developing the FY 1974 Budget. However, the cost of fuel in the FY 1974 amended budget, by appropriation, has subsequently been estimated. The amounts shown in the table below reflect those later estimates, as changed by Congressional adjustments, but they do not necessarily represent the totals actually included in the original FY 1974 Budget as amended.

	Millions
Active Forces:	
Army (O&M.A)	$191.1
Navy (O&M.N)	429.6
Marine Corps (O&M.MC)	16.2
Air Force (O&M.AF)	816.0
Total	1,452.9
Reserves:	
Army (O&M.AR)	6.4
Navy (O&M.NR)	23.1
Marine Corps (O&M.MCR)	.5
Air Force (O&M.AFR)	15.3
Total	45.3
Army (O&M.ARNG)	17.2
Air Force (O&M.AG)	55.9
Total	73.1
Research, development, test and evaluation:	
Army	15.9
Navy	4.2
Air Force	11.3
Total	31.4
Industrial funds:	
Army	8.6
Navy	41.3
Air Force	143.3
Total	193.2
Total military departments	1,795.9
Recap:	
Army	239.2
Navy	498.2
Marine Corps	16.7
Air Force	1,041.8
Total	1,795.9

For all other purchases, we estimate (based on Commerce data through December 1973) that price inflation will amount to 7 percent from FY 1973 to FY 1974, and we hope it will slow to 5 percent from FY 1974 to FY 1975. On this basis, price inflation will add about $4.7 billion to the FY 1975 Budget.

GSA Rental Costs

Beginning in FY 1975, the Defense Department is required by law to pay the General Services Administration an appropriate rental charge for GSA controlled space occupied by the DoD. This charge will amount to $183 million in FY 1975.

Chairman McClellan. Do you know if the $183 million you will pay the GSA for rental space will reflect a corresponding reduction in their FY 1975 budget request?

Secretary SCHLESINGER. I am uncertain as to the effect on the GSA budget of the Defense rental payment, but it is intended that our costs and their revenue should be the same. However, the rental space rates used by GSA to bill us recovers more than their costs of providing the space. We are charged for space whether it be Government-owned or leased based on commercial rates. Therefore, our rent is considerably higher than their costs.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. Finally, we are proposing certain items of military personnel legislation which—if enacted—will add $187 million to our costs in FY 1975.

This means that if we were to carry on the FY 1973 program at FY 1975 price levels and pay rates—employing the same people, purchasing the same items, with nothing added—it would cost us about $12,098 million more than it actually did in FY 1973. In addition, retired pay will increase about $1.6 billion from FY 1973 to FY 1975. Thus in formulating our FY 1975 budget request, we had to absorb a total of about $13.7 billion in pay and price add-ons.

Fortunately, we have been able to stabilize the proportion of Defense outlays which are devoted to pay and allowances, albeit not without some further reduction in personnel. As shown in the table below, pay and allowances will take about 55.4 percent of estimated Defense outlays in FY 1975, compared with 55.8 percent in FY 1973 and 55.2 percent in FY 1974.

OVERSEAS HEADQUARTERS

Senator YOUNG. With personnel costs at or above 55% of Defense costs, when will it be necessary to cut the fat out of overseas commands and bases?

Secretary SCHLESINGER. As you are aware, we are engaged in a detailed examination of all headquarters elements of the Department of Defense, in which we propose to sharply reduce our administrative and policy staffs. This includes headquarters elements overseas as well as at home.

With respect to overseas commands and bases, there are primary constraints which require us to proceed cautiously in both cases. We need to protect the intended mission capability of the commands, and, therefore, we need to protect those base elements required to support mission capability or the morale and welfare of our troops. I am sure we may have elements overseas which contribute to neither, and, when so identified, we will cut them.

Chairman MCCLELLAN. Proceed.

PAY COSTS AND MANPOWER TRENDS, SELECTED YEARS

[Outlays in millions of dollars; manpower in thousands]

	Fiscal year				
	1964	1968	1973	1974	1975
Military basic pay and related	$8,511	$12,779	$17,618	$17,904	$19,030
Military special pays and allowances	4,475	7,080	5,628	6,261	6,655
Civil service payroll	7,305	10,281	12,994	13,812	14,929
Family housing (excluding pay)	504	396	563	771	878
Subtotal	20,795	30,536	36,803	38,748	41,492
Military retired pay	1,209	2,095	4,390	5,158	6,011
Total pay and allowances	22,004	32,630	41,193	43,906	47,504
Purchases	28,782	45,397	32,635	35,594	38,296
Total outlays	50,786	78,027	73,828	79,500	85,800
Pay and allowances as percent of the total outlays	43.3	41.8	55.8	55.2	55.4
Average strength (manyears):					
Military	2,691	3,436	2,324	2,218	2,177
Civil service	1,045	1,276	1,033	1,014	1,019
Total	3,736	4,712	3,357	3,232	3,196

Secretary SCHLESINGER. The current level of pay and allowances as a percent of total Defense outlays is, of course, substantially above FY 1964 and FY 1968. But this reflects a national decision to pay our military and civilian personnel a

compensation comparable to what they could get in the civilian sector of the economy.

In this respect, most of the costs attributed to the All-Volunteer Force result essentially from this same national decision. About 63 percent of the estimated $3.6 billion associated with the All-Volunteer Force in the FY 1975 Budget is nothing more than a major increase in basic pay for military personnel with less than two years of service—personnel who prior to November 1971 were grossly underpaid in comparison with the civilian sector and with career military personnel.

ALL VOLUNTEER FORCE

Chairman MCCLELLAN. Does the $3.6 billion associated with the All-Volunteer Force include the cost of the hometown canvasser programs?

Secretary SCHLESINGER. The hometown canvasser program, as part of our recruiting effort, is included in the $3.6 billion. This program is identified as our Unit of Choice Recruiters and a total of $26 million in direct and supporting costs has been included in our FY 1975 Budget request.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. The FY 1975 Budget in real terms is not only less than the amount provided for FY 1973, it is also smaller than the amount provided for FY 1964, the year before the Vietnam buildup began. Furthermore, for the third consecutive year Defense outlays will take six percent or less of the gross national product and, as shown in the table below, a declining percentage of total Federal budget outlays and net public spending.

	Fiscal year—				
	1964	1968	1973	1974	197
Defense outlays as a percent of—					
Gross national product	8.3	9.4	6.0	5.9	5.9
Federal budget (outlays)	41.8	42.5	29.0	27.9	27.2
Net public spending	28.1	29.2	18.5	17.8	17.1

Secretary SCHLESINGER. Indeed, much of the talk about reordering national priorities is quite off the mark. As indicated in the following table, National Defense spending per capita in real terms will decline from $325 in FY 1968 to $202 in FY 1975, while Other Public spending and Private spending is expected to increase from $693 to $900 and $2,421 to $3,055, respectively, during the same period.

REAL GNP PER CAPITA, SELECTED YEARS (IN CONSTANT CALENDAR YEAR 1958 PRICES)

	National defense spending	Other public spending	Private spending (consumption and investment)	Total real GNP per capita
Fiscal year—				
1945 (World War II peak)	$1,092	$307	$1,232	$2,631
1950 (pre-Korea, post-World War II low)	119	468	1,609	2,196
1953 (Korea peak)	383	391	1,772	2,546
1956 (post-Korea)	269	418	1,941	2,629
1961 (last Eisenhower year)	245	508	1,896	2,649
1964 (prewar)	254	569	2,129	2,953
1968 (war peak)	325	693	2,421	3,438
1975	202	900	3,005	4,107

Secretary SCHLESINGER. Clearly, a major reallocation of national output has already taken place since FY 1968, and the notion that Defense is consuming a disproportionate share of that output—at the expense of our social welfare and to the detriment of our economy—is simply not supported by the facts. Per capita GNP has increased substantially during the last decade and all of that increase has been devoted to the domestic welfare of the nation.

Although the FY 1975 Defense Budget in real terms is somewhat lower than FY 1973, several important changes in the composition of the program are planned. As indicated in the following table, incremental Southeast Asia costs drop sharply from FY 1973 to FY 1975, while support for the baseline U.S. forces increases.

DEFENSE BUDGET SUMMARY, FISCAL YEAR 1973-75

[TOA in millions of dollars]

	Fiscal year—			Changes 1973-75
	1973	1974	1975	
Current prices:				
Baseline U.S. forces	69,769	77,047	83,373	+13,604
MAP	1,120	3,295	1,279	+159
Incremental Southeast Asia costs	5,171	1,599	1,913	−3,258
Subtotal, excluding retired pay	76,060	81,941	86,565	+10,505
Military retired pay	4,392	5,164	6,014	+1,622
Total TOA, current prices	80,452	87,105	92,579	+12,127
Constant fiscal year 1975 prices:				
Baseline U.S. forces	80,756	82,121	83,373	+2,617
MAP	1,261	3,449	1,279	+18
Incremental Southeast Asia costs	6,141	1,720	1,913	−4,228
Subtotal, excluding retired pay	88,158	87,290	86,565	−1,593
Military retired pay	5,311	5,662	6,014	+703
Total TOA, constant fiscal year 1975 prices	93,469	92,952	92,579	−890

SEA COSTS

Chairman McCLELLAN. Would you provide a breakdown of the incremental Southeast Asia costs of $1.9 billion in FY 1975, including specific equipment and other items being provided?

Secretary SCHLESINGER. The requested information is provided for the record below:

SEA INCREMENTAL COSTS FISCAL YEAR 1975

[In millions of dollars]

	MASF	U.S. Forces	Total
Military personnel.			
Pay and allowances, officers		48.4	48.4
Pay and allowances, enlisted		89.8	89.8
Subsistence, enlisted		8.2	8.2
PCS and travel		63.0	63.0
Interest, death gratuities, SGLI		.7	.7
Subsistence in kind	22.5		22.5
Clothing allowances	1.5		1.5
Total	24.0	210.1	234.1
Operation and maintenance:			
Strategic forces		14.2	14.2
General purpose forces		154.7	154.7
Intelligence and communications		8.6	8.6
Central supply and maintenance		74.7	74.7
Training, medical		1.2	1.2
Administration and association activities		.7	.7
Support of other nations			
Travel	9.8		9.8
Transportation	19.8		19.8
Contract maintenance	41.4		41.4
Other contracts	85.4		85.4
POL	53.3		53.3
Supplies	43.9		43.9
Training	21.4		21.4
PCH & T	47.8		47.8
Depot maintenance	12.2		12.2
Support RVN forces	[1] 233.9		233.9
AID/DOD realinement	5.5		5.5
Total	574.4	254.1	828.5
Procurement (total)	851.7		851.7
Grand total	1,450.0	464.4	1,914.4

[1] These funds are used primarily to pay for organizational clothing and equipment, repair parts, and supplies and materials used to support Vietnamese Forces.

Detail may not add to total due to rounding.

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. Included in the $1.9 billion for Southeast Asia costs in FY 1975 is $1,450 million for the support of South Vietnamese forces and $463 million for U.S. forces—largely the air units based in Thailand. The rise in these costs from FY 1974 to FY 1975 results from a sharp increase in support for the South Vietnamese forces, which more than offsets a drop in U.S. force costs and the transfer of Laos support to the regular MAP program. The reason for this increase in support for South Vietnam is threefold: first, the ceasefire has not worked as well as we had hoped and, therefore, South Vietnamese military consumption is well above what was anticipated; second, unlike FY 1974, there are far fewer prior year funds available to meet FY 1975 requirements; and finally, in FY 1974 we fell behind in replacing South Vietnamese equipment losses and greater efforts are required in FY 1975.

AMMUNITION COSTS FOR SOUTH VIETNAM

Chairman McCLELLAN. Ammunition costs for SVN forces have greatly increased. Show the amounts requested for FY 1973, FY 1974 and FY 1975 in support of these requirements and the stockage objective for each of these periods.

Secretary SCHLESINGER. The amounts requested for FY 1973–1975 for South Vietnam are as follows:

[In millions of dollars]

	Fiscal year—		
	1973	1974	1975
Ground munitions	736.4	65.2	400.2
Air munitions	121.8	32.2	68.5

The amounts requested in FY 1973 and FY 1974 should be reviewed as a cumulative amount, since FY 1973 funds were already obligated at the time of the ceasefire and were used to offset FY 1974 requirements.

The stockage objective for ground munitions in FY 1973 was three months of operating stocks. The ground munitions stockage objective for fiscal years 1974 and 1975 is equal to the "on hand" level at the time of ceasefire or approximately [deleted]. Individual item procurement programs for South Vietnam are developed on the basis of the latest six months consumption experience. The stockage objective for air munitions for South Vietnam likewise is based on the amount on hand at the time of the ceasefire or approximately [deleted]. Procurement since the ceasefire has therefore been based on sortie rates which vary from month to month.

PRIOR YEAR MASF FUNDS

Chairman McCLELLAN. What is the amount of prior year funds available to meet FY 1975 requirements for support of South Vietnamese Forces?

Secretary SCHLESINGER. The amount of prior year funds available at end FY 1974 depends primarily on Congressional action on the DoD request for an increase in the MASF ceiling in FY 1974. However, any such availability would generally be required to meet FY 1974 program deficiencies rather than FY 1975 requirements.

We estimate that under current reporting guidelines approximately $1.4 billion in FY 1974 and prior year MASF funds are available as against the current FY 1974 MASF obligational ceiling of $1,126 million. Based on our current estimate of availability and assuming a $1,126 million limitation, approximately $269 million would remain reportable under current ground rules against a subsequent MASF ceiling at end FY 1974.

SOUTH VIETNAMESE EQUIPMENT LOSSES

Chairman McCLELLAN. Why did you fall behind in replacing South Vietnamese equipment losses in FY 1974?

Secretary SCHLESINGER. Equipment is replaced when certified as a one-for-one replacement and when called forward by the South Vietnamese. In some instances, particularly with aircraft, the call forward has lagged behind the loss. We are budgeting for some of those losses in FY 75. Aircraft losses are not being

replaced earlier since the Vietnamese Air Force cannot as yet fully man with trained personnel its authorized number of squadrons.

Chirman McClellan. Proceed.

Secretary Schlesinger. The sharp rise in the Military Assistance Program (MAP) in FY 1974 reflects the emergency assistance to Israel. The FY 1975 Military Assistance Program, in constant prices, is about at the same level as in FY 1973.

These changes in Incremental Southeast Asia Costs and MAP make possible within a slowly declining overall Defense budget in real terms (i.e., in constant FY 1975 prices) a modest increase in the support of the Baseline U.S. Forces. This increase amounts to about $1.4 billion in FY 1974 and $1.2 billion in FY 1975, or an increase of $2.6 billion from FY 1973 to FY 1975. The additional resources are applied primarily in three areas, which in my judgment require greater emphasis—new development initiatives for our strategic forces, augmented readiness and accelerated equipment modernization for our general purpose forces, and an increased wartime capability for our strategic airlift forces. Each of these areas is discussed in detail in the following sections of this Defense Report.

II. Strategic Forces

Among the major capabilities in the defense arsenal of the United States, the strategic nuclear deterrent forces command the most attention. Yet compared with the general purpose forces, their costs are relatively small. And, with the brief exceptions, their costs as a percent of the total defense budget have actually declined during the past decade.

As is shown in Appendix Table 1, the obligational authority made available for the strategic forces in FY 1964 amounted to $8.5 billion—16.8 percent of the total defense budget. After more than a decade of substantial pay raises and a good deal of inflation, the obligational authority we are proposing for the strategic forces in FY 1975 comes to $7.6 billion—8.2 percent of the total defense budget, or less than half the share devoted to those forces in FY 1964. Such relatively modest figures are hardly compatible with the view that this Administration has been less than restrained in its conduct of the strategic nuclear competition. By any measure, our current effort is much more moderate than it was a decade or more ago.

A. The Basis for the Strategic Nuclear Forces

To underline the trends in these relatively modest costs is not to minimize the importance of the strategic nuclear deterrent forces. At the same time that the United States has necessarily become more engaged in world affairs than ever before in its history, it has become increasingly vulnerable to direct nuclear attack and to the possibility of unprecedented destruction. Nuclear weapons now cast their shadow over all of us, and even complete political isolation would no longer relieve us of their threat. The United States is too powerful to be ignored and no longer far enough away (measured by ICBM trajectories) to be out of hostile reach. It is understandable, therefore, why strategic nuclear forces should receive so much attention. Without a firm foundation of nuclear deterrent forces the rest of our power would not count for much in the modern world.

I cannot stress this last point too strongly. All wars since 1945 have been non-nuclear wars shadowed by the nuclear presence. The threat to use nuclear weapons has remained, for the most part, in the backgorund, but belligerents and neutrals alike have known that, like the big stick in the closet, it was there. Perhaps we may hope that in the future, as in the past, the nuclear forces will act as a brake upon violence, and that wars will remain conventional or not begin at all. Perhaps we may even hope that the strategic nuclear forces, by contributing to a world-wide balance of power and international stability, will carry us well beyond détente to a more enduring peace and to a general reduction of armaments.

Not only are the strategic forces vitally important; they are controversial as well. Most of the major defense debates during the past thirty years have centered on them, and alarms have rung over such matters as the B–36, the bomber "gap", the missile "gap", MIRVs, and ABM deployments. Much of the debate has centered on specific weapons systems. But issues have also arisen about the size and composition of the offensive and defensive forces, the nature of alternative target systems, and the desirability and feasibility of enhancing deterrence and limiting escalation by having the option to avoid destroying enemy cities.

Of equal concern has been the growth to maturity of Soviet strategic offensive forces. Only a decade ago these forces numbered in the hundreds; now we count

them in the thousands, and they have a substantially greater throw-weight. As a consequence, the issue that faces us no longer is (if it ever was) how to avoid initiatives that might continue or accelerate the strategic competition, but how—in a situation of essential equivalence—to interpret and respond to a wide range of potential Soviet initiatives.

If we are to have informed and productive debate on these matters, it is important that the Congress and the public understand the evolutionary character of strategic force planning and doctrine. Accordingly, it is essential to review the factors that now shape our strategic nuclear forces, the assumptions we make about these factors in designing our posture, and the directions we propose to take in our Five-Year Defense Program. In undertaking this review, I will place particular emphasis on why we are maintaining such comparatively large and diversified offensive forces, why we are modifying our strategic doctrine, and why we are proposing the pursuit of a number of research and development projects as prudent hedges for the future.

What is generally accepted, as a minimum, is that we ourselves must not contribute to any failures of deterrence by making the strategic forces a tempting target for attack, or prone to accidents, unauthorized acts, or false alarms.

I should also stress that it is only in the process of examining why and how deterrence might fail that we can judge the adequacy of our plans and programs for deterrence. And once that analysis begins, it quickly becomes evident that there are many ways, other than a massive surprise attack, in which an enemy might be tempted to use, or threaten to use, his strategic forces to gain a major advantage or concession. It follows that our own strategic forces and doctrine must take a wide range of possibilities into account if they are successfully to perform their deterrent functions.

Nuclear proliferation represents another important factor. It is a complex process driven by many actions and considerations. But one element affecting its extent and velocity undoubtedly is the degree to which other countries believe that the U.S. strategic deterrent continues—or fails—to protect them. Accordingly, in support of our non-proliferation policy, we must take account of the concerns of other countries in our doctrine and force planning.

There is also an important relationship between the political behavior of many leaders of other nations and what they perceive the strategic nuclear balance to be. By no means do all of them engage in the dynamic calculations about the interaction of Soviet and U.S. forces that have so affected our own judgments in the past. However, many do react to the static measures of relative force size, number of warheads, equivalent megatonnage, and so forth. Hence, to the degree that we wish to influence the perceptions of others, we must take appropriate steps (by their lights) in the design of the strategic forces.

Finally, an important connection exists between U.S. arms control efforts and the size and composition of the strategic nuclear forces. Arms control agreements are, of course, designed deliberately to constrain the freedom of the parties in the planning of their offensive and defensive capabilities. Strategic programs, in turn, affect the prospects for arms control. And specific weapons systems are the coin of this particular realm. Not only are such systems the mediums of exchange; they are also the basis for expanding or contracting the forces. As a consequence, arms control objectives must have a major impact on our planning.

THE PROBLEM OF OBJECTIVES

I believe it is well understood that the size and composition of our strategic nuclear forces must depend to some degree on the magnitude of the overall deterrent burden that we place upon them. It is also a matter of increasingly widespread appreciation that these forces cannot bear the entire burden by themselves, however fundamental their importance may be. Other capabilities, nuclear and non-nuclear, must be maintained in strength to cover the entire spectrum of deterrence. What still requires emphasis, however, is the diversity of roles that the strategic nuclear forces continue to play. Our ability to achieve major national security objectives continues to be hostage to the operational doctrine, size, and composition of these forces.

Deterrence has been and remains the fundamental objective of our strategic nuclear forces. But what precisely do we want these forces to deter? Clearly, we expect them to forestall direct attacks on the United States; at the same time, however, we accept the equally heavy responsibility to deter nuclear attacks on our allies. To some extent we also depend on the strategic forces to exercise a deterrent effect against massive non-nuclear assaults, although we now place the

main emphasis on U.S. and allied theater forces for that purpose. We also view our strategic forces as inhibiting coercion of the U.S. by nuclear powers, and, in conjunction with other U.S. and allied forces, helping to inhibit coercion of our allies by such powers.

While deterrence is our fundamental objective, we cannot completely preclude the possibility that deterrence might fail. The objectives we would want our strategic forces to achieve in those circumstances remain an issue to which I shall return.

U.S.S.R. and P.R.C. Strategic Objectives

Despite the importance of these objectives, it is probably the present and prospective strategic nuclear forces of other nations that constitute the single most powerful influence on the design of our own capabilities. Most of our strategic objectives, in fact, are a function of these potential threats.

The most important nuclear capabilty facing the United States is that of the U.S.S.R. As we engage in our own planning, we need to understand better than we now do why this capability is evolving at such a rapid rate and what the Soviets hope to gain by such large expenditures and such ambitious programs. Only with an improved understanding can we decide judiciously what impact this capability should have on our own choice of strategic programs.

Primarily at issue are the answers to two major questions. To what extent have the Soviets simply responded to and tried to counter U.S. initiatives? And to what extent have they sought (and do they continue to seek) something more ambitious than a capability for second-strike massive retaliation against the United States?

Much has been written on both counts, at least in the United States. But the Soviets have not proved especialy communicative about their programs and motives, and the evidence of what they are up to is, to say the least, fragmentary and conflicting. As so often is the case, we are faced with uncertainty. Admittedly, my counterparts in the Soviet Ministry of Defense could substantially reduce this uncertainty by disclosing current and even past information about their decisions to the same extent that the United States does. But in the absence of such candor, we have no choice but to interpret the available evidence as best we can.

What does this evidence suggest?

First, the Soviets have proceeded with development of many strategic programs ahead of rather than in reaction to what the United States has done. It is worth recalling, in this connection, that they took the initiative in the deployment of MRBMs and IRBMs, ICBMs, ABMs, and FOBSs. At the present time, they have four new ICBMs that are actively being flight tested.

Second, the Soviets—through their medium-range (or peripheral attack) capabilities—may have initially intended to threaten Western Europe as their only response to the intercontinental U.S. threat to the U.S.S.R. in the early days of the strategic competition. But they have maintained and expanded that threat long after having acquired the capabilty to launch a direct attack on the United States. Indeed, the size of their medium-range force bears no evident relationship to the capability of its counterparts in Western Europe or even to any urban target system there.

Third, it is noteworthy that the Soviets are apparently not content with the SALT I agreements, which temporarily froze certain Soviet quantitative advantages (in ICBMs and SLBMs) in compensation for certain U.S. advantages. They have decided, as far as we can judge, to strive for at least comparable qualitative capabilties as well.

To sum up, what we now have to face in our force planning is that the Soviets have:

Acquired better than numerical parity with the United States in terms of strategic nuclear launchers (counting bombers as well as missiles);

Continued their extensive threat to Western Europe even after having acquired a massive direct threat to the United States;

Begun to exploit the larger throw-weight of their ICBMs so as to permit the eventual deployment of as many as 7,000 potentially high-accuracy MIRVs with large yields;

Started production of the Backfire bomber which could well evolve into an intercontinental threat.

SOVIET BACKFIRE BOMBER

Chairman MCCLELLAN. Compare the Soviet Backfire with our B–52 bomber.

Secretary SCHLESINGER. These two aircraft reflect a basic difference in technology. The technology for the subsonic B–52 aircraft was developed in the 1950s, even though modifications and weapon systems were added through the years. The supersonic Backfire is being produced in the 1970s, utilizing much later technology.

A tabular comparison follows:

	B–52H	Backfire
Take-off gross weight (pounds)	490,000	
Maximum speed (knots):		
High altitude	550	
Low altitude	390	
Maximum range (NM):		
Subsonic, all high		
Altitude, 1 refueling	11,200	
Nominal subsonic mission (NM) range with high en route/low penetration, 1 refueling:		
Total	5,900	
Low altitude	2,150	
Supersonic mission range (NM): With 760 NM dash, no low level, 1 refueling	(1)	
Available weapon systems:		
Gravity bombs		
SRAM–ASM—air-to-air surface missile		
QUAIL—decoy		
HOUND DOG—Air-to-ground missile		

[1] Not available.

The B–52H, based on a nominal high enroute/low penetration profile mission, with one refueling and a payload of 8 SRAMs and 4 gravity weapons, has a range of 5,900 nm including 2,150 at low level. Under a similar subsonic profile, the Backfire with its estimated maximum payload of [deleted] has a range of [deleted] at low altitude. When a [deleted] supersonic high altitude delivery profile is planned instead of the low level penetration, the Backfire range, with one refueling, is [deleted]. The B–52 is incapable of supersonic flight.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. It is premature to assess confidently what objectives the Soviets have set for themselves with these active, expensive programs. However, it is certainly conceivable that they foresee both political and military advantage, not only in the growing numerical weight of their forces, but also in their potential to bring major portions of our own strategic arsenal into jeopardy.

The United States, for its part, cannot afford to stand idly by in the face of these developments. As I shall discuss later, we are recommending a number of quite specific research programs to hedge against any sustained drive to achieve what the Soviet Union may regard, however mistakenly, as meaningful, exploitable, superiority. Preferably by agreement or if necessary by unilateral action, we believe that we must maintain an essential equivalence with them. We are prepared to balance our strategic forces down if SALT succeeds, or to balance them up if we must match Soviet momentum.

The Soviet strategic capability no longer is the only one that we must take into account in our force planning. A second important force from the standpoint of the United States is that of the Peoples' Republic of China (PRC). During the past decade, the Chinese have moved steadily from a program of development and testing to a deployed nuclear capability. We now estimate that they already have on line a modest number of MRBMs, IRBMs, and nuclear-capable medium and light bombers.

Previous forecasts about the evolution of this capability have not proved particularly reliable, and I cannot guarantee any higher confidence in the current projections. Nevertheless, we estimate that the PRC could achieve an ICBM initial operating capability as early as 1976 and an SLBM initial operating capability at a somewhat later date.

We do not yet have much insight into the strategic and political objectives that the PRC is seeking to achieve with these deployments. But certain interesting features about them are already evident.

> The Chinese are clearly sensitive to the importance of second-strike nuclear capabilities and are making a considerable effort to minimize the vulnerability of their strategic offensive forces.

The range and location of their systems are such that they can already cover important targets in the eastern USSR. But they are also located so as to cover other countries on their periphery.

With the deployment of the ICBM that they have under development (and later an SLBM), they will have the capability to reach targets throughout the USSR and in the United States as well.

Our relations with the PRC have, of course, improved very dramatically during the last four years. Moreover, the present Chinese leadership may well be striving for exclusively second-strike countercity forces. Nonetheless, we must in prudence take these forces into account in our planning.

Any assessment of the nuclear threats facing the United States must keep certain other prospects in mind as well. In the not very distant future, five nations (U.S., USSR, PRC, UK, and France) will have deployed SIBM forces at sea. It will clearly be desirable in these circumstances to have some idea about the identity and general location of these different forces, together with highly reliable communications and tight control over our own land-based and sea-based nuclear capabilities.

It is even more essential that we focus on the issues that could arise if and when several additional nations acquire nuclear weapons, not necessarily against the United States, but for possible use or pressure against one another. Such a development could have a considerable impact on our own policies, plans, and programs. Indeed, this prospect alone should make it evident that no single target system and no stereotyped scenario of mutual city-destruction will suffice as the basis for our strategic planning.

Deterrence and Assured Destruction

I frankly doubt that our thinking about deterrence and its requirements has kept pace with the evolution of these threats. Much of what passes as current theory wears a somewhat dated air—with its origins in the strategic bombing campaigns of World War II and the nuclear weapons technology of an earlier era when warheads were bigger and dirtier, delivery systems considerably less accurate, and forces much more vulnerable to surprise attack.

The theory postulates that deterrence of a hostile act by another party results from a threat of retaliation. This retaliatory threat, explicit or implicit, must be of sufficient magnitude to make the goal of the hostile act appear unattainable, or excessively costly, or both. Moreover, in order to work, the retaliatory threat must be credible: that is, believable to the party being threatened. And it must be supported by visible, employable military capabilities.

The theory also recognizes that the effectiveness of a deterrent depends on a good deal more than peacetime declaratory statements about retaliation and the existence of a capability to do great damage. In addition, the deterrent must appear credible under conditions of crisis, stress, and even desperation or irrationality on the part of an opponent. And since, under a variety of conditions, the deterrent forces themselves could become the target of an attack, they must be capable of riding out such an attack in sufficient quantity and power to deliver the threatened retaliation in a second strike.

The principle that nuclear deterrence (or any form of deterrence, for that matter) must be based on a high-confidenc ecapability for second-strike retaliation—even in the aftermath of a well-executed surprise attack—is now well established. A number of other issues remain outstanding, however. A massive, bolt-out-of-the-blue attack on our strategic forces may well be the worst possible case that could occur, and therefore extremely useful as part of the force sizing process. But it may not be the only, or even the most likely, contingency against which we should design our deterrent. Furthermore, depending upon the contingency, there has been a long-standing debate about the appropriate set of targets for a second strike which, in turn, can have implications both for the types of war plans we adopt and the composition of our forces.

This is not the place to explore the full history and details of that long-standing strategic debate. However, there is one point to note about its results. Although several targeting options, including military only and military plus urban/industrial variations, have been a part of U.S. strategic doctrine for quite some time, the concept that has dominated our rhetoric for most of the era since World War II has been massive retaliation against cities, or what is called assured destruction. As I hardly need emphasize, there is a certain terrifying elegance in the simplicity of the concept. For all that it postulates, in effect, is that deterrence will adequately (indeed amply) served if, at all times, we

possess the second-strike capability to destroy some percentage of the population and industry of a potential enemy. To be able to assure that destruction, even under the most unfavorable circumstances—so the argument goes—is to assure deterrence, since no possible gain could compensate an aggressor for this kind and magnitude of loss.

The concept of assured destruction has many attractive features from the standpoint of sizing the strategic offensive forces. Because nuclear weapons produce such awesome effects, they are ideally suited to the destruction of large, soft targets such as cities. Furthermore, since cities contain such easily measurable contents as people and industry, it is possible to establish convenient quantitative criteria and levels of desired effectiveness with which to measure the potential performance of the strategic offensive forces. And once these specific objectives are set, it becomes a relatively straightforward matter—given an authoritative estimate about the nature and weight of the enemy's surprise attack—to work back to the forces required for second-strike assured destruction.

The basic simplicity of the assured destruction calculation does not mean that the force planner is at a loss for issues. On the contrary, important questions continue to arise about the assumptions from which the calculations proceed. Where, for the sake of deterrence, should we set the level of destruction that we want to assure? Is it enough to guarantee the ruin of several major cities and their contents, or should we—to assure deterrence—move much further and upward on the curve of destruction? Since our planning must necessarily focus on the forces we will have five or even ten years hence, what should we assume about the threat—that is, the nature and weight of the enemy attack that our forces must be prepared to absorb? How pessimistic should we be about the performance of these forces in surviving the attack, penetrating enemy defenses (if they exist), and destroying their designated targets? How conservative should we be in buying insurance against possible failures in performance?

Generally speaking, national policy makers for more than a decade have chosen to answer these questions in a conservative fashion. Against the USSR, for example, we tended in the 1960s to talk in terms of levels of assured destruction at between a fifth and a third of the population and between half and three-quarters of the industrial capacity. We did so for two reasons:

Beyond these levels very rapidly diminishing increments of damage would be achieved for each additional dollar invested;

It was thought that amounts of damage substantially below those levels might not suffice to deter irrational or desperate leaders.

We tended to look at a wide range of threats and possible attacks on our strategic forces, and we tried to make these forces effective even after their having been attacked by high but realistically constrained threats. That is to say, we did not assume unlimited budgets or an untrammelled technology on the part of prospective opponents, but we were prudent about what they might accomplish within reasonable budgetary and technological constraints. Our choice of assumptions about these factors was governed not by a desire to exaggerate our own requirements but by the judgment that, with so much at stake, we should not make national survival a hostage to optimistic estimates of our opponents' capabilities.

In order to ensure the necessary survival and retaliatory effectiveness of our strategic offense, we have maintained a TRIAD of forces, each of which presents a different problem for an attacker, each of which causes a specialized and costly problem for his defense, and all of which together currently give us high confidence that the force as a whole can achieve the desired deterrent objective.

That, however, is only part of the explanation for the present force structure. We have arrived at the current size and mix of our strategic offensive forces not only because we want the ultimate threat of massive destruction to be really assured, but also because for more than a decade we have thought it advisable to test the force against the "higher-than-expected" threat. Given the built-in surplus of warheads generated by this force-sizing calculation, we could allocate additional weapons to non-urban targets and thereby acquire a limited set of options, including the option to attack some hard targets.

President Nixon has strongly insisted on continuing this prudent policy of maintainng sufficiency. As a result, I can say with confidence that in 1974, even after a more brilliantly executed and devastating attack than we believe our potential adversaries could deliver, the United States would retain the capability to kill more than 30 percent of the Soviet population and destroy more than

75 percent of Soviet industry. At the same time we could hold in reserve a major capability against the PRC.

Such reassurances may bring solace to those who enjoy the simple but arcane calculations of assured destruction. But they are of no great comfort to policy-makers who must face the actual decisions about the design and possible use of the strategic nuclear forces. Not only must those in power consider the morality of threatening such terrible retribution on the Soviet people for some ill-defined transgression by their leaders; in the most practical terms, they must also question the prudence and plausibility of such a response when the enemy is able, even after some sort of first strike, to maintain the capability of destroying our cities. The wisdom and credibility of relying simply on the preplanned strikes of assured destruction are even more in doubt when allies rather than the United States itself face the threat of a nuclear war.

The Need for Options

President Nixon underlined the drawbacks to sole reliance on assured destruction in 1970 when he asked:

> Should a President, in the event of a nuclear attack, be left with the single option of ordering the mass destruction of enemy civilians, in the face of the certainty that it would be followed by the mass slaughter of Americans? Should the concept of assured destruction be narrowly defined and should it be the only measure of our ability to deter the variety of threats we may face?

The questions are not new. They have arisen many times during the nuclear era, and a number of efforts have been made to answer them. We actually added several response options to our contingency plans in 1961 and undertook the retargeting necessary for them. However, they all involved large numbers of weapons. In addition, we publicly adopted to some degree the philosophies of counterforce and damage-limiting. Although differences existed between those two concepts as then formulated, particularly in their diverging assumptions about cities as likely targets of attack, both had a number of features in common:

> Each required the maintenance of a capability to destroy urban-industrial targets, but as a reserve to deter attacks on U.S. and allied cities rather than as the main instrument of retaliation.
>
> Both recognized that contingencies other than a massive surprise attack on the United States might arise and should be deterred; both argued that the ability and willingness to attack military targets were prerequisites to deterrence.
>
> Each stressed that a major objective, in the event that deterrence should fail, would be to avoid to the extent possible causing collateral damage in the USSR and to limit damage to the societies of the United States and its allies.
>
> Neither contained a clear-cut vision of how a nuclear war might end, or what role the strategic forces would play in their termination.
>
> Both were considered by critics to be open-ended in their requirement for forces, very threatening to the retaliatory capabilities of the USSR, and therefore dangerously stimulating to the arms race and the chances of preemptive war.
>
> The military tasks that each involved, whether offensive counterforce or defensive damage-limiting, became increasingly costly, complex, and difficult as Soviet strategic forces grew in size, diversity, and survivability.

Of the two concepts, damage-limiting was the more demanding and costly because it required both active and passive defenses as well as a counterforce capability to attack hard targets and other strategic delivery systems. Added to this was the assumption (at least for planning purposes) that an enemy would divide his initial attack between our cities and our retaliatory forces, or switch his fire to our cities at some later stage in the attack. Whaever the realism of that assumption, it placed an enormous burden on our active and passive defenses—and particularly on anti-ballistic missile (ABM) systems—for the limitation of damage.

With the ratification of the ABM treaty in 1972, and the limitation it imposes on both the United States and the Soviet Union to construct no more than two widely separated ABM sites (with no more than 100 interceptors at each), an essential building-block in the entire damage-limiting concept has now been removed. As I shall discuss later, the treaty has also brought into question the utility of large, dedicated anti-bomber defenses, since without a defense against

missiles, it is clear that an active defense against bombers has little value in protecting our cities. The salient point, however, is that the ABM treaty has effectively removed the concept of defensive damage limitation (at least as it was defined in the 1960s) from contention as a major strategic option.

Does all of this mean that we have no choice but to rely solely on the threat of destroying cities? Does it even matter if we do? What is wrong, in the final analysis, with staking everything on this massive deterrent and pressing ahead with a further limitation of these devastating arsenals?

No one who has thought much about these questions disagrees with the need, as a minimum, to maintain a conservatively designed reserve for the ultimate threat of large-scale destruction. Even more, if we could all be guaranteed that this threat would prove fully credible (to friend and foe alike) across the relevant range of contingencies—and that deterrence would never be severely tested or fail—we might also agree that nothing more in the way of options would ever be needed. The difficulty is that no such guarantee can be given. There are several reasons why any assurance on this score is impossible.

Since we ourselves find it difficult to believe that we would actually implement the threat of assured destruction in response to a limited attack on military targets that caused relatively few civilian casualties, there can be no certainty that, in a crisis, prospective opponents would be deterred from testing our resolve. Allied concern about the credibility of this particular threat has been evident for more than a decade. In any event, the actuality of such a response would be utter folly except where our own or allied cities were attacked.

Today, such a massive retaliation against cities, in response to anything less than an all-out attack on the U.S. and its cities, appears less and less credible. Yet as pointed out above, deterrence can fail in many ways. What we need is a series of measured responses to aggression which bear some relation to the provocation, have prospects of terminating hostilities before general nuclear war breaks out, and leave some possibility for restoring deterrence. It has been this problem of not having sufficient options between massive response and doing nothing, as the Soviets built up their strategic forces, that has prompted the President's concerns and those of our Allies.

Threats against allied forces, to the extent that they could be deterred by the prospect of nuclear retaliation, demand both more limited responses than destroying cities and advanced planning tailored to such lesser responses. Nuclear threats to our strategic forces, whether limited or large-scale, might well call for an option to respond in kind against the attacker's military forces. In other words, to be credible, and hence effective over the range of possible contingencies, deterrence must rest on many options and on a spectrum of capabilities (within the constraints of SALT) to support these options. Certainly such complex matters as response options cannot be left hanging until a crisis. They must be thought through beforehand. Moreover, appropriate sensors to assist in determining the nature of the atack, and adequately responsive command-control arrangements, must also be available. And a venturesome opponent must know that we have all of these capabilities.

Flexibility of response is also essential because, despite our best efforts, we cannot guarantee that deterrence will never fail; nor can we forecast the situations that would cause it to fail. Accidents and unauthorized acts could occur, especially if nuclear proliferation should increase. Conventional conflicts could escalate into nuclear exchanges; indeed, some observers believe that this is precisely what would happen should a major war break out in Europe. Ill-informed or cornered and desperate leaders might challenge us to a nuclear test of wills. We cannot even totally preclude the massive surprise attack on our forces which we use to test the design of our second-strike forces, although I regard the probability of such an attack as close to zero under existing conditions. To the extent that we have selective response options—smaller and more precisely focused than in the past—we should be able to deter such challenges. But if deterrence fails, we may be able to bring all but the largest nuclear conflicts to a rapid conclusion before cities are struck. Damage may thus be limited and further escalation avoided.

I should point out in this connection that the critics of options cannot have the argument both ways. If the nuclear balance is no longer delicate and if substantial force asymmetries are quite tolerable, then the kinds of changes I have been discussing here will neither perturb the balance nor stimulate an arms race. If, on the other hand, asymmetries do matter (despite the existence of some highly survivable forces), then the critics themselves should consider seriously what

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responses we should make to the major programs that the Soviets currently have underway to exploit their advantages in numbers of missiles and payload. Whichever argument the critics prefer, they should recognize that:

Inertia is hardly an appropriate policy for the United States in these vital areas;

We have had some large-scale pre-planned options other than attacking cities for many years, despite the rhetoric of assured destruction;

Adding more selective, relatively small-scale options is not necessarily synonymous with adding forces, even though we may wish to change their mix and improve our command, control, and communications.

However strong in principle the case for selective options, several questions about it remain. What kinds of options are feasible? To what extent would their collateral effects be distinguishable from those of attacks deliberately aimed at cities? And what are their implications for the future size and composition of our strategic forces and hence for our arms control objectives in this realm?

Many of the factors bearing on these questions will become more evident later in this statement. It is worth stressing at this point, however, that targets for nuclear weapons may include not only cities and silos, but also airfields, many other types of military installations, and a variety of other important assets that are not necessarily collocated with urban populations. We already have a long list of such possible targets; now we are grouping them into operational plans which would be more responsive to the range of challenges that might face us. To the extent neecssary, we are retargeting our forces accordingly.

Which among these options we might choose in a crisis would depend on the nature of an enemy's attack and on his objectives. Many types of targets can be pre-programmed as options—cities, other targets of value, military installations of many different kinds, soft strategic targets, hard strategic targets. A number of so-called counterforce targets, such as airfields, are quite soft and can be destroyed without pinpoint accuracy. The fact that we are able to knock out these targets—counterforce though it may be—does not appear to be the subject of much concern.

Hard Targets

In some circumstances, however, a set of hard targets might be the most appropriate objective for our retaliation, and this I realize is a subject fraught with great emotion. Even so, several points about it need to be made.

The destruction of a hardened target is not simply a function of accuracy; it results from the combined effects of accuracy, nuclear yield, and the number of warheads applied to the target.

Both the United States and the Soviet Union already have the necessary combinations of accuracy, yield, and numbers in their missile forces to provide them with some hard-target-kill capability, but it is not a particularly efficient capability.

Neither the United States nor the Soviet Union now has a disarming first strike capability, nor are they in any position to acquire such a capability in the foreseeable future, since each side has large numbers of strategic offensive systems that remain untargetable by the other side. Moreover, the ABM Treaty forecloses a defense against missiles. As I have already noted in public: "The Soviets, under the Interim Offensive Agreement, are allowed 62 submarines and 950 SLBM launchers. In addition, they have many other nuclear forces. Any reasonable calculation would demonstrate, I believe, that it is not possible for us even to begin to eliminate the city-destruction potential embodied in their ICBMs, let alone their SLBM force."

The moral of all this is that we should not single out accuracy as some sort of unilateral or key culprit in the hard-target-kill controversy. To the extent that we want to minimize unintended civilian damage from attacks on even soft targets, as I believe we should, we will want to emphasize high accuracy, low yields, and airburst weapons.

To enhance deterrence, we may also want a more efficient hard-target-kill capability than we now possess: both to threaten specialized sets of targets (possibly of concern to allies) with a greater economy of force, and to make it clear to a potential enemy that he cannot proceed with impunity to jeopardize our own system of hard targets.

Thus, the real issue is how much hard-target-kill capability we need, rather than the development of new combinations of accuracy and yield per se. Resolution of the quantitative issue, as I will discuss later, depends directly on the further evolution of the Soviet strategic offensive forces and on progress in the current phase of the Strategic Arms Limitation Talks.

In the meantime, I would be remiss if I did not recommend further research and development on both better accuracy and improved yield-to-weight ratios in our warheads. Both are essential whether we decide primarily on high accuracy and low yields or whether we move toward an improved accuracy-yield combination for a more efficient hard-target-kill capability than we now deploy in our missiles and bombers. Whichever way we go, we have more need than the Soviets for increased accuracy because of our constrained payloads and low-yield MIRVs which have resulted from our lower missile throw-weights.

With a reserve capability for threatening urban-industrial targets, with offensive systems capable of increased flexibility and discrimination in targeting, and with concomitant improvements in sensors, surveillance, and command-control, we could implement response options that cause far less civilian damage than would now be the case. For those who consider such changes potentially destabilizing because of their fear that the options might be used, let me emphasize that without substantially more of an effort in other directions than we have any intention of proposing, there is simply no possibility of reducing civilian damage from a large-scale nuclear exchange sufficiently to make it a tempting prospect for any sane leader. But that is not what we are talking about here. At the present time, we are acquiring selective and discriminating options that are intended to deter another power from exercising any form of nuclear pressure. Simultaneously, as I shall discuss later, we and our allies are improving our general purpose forces precisely so as to raise the threshold against the use of any nuclear forces.

Separability of Targeting Doctrine and Sizing of Forces

The evolution in targeting doctrine is quite separable from, and need not affect the sizing of the strategic forces. It is quite feasible to have the foregoing options without the limits set by the ABM Treaty and the Interim Agreement on offensive forces. What is more, none of the options we are adopting and none of the programs we are proposing for research and development need preclude further mutually agreed constraints on or reductions in strategic offensive systems through SALT. If the Soviets are prepared to reduce these arsenals in an equitable fashion, we are prepared to accommodate them. In fact, I can say that we we would join in such an effort with enthusiasm and alacrity.

To stress changes in targeting and new options does not mean radical departures from past practice. Nor does it imply any possibility of acquiring a first strike disarming capability. As I have repeatedly stated, both the United States and the Soviet Union now have and will continue to have large, invulnerable second-strike forces. If both powers continue to behave intelligently and perceptively, the likelihood that they would unleash the strategic forces is so low that it approaches zero. We are determined, nonetheless, to have credible responses at hand for any nuclear contingency that might arise and to maintain the clear ability to prevent any potential enemy from achieving objectives against us that he might consider meaningful. The availability of careful tailored, pre-planned options will contribute to that end. They do not invite nuclear war; they discourage it.

I repeat, we are eager to begin a reduction of the startegic forces by mutual agreement and on terms of parity. That is our first preference. We would be quite content if both the United States and the Soviet Union avoided the acquisition of major counterforce capabilities. But we are troubled by Soviet weapons momentum, and we simply cannot ignore the prospect of a growing disparity between the two major nuclear powers. We do not propose to let an opponent threaten a major component of our forces without our being able to pose a comparable threat. We do not propose to let an enemy put us in a position where we are left with no more than a capability to hold his cities hostage after the first phase of a nuclear conflict. And certainly we do not propose to see an enemy threaten one or more of our allies with his nuclear capabilities in the expectation that we would lack the flexibility and resolve to strike back at his assets (and those of any countries supporting the threat) in such a way as to make his effort both high in cost and ultimately unsuccessful.

How we proceed on these counts will depend on the USSR. But I do not believe that we can any longer delay putting our potential countermeasures into research and development. The Soviets must be under no illusion about our determination to proceed with whatever responses their actions may require. And if we undertake the programs that I shall discuss later, the prospects for misunderstanding should be low. More sensible arrangements for both parties may then be feasible.

Until the late 1960s, U.S. superiority in launchers, warheads, and equivalent megatonnage was so great that we could ignore or disparage the importance of such "static" measures in comparing our forces with those of the USSR. Now, however, our numerical superiority has disappeared in almost every category except that of warheads, and it could dwindle very rapidly there as well.

Whether the Soviets believe that with the shift in these indicators they have achieved any meaningful, exploitable, advantage is not clear. However, they have not been reticent in stressing to a variety of audiences their superiority over the United States in numbers of ICBMs and other strategic capabilities. Their words, at least, have suggested that they see these asymmetries as giving them diplomatic if not military leverage.

As far as we can judge, moreover, the Soviets now seem determined to exploit the asymmetries in ICBMs, SLBMs, and payload we conceded to them at Moscow. Apparently, they are considering the deployment of large numbers of heavy and possibly very accurate MIRVs. As I have already indicated, this kind of deployment could in time come to threaten both our bombers and our ICBMs. Admittedly, we would still retain immense residual power in our deployed SLBM force, and the Soviets would surely know it. But to many interested observers, the actual and potential asymmetries (as measured by these "static" criteria) would look even more pronounced in favor of the USSR.

In such circumstances we cannot exclude the possibility that future Soviet leaders might be misled into believing that such apparently favorable asymmetries could, at the very least, be exploited for diplomatic advantage. Pressure, confrontation, and crisis could easily follow from a miscalculation of this nature.

It is all well and good to assert that the Soviet leaders, faced by an adamant and unified America, would come to their senses in time to avoid fatal mistakes in such a situation and would recognize the illusory nature of their advantages. But a crisis might already be too late for such an awakening. It is worth a price in research and development hedges to prevent such illusions from arising in the first place.

None of this should be taken to mean that exact symmetry must exist between the two offensive forces. The United States is willing to tolerate the existence of asymmetries provided that, in an era of alleged parity, they do not all favor one party. But we are not prepared to accept a situation in which all the visible asymmetries point in one direction. And we know from experience that the Soviets are not prepared to do so either. The potential for misunderstanding, miscalculation, and diplomatic error is too great to risk. A more equitable and stable arrangement would be one in which both sides maintain survivable second-strike reserves, in which there is symmetry in the ability of each side to threaten the other and in which there is a perceived equality between the offensive forces of both sides.

Accordingly, not only must our strategic force structure contain a reserve for threatening urban-industrial targets, the ability to execute a number of options, and the command-control necessary to evaluate attacks and order the appropriate responses; it must also exhibit sufficient and dynamic countervailing power so that no potential opponent or combination of opponents can labor under any illusion about the feasibility of gaining diplomatic or military advantage over the United States. Allied observers must be equally persuaded as well. In this sense, the sizing of our strategic arsenal, as distinct from our targeting doctrine, will depend on the outcome of SALT. In default of a satisfactory replacement for the Interim Agreement on strategic offensive forces, we will have to incorporate "static" measures and balancing criteria into the planning of our strategic offensive forces.

PRINCIPAL FEATURES OF THE PROPOSED POSTURE

This review of the factors that necessarily shape the planning and programing of the strategic nuclear forces should also indicate the principal features that we propose to maintain and improve in our strategic posture. They are:

A capability sufficiently large, diversified, and survivable so that it will provide us at all times with high confidence of riding out even a massive surprise attack and of penetrating enemy defenses, and with the ability to withhold an assured destruction reserve for an extended period of time.

Sufficient warning to ensure the survival of our heavy bombers together with the bomb alarm systems and command-control capabilities required by

our National Command Authorities to direct the employment of the strategic forces in a controlled, selective, and restrained fashion.

The forces to execute a wide range of options in response to potential actions by an enemy, including a capability for precise attacks on both soft and hard targets, while at the same time minimizing unintended collateral damage.

The avoidance of any combination of forces that could be taken as an effort to acquire the ability to execute a first-strike disarming attack against the USSR.

An offensive capability of such size and composition that all will perceive it as in overall balance with the strategic forces of any potential opponent.

Offensive and defensive capabilities and programs that conform with the provisions of current arms control agreements and at the same time facilitate the conclusion of more permanent treaties to control and, if possible, reduce the main nuclear arsenals.

I will now discuss specific aspects of USSR and PRC strategic activities, together with the programs that we propose for the achievement of our force and employment objectives.

B. SIGNIFICANT DEVELOPMENTS IN THE STRATEGIC THREAT

The Soviet Union

One of the most important developments in the strategic threat during the past year has been the Soviet Union's demonstration of a MIRV technology. While this development had been anticipated for many years, the scope of the Soviet program as it has now emerged is far more comprehensive than estimated even a year ago. It is now apparent that all four of the new Soviet ICBM's—the SS–X–18, a large liquid-fueled missile in the SS–9 class; the SS–X–17 and the SS–X–19, two medium liquid-fueled missiles with three to five times the throw-weight of the early model SS–11; and the SS–X–16, a light solid-fueled missile in the SS–13 class—employ a post boost vehicle (PBV), commonly known in our country as a bus-type dispensing system. The SS–X–16 thus far has been flight tested with only one RV, but the other three ICBM's have now all been tested with unmistakably MIRVed payloads.

The breadth and depth of this Soviet ICBM program is further manifested by the wide variety of techniques and technology employed in the new systems. All four of these systems have computers aboard the post boost vehicles. New guidance concepts, two different types of post boost vehicle propulsion, and two different types of launch techniques are employed.

Although the SS–X–16 has thus far been tested with only one RV, a MIRV version cannot be precluded at this time. Indeed, if a MIRVed version is not developed, the only benefit to be derived from the use of a PBV in the SS–X–16 would be a possible improvement in CEP. However, it now appears that a land-mobile version of the SS–X–16 may also be under development. Consequently, this missile may be deployed in both a fixed and land-mobile mode. As you know, the Interim Agreement itself does not restrict the development of land-mobile systems by either side, but the U.S. Government has unilaterally declared that it would consider the deployment of such missiles inconsistent with the objectives of the Agreement.

The SS–X–17 and SS–X–19 are apparently competitive developments of a potential replacement for the SS–11. Of the two, the SS–X–17 is technologically the more advanced. The SS–X–17 has been tested with both a single large RV and with four MIRVs. The single RV version could carry a large warhead and probably has sufficient accuracy to give it a very effective hard target kill capability. The MIRVed version, with much smaller warheads, would be essentially a soft target weapon. The SS–X–19, in contrast, has been tested only with a MIRVed payload of six RVs. We believe that it is not as yet sufficiently accurate to constitute a hard target weapon.

Nevertheless, the SS–X–17 and SS–X–19 MIRVs are clearly designed for greater accuracy, e.g., they have reentry vehicle configurations shaped for high speed atmospheric reentry. Consequently, with further refinements in the PBV guidance systems (and, hence, better CEPs) they may in time acquire a hard target capability. Both of these ICBMs can be deployed in the new type silos. With some modifications to the silos, particularly in the case of the SS–X–19 which is longer than the SS–11 and the SS–X–17, they could also be deployed in the current SS–11 silos.

The SS–X–18, like the SS–X–17, has been tested with both a single large RV and with five relatively large MIRVs. We believe that even the MIRVed version will have a very respectable hard target kill capability. The SS–X–18 can be deployed in the new type large silos, and with some modification to the silos, in the existing SS–9 silos.

In summary, the new Soviet ICBM program represents a truly massive effort—four new missiles, new bus-type dispensing systems, new MIRVed payloads, new guidance, new-type silos, new launch techniques, and probably new warheads. If all three of the new and heavier missiles are deployed, throw-weight in the Soviet ICBM force will increase from the current 6–7 million pounds to an impressive 10–12 million pounds. This throw-weight, combined with increased accuracy and MIRV's, could give the Soviets on the order of 7,000 one-to-two megaton warheads in their ICBM force alone. This very impressive program appears to have three main objectives—expanded target coverage (particularly countermilitary) with MIRVs, improved pre-launch survivability with the new hard silo designs, and the attainment of a significant hard target kill capability. Given the warhead yield and CEP currently estimated for the MIRVed version of the SS–X–18, and looking at the fixed land-based portion of our strategic TRIAD in isolation from other elements, a force of about 300 of these missiles (permitted under the Interim Agreement) could pose a serious threat to our ICBM's in their silos, even after those silos are upgraded. Moreover, it is more than likely that the MIRVed follow-on to the SS–11, whether it be the SS–X–17 or SS–X–19, will also achieve a respectable hard target kill capability during the early part of the next decade.

The most notable development in the Soviet SLBM program during the past year is the flight test of a new multiple RV version of the SS–N–6. These are MRVs rather than MIRVs, i.e., they are not individually targetable. Hence, this SS–N–6 is similar to our POLARIS A–3. There is as yet no evidence of a MRV or MIRV version of the longer range SS–N–8, which is being deployed in the new D-class submarine. Nor is there any evidence of depressed trajectory testing of either the SS–N–6 or the SS–N–8.

We believe that virtually all SSBN production has now shifted to the D-class which carries 12 launchers each. (There is some evidence, however, that a modified D-class submarine with more than 12 tubes may now be under construction.) A total of 33 Y-class submarines (with 16 launchers each) has been completed and 18 or 19 D-class had been launched or were being assembled by the end of 1973, for a total of at least 744 launchers. Thus, it appears that the Soviet Union intends to go beyond the "baseline" SAL ceiling of "740 ballistic missile launchers on nuclear-powered submarines".

The Interim Agreement gives the Soviet Union the option to replace its old SS–7s and 8s (209 launchers) with "modern" SLBM launchers (SS–N–6s and 8s or better) up to a total of 950 launchers and 62 modern nuclear-powered submarines (Y and D-class or better). However, the phase out of the old systems is not required until the submarine with the 741st launcher enters sea trials—which we now estimate will occur in mid-1975. At the current rate of production, 6–8 per year, the Soviet Union could have 62 operational "modern ballistic missile submarines" by mid-1977.

The major ongoing development in the Soviet strategic bomber force is, of course, the BACKFIRE. We expect the first squadron of BACKFIREs to become operational sometime this year.

The question of range and primary mission of the BACKFIRE has yet to be fully resolved. It now appears that the latest model will have a greater range than estimated for the earlier model. This factor, coupled with its known refueling capability, would seem to indicate that the BACKFIRE could be used as an inter-continental as well as a peripheral bomber, the role for which it appears best suited. Even so, the deployment of this new bomber would not substantially alter the U.S. air defense problem. As long as we cannot defend our cities against ballistic missile attack, there is little to be gained by trying to defend them against bomber attack. I will have more to say about this matter when I discuss our revised air defense program.

With regard to Soviet strategic defensive programs, there is still no evidence that the construction of an ABM defense for an ICBM area has been started. (The ABM Treaty allows both sides a total of 200 ABM launchers, 100 for the defense of the national capital area and 100 for the defense of an ICBM area.) In fact, there have as yet been no additions to the 64 ABM launchers in place around Moscow before the ABM Treaty was signed. The Soviet Union, however,

has not lost interest in ABM defense. Flight testing of the new ABMs discussed here last year is continuing.

Modernization of Soviet air defenses is also continuing. The number of active SA–2 sites is declining, but additional SA–3 low altitude and SA–5 high altitude SAMs are being deployed. Similarly, new and more capable interceptors are entering the forces, but at a slower rate than older interceptors are being phased out. Although the Soviet air defense system is the most formidable in the world and is still being improved, it is not likely to offer an insurmountable obstacle to our bomber force in the foreseeable future. Should the Soviet Union develop and deploy an AWACS–FOXBAT "look-down, shoot-down" air defense system, as described in this report in past years, we would of course have to counter it with new penetration devices and techniques such as the cruise missile, bomber defense missiles, and improved ECM.

Soviet AWACS–FOXBAT

Chairman McClellan. What threat would the development of a Soviet AWACS–FOXBAT "look-down, shoot-down" air defense system pose to the planned U.S. B–1 bomber force?

Secretary Schlesinger. A Soviet AWACS–FOXBAT "look-down, shoot-down" air defense system would provide the capability to detect and attack bombers penetrating at very low altitude, without airborne or ground radar control—a capability which is not possible with current Soviet interceptors.

The B–1 design takes into account the possible deployment of such a Soviet air defense system. In this context, the B–1 design incorporates techniques which reduce its radar cross-section. Detection by a Soviet AWACS or FOXBAT would not occur until the B–1 was well into its penetration phase. Moreover, the B–1 will have a powerful and highly effective electronic countermeasures (ECM) system designed to mask the aircraft with electronic jamming. This further reduces the detection range of a Soviet AWACS and look-down, shoot-down interceptors.

Our analyses demonstrate that the B–1 will have a probability of penetration near [deleted] under a Soviet AWACS system. Should the Soviets deploy an air defense system greater than that expected, it may be necessary to equip the B–1 with air-to-air missiles designed to destroy the AWACS and FOXBAT before the B–1 comes under attack or possibly use cruise missiles launched from early arriving bombers in a defense suppression role against interceptor and AWACS bases before these aircraft are launched.

Chairman McClellan. Proceed.

Secretary Schlesinger. In this connection, we must be careful not to draw a false analogy from the Hanoi and Suez Canal air defense experiences. In both those cases the air defenses were heavily concentrated in a very limited area; moreover, only conventional weapons were employed by the attacking aircraft. In the case of the Soviet Union, the number of places which have to be defended is very large and, consequently, the air defenses are spread over a vast area. Our bombers, in striking back at the Soviet Union, would be penetrating at very low altitudes to avoid the high and medium altitude SAMs, and would be using SRAMs to attack the low altitude SAM batteries. Moreover, our bombers would be employing nuclear weapons, only one of which need penetrate to destroy the target and probably much of its air defenses.

The People's Republic of China

The PRC land-based ballistic missile program is progressing slowly but steadily. Most important from the U.S. point of view is the continuing development of the ICBM, which was flight tested again in 1973. We remain convinced that the PRC will pursue that program to a successful conclusion and achieve an ICBM capability before the end of this decade. Even a small force of operational ICBMs in hard silos—20 to 30—would give PRC considerable strategic leverage; it would be able to augment its threat to the principal Soviet cities west of the Urals, and for the first time to extend its reach to the major cities in the United States.

Production of the BEAGLE light bomber in the PRC is continuing at a very modest rate. Neither the BEAGLE nor their BADGER medium bomber has sufficient range to reach the continental United States, but both can threaten our forces and allies in Asia and the Western Pacific, as well as the eastern part of the Soviet Union.

The PRC is also gradually strengthening its air defenses with the deployment of additional MIG–19 interceptors and SA–2 type SAMs. Nevertheless, those defenses, because of their qualitative limitations, are not likely to present much of an obstacle to either the United States or the Soviet Union in the event of war, at least during the balance of this decade.

C. U.S. STRATEGIC FORCES AND PROGRAMS

Although the Interim Agreement on strategic offensive forces expires in October 1977, we are continuing to plan our forces within the bounds of that agreement and the ABM Treaty; and, for intelligence estimating purposes, we are assuming the Soviet Union will do the same. Admiral Moorer will provide a detailed comparison of U.S.-USSR strategic forces in his Military Posture presentation. For convenience, a summary comparison is shown on the following page.

Strategic Offensive Forces and Programs

We plan to continue in our strategic forces over the foreseeable future an appropriate mix of bombers, ICBMs and SLBMs—the so-called TRIAD. Our purpose in doing so is not to provide an independent assured destruction capability in each element of the strategic forces, as some people have presumed. Rather, it is to achieve a sufficient degree of diversification in our forces to hedge against both foreseeable and unforeseeable risks, and to enable us to continue to make available to the President a reasonable range of strategic options as USSR and PRC capabilities evolve.

I am sure the members of this Committee are well aware that each of the three major elements of our strategic forces has its own particular strengths and weaknesses with regard to pre-launch survivability and the ability to penetrate the enemy defenses. By maintaining an appropriate mix of the three, however, we can maximize their collective strengths and minimize the effects of their individual weaknesses, thus ensuring that the force as a whole is not inherently vulnerable to any one type of attack or any one type of defense.

UNITED STATES AND U.S.S.R. STRATEGIC FORCE LEVELS

	Mid-1973		Mid-1974	
	United States	U.S.S.R.	United States	U.S.S.R
Offensive:				
ICBM launchers [1]	1,054	1,550	1,054	1,575
SLBM launchers [2]	656	550	656	660
Intercontinental bombers [3]	496	140	496	140
Force loadings weapons	6,784	2,200	7,940	2,600
Defensive: [4]				
Air defense:				
Interceptors [5]	559	2,800	532	2,600
SAM launchers	481	9,800	261	9,800
ABM defense launchers		64		64

[1] Excludes launchers at test sites.
[2] Excludes launchers on diesel-powered submarines.
[3] Excludes bombers configured as tankers and reconnaissance aircraft.
[4] Excludes launchers at test sites.
[5] These numbers represent total active inventory (TAI).

Secretary Schlesinger. Force diversification is also essential to hedge against the unforeseeable risks, such as technological breakthroughs by the other side and unanticipated weaknesses in one or more of our own systems. Last year we encountered an example of the latter, i.e., some unexpected failures in the operational tests of the POSEIDON missile. I will discuss the nature of this problem and the measures being taken to correct it a little later. At this point, I simply want to note that his unanticipated failure, while worrisome, is by no means most of its intended missions, we have a variety of other systems which can critical. Aside from the fact that the POSEIDON force even now can marry out fill the gap until the necessary corrective actions are completed. In short, this is precisely the kind of situation the TRIAD was intended to hedge against.

In addition to hedging against risks, a well diversified force is needed to support the President's request for "other strategic options." As I indicated earlier,

these other options imply a much wider range of capabilities than that required for assured destruction only. For example, capabilities are required to destroy military as well as urban, defended as well as undefended, and time urgent as well as non-time urgent targets. Moreover, the forces should include some weapons which are highly reliable, some which are highly accurate, and some which are highly controllable from launch to target. Here, again, each member of the TRIAD has some unique capabilities to offer.

On balance, therefore, I believe the continued support of well diversified U.S. strategic offensive forces clearly remains essential to our national security. Given the increasing size and variety of Soviet strategic capabilities, U.S. force diversification will be much more important in the future than it has been in the past.

MINUTEMAN

The principal impact of the new emphasis on "other strategic options", as far as the FY 1975 Budget is concerned, is on the MINUTEMAN program, particularly MINUTEMAN III. This missile, with its capacity for three RVs, relatively good accuracy, rapid retargeting capabilities, and relatively secure and reliable communications links to the National Command Authorities, is clearly a most versatile and cost-effective weapon.

Retargeting MINUTEMAN

Chairman McClellan. How long does it take to retarget the entire U.S. MINUTEMAN force?

Secretary Schlesinger. Presently, it would take 45 days to retarget the entire MINUTEMAN force.

Chairman McClellan. Proceed.

Secretary Schlesinger. Even without any additional R&D funding, we believe that the CEP of the MINUTEMAN III will gradually improve with continued testing. Beyond that point, further improvements in the counter-military capabilities of our ICBM force would require the deployment of more than the currently planned 550 MINUTEMAN III missiles, larger yield warheads, an improved or new guidance system for MINUTEMAN III, terminally guided maneuvering RVs (MaRVs) or the development and deployment of an entirely new ICBM. In view of the on-going SALT talks, we propose in the FY 1975 Budget to take only those first few steps which are necessary to keep open these options; no decisions have been made to deploy any of these improved systems.

First, we propose to keep the MINUTEMAN III production line going at the lowest feasible rate—five missiles per month. The FY 1974 Budget request included $394 million for the procurement of the last 136 MINUTEMAN III missiles, plus $23 million for long leadtime items to protect the option to deploy more than 550 MINUTEMAN III if that should prove desirable. The Congress approved the procurement of 115 missiles in FY 1974, deferring 21 to FY 1975. To that 21, we now propose to add 40 more operational test assets, making a total buy of 61 missiles in FY 1975. The $758 million shown for the MINUTEMAN program in FY 1975 on the table beginning on the following page includes $285 million for the procurement of the 61 missiles and initial spares, and $15 million for long leadtime items to keep open the option for a FY 1976 buy. No decision has as yet been made to deploy more than 550 MINUTEMAN IIIs; we simply want to keep that option open.

Second, we have requested the Atomic Energy Commission (AEC) to keep open at the lowest feasible rate the MK 12 warhead production line.

Third, we propose to develop the option for some additional refinements in the existing MINUTEMAN guidance system, mostly in the software program, which should further reduce the CEP. Development of these refinements will cost about $100 million, of which the first $32 million is included in the FY 1975 amount shown for MINUTEMAN.

Fourth, we propose to proceed with engineering development of a new higher yield warhead for the MINUTEMAN III. The new warhead plus the more advanced (i.e., miniaturized) arming and fusing mechanism would be incorporated in a new center section which could be retrofitted into the existing MINUTEMAN III MK 12 RV without any changes in its weight, balance or other flight characteristics. The flight test data base accumulated for the MK 12 RV, therefore, would be directly applicable to the new MK 12A RV, and flight tests of the latter could be limited to the verification of the new arming and fusing components. The R&D and tooling costs (DOD only) for the MK 12A are estimated at about $125 million, the first increment of which—$25 million—is included in the FY 1975 amount shown for MINUTEMAN.

ACQUISITION COSTS OF MAJOR STRATEGIC FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS [1]

[In millions of dollars]

	Fiscal year—		
	1973 actual funding	1974 planned funding [2]	1975 proposed funding
Strategic offense:			
Continued Procurement of Minuteman III Missiles, Minuteman Silo Upgrading and Other Related Programs	816	730	758
Preparations for Minuteman II Operational Base Launch (OBL) Tests			16
Advanced ICBM Technology	8	4	37
Conversion of SSBNs to Poseidon' Configuration, Continued Procurement of Poseidon' Missiles and Associated Effort	698	313	192
Development, Procurement and Military Construction—Trident Submarines and Missiles	794	(25) 1,435	2,043
Initiation of Design for a new SSBN			16
Development of Advanced Ballistic Reentry Systems and Technology (ABRES)	93	90	120
B–52D Modifications	46	38	73
Continued Development of New Strategic Bomber, B–1	445	449	499
Procurement of Short Range Attack Missile (SRAM)	203	133	2
Development of the Bomber Launched and Submarine Launched Versions of the Strategic Cruise Missile	53	14	125
Initial Development of Advanced Tanker/Cargo Aircraft			20
Strategic Defense:			
Continued Development of the Over-the-Horizon (OTH) Back-Scatter Radar	3	3	12
Continued Deployment of Safeguard	599	341	61
Continued Development of Site Defense	80	110	160
Development of Advanced Ballistic Missile Defense Technology	93	62	91
Development and Acquisition of the SLBM Array Radar Warning System			50
Command and Control:			
Development and Procurement of Advanced Airborne Command Post (AABNCP)	117	50	90
Development of Sanguine Elf System	9	13	13
Civil Defense: Continued Support of the Civil Defense Program	82	82	86

[1] Includes costs of R.D.T. & E., procurement of the system and initial spares, and directly related military construction.
[2] Figures in parentheses are the amounts included in the fiscal year 1974 supplemental.

Secretary SCHLESINGER. Fifth, we plan to initiate advanced development of a terminally guided MaRV for possible retrofit into both ICBMs and SLBMs. This MaRV could give the MINUTEMAN III a very high accuracy, if such a capability should be needed in the future. The $20 million required to start this program is included in the FY 1975 amount shown for Advanced Ballistic Reentry System (ABRES).

Sixth, we plan to flight test a MINUTEMAN III with a larger number of smaller RVs. This payload, if successfully demonstrated, would give us the option to expand the target coverage of the MINUTEMAN force without any increase in the number of missiles deployed. About $8 million will be needed to start the test program in FY 1974 and $19 million to complete the test program in FY 1975. The FY 1974 sum is included in ABRES and the FY 1975 amount in the MINUTEMAN lines shown on the table.

The $758 million requested for the MINUTEMAN program in FY 1975 also includes funds for the continuation of the Silo Upgrading effort, and for the installation of the Command Data Buffer System at all MINUTEMAN III bases. The ability provided by the latter to retarget the MINUTEMAN III missiles rapidly from the launch control centers will greatly enhance the flexible employment possible with the force. Installation of the new system in the first MINUTEMAN III squadron was completed last year and all 50 missiles in the squadron were successfully programmed from the launch control center. Deployment of the 550 MINUTEMAN III missiles will be completed by end FY 1975 but silo upgrading and installation of the Command Data Buffer System in the first two wings, which were deployed before these programs were started, will not be completed until FY 1978. Upgrading of the MINUTEMAN II silos will be completed in FY 1980.

MINUTEMAN II Operational Base Launch Tests

In order to demonstrate the ability of our operationally deployed MINUTEMAN missiles to perform their assigned missions, we now proposed to undertake

a new Operational Base Launch (OBL) program involving full range flight testing out into the Pacific of eight MINUTEMAN II missiles in as close to an operational configuration and ground environment as possible. Four missiles would be launched from Malmstrom Air Force Base during the winter of 1974–75 and four more from that or some other northern base during the winter of 1975–76.

MINUTEMAN Partial OBL

Chairman McClellan. Three of the four MINUTEMAN partial operational base launch tests have been unsuccessful. What is the assurance of success of the planned operational base launch tests?

Secretary Schlesinger. Although three of the attempted launches were unsuccessful, the two failures in 1966 were valuable in that they uncovered system deficiencies which were subsequently corrected in the force. The 1968 failure was caused by a faulty connector. The missile was removed, repaired, and launched from Vandenberg with no additional problems. It should also be noted that all four missiles were special short-burning test missiles not operationally configured. Since that time, we have conducted extensive tests of MINUTEMAN missiles and silo equipment separately and in combination. It is the success of these tests which gives us confidence in the reliability of the MINUTEMAN weapon system and assures the success of the planned operational base launches. However, a function of the tests is to validate that, indeed, the conditions of launch from operational silos are accurately characterized by the launches from special test silos used at Vandenberg.

Chairman McClellan. Proceed.

Secretary Schlesinger. These would be the first full range flight tests of MINUTEMAN missiles from operational silos. The partial operational base launch tests conducted in 1965, 1966 and 1968, with mixed results, were not actual flight tests. In those tests, the missiles were loaded with just enough fuel for a seven second burn, enough to reach an altitude of about one mile, out to a range of about one mile. The first seven-second test of a MINUTEMAN I from Ellsworth AFB in 1964 was successful. The other three attempts from Grand Forks AFB in late 1966 were not; in each instance the missile failed to launch because of a variety of mechanical difficulties associated with that particular test missile and silo.

All three major versions of MINUTEMAN have, of course, been repeatedly flight tested from Vandenberg Air Force Base out into the Pacific. But to some extent these were specially configured test missiles launched from specially configured test silos under carefully controlled conditions. While the missiles to be launched in the new OBL program would carry dummy warheads, they would be typical operational missiles in all other respects. Operational flight tests of this sort, i.e., from operational silos, are conducted routinely by the Soviet Union; they have conducted about 100 firings of this sort.

Development and test of the special equipment needed for safety and for directing and monitoring the launches has already been funded in prior year budgets. Funds to initiate preparations for the eight MINUTEMAN II OBL tests would be provided through reprogramming in FY 1974; an additional $16 million is included in the FY 1975 Budget to continue that effort.

Advanced ICBM Technology

To ensure a realistic option to modernize our ICBM forces in the 1980s, we are requesting about $37 million in FY 1975 for advanced technology leading to the development of an entirely new ICBM. We are considering the technologies for both a new, large payload fixed-base missile which could be launched from the existing MINUTEMAN silos, and a new mobile missile, either ground or air launched. As noted earlier, the Interim Agreement itself does not prohibit the development or the deployment of mobile ICBMs. The United States, however, has unilaterally stated that in its view the deployment of operational mobile ICBMs would be inconsistent with the objectives of the Agreement. The Soviet Union has made no response to that statement and, as I noted earlier, we believe that the development of a land-mobile version of the SS–X–16 may be underway. Consequently, we cannot preclude the possibility that a mobile version of the SS–X–16 will eventually be deployed. In that case, we may find it necessary to deploy a mobile ICBM of our own.

In any event, we intend to pursue this new development at a very deliberate pace, pending the outcome of the current SALT negotiations. The initial effort in this new advanced ICBM technology program will be devoted to basing tech-

nology leading to the selection of the preferred basing mode, to guidance requirements which are unique to mobile missiles, both air-launched and ground-launched, and to rocket motor technology to increase the amount of throw-weight per pound of propellant. A new guidance system would be incorporated in the new missile. This system, plus appropriately sized MIRVs would give the new ICBM a very good capability against hard targets.

POSEIDON

The $192 million requested in FY 1975 for the POSEIDON program includes $129 million to complete the funding (except for FY 1976 and subsequent year outfitting and post-delivery costs) of the last three of the 31 SSBN conversions and the last one of the four submarine tender conversions planned, $48 million for the support of POSEIDON missiles, and $15 million for the Poseidon Modification Program.

The original FY 1974 Budget included funds for the last five SSBN conversions, but delays in the completion of certain SSBN overhauls made it necessary to defer the last three conversions to FY 1975. The Congressional committees were notified of this delay in September 1973 and the amounts appropriated for FY 1974 already reflect the related funding adjustments. Of the 28 conversions funded through FY 1974, 20 have been completed and are currently deployed, two are in predeployment status, and six are undergoing conversion. As currently scheduled, the last three conversions will all have been started by April 1975. This stretchout will reduce the number of POSEIDON-equipped submarines on the line, as compared with last year's estimates, by one at end FY 1975 and two by end FY 1976. The last conversion is scheduled for completion in April, 1977.

The POSEIDON Modification Program is the outgrowth of the deficiences encountered last year in the POSEIDON Operational Test (OT) program, which have already been reported to the Congress. In view of the technical problems revealed as a result of these tests, the Unified Commander suspended the POSEIDON OT program in March 1973.

A thorough review of all the available POSEIDON test data leads to the conclusion that except for a weakness in the RV nose tip, which we believe has been corrected and in any event affects only a small percentage of the force, most of the failures encountered were attributable to random deficiencies in small piece parts such as transistors, electrical connections, fuses, etc., and in the preparation of operational missiles for flight tests. In contrast to the Demonstration and Shake-down Operations (DASO) test missiles, which come directly from the Navy's missile facility at Charleston, S.C., four OT missiles are selected at random from the complement of 16 carried by a submarine returning from patrol. The selected missiles are then modified by removing the entire payload section and replacing it with a test payload of dummy RVs and instrumentation, and by installing a destruct device—all while the missile is still in the launch tube of the submarine.

The deficiencies encountered in the POSEIDON OT tests are typical of those experienced in other new weapons systems, and subsequently corrected. None of them is related to the basic design of the POSEIDON missile, which we have every reason to believe is entirely sound.

The POSEIDON Modification Program is designed to correct deficiencies in the POSEIDON missile itself, in the special test hardware, and in procedures. The total cost of the program is currently estimated at $126 million, about $23 million to incorporate the necessary changes in missiles still in production and the balance to modify missiles already delivered to the Navy. About $38 million would be devoted to the more comprehensive testing of small piece parts, $24 million to replace detonating fuses with those of a new design, $18 million to improve gimbal assemblies, $10 million to modify firing units, $2 million to replace flexible hoses with those of a new design, etc. Improved missiles will be installed in the 21st through 31st converted submarines; the first 20 POSEIDON submarines, already deployed, will be retrofitted with the improved missiles over a period of about three years. The entire modification program is expected to be completed by 1977.

Age of POSEIDON

Chairman McClellan. In 1977, what will be the average age of the POSEIDON force?

Secretary Schlesinger. Measured from date of first deployment, the average age of the POLARIS SSBNs (598/608 class) will be 15.6 years; the average age

of the 31 POSEIDON SSBNs will be 11.8 years; the average age force-wide will be 12.8 years.

Chairman McCLELLAN. Proceed.

TRIDENT

Secretary SCHLESINGER. While failures encountered in the POSEIDON operational tests have no direct relation to the TRIDENT missile program, they do remind us once again of the monetary risks involved in moving rapidly into large-scale production of any new major weapon system. Operational testing, of course, cannot commence until the system has actually been operationally deployed. But by holding initial production to a reasonably low rate, we can reduce the costs of correcting those inevitable deficiencies which are not discovered until the system is operationally tested. This is particularly true in the case of such technically advanced and costly weapon systems as the TRIDENT submarine.

Accordingly, after starting the first TRIDENT submarine in FY 1974, we now propose to build the nine remaining TRIDENT submarines discussed here last year at a rate of two a year (instead of three a year) beginning in FY 1975. In addition, we currently plan to procure sufficient TRIDENT I missiles to backfit ten POSEIDON submarines. As you know, the TRIDENT I missile is being designed to fit in the existing POSEIDON submarines as well as in the new TRIDENT submarines. By retrofitting the TRIDENT I missile in some of the POSEIDON submarines, we can improve the overall capability and survivability of the existing SSBN force and at the same time maintain a more economical rate of production for the TRIDENT I.

TRIDENT I BACKFIT

Chairman McCLELLAN. Will you backfit the Trident I missiles into the ten newest Poseidon boats, or will it depend on the fleet overhaul schedule?

Secretary SCHLESINGER. Trident I missiles will be backfitted into Poseidon SSBNs as these boats are due for overhaul.

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. The IOC of the TRIDENT I missile remains as previously planned, i.e., the fourth quarter of 1978 (the second quarter of FY 1979), which coincides with the IOC of the first TRIDENT submarine. We plan to undertake an advanced development program which will define our capability to improve and measure the accuracy of our SLBMs and which, if implemented by retrofit, could lead to improved accuracy in the future. In addition, the MK 500 MaRV is now under advanced development for the purpose of demonstrating its compatibility with the TRIDENT I missile. This maneuvering RV, however, is not terminally guided since its maneuvering capability is intended to help it evade an ABM interceptor, rather than to increase its accuracy. Indeed, the MK 500 is expected to be less accurate than its ballistic counterpart.

The TRIDENT I IOC date should allow ample time for an orderly missile development and DASO test program. As noted earlier, the OT program cannot be started until the system has been operationally deployed. However, we do plan to conduct OT launches earlier in the TRIDENT program than we did with POSEIDON. Backfitting of the TRIDENT I missiles into POSEIDON submarines is planned to begin in the third quarter of FY 1979

This revised program will require a total of $2,043 million in FY 1975—$107 million for continued component development of the submarine, $927 million to complete the funding of the second and third TRIDENT submarines, $240 million for advanced procurement for two TRIDENT submarines per year in FY 1976 and FY 1977, $662 million for the continued development and minor procurement related to the TRIDENT I missile, and $107 million in Military Construction funds to continue work on the TRIDENT Refit Facility at Bangor, Washington. In addition, about $25 million is included in the FY 1974 Supplemental to protect the option for the procurement of two TRIDENT submarines in FY 1975.

Although the Interim Agreement on strategic offensive forces, expiring in 1977, would require us to phase out an equivalent number of existing strategic missile launchers as each new TRIDENT submarine enters sea trials, that decision need not be made now.

NEW SSBN OPTION

Some $16 million is included in the FY 1975 Budget to initiate design for a new and less costly SSBN than the TRIDENT. This is another application of the high/low mix approach. With a TRIDENT force in being, it is not likely

that all of the sea-based force need have the capability provided by the larger and more costly ship.

The current POSEIDON submarines refitted with the new TRIDENT I missile could, of course, fulfill this low end of the spectrum requirement. But because of aging, POSEIDON submarines will have to be replaced at least by the late 1980s and early 1990s. Consequently, more SSBNs, beyond the ten TRIDENT submarines, would eventually have to be built. The design of a smaller, less costly SSBN would give us the option later in this decade to replace the current POLARIS/POSEIDON fleet with a mixed force of high performance and high cost or lower performance and lower cost SSBNs.

The new SSBN would be somewhat larger than the 640-class (the last class of POLARIS/POSEIDON submarines) and would be powered by a NARWHAL-type reactor. In looking toward a smaller and lower cost SSBN, wherein platform numbers rather than large numbers of tubes per submarine are featured, this new design would have about 16 missile tubes using the TRIDENT I missile. Funds requested cover commencement of a conceptual feasibility design effort, which will identify cost and characteristics trade-offs.

NARWHAL-TYPE REACTOR

Chairman McCLELLAN. What is a NARWHAL-type reactor?

Secretary SCHLESINGER. The NARWHAL is an attack submarine, an SSN. [Deleted.] This enhances the survivability of the submarine. The TRIDENT reactor plant is based on the same principal but is of higher power level.

Chairman McCLELLAN. Proceed.

ABRES

Secretary SCHLESINGER. Included in the FY 1975 Budget is $120 million for the Advanced Ballistic Re-entry Systems Program (ABRES). This program has been the source of much of the advanced re-entry technology incorporated in our strategic missile programs, and to a considerable degree it is reasonable for our technological lead in this area. Moreover, ABRES has made a major contribution to our understanding of ABM defense because of its work on a wide variety of ballistic missile penetration aids. Now that the Soviet Union is catching up with us in reentry technology, we must renew our efforts to stay ahead in this critical aspect of the strategic balance.

The ABRES program is managed by the Air Force, but the work being done also supports Navy and Army projects. In view of its tri-service nature, we have decided to give the Director of Defense Research and Engineering a greater role in the overall direction of the ABRES program. Henceforth, DDR&E will establish the general scope and priorities of the ABRES program and formally review the program twice a year. Following these reviews, DDR&E will provide the Air Force with general and specific guidance, as necessary. The existing ABRES organization structure, which has members of each service as line deputies to the ABRES Program Manager, will be retained to assure that close coordination among the three services is preserved.

B–52 FORCES

The bomber forces are essentially the same as those presented here last year, with two exceptions. First, all of the active B–52D's and F's will be retained through FY 1975. Second, beyond FY 1975 our planned B–52 force of 5 D and 17 G/H squadrons will increase by one G/H squadron (17 to 18). This increase reflects the reorganization necessary to form a composite Combat Crew Training Squadron (CCTS). The UE of each B–52 squadron will be reduced from 15 to 14 to provide aircraft for the CCTS.

Last year the Air Force had planned to start in March 1973 the structural modification of 80 B–52Ds to ensure that the programmed service life can be safely achieved. The program was later deferred, pending approval by the interested Congressional committees. Meanwhile the condition of the B–52D aircraft was found to be worse than originally anticipated. Accordingly, the Air Force has performed a "fracture toughness" program to test the structures of 94 B–52Ds in order to select the best aircraft for proof test, modification, and retention. Including the cost of this special test program, which entails the procurement of proof test jigs, the total cost for the test of 94 aircraft and the modification of 80 aircraft is now estimated at about $240 million.

Last year the cost of modifying 80 aircraft was estimated at $197 million. The Congress has approved the use of $61 million in FY 1973 and prior year funds for initial engineering, plant layout and tooling. Another $38 million was provided for FY 1974, and $73 million in procurement funds is requested for FY 1975. The program is now scheduled to be completed by the first quarter of FY 1977.

In my judgment, the B–52D modification program deserves the full support of the Congress, notwithstanding its substantial cost—about $3 million per aircraft. Recently completed U.S. air operations in Southeast Asia clearly demonstrated the effectiveness of the B–52 in the conventional bombing role. Without the B–52D force, this capability could be provided only at the expense of our strategic capabilities which are already finely balanced in relation to the challenge posed by the Soviet strategic forces.

B–1 Bomber

Indeed, if we are to continue to maintain an effective strategic bomber force through the 1980s and beyond, as I am convinced we should, we will eventually have to modernize that force. The principal improvements needed are (1) faster airfield escape and greater protection against the effects of nuclear detonations in order to avoid destruction by SLBMs which might be launched on depressed trajectories from Soviet SSBNs operating close to our shores, and (2) a capability to fly at very low altitude at high subsonic speed in order to penetrate improved Soviet air defenses. Although we have no evidence as yet that the Soviet Union is developing depressed trajectory SLBMs, or plans to operate its SSBNs close to our shores, or will undertake major new air defense programs at home, all of these capabilities will clearly be within its technical competency and economic capacity.

Accordingly, in planning for the 1980s and beyond, we should provide ourselves the option to replace the existing bomber force with a more capable aircraft. The B–1 is being developed for this purpose. It will have a distinctly shorter escape time and much better resistance to nuclear effects than the B–52, and by virtue of its lower flight altitude, greater speed and smaller radar crosssection, it should have a much better capability to penetrate improved Soviet air defenses. Moreover, because of its wider range of altitude and airspeed options, the B–1 will provide greater flexibility in employment than the B–52, thereby enhancing our ability to execute a wide range of attack options in response to potential enemy action.

B–52/B–1 Cost Comparison

Chairman McClellan. Using 1975 dollars, compare the cost of a B–52 with a B–1 aircraft.

Secretary Schlesinger. It is difficult to make a direct estimate of the cost of a B–52 on the same basis as a B–1, inasmuch as the B–52 has been bought in several models, in different quantities, and has undergone extensive modifications during its life. However, if the total cost of a B–52 with its modifications is estimated and learning curve adjustments are made to accommodate different quantities, the program unit cost of a B–52 with its present capability would be $44.1 million in 1975 dollars. The B–1 as presently designed is estimated to cost $53.1 million (1975 dollars) and will provide significantly improved capability.

Chairman McClellan. Proceed.

Secretary Schlesinger. The B–1 engineering development program, however, has encountered a number of difficulties and delays, necessitating several major adjustments in the program. The latest of these adjustments was reported to the Congress last summer. First flight was rescheduled from April to mid-year 1974. More time was allowed for the fabrication and assembly of Air Vehicles #2 and #3. The planned production decision date was rescheduled from July 1975 to May 1976.

Last August, shortly after assuming his responsibilities as Secretary of the Air Force, Secretary McLucas appointed a special committee, headed by Dr. Raymond Bisplinghoff, the Deputy Director of the National Science Foundation, to undertake an independent review of the B–1 program. The principal finding of this group of technical and management experts was that there are no major technical problems which preclude the successful development and production of the B–1 aircraft. The Committee noted, however, that the existing program plan would make completion of the development effort and successful transition to the production phase unlikely within projected cost and time schedules. The Committee also expressed the belief that three aircraft would not be sufficient to complete development of a complex program such as the B–1 and allow the final development aircraft to reflect accurately the initial production aircraft.

With regard to schedule and cost, the Committee's best judgment was that a two to three month delay would be incurred in the projected first flight of Air Vehicle #1 and a six to twelve month delay in completion of the total development program. The Committee also estimated that at least $300 million more would be required to complete the development program as it was rephased in July 1973.

The Committee's major recommendation was that the B–1 program should be restructured to provide for completion of the development effort on a more realistic basis and to provide for a less disruptive transition into the production phase.

Finally, Dr. Bisplinghoff and his associates also furnished Secretary McLucas with their estimates of potential B–1 performance parameters—ranging from Possible, to Most Probable, to Reasonably Adverse. These potential performance deviations result primarily from an increase in the gross take-off weight of the B–1 aircraft, from about 360,000 lbs to the presently projected 395,000 lbs.

B–1 Weight

Chairman McClellan. Last year, the committee was informed of an 18,000 pound weight increase over the original design goal for the B–1. Now the increase is 35,000 pounds. Explain this increase of almost 100 percent since last year.

Secretary Schlesinger. The original design goal was established based on early parametric design studies. As the design of the B–1 evolved, weight estimates were based on values assigned to specific components. In the past year as the first aircraft was fabricated, we have been able to use actual experience and materials to better establish the aircraft weight. The weight increase which has been indicated through this process is acceptable since the performance degradation associated with it is not considered critical.

Chairman McClellan. Proceed.

Secretary Schlesinger. The Air Force has conducted a through analysis of the utility of the B–1 aircraft within the full range of potential performance deviations provided by the Committee. The Secretary of the Air Force, the Chief of Staff, and the Commander in Chief of the Strategic Air Command have concluded that even under the most adverse estimates of performance the B–1 would be operationally effective against the full target spectrum. Moreover, even with the increased weight there are still 100 airfields in the U.S. which would support continuous B–1 operations and an additional 220 airfields which would be suitable for use in emergency dispersal operations. Thus, although some weight reduction should result as a byproduct of engineering changes for purposes of producibility and cost avoidance, there is no requirement for significant changes to the B–1 program solely to regain performance.

A basic problem highlighted by the Committee was the severe program discontinuity which results from the gap of 24 months between first flight and the production decision. The contractor would not be able to retain critical skills and know-how during such an extended gap in effort. Moreover, any plan which was dependent on the recovery of these critically needed personnel after a production decision is made would expose the program to additional technical risks and costs.

Accordingly, in order to facilitate the B–1 flight test program and to provide a more realistic basis for transition to production, we propose to begin work on Air Vehicle No. 4 in FY 1975 and, possibly, Air Vehicle No. 5 in FY 1976. These aircraft would provide needed flight test data 12 to 18 months earlier than would otherwise be possible, and they could also be used to introduce engineering refinements to the basic design.

Although the four and possibly the fifth aircraft would be funded with RDT&E funds, they would ultimately be assigned to the SAC inventory. Moreover, the additional aircraft would be built on existing development tooling, modified only as required by aircraft design improvements. Thus, there would be no additional program cost, assuming a subsequent production decision. Nor would these additional aircraft prejudge the production decision. In consonance with our fly-before-buy policy, the B–1 is expected to undergo about two years of flight testing and achieve the essential critical milestones before a production decision is made. Under the currently proposed program plan, this decision could be made in November 1976. The FY 1975 Budget includes $499 million for the B–1 program.

Bomber-Launched Missiles

The acquisition of the SRAM (Short Range Attack Missile) will be essentially completed with FY 1974 funding and the planned complement of operational (UE) missiles, 1140, will be on hand by the mid 1970s. Because of its relatively poor accuracy and aerodynamic drag on the B–52 G/H, a decision has been made to phase out Hound Dog by FY 1976. The number of Quails will be reduced significantly by end FY 1976.

Last year the Congress was informed of the Defense Department's decision to cancel the SCAD engineering development program and to incorporate further work in that area in a joint Air Force-Navy cruise missile technology program. The Air Force was to concentrate on the development of a small turbofan engine suitable for both an air-launched and submarine-launched cruise missile, and the related high energy fuel. The Navy was to pursue the development of the guidance technology which was to be common to both missile systems.

Planning of this joint technology effort has progressed to the point where we can now present a more definitive program for FY 1975 and beyond. As currently planned, the Air Force would commence engineering development of an Air Launched Cruise Missile (ALCM) in FY 1975, making maximum use of the terminated SCAD engineering program for air vehicle design and small turbofan engine development. The new missile would have about the same overall dimensions as the SCAD so that it could be loaded interchangeably with the SRAM missile, one for one, both internally on the rotary racks of the B–52 or the B–1 and externally on the wing pylons of the B–52. It would weigh about 2,000 pounds and would be equipped with a terrain avoidance system which would permit it to fly just a few hundred feet above the surface of the earth.

The ALCM could be made available for initial deployment in the late 1970s, but it would be premature to make a production decision at this time. In the meantime, we have authorized retention of some of the Quail unarmed decoys.

The Navy SLCM, using the common technology base, would be developed in both strategic and tactical variants, and would be sized to take maximum advantage of the standard torpedo tubes. The strategic version would carry a nuclear warhead about 1500 nm. Like the ALCM, the SLCM would have very good accuracy and penetrate at low altitudes.

While the strategic variant would be primarily a submarine-launched missile, the tactical variant would be designed to be launched from surface ships as well as submarines since it would be primarily a conventionally-armed anti-ship missile. The tactical variant would have a range in excess of 300 nm.

A total of $125 million has been included in the FY 1975 budget request for the combined cruise missile program—$80 million for the Air Force ALCM and $45 million for the Navy SLCM.

Advanced Tanker/Cargo Aircraft

It is clear that if we continue to support a large strategic bomber force for any extensive period of time into the future, a new refueling tanker will eventually be required. The cost of acquiring a sufficiently large number of such tankers would undoubtedly be quite high. It may be possible, however, to satisfy that tanker requirement in conjunction with some other important requirement, such as augmentation of our current airlift capability.

Tanker/Cargo Aircraft

Chairman McClellan. Is this advanced tanker/cargo aircraft the one recently pictured as being suitable as a platform for launching ICBMs?

Secretary Schlesinger. The aircraft which we propose to investigate for the advanced tanker/cargo mission would be a derivative of one of the present wide-body jets. These include the 747, DC–10 and L–1011. A modified version of one of these same aircraft is potentially suitable as a platform for launching ICBMs.

Chairman McClellan. Proceed.

Secretary Schlesinger. We have included $20 million in the FY 1975 Budget for studies and investigations of alternative approaches to this tanker requirement. The effort will be divided in two parts:

(1) Competitive studies to determine the most effective way to convert a currently available wide-bodied civilian transport aircraft into an efficient military cargo/tanker aircraft.

(2) An initial investigation of the trade-offs between a modified (from a currently available aircraft) and a newly designed strategic tanker/cargo aircraft, with particular emphasis on fast escape and hardness.

STRATEGIC DEFENSIVE FORCES

I believe it is clear from what I have already said that without effective ABM defenses, air defenses are of very limited value against potential aggressors armed with strategic missiles. This interdependency of anti-ballistic missile and anti-bomber defenses has been well understood for many years. But as long as there was some chance that we might deploy at least a thin nationwide ABM defense, it made sense to keep open the option to deploy a complementary air defense. Now that the ABM Treaty limiting both sides to only 100 operational ABM launchers at each of two sites has been signed, the deployment of even a thin nationwide ABM defense as been foreclosed. Indeed, we have deferred all work on the second ABM site for the defense of the National Command Authorities (i.e., the national capital area). Given the very tight defense budget constraints under which we now have to operate, we cannot in good conscience postpone any longer the basic adjustments in our air defense program made necessary by the changing worldwide situation.

You may recall that former Secretary of Defense McNamara in his last posture statement in 1968 set forth six possible purposes that our air defense system might serve in the 1970s:

1. Peacetime surveillance to prohibit free access over North America from the air.
2. Nth country defense to prevent damage from an attack by such countries as Cuba, the PRC, etc.
3. Discourage the Soviet Union from developing and introducing new bomber threats which would be costly to neutralize.
4. Limit damage to our urban/industrial complex from a Soviet bomber attack in the event deterrence fails.
5. Preclude bomber attack on our withheld strategic missile forces.
6. Provide a complete mobile "air defense package", portions of which could be deployed to any part of the world for use in periods of local crisis.

The fourth purpose—limit damage to our urban/industrial complex—is now possible only to the extent that we are successful in limiting the scope of any conflict that did occur. Since we cannot defend our cities against strategic missiles, there is nothing to be gained by trying to defend them against a relatively small force of Soviet bombers. I am sure the Soviet leaders understand that an attack on our cities, whether by bombers or missiles, would inevitably result in the destruction of their cities. Even if the USSR uses all of its ballistic missiles against our strategic offensive forces and reserves its bombers for use against our cities, repeated analyses have convincingly demonstrated that under all foreseeable circumstances we would have sufficient surviving forces to retaliate decisively against Soviet cities. It is this assured capability to retaliate decisively against Soviet cities even after absorbing the full weight of a Soviet nuclear attack that offers the best hope of deterring attack and thus protecting our cities, not our ability to defend them against bomber attack.

The fifth purpose—preclude bomber attack on withheld ICBMs, or bombers, for that matter—might still have some advantage today. That advantage, however, would be seriously eroded if the USSR deploys its new MIRVed ICBMs up to the limits allowed by the Interim Agreement. If it did so, the USSR would have enough ICBM RVs to launch a series of follow-on attacks against our withheld ICBMs. It would also have enough SLBMs for follow-on attacks against bomber bases or against SLBMs in port. Thus, to protect our withheld IBCMs, SLBMs in-port, and bomber bases, we would need a balanced defense against both missiles and bombers. Such a defense is foreclosed by the ABM Treaty.

With regard to the third purpose—discourage the USSR from introducing new bomber threats—I believe we should continue to pursue a broadly based R&D program in the strategic air defense area. That program, however, should be focused on basic research and the advancement of technology, rather than on engineering development of new weapon systems. We already have a number of new and expensive air defense weapon systems developed or under development for general purpose forces applications—e.g., F-15, F-14 (PHOENIX), AWACS, SAM-D. But we must take care not to fall behind the Soviet Union in basic knowledge and understanding of the air defense problem. We need this knowledge and understanding, in any event, for our bomber programs. And, we should in prudence hedge against the possibility that a technological breakthrough or some other change in the strategic situation might make the deployment of new systems for continental air defense both feasible and desirable.

The first and last purposes—peacetime surveillance and control and mobile air defense forces—and to some extent the second purpose, Nth country defense—are still feasible and necessary. We must, as a very minimum, ensure the sovereignty of our air space; it would also be very helpful to have available a mobile air defense capability which could be deployed promptly overseas.

Forces provided for the first purpose would also provide a reasonable level of defense against the unlikely contingency of an Nth country air attack on the United States, most conspicuously Cuba. We have no reason to believe that Cuba has nuclear weapons or is likely to acquire any in the foreseeable future. Furthermore, Cuba's air force is very limited in payload and range; it could reach only the southeastern part of the United States. Finally, the consequences to Cuba of a surprise air attack on the United States would be so grave that the chances of its occurrence must be rated at near zero. With regard to the PRC, we have no evidence whatsoever that that nation is seeking an intercontinental bomber capability.

The first purpose requires only a thin area-type defense plus a high quality surveillance capability. Accordingly, we now propose to phase out all of the strategic NIKE-HERCULES batteries (which are all located around nine urban areas) and eventually reduce the interceptor force to 12 squadrons—six active and six Air National Guard (ANG). The NIKE-HERCULES batteries and their Fire Coordination Centers will be phased out by the end of FY 1975. Also in FY 1975, the active interceptor force will be reduced to six F–106 squadrons, and two F–106 squadrons will be added to the Air National Guard, for a total of six F–106 ANG squadrons. Seven ANG F–102 squadrons will be phased out in FY 1975. Current planning for FY 1976 includes phase-out of the remaining F–102s and evaluation of the continued utility of the F–101. Pending a review of the retention of F–101s, these six interceptor squadrons will be retained until the end of FY 1976.

Air National Guard

Chairman McClellan. Mr. Secretary, your statement and recent news media reports state that all Nike-Hercules batteries will be phased out in FY 1975 and eventually the interceptor force will be reduced to 12 squadrons—six active and six Air National Guard. Does this assume that the manned bomber threat has deteriorated to the extent that we no longer need this protection?

Secretary Schlesinger. The changes in the continental defense mission resulted from recognition of major increases in Soviet capability in intercontinental ballistic missiles and the relatively diminishing capabilities represented by their manned bombers. Further, under the provisions of the ABM Treaty, we have relinquished the option for continental defense against strategic missiles. In the absence of this option, and in recognition of the Soviet strategic missile capability, maintaining our existing posture for defense against manned aircraft appears to be of little value. We do, however, realize the need for a surveillance system to control our airspace, and a warning system against a manned bomber attack. Our planned air defense forces will satisfy these objectives and will provide some inherent capability to defend against a bomber attack.

Backfire Bomber

Chairman McClellan. Can the Russian BACKFIRE bomber attack targets in the U.S.? If so, what areas can be attacked and under what conditions?

Secretary Schlesinger. Recent engineering analyses credit the BACKFIRE with a maximum unrefueled radius of between [deleted]. This would be for a mission flown subsonically, wings extended, at high altitude, and carrying [deleted] pounds of bombs; other payloads would result in less radius. Refueled, the radius becomes about [deleted] when operating from forward bases. The result is that BACKFIRE could theoretically strike most of the U.S.—except Florida.

The contemplated use of the BACKFIRE in such a role is not clear. Even with around 3,100 nm maximum radius, the BACKFIRE would require both Arctic staging and aerial refueling to achieve comprehensive coverage of the U.S. on realistic two-way flight profiles. To accomplish this, the availability of suitable tankers in sufficient numbers is a prerequisite. Currently, the BISON tankers are the only ones in the force that are compatible with the BACKFIRE. However, these have been committed to support heavy bombers already on hand. Conversion of the BISON bombers to tankers would be enough to support only a limited BACKFIRE force.

Aircraft Detection System

Chairman McClellan. Will we have an enemy aircraft detection capability to warn us if an attack is imminent?

Secretary Schlesinger. Our current line-of-sight (LOS) radars provide ten to twenty minutes warning against high-altitude enemy aircraft, the amount of early warning being dependent upon aircraft speed. However, against aircraft penetrating at low level, the warning time is greatly reduced or even nonexistent. In either case, enemy bombers could release air-to-surface missiles (ASM) prior to detection by our existing coastal radars. We are developing an OTH–B (Over-the-Horizon Backscatter) radar which can provide a quantum improvement in early warning against enemy aircraft penetrating at any altitude—up to [deleted] prior to their ASM release line. There is $12 million identified in the FY 75 budget for this development.

Air National Guard Missions

Chairman McClellan. Did you consider alternative missions for the Air National Guard squadrons involved in this decision concerning air defense?

Secretary Schlesinger. Yes. Alternate missions as well as alternate equipments were considered for the Air National Guard squadrons affected by the air defense decisions. Two of the squadrons will begin conversion to F–106 aircraft, and one of the squadrons will begin converison to A–7D aircraft during FY 1975. However, all of the units cannot be reequipped for alternate missions.

Active/Reserve Costs

Chairman McClellan. What does it cost to man, operate and maintain an Air National Guard squadron compared to a comparable active duty squadron?

Secretary Schlesinger. An Air National Guard (ANG) Squadron, consisting of eighteen operational aircraft and flying about 4700 hours per year, costs about $12 million per year to operate and maintain. A similar active squadron flying 4700 hours per year would cost about $13 million to operate and maintain.

In actuality, an 18 aircraft ANG Squadron flies about 4700 hours per year while an 18 aircraft active squadron flies about 6100 hours per year. Based on these circumstances the actual costs are about $12 million for the ANG Squadron and $15 million for the active squadron.

Chairman McClellan. Proceed.

Secretary Schlesinger. In addition to these strategic air defense forces, we will have one active Air Force air defense squadron (F–4s) and three active Army NIKE-HERCULES batteries in Alaska, and one ANG air defense squadron (F–102s converting to F–4s in FY 1976) in Hawaii. (Canada has a number of CF–101 air defense squadrons operational.) We will also continue in place the active Army general purpose forces NIKE-HERCULES and HAWK batteries now operational in Florida. In addition, there will always be other general purpose air defense forces available in the U.S.—fighters and SAMs, and eventually some tactical AWACS—which could be used to augment the strategic air defenses in a crisis. And, of course, we will continue to have the option to deploy a new interceptor (e.g., F–15 or F–14) and a new SAM system (e.g., SAM–D) for CONUS defense, since those programs are being pursued in any event for the general purpose forces.

A CONUS air defense system structured primarily for peacetime surveillance would not require an AWACS force, the principal purpose of which is to provide a survivable means of control of air defense aircraft in a nuclear war environment. However, as I noted earlier, a mobile air defense force which could be deployed quickly as a "package" would still be extremely useful in support of our general purpose ground and air force overseas. We propose, therefore, to retain the AWACS (now designated E–3A) program for that purpose, and I will discuss it later in context with the general purpose air forces.

The Defense Department has been working for a number of years with the Federal Aviation Administration to consolidate the military and civilian radar and control centers in CONUS into a common, jointly operated system designed to serve both military and civilian needs. This work is still going on. Nine joint-use surveillance radars are now in operation. In FY 1978, joint-use radars will replace all military surveillance radars in CONUS. These U.S. radars, and possibly some of the Canadian radars near the border, will feed into 13 USAF/FAA Joint Control Centers: the first four will be operational by end FY 1977 and all 13 by end FY 1979. The six existing Regional Control Centers (SAGE) will be phased out in FY 1978. A new command and control plan tailored to the

revised air defense structure and missions is now under development by the Air Force.

As the new joint system becomes operational, one of the two CONUS manual Control Centers and the last CONUS BUIC III Control Center (in Florida) will be phased out. All of the remaining airborne radars will be phased out by end FY 1977. Although no changes are planned through FY 1979 in the surveillance radars and control systems in Alaska and Hawaii, the Air Force is currently investigating the feasiblity of employing CONUS BUIC assets for the semi-automation of the Alaskan air defense systems.

OTH–B

For deployment in the 1980s, we propose to continue work on the development of the Over-the Horizon Backscatter (OTH–B) radar, for which $12 million is included in the FY 1975 Budget. This radar promises to extend the early warning capability against bombers. Three such radars—one each on the East and West coasts, and one covering the southern approach—would give good coverage on all except the northern approach to the U.S. For the northern approach, we will have to retain the 31 DEW line radars until such time as we can perfect an OTH radar, or some other system, which can operate successfully in the presence of the intense electrical disturbances which characterize the northern auroral zone.

SAFEGUARD

As my predecessor, Elliot Richardson, reported to you last year, we plan to complete deployment of the one remaining SAFEGUARD site at Grand Forks for defense of MINUTEMAN. Work at all other sites has been terminated. The $61 million included in the FY 1975 Budget for development of SAFEGUARD is principally for completion of the check out and installation of the software; funding for procurement, military construction and systems flight testing was essentially completed with the FY 1974 Budget.

The Grand Forks site with 30 Spartan and 70 Sprint launchers, one Missile Site Radar (MSR) and one Perimeter Acquisition Radar (PAR) is scheduled to be completed in FY 1975. The equipment readiness date is still estimated to be October 1974, and an initial operational capability is expected to be achieved by June 1975.

The SAFEGUARD system test program at Kwajalein Atoll in the Pacific is proceeding very satisfactorily. In the first SAFEGUARD system test series (1970–71) 12 out of 16 tests were successful, 2 were partially successful and 2 were unsuccessful. In the second series, which will now be concluded in July 1974, 33 tests were conducted through December 1973—30 were successful and three were unsuccessful. Seven tests remain to be completed, but some of these may be omitted if the current test objectives can be met with fewer tests.

SITE DEFENSE

Included in the FY 1975 Budget is $160 million to continue work on the SITE DEFENSE Program, the objective of which is to demonstrate a development prototype ABM system specifically designed for the defense of MINUTEMAN. I believe this program is a prudent and necessary hedge. It would give us the option to defend our MINUTEMAN force against a Soviet ballistic missile attack should that become necessary, or in the event that an acceptable permanent agreement on the limitation of strategic offensive arms cannot be achieved. It would also give us the option to deploy a more advanced ABM system for the defense of the National Command Authorities, if that should be found desirable some time in the future.

The SITE DEFENSE Program will be conducted on a very austere basis. It must be borne in mind, however, that SITE DEFENSE must be developed with "system" applications in mind, if the demonstration of the development prototype is to be of any real value. Development of the hardware, e.g., the improvements to the SPRINT missile, the new small (relative to the MSR) radar, and the data processors is well within the state of the art. What needs to be demonstrated is the capability of the system as a whole, including in particular the software.

SITE DEFENSE

Chairman MCCLELLAN. What is the estimated total development cost for SITE DEFENSE? How much has been expended to date?

Secretary SCHLESINGER. A total SITE DEFENSE development effort leading to a full deployment readiness would consist of the currently authorized prototype demonstration program plus an engineering development program. An engineering development phase for SITE DEFENSE has not been authorized nor requested.

The currently authorized prototype demonstration program has a total estimated cost of $895 million (including $20 million of MCA funds). As of 15 March 1974, the estimated total expenditure is $223 million. Should it be decided to carry the development through engineering development, additional costs of about $950 million are estimated.

Chairman MCCLELLAN. Proceed.

ADVANCED BMD TECHNOLOGY

Secretary SCHLESINGER. We also plan to continue the Advanced Ballistic Missile Defense Technology effort at about the same level as in recent years, and $91 million is included in the FY 1975 Budget for that purpose.

The rationale for continued research and development in BMD, as well as reentry systems (ABRES) technology, is founded on two specific SALT related objectives. One is to provide the Soviet leaders with strong incentives to negotiate additional strategic arms limitation agreements. The other is to motivate them to keep the treaties and agreements already made.

Nations make treaties, and nations keep treaties, only when they regard such actions to be in their best interests. If the Soviet leaders believe that they could gain an advantage over us in the absence of an agreement, they would have no incentive to reach agreement. But if we confront them with the prospect that even with strenuous efforts on their part they would not be able to shift the strategic balance in their favor, they would have an incentive to reach agreement on maintaining the balance, if for no other reason than to save money. Similarly, if we fail to advance our ABM technology while the Soviet Union continues to pursue its on-going ABM development programs, which are clearly permitted by the Treaty, the Soviet Union might achieve a position where, by abrogating the Treaty, it could shift the strategic balance drastically in its favor before we could react.

Consequently, we must continue to pursue ABM technology programs of sufficient breadth and depth to ensure that we can:

Keep our qualitative lead in ABM technology over the Soviet Union;

Understand and assess Soviet ABM activities which our intelligence sources reveal to us;

Achieve the knowledge and skill needed to deploy an effective ABM system if that should become necessary.

SATELLITE AND SLBM RADAR WARNING SYSTEMS

For surveillance and early warning of ballistic missile attack, we now depend on a variety of systems. The most important of these is the satellite warning system. We now maintain on station one satellite over the Eastern hemisphere and two over the Western hemisphere.

The Eastern hemisphere satellite would provide the first warning of a Soviet (or PRC) ICBM launch. This warning would be verified first by the forward scatter Over-the-Horizon (OTH) system and then by the Ballistic Missile Early Warning System (BMEWS). The capability to correlate data from BMEWS, satellite and other sources will provide highly credible warning of ICBM attack.

The Western hemisphere satellites provide the first warning of SLBM launches against the U.S. Complementary warning coverage is now supposed to be provided by the 474N SLBM "dish" warning radars. Unforunately, these 474N radars—four on the East Coast, three on the West Coast and one on the Gulf Coast—have limitations against Soviet SLBMs, particularly the new longer range SS–N–8. Moreover, there are a number of limitations in the current satellite coverage—it does not fully encompass all of the areas from which the SS–N–8 could be launched, it is susceptible to temporary solar induced outages which may cause some loss of coverage in these areas not covered by both Western Hemisphere satellites, and it is not entirely free of false alarms. To provide full coverage of the expanded SLBM threat area, and ensure prompt verification of the satellite data, we must have a more effective and reliable complementary warning system than the 474N radars.

Accordingly, we again propose to replace those radars (including the standby SLBM warning radar at Moorestown, N.J.) with two new SLBM Phased Array Warning Radars—one on the East Coast and one on the West Coast. These much more reliable and capable phased array radars, together with the Western Hemisphere satellites, would provide highly credible warning of a Soviet SLBM launch against the U.S. First warning of such an attack would come from the satellites, and within a very short interval, which increases with the distance the launching submarine is from our coast, verification of the attack would come from the SLBM phased array radars.

The phased array radars would not only verify the signals received from the satellites but would also fill in any gaps which may occur in the satellite coverage as a result of solar reflections. The additional confidence which we would gain in the reliability of the warning would, in my judgment, be worth the acquisition cost of the two radars—now estimated at approximately $100 million.

The FY 1975 Budget provides for further improvements to the satellite system and includes $50 million to begin acquisition of the SLBM phased array radars.

National Command Authorities

Continuity of command and control of the strategic forces by the National Command Authorities—before, during and after a nuclear attack on the United States—is a basic tenet of our national security policy. This means that we must not only ensure, to the best of our ability, the survival of the NCA and their principal advisors, but also the minimum essential communications links with the subordinate commands and the operating forces.

The command and control of U.S. military forces worldwide is normally conducted through the Worldwide Military Command and Control System (WWMCCS). The national level elements of this system include the National Military Command Center (NMCC) at the Pentagon, the Alternate National Military Command Center (ANMCC), and the National Emergency Airborne Command Post (NEACP) based at Andrews AFB, Maryland. The President, no matter where he may be—in the White House, Camp David, San Clemente, Key Biscayne, or airborne in the Presidential aircraft—is always kept in continuous communication with the NMCC, and through it, with the alternate national military command centers, the subordinate commands and the military forces.

These national military command centers are linked to the subordinate commands and the military forces worldwide by a wide variety of communication modes—land lines, underwater cables, VLF, LF, HF, UHF radio, satellite relay systems, etc. During the next few years we propose to increase significantly our efforts to improve the security and survivability of these WWMCCS supporting communications networks, particularly that portion designated as the Minimum Essential Emergency Communications Network (MEECN). MEECN is the basic system for communicating executive orders to our forces in wartime. Consequently, special attention must be given to its survivability under nuclear attack.

With regard to the strategic offensive forces, connections between the national level command centers and the Strategic Air Command and its forces are provided through a deliberately redundant system of communications and command posts. SAC, in addition to its principal command post at Omaha, Nebraska, also maintains two alternate ground command posts and one airborne command post. The SAC airborne command post is in continuous communication with the SAC command post at Omaha. On receipt of warning of a nuclear attack on the United States, the SAC airborne command post would be linked to the SAC forces and the national military command centers, including the NEACP, by the Post Attack Command and Control System (PACCS). One of the PACCS components, the Mid-AUXCP, can assume the CINCSAC function in the event that the primary SAC ABNCP is inoperable.

Te national military command centers are linked to the sea-based strategic missile forces, either through the appropriate subordinate commands or directly, by means of a deliberately redundant system of Navy radio transmitters and by the TACAMO relay aircraft. To maximize the survivability of communications from the NCA, these Navy transmitters (including TACAMO) can also be reached via those communications links involved in directing SAC forces. Messages could also be relayed to the ballistic missile submarines via ships at sea, communication satellites, LORAN, etc.

This system of command and control of the strategic offensive forces, however, is not now as survivable as the forces themselves. That is why the Defense Department has proposed, in addition to the improvements in the existing communi-

cations network, the continued development and deployment of the Air Force Satellite Communications System (AFSATCOM), the Advanced Airborne Command Post (AABNCP) aircraft, and the SANGUINE extremely low frequency (ELF) radio relay site. These three programs offer the best prospects, at this time, for a substantial advance in the survivability and effectiveness of our national command and control system under nuclear attack.

AFSATCOM AND SURVSATCOM

The AFSATCOM system, when fully deployed, will consist of a combination of special communications transponders and channels carried on board "host" satellites placed in orbit for other missions (e.g., Navy FLTSATCOM satellites) plus numerous ground and air terminals. This deliberately redundant satellite system will not only provide greater assurance that essential NCA instructions reach our forces, it will also enable the forces to report back the data needed by the NCA to maintain sure control and to execute a variety of nuclear options. We are also developing the technology needed to improve further the survivability of strategic communications satellites. This technology will lead to a new Survivable Satellite Communications (SURVSATCOM) system which should be available by the time it is appropriate to replace the AFSATCOM system sometime in the 1980s. Funding for AFSATCOM is included in other programs. Funding of SURVSATCOM as a separate program element is expected to begin in FY 1976.

AABNCP (E–4)

The AABNCP program, as currently planned, would be pursued in several stages geared to our growing understanding of the command and control problem in a nuclear war environment, and to the further development of applicable technology. It should be borne in mind in this connection that the aircraft itself (the Boeing 747, now designated the E–4) presents no particular technological problem. It is the equipment which goes into the aircraft that is our principal concern in this program. We would expect the aircraft to have a useful life of about 20 to 25 years. During that period, we would probably re-equip the aircraft, in whole or in part, as new technology becomes available and as changes in national policy dictate new missions to be accomplished by the strategic forces.

Accordingly, the longer range equipping program has been divided into "blocks." Block I is the currently approved configuration of the AABNCP. The airborne computer, which was associated with the original configuration of the AABNCP aircraft, has now been deferred from Block I to Block II.

I believe this deferral is a sensible move; the problems involved in an airborne automatic data processing (ADP) system have not yet been sufficiently resolved. The airborne ADP system must be compatible with the ground-based WWMCCS ADP system, since selected portions of the ground data base must be readily transferable to the airborne ADP. We are currently investing substantial funds in the modernization and standardization of this ground-based ADP system. Unfortunately, the ground ADP equipment cannot be used directly in the AABNCP aircraft because that equipment has not been designed for aircraft operations. Also further research must be done on shielding airborne computers against nuclear effects, particularly when the aircraft is airborne.

Finally, we have yet to formulate precisely which portions of the WWMCCS ground data base are actually required in the AABNCP. This would depend largely on how one would conceive the NCA function aboard the NEACP aircraft and the SAC commander's function aboard the SAC airborne command post. If the NCA is to be in a position to exercise a choice among a wide range of nuclear attack response options, including some which may not have been preplanned, the data required aboard the aircraft would be quite extensive. In the case of the NEACP, it would probably include status of forces and damage assessment information for both sides (U.S. and the attacker), status of allied and other national forces, and so forth. The SAC airborne command post might require even more detailed data, e.g., location and status of spare engines, reload weapons, fuel supplies, missile spare parts, maintenance capabilities, etc.

But even without the airborne ADP, the E–4 with the new Block I C^3 equipment (including antennas and terminals for satellite communication) and the greater available space, longer endurance, shorter takeoff, and other features, will greatly enhance our command and control capabilities under nuclear attack, as compared with the existing EC–135s. The new and more powerful communications equipment will help to overcome interferences caused by a nuclear environment or

jamming, as well as provide an interface with both the AFSATCOM satellite system and the Defense Satellite Communications System (DSCS). Moreover, the E–4 will have a computer terminal through which it can connect directly into the WWMCCS ground-based ADP system. It can thus acquire the latest data as long as the ground-based system continues to function. Thereafter, it would have to operate in a manual mode, using whatever data is already aboard plus updating by direct communications with the subordinate commands. The additional space would accommodate the larger staffs required for manual operations.

In order to provide an interim NEACP capability with the new aircraft, pending the development of the Block I C^3 equipment, the first three operational aircraft will be equipped with the existing C^3 package to be transferred from three EC–135s. The first two operational aircraft, designated E–4A and the one R&D aircraft, designated E–4B, were funded in the FY 1973 Budget. A third operational E–4A aircraft was funded in the FY 1974 Budget. The three operational E–4A aircraft constitute Phase 1A of the Block I program.

Phase 1B provides for the development of the Block I advanced C^3 package and for the acquisition of three operational E–4Bs, complete with the new C^3 package, for the NEACP function. The $90 million requested for FY 1975 includes $58.8 million to continue the development of the Block I C^3 package, $22.3 million for the construction of new facilities for the E–4A aircraft and alert crews, and $9 million for the initial increment of the Block II program.

Advanced Airborne National Command Post

Chairman McClellan. Does the FY 1975 request of $90 million for the Advanced Airborne National Command Post include funds to buy aircraft or long lead time aircraft procurement funds?

Secretary Schlesinger. No, sir; the $90 million requested in FY 1975 does not contain funds to buy aircraft or long lead time aircraft procurement funds. The $90 million includes $58.8 million to continue the development of the first phase command, control and communications package, known as Block I C^3; $22.3 million for the construction of new facilities to support the E–4 aircraft and alert crews; and $9 million for the initial increment of the Block II command and control equipment program.

Chairman McClellan. Proceed.

Secretary Schlesinger. The Block II funds would be used to initiate the definition of the airborne ADP system and such further improvements in the communications capabilities of the E–4B as may be found technically feasible, desirable and cost effective. Procurement of the three operational E–4Bs, with the Block I advanced C^3 package, would be funded in FY 1976 and would complete Phase I B.

Phase 1C of the Block I program involves the retrofit of the first three E–4A aircraft with the Block I advanced C^3 package.

The total cost of the Block I program is now estimated at about $550 million. The cost and timing of the Block II program cannot now be estimated since it has yet to be fully defined.

Sanguine Elf

The SLBM force, when at sea, is still the element of our strategic offensive forces least vulnerable to sudden nuclear attack. The communication links from the NCA to the individual ballistic missile submarines, however, are less survivable than the submarines themselves. Hence, we must make every feasible effort to ensure reliable communications with the SLBM force under all foreseeable circumstances.

The SANGUINE ELF system, in the present state of our knowledge, still holds the best promise of providing such a survivable communications link with our ballistic missile submarine. The SANGUINE transmitters would increase the number of aimpoints the Soviets would have to attack if they were to attempt to disconnect communications to our submarines and have a reasonable assurance of doing so. The SANGUINE signals would decrease susceptibility of our communications to atmospheric disturbances and enemy jamming. SANGUINE would also improve the survivability of the submarines themselves by removing them and their antennas from the near-surface environment. Moreover, notwithstanding popular fears to the contrary, the SANGUINE system would pose no known environmental, ecological, or biological dangers to the area in which it is installed.

SANGUINE

Chairman McCLELLAN. It appears that local opposition precludes installation of SANGUINE in an inhabited area. What alternatives do you have if this extremely low frequency system is not acceptable?

Secretary SCHLESINGER. There may be some opposition in certain localities to SANGUINE, but we are operating the Wisconsin Test Facility this year in order to gather more information on the capability and environmental impact of such an extremely low frequency transmitter. The matter of deployment, including location, will be considered in light of those tests.

However, there is no known alternative to an extremely low frequency system for providing survivable communications to submarines at operating depths and speeds. If we do not carry forward this development into an operational system, we will have to rely on less desirable and less survivable systems, such as the TACAMO airborne VLF system which would need to be increased to cover all submarine operating areas.

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. The need for a more survivable communications link to our ballistic missile submarines is clear, and the technical feasibility of the SANGUINE system has been reasonably well demonstrated during the four years of work at the Wisconsin test site. In view of the fact that we have no better alternative on hand, I strongly urge this Committee to support the SANGUINE program. We need not decide on the location of the operational site at this time, but we should press forward with the development of the system and prototype testing at the existing Government test sites. Concurrently, we should conduct a comparative analysis of all potential sites with a view to making a final recommendation before the operational system is ready for deployment. A total of $13.2 million has been included in the FY 1975 Budget for the continuation of the SANGUINE program on this basis.

CIVIL DEFENSE

The shift in our strategic deterrence policy which I discussed at the beginning of this section does not diminish the need for a vigorous Civil Defense Program. A Soviet counterforce attack which deliberately avoids our cities—for example, a large scale attack on MINUTEMAN—would still produce a large amount of nuclear fallout which could drift over our cities. It would be highly desirable, therefore, to continue our efforts to identify additional fallout shelter spaces for our population.

We expect to identify about eight million more shelter spaces per year, principally from new construction. We do not plan, however, to stock any more shelter spaces with Federal resources; we now have about 108 million spaces stocked for eight days usage. Instead, contingency planning will be continued by State and local governments to complete expeditiously the stocking of all identified spaces from locally available resources in the event of an intense international crisis.

Since it is quite possible that a period of intense crisis would occur before an attack, it may be feasible to relocate non-essential personnel from cities and high risk areas during such a period. Accordingly, some preliminary contingency planning is being undertaken for this purpose, including:

The designation of high risk areas.—Through our Civil Defense Regions and in cooperation with the States, unclassified maps depicting areas deemed to be at high risk from the direct effects of nuclear weapons are being developed. These maps assume military installations and industrial and population concentrations would be high value targets. Consideration is also being given to the designation of those areas which may be subjected to high levels of fallout at high risk areas.

Development of plans for relocation of the population in a crisis.—As the first step in crisis relocation planning we are developing allocation schemes to permit the population from some 250 of our urbanized areas to be assigned to appropriate host areas. The primary end product of this first step is expected to be the publication of information materials for distribution to the public in periods of severe crisis. These publications would advise the public "where to go and what to do" should relocation be implemented. Training of DCPA personnel and State and local personnel in handling relocation is currently underway. During the later portion of fiscal year 1974 we will be conducting some eight to ten pilot projects to provide on-the-job experience and to field test techniques. Concurrent with the pilot projects, research and development efforts will be initiated to pro-

vide planning guidance for State and local planning of, inter alia, food distribution during the relocation period, provision of fallout protection in host areas, and emergency services support.

The implementation of an "all effects" shelter survey.—The survey is designed to identify the best shelter protection available from fallout in all areas, and from the direct effects of nuclear weapons in high risk areas. This data will provide a basis for inplace shelter plans and also should provide input for shelter plans for both the "key operating personnel" who would be located in target areas after implementation of relocation plans, and the evacuated population in host areas. The survey data should be useful for identifying the need to upgrade existing shelter and the usefulness of expedient shelter measures.

The ability to conduct coordinated emergency operations must exist where the people are located—i.e., in the local jurisdictions throughout the United States. This means that the Federal Government must continue to meet its responsibilities under the Federal Civil Defense Act of 1950, as amended, to provide leadership, guidance and assistance to the State and local governments.

Development of civil defense capabilities which are essential to our national security also generates, as a bonus, an improved readiness on the part of State and local governments to conduct coordinated operations in peacetime emergencies and disasters. This peacetime capability is a secondary, but important, objective of the Civil Defense Program.

Included in the FY 1975 Budget is a total of $86.3 million for the Civil Defense Program. Of that amount, $9 million will be required for the shelters program, $40.3 million for financial assistance to State and local governments, and the remainder, $37 million, for related supporting programs such as training and education, attack warning, and radiation detection.

III. GENERAL PURPOSE FORCES

The resources that we commit to the general purpose forces constitute by far the largest part of the Defense budget. Not only do they include most of the Army, Navy, Marine Corps forces, they also cover the tactical units of the Air Force, all of our airlift and sealift and most of our National Guard and Reserve forces. Our security assistance programs go to the support of the general purpose forces of other nations. In addition, a substantial share of our outlays on intelligence and communications, and research and development, as well as a large percentage of our indirect support programs, are attributable to our general purpose forces. Although there is no precise way to allocate many of these costs, we estimate that more than 70 percent of our Defense expenditures is attributable to the general purpose forces and activities related to them.

A. The Need for General Purpose Forces

The allocation of such a large proportion of the Defense budget to general purpose forces may seem perverse in what has come to be known as the nuclear age, but there are a number of powerful reasons for it. With the rise of Soviet nuclear power, which has brought about an approximate parity in U.S.-Soviet nuclear capabilities, the relative contribution to deterrence made by our own strategic forces has inevitably declined, even though these forces continue to have a unique and indispensable role.

In an era of world-wide U. S. interests, power politics and nuclear parity, it is preferable to deter or to repel limited threats by limited means. To do that requires a capability to place boundaries on conflicts and exercise some degree of control over the escalation of violence in the event that deterrence should fail. The general purpose forces, it is generally agreed, are best suited to these purposes.

The Role of Theater Nuclear Forces

Of the resources we invest in the general purpose forces, almost all go to conventional rather than to our tactical nuclear capabilities. In part, this is so because many of our delivery systems—artillery, short-range missiles, and tactical aircraft—are dual-capable, and therefore the distinction between their nuclear and their conventional role is not clear cut. But in greater part, it is because our forces, in their conventional role, can be used more flexibly, and contribute more to our critical defense posture and to the world-wide military equilibrium we seek.

While it is essential to theorize about the nature of tactical nuclear warfare, we must acknowledge that as a practical matter, the initiation of a nuclear engagement would involve many uncertainties. Acceptable boundaries on such a conflict would be extremely difficult to establish. A nuclear engagement in the theater could well produce much higher military and civilian casualties and more widespread collateral damage than its non-nuclear counterpart, depending, of course, on the character and length of the engagement. What is more, it is not clear under what conditions the United States and its allies would possess a comparative military advantage in a tactical nuclear exchange.

Why, then, do we maintain such large and diversified nuclear capabilities in our main theater commands? The answer is threefold. First, maintaining these capabilities is essential to deterrence so long as opposing forces maintain similar capabilities. They help to deter a limited first-use of nuclear weapons by an opponent and along with the conventional and nuclear forces help create a general deterrent against either conventional or nuclear aggression. Second, should deterrence fail, the tactical nuclear capabilities provide a source of nuclear options for defense other than the use of the strategic forces. Third, given our doctrine of flexible response, we do not preclude the use of nuclear weapons by the United States and its allies in order to prevent a successful aggression.

There are, in other words, ample grounds for the continued maintenance of tactical nuclear weapons. I do not wish to argue, however, that our current posture—particularly in Europe—is ideal or that we do not need to improve it in a number of respects. To the contrary, it is already evident that we must, at a minimum, improve the survivability of these systems and upgrade their command and control.

At the same time, I must stress that our tactical nuclear systems do not now and are most unlikely in the future to constitute a serious substitute for a stalwart non-nuclear defense. In fact, we must recognize in our planning that the decision to initiate the use of nuclear weapons—however small, clean, and precisely used they might be—would be the most agonizing that could face any national leader. Accordingly, we and our allies must keep strong conventional forces at hand. Tripwire strategies or a "planned insufficiency" of non-nuclear capabilities are not sufficient for credible deterrence.

Sizing the General Purpose Forces

While the basic justification for the general purpose forces is generally understood and accepted, it is more difficult to determine the size, composition, and deployment of these forces. This is regrettable but hardly surprising, for the process of establishing requirements (both quantitative and qualitative) does not lend itself to the simple mathematics of the strategic nuclear exchange.

Of course, one way to dispose of the sizing problem is simply to produce a carbon-copy of the main threats. To adopt such a course, however, would impose impossible demands on our resources, overlook the facts of allies and geography, and ignore such phenomena as the Sino-Soviet split. Right now, for example, the USSR deploys nearly a fourth of its ground forces in the vicinity of the PRC's borders; unless the political situation in the Far East changes quite dramatically in the near future, it would be conservative planning at its worst (and most expensive) to count these forces as part of the threat to NATO which would necessitate countervailing forces of our own there.

A more complex but at the same time more practical procedure is to define theaters of vital interest to the United States—theaters such as Europe, the Middle East, Southeast Asia, Korea, Japan, and essential sea lanes—estimate specific threats that could materialize in these theaters and the contributions of allies, and then determine what forces we should provide to maintain an equilibrium. Once that is done, we can go on to decide how many of these contingencies might arise simultaneously.

Obviously, such a procedure is not without its problems. For example, how appropriate is this kind of planning in an era of detente—and what is the alternative to some form of capabilities planning? If specific contingencies are selected as the basis for determining our requirements, what evidence do we have that they, rather than some unanticipated event, will occur? And what is to prevent such planning from degenerating into an effort to anticipate every eventuality, however remote?

I confess that there are no easy answers to these questions. But to pretend that efforts at detente have suddenly made the world a safe place for our citizens and their pursuits would be to fly in the face of recent evidence to the contrary and ignore the role of the general purpose forces in producing deterrence, stability and the possibility of going beyond detente to a more durable peace. The time has not yet come, in short, to abandon capabilities planning.

The Planning Process

To overcome the drawbacks of capabilities planning, and particularly to keep our force requirements from becoming open-ended, we have developed a planning algorithm which makes the general purpose forces the function of several factors, namely:

Our analysis of the most demanding contingencies that could arise in theaters of primary interest to the United States and the requirements they would levy on allied and U.S. forces;

A determination of the number of contingencies, considering the international situation, that might occur more or less simultaneously and for which we should have active and reserve forces available;

The initial strategy that we and our allies should adopt, such as forward defense;

The length of the initial phase of the conflict and its implications for the mix of active and reserve forces, strategic mobility, anti-submarine warfare (ASW), and logistics.

To the extent that this planning algorithm has become a matter of public knowledge, it has been used in a somewhat mechanical fashion primarily to advocate a reduction in general purpose forces. To avoid future misunderstandings about its application, a number of points about the algorithm should be kept in mind.

Its purpose, in focusing on selected theaters and contingencies, is not to prepare only for those eventualities. Rather, the objective is to discover what we would need if major challenges occurred in areas of vital interest to the United States. Once this need is determined, the general purpose forces can be sized to these very demanding contingencies. With these baseline forces established, we should then have in hand the capability both to deal with other contingencies that arise and to perform a variety of other functions in support of our foreign policy.

This means, in turn, that once we have established our baseline requirements, we should test their adequacy against a number of "off-design" cases to see whether what can lick the cat can also lick the kitten. Indeed, we have recently had just such a test thrust upon us—and a very empirical one at that—in the form of the Middle East war. As it turned out, our attack carriers (used as enroute airfields) and our strategic airlift, bought for quite other purposes, proved themselves very smartly and efficiently in an "off-design" contingency.

The Strategic Concept

In the 1960's, as a result of this planning process, we adopted a strategy and force structure that purportedly enabled us to deal simultaneously with the initial stages of a war in Europe, a war in Asia, and a minor contingency elsewhere. Since 1969, with explicit acknowledgement of the Sino-Soviet split and the President's opening of detailed negotiations with both the USSR and the PRC, the strategic concept has been changed in the following major respects.

We now plan our forces to deal with a major conflict in Europe or Asia and to respond simultaneously to a minor contingency elsewhere. Thus, we have dropped one of the big contingencies for which we must be simultaneously prepared and have adopted, in the jargon, a 1½ war strategy instead of the 2½ war strategy of the 1960's.

The change in strategic concept has accompanied the reduction in the baseline general purpose forces. The principal change was the reduction in the number of active Army divisions from 16⅔ in 1964 to 13 in 1973. (Although the number of naval combatants has also declined substantially, the result is more a function of budgetary constraints and the retirement of obsolescent ships than of the change in strategy).

The U.S. withdrawal from Vietnam, the Nixon Doctrine, and the modified strategic concept—accompanied by these reductions in active forces—have led to the recurrent expectations that large savings in the budget for the general

purpose forces could be realized. Yet in current dollars, the costs of the reduced general purpose forces have continued to rise. Part of the reason for this seemingly perverse effect is, of course, inflation and the disturbingly rapid increase in the price of new weapons systems. But the most important factor has been the increased cost of manpower as we have adopted pay comparability and phased out the draft. As a consequence, we have to recognize that:

The general purpose forces tend to be manpower-intensive so that unit costs are bound to be higher than they were a decade ago;

Substantial general purpose forces will nonetheless be required if we are to maintain a worldwide equilibrum and at the same time avoid increased reliance on nuclear weapons;

Even so, we still need to practice greater efficiency in the utilization of the manpower that we acquire.

The Planning Contingencies

The strategic concept determines the overall requirement for general purpose forces. But the planning contingencies are what generate the specific demand for divisions, air wings, war reserve stocks, strategic mobility and naval forces. The two contingencies that constitute the main basis for force planning are:

An attack on NATO by the nations of the Warsaw Pact, led by the USSR;

An attack in either Northeast or Southeast Asia with the direct involvement of the forces of a major power.

While these may be considered unlikely contingencies, we find them useful for several reasons:

They provide a measure of the threats that could be deployed against us.

They take account of allied contributions in key theaters.

Their low probability may well be a function of the fact that we prepare for them.

They provide the principal variables that determine the qualitative aspects of our forces.

The Center Region of NATO

The most demanding feature of the NATO contingency is the potential threat to the Center Region. It creates two sets of risks for the Alliance. The first is the danger of a surprise attack launched by the deployed forces of the Warsaw Pact. The second is the possibility of an assault after a period of mobilization and deployment by the Pact.

(1) The Deployed Threat

We estimate that the forces which the Pact could launch against the Center (that is, the Federal Republic of Germany) with very little warning consist of:

The 27 divisions deployed by the USSR in East Germany, Poland and Czechoslovakia;

The 31 divisions deployed by East Germany, Czechoslovakia and Poland;

About 2,800 aircraft, of which the majority are primarily air-to-air fighters.

These 58 divisions represent a very immediate and palpable threat to the Center Region. Moreover, we believe that the 27 Soviet divisions (which do not include the four Soviet tank and motorized rifle divisions in Hungary) constitute a much larger force than would be required by any defensive mission in Eastern Europe. The more than 8,000 tanks which we estimate these Soviet forces to possess further underlines their offensive potential. It should be recalled, however, that:

Warsaw Pact division forces are substantially smaller than their NATO counterparts;

deployed Pact manpower in these ground forces amounts to about 925,000 men;

the Warsaw Pact maintains less of its logistics structure in peace time than does NATO.

To counter this immediate threat, NATO has in the Center Region of Europe about 29⅓ divisions and more than 2,700 aircraft in a roughly comparable area of Western Europe. The total includes five French and 4⅓ United States divisions (but not our Berlin brigade or two armored cavalry regiments). Manpower in ground forces amounts to about 777,000, including French forces in Germany. Around half of our tactical aircraft are fighter-bombers.

As a consequence of these deployments, there is an approximate balance between the immediately available forces of NATO and the Warsaw Pact in the

Center Region. The Pact has an advantage over NATO in the number of men in ground forces. The Pact also has a large numerical superiority in tanks (about 15,500 to 6,000 for NATO.) But NATO possesses important quantitative or qualitative advantages in tank destroyers, antitank weapons, trucks, logistic support, and—most important of all—modern fighter aircraft.

Our Army forces in West Germany and our tactical air wings in West Germany and the United Kingdom make a vital contribution to the maintenance of this balance in Central Europe. They constitute about one-fourth of the total ground forces and the modern fighter attack aircraft in the Center Region.

As the arithmetic of the situation demonstrates, the Pact has some qualitative advantages. Unilateral withdrawals of United States ground and tactical air forces from Europe, despite the continued massive Soviet presence, could begin to tilt what has proven to be a relatively stable balance dangerously in favor of the Warsaw Pact.

In the circumstances, I cannot in good conscience recommend that we take out units short of an agreement with the Pact on mutual and balanced force reductions. Whatever their other roles—and they are important—the United States forces in Europe, in their current size and composition, perform a critical military function, and it is much more than to serve as part of a tripwire. They are sized to help maintain a stalwart conventional defense against an attack by the Pact after little warning, and I believe that mission continues to be essential despite the steps we have taken toward detente.

To stress the importance of the United States contribution to the defense of Western Europe, and to the maintenance of a conventional balance of deployed power between NATO and the Warsaw Pact, is not to argue that we can be complacent about the situation in the Center Region as it now exists. The Soviets continue to add to and improve their capabilities there. And, as I have stressed to our allies in NATO, the relative weight of the European contribution to the common defense needs to increase still further. Our confidence in the balance, which is not yet very high, must also be strengthened by a series of specific improvements in the allied posture. In particular, I have proposed:

actions to reduce the balance of payments and budgetary costs of current U.S. deployments so that we can comply with the Jackson-Nunn Amendment and at the same time avoid unilateral troop withdrawals;

measures to increase our defense effectiveness which include an expanded program of aircraft shelters, improved coordination among allied tactical air forces, more antitank weapons, and a more subtsantial position in war reserve stocks.

(2) The Mobilized Threat

The adoption of these and other programs does not signify any change in basic NATO strategy; nor does it preclude the use of nuclear weapons should a Pact assault prove of overwhelming weight and speed. However, our efforts should contribute to the deterrence not only of attack by the deployed forces but also of the other and larger attacks of which the Pact is capable.

I am reasonably optimistic about our ability to deter even the largest of these attacks, provided that the Alliance continues with and expands its force improvement programs. As matters now stand, however, the probability of a successful forward defense by conventional means only is lower than I consider prudent. How the Soviet marshals would rate their own chances for a successful attack is uncertain.

While caution is appropriate about the numbers, we believe that the Warsaw Pact could, with a few weeks mobilization, deploy on the order of 80–90 divisions to the Center Region. The bulk of the reinforcements would have to come from the Soviet Union and would probably be drawn from the military districts in Western Russia. With additional time and risk, further reinforcements could be deployed from as far away as the Sino-Soviet border.

This latter threat would have a significant probability of breaking through NATO's forward defense. But the USSR, like NATO, must also be concerned about theaters other than the Center. Consequently, while we aspire to deal with even the high threat, we concentrate for current planning purposes on the "designated" threat of 80–90 divisions.

How rapidly the Pact could make this total force ready for attack is a matter of uncertainty. There is little doubt about the ability of the Soviets to call up and move large numbers of men into East Germany, Poland, and Czechoslovakia at a very rapid pace. Whether these forces would be fully combat ready with all of their logistics support in place is debatable. Nevertheless, we assume for planning

purposes that the Pact could have its 80–90 divisions essentially on line and ready to attack in the Center Region within a relatively short period of mobilization.

The speed and power with which NATO could respond to the "designated" threat within the same timeframe is another factor surrounded by uncertainty. That we would acquire very prompt indications of so massive an undertaking is hardly in doubt. Essentially in question is how the Alliance would evaluate this information and how long it would take to decide on NATO's response. For planning purposes, we assume that NATO would start its mobilization somewhat later than the Warsaw Pact.

Whether these are reasonable assumptions can be argued. During the Berlin crisis of 1961, the United States actually mobilized two National Guard divisions, alerted two others, and moved about 40,000 men to Europe prior to any action by the Pact to mobilize additional forces. In 1968, however, NATO did not take overt action when the Soviets deployed forces into Eastern Europe for the invasion of Czechoslovakia.

If a reasonable amount of time is available for a NATO mobilization and deployment, a great deal can be done to defend against the "designated" threat. Exactly what forces would be required from the United States, and how rapidly, would depend on the size and speed of the Soviet reinforcement.

In terms of manpower, the U.S. contribution could be substantial and quick. Indeed, if manpower alone were the only test of effectiveness, the European Allies could match the "designated" threat with very little additional U.S. effort. However, numbers of organized units, levels of equipment, stocks of war consumables, and other variables are also important, and substantial numbers of U.S. ground and air forces would be needed.

In addition to the 4⅓ divisions and 22 tactical air squadrons already deployed, we stockpile the equipment for at least 2⅔ divisions in Europe.

Use of Stockpiled Equipment

Chairman McClellan. We stockpile equipment for at least 2⅔ Army divisions in Europe. Was any of this equipment shipped to Israel during the latest conflict?

Secretary Schlesinger. [Deleted.]

Chairman McClellan. Proceed.

Secretary Schlesinger. In CONUS itself, we maintain 3⅔ heavy Army divisions in the active forces that we could commit to SACEUR. To these eight divisions (4⅓+3⅔), we could add at least four other active divisions and several Reserve component brigades. To complement the ground forces, we could also provide at least 38 active and reserve fighter-attack squadrons along with supporting reconnaissance and ECM aircraft.

With the war reserves that we propose to stockpile, we should be able to fight these forces longer than we believe that the Pact could sustain its attack.

To stress that we and our NATO allies have the ground and tactical air forces to mount a stalwart defense against the "designated" (or expected) Pact threat does not mean that we can view the situation in Europe with complacency. As I have indicated, NATO has somewhat fewer forces than the Pact, and if more pessimistic assumptions are made about several key variables (such as Pact mobilization and deployment time, warning and allied responses), the NATO position begins to look more precarious and the nuclear threshold becomes lower. It is also the case that while a rough balance of forces is essential to deterrence, it by no means guarantees an acceptable outcome for NATO if deterrence should fail. Even as we preserve the equilibrium, there remain a number of quantitative and qualitative weaknesses in our collective posture that must be removed.

The Flanks of NATO

While the needs of the Center Region of NATO and our sea lines of communication provide the basis for most of our general purpose forces, it would be imprudent to assume that these would be the only theaters of conflict. The flanks of NATO—the Northern and Southern Regions—could easily come under attack separately or simultaneously in default of adequate deterrent forces.

The Soviets maintain ready divisions in the vicinity of Norway's lightly-defended northern frontier. In the South, the four Soviet divisions in Hungary, other units in the USSR itself and Hungarian, Bulgarian and Rumanian forces, constitute a potential threat to Italy, Greece and Turkey. As a consequence, both flanks may require additional support both on the ground and in the air.

ASIA

Asian requirements have greatly affected our general purpose forces planning in the past decade. Beginning in 1969, with the advent of this Administration, significant reductions in the size of our forces in Asia have taken place. These reductions stem from major changes in our relations with Asian powers in the last few years, especially with the PRC; the withdrawal of United States forces from South Vietnam; and the growth in capabilities of our Asian Allies—capabilities which are now quite considerable. As a result of these changes, the requirement to maintain Asia-oriented forces is less demanding than in the past.

Nevertheless, we consider the possibilty of conflict in Asia in deciding upon the characteristics and forward deployment of United States forces, because the continuing instabilities in Asia could involve the United States, and because having the visible capability to act can help to avoid, through deterrence, the necessity for action. A further large-scale or rapid reduction of United States forces in the Western Pacific would have unsettling effects in the region. Therefore, we continue to deploy one Army division to South Korea; a Marine Amphibious Force in Japan, including Okinawa, three tactical fighter wings at various bases in the Pacific, tactical fighter squadrons in Thailand, and B–52 aircraft on Guam and in Thailand; and naval deployments, including three carrier task forces, in the Western Pacific and, on occasion, in the Indian Ocean.

In Northeast Asia, South Korea's defense capabilities have been considerably improved in the last five years—to such an extent that, when the present modernization program is completed, we may have reasonable confidence in South Korea's ability to defend itself against an unaided attack by North Korea. At the moment, the principal role of our forces in Korea is to provide a hedge against the uncertainties and deficiencies in South Korea's defense posture, and to provide an inducement to caution on the part of North Korea against the precipitation of new hostilities.

As we look forward, we see the most useful role for United States forces in the Pacific as providing a strong measure of visible support for our Allies, a credible deterrent to those who might risk new hostilities, and a general umbrella under which our Allies can pursue negotiations and internal development in an environment that encourages cooperation and discourages hostilities. Therefore, our present plans call for maintaining our forward deployments in the Pacific.

WITHDRAWAL OF U.S. ARMY DIVISION FROM SOUTH KOREA

Chairman MCCLELLAN. Last week there was mention of a possible withdrawal of the U.S. Army Division from South Korea and a mobile reserve providing a contingency force. Please discuss this.

Secretary SCHLESINGER. Last week before the House Appropriations Subcommittee, I discussed the general subject of possible future deployments of US forces in the Pacific and the concept of greater force mobility. One of the things that we are thinking about is the conversion of the division in Korea into a mobile reserve rather than one that cannot be moved under any circumstances from there. The question is under examination but we have not made any decisions as yet which affect the existing configuration of the division.

I would like to indicate again that there are no current plans for any change in our force structure in South Korea this year. A precipitous reduction in the US force presence in South Korea would be destabilizing not only on the peninsula but also in relation to the other great powers—the USSR, China and Japan—whose interests come together there.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. We also intend to retain capabilities for Asian contingencies in our general purpose forces. For instance, we maintain both Army and Marine divisions in the United States which are rapidly deployable and have a capability to operate in the Asian environment. Our tactical air forces retain a rapid deployment capability and are able to operate under austere conditions if necessary. We also retain a naval presence in the Pacific and must be able to defend the long supply line to the Far East.

We do look to the possibility of additional reductions in our air forces in Thailand and our B–52 force on Guam, when the situation in Southeast Asia permits.

We are also strongly recommending to the Congress a continuation of the essential military assistance programs needed by our Allies to strengthen their general purpose forces and improve their defensive capabilities in this difficult

period until more lasting peace arrangements are achieved. The stronger our Allies, the greater is the incentive for North Vietnam and North Korea to seek negotiated solutions, thus enhancing the possibility for peace in this troubled part of the world.

MARITIME MISSIONS

(1) ANTISUBMARINE WARFARE

Although we would have to depend primarily on active forces and airlift for a quick NATO mobilization and the early stages of a war in Central Europe, there are obvious risks in placing such heavy reliance on only one form of mobility. Moreover, we should be able to start delivering very large tonnages by sea within a relatively short time after having established our sea lines of communication (SLOC). These tonnages could be of great value in a prolonged mobilization; they might contribute to the initial stages of a large-scale defense, and they would be essential to a more protracted conflict. For all these reasons we maintain some sealift, would charter more in an emergency, and would deploy substantial antisubmarine warfare (ASW) forces—principally in the form of attack submarines, patrol aircraft, carrier air, and escorts—for protection of the sea lanes.

The precise justification for the size and composition of our ASW forces is quite complex and I do not propose to discuss it in detail. It should be evident, however, that the main threat to our Atlantic (and Pacific) shipping comes from the large Soviet attack and cruise missile submarine force. Our most effective strategy against this threat is a defense in depth, based on a series of barriers—manned primarily by submarines and aircraft—between the enemy threat and allied shipping. In addition, we would want to provide close-in protection for our merchant marine (particularly in convoy) with surface escorts and carrier-based aircraft.

These functions permit calculations of kill probabilities for various types and numbers of ASW systems against the threat, and thus lead to the establishment of force requirements. Our current estimates are that with existing and planned U.S. and Allied ASW forces, we could eventually turn back the enemy submarine threat without an unacceptable loss of our merchant shipping or to our naval forces.

(2) SEA CONTROL

While I have placed primary emphasis on the submarine threat, I do not wish to underestimate the emergence of the Soviet surface fleet and land-based naval aircraft as factors of increasing weight in the maritime balance of power. We have estimated in the past that most of these ocean-going vessels, the long-range aircraft, and portions of the attack and cruise missile submarine forces were intended to counter our carrier task forces.

Now, however, Soviet objectives may be more ambitious. With the launching of one 40,000-ton carrier (comparable in size but not in mission to our Essex class) and the construction of another underway, with continuing efforts to establish overseas bases on the coasts of Africa, in the Indian Ocean, and in Cuba, and with a gradual growth in open-ocean operations, the Soviet leaders are clearly intent on making their naval presence felt on a worldwide basis. With the reopening of the Suez Canal, this objective will become more easily attainable.

These expanded forces and operations may be primarily designed to establish a political presence, but for the first time they put the Soviet Union in a position to challenge the United States and its allies for control of the seas. Certainly that has already been the effect of their naval deployments in the Mediterranean.

Whichever may be the correct interpretation, we are determined to maintain our own sea lines of communication on a worldwide basis and to ensure that the naval balance of power does not tilt against us. In the long run, we anticipate that, with homeporting, 12 carrier task forces—five in the Atlantic and Mediterranean, and seven in the eastern and western Pacific—are adequate to any challenge from the Soviet surface navy and long-range aircraft in regions of interest to the U.S.

HOMEPORTING

Chairman MCCLELLAN. At what geographical locations will the 12 carrier task forces be homeported? Which are now in being and what is the plan for completing the program?

Secretary SCHLESINGER. It is expected that the carriers will be homeported at the following locations: San Diego, California—2; Alameda, California—4; Yokosuka, Japan—1; Norfolk, Virginia—3; Mayport, Florida—1; Athens, Greece—1. At the present time, carriers are homeported in all the locations indicated, except Athens, Greece.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. Qualitative improvement in those task forces and in our other surface combatants, will be necessary in order to upgrade their defense against antiship missiles and to improve the range and accuracy of our own attack ordnance. I shall discuss these improvements when I come to the specific programs for the Navy general purpose forces.

As part of the effort to ensure a naval balance, we plan to expand our facilities at Diego Garcia and maintain a more frequent presence in the Indian Ocean. We may also wish to consider the use of long-range land-based aircraft for patrol in that general area.

OTHER PLANNING FACTORS

STRATEGIC MOBILITY

I do not propose here to review what constitutes the preferred choice among such options as deployed forces, prepositioned equipment, and various types of strategic mobility (airlift and sealift). As a result of previous decisions and because we support the strategy of forward defense, we are committed to a mix of deployed forces, prepositioned equipment, and heavy dependence on strategic airlift in the form of C–141's and C–5A's. An earlier deployment concept designed to deliver the required number of divisions within a relatively short time called for a larger number of C–5A's than we have procured, plus a fleet of Fast Deployment Logistic Ships that we have not acquired at all. As a consequence, while we have adequate forces to reinforce the Center Region, we do not have sufficient lift to get them all there as rapidly as we would like.

We may be designing to a scenario that is excessively demanding. If it were to take the Pact longer than we assume to deploy its 80–90 divisions, the timetable for our own deployments could be relaxed somewhat. Furthermore, if the European allies continue to improve their reserve forces, as the Federal Republic of Germany is doing with its Territorial Army, the pressure to deploy all the U.S. reinforcements by a very early date may decline. In either of these circumstances, a late arriving division may be more valuable to the defense of the Center Region than we currently assess it to be. I should add that even under the current scenario, forces deploying after D-day may still have an important role to play in strengthening NATO's defenses.

I do not consider it wise, however, to bank on all the uncertainties turning out in our favor. In any event, our strategic airlift demonstrated its worth during the recent war in the Middle East, and other occasions may arise when we will want to exploit its capability on an even larger scale. Accordingly, I believe that we should expand our airlift so as to enhance our NATO reinforcement capability. That, in turn, should give us ample capacity for Pacific contingencies and the "off-design" cases that I have mentioned earlier.

If we are to increase our strategic airlift to handle the requisite amount of tonnage for the NATO contingency, we should also improve the readiness of our ground forces to exploit it. It is not efficient to have a large and costly capacity for long-range mobility if equipment and men are not ready for loading as it becomes available. Nor will the lift have been fully utilized if units, having debarked from their aerial ports, cannot move to their combat positions in a timely fashion. Therefore, I shall also propose specific measures to accelerate the deployability of our forces.

NATIONAL GUARD AND RESERVE FORCES

As should be evident, our contingency planning depends heavily on the National Guard and Reserve as well as on our active forces. This means that to be useful, they should have a high standard of readiness. Whether, in fact, they do, and whether they are worth their costs, is a recurrent question. It is perhaps most relevant to the Army ground forces.

During the past decade, the costs of the Army Reserve and National Guard forces have nearly tripled, and they now have received substantial quantities of modern equipment. Yet despite repeated efforts to increase their readiness, even

the highest-priority Army Reserve brigades do not become available for deployment as early as we would like. Except under very optimistic assumptions about the time required for Pact mobilization and deployment, the upshot is that the majority of Army Guard and Reserve units cannot play a role in the early and critical stages of a war in Central Europe.

Deployment of Reserve and National Guard Units

Chairman McClellan. At present, how soon could be highest priority Reserve and National Guard units be deployed?

Secretary Schlesinger. The earliest requirement for Army Reserve Component (RC) forces calls for [deleted] Army RC personnel, in approximately [deleted] units, to be in Europe in the first [deleted] days after the start of conflict.

Chairman McClellan. Proceed.

Secretary Schlesinger. I recognize, of course, that the Army Guard and Reserve have other important functions to perform in circumstances where mobilization and deployment proceed at a more leisurely pace, as was the case during the Berlin crisis of 1961. I also believe that we should take out some insurance against the possibility of a war in Europe continuing at high intensity for a protracted period even though our first priority must go to outlasting the Pact in the first phase of an assault. The National Guard and Reserve provide that insurance.

However, we must examine whether we are getting an adequate return from our investment in these forces in terms of their contribution to our more demanding contingency plans. My initial examination last fall led to my decision that some cuts should be taken in those units that are only marginally effective, with the savings that result to be applied to increasing the capability of other Reserve Component units. I have directed that a more comprehensive study of the Reserve and National Guard be made, and this study is now underway.

Air National Guard Reductions

Senator Young. There have been reports in the media and your belated answer to my letter that there are plans to inactivate a number of ANG units. The Today Show report indicated that 14 units would be phased out. Does your present program call for these inactivations?

Secretary Schlesinger. The Air Defense realignment decision currently programs the phaseout of all F–101 and F–102 interceptor aircraft by the end of Fiscal Year 1976. However, we are doing an evaluation of the continued utility of the six Air Guard F–101 squadrons and the F–101/F–102 CCTS.

If the F–101's are retained, airspace surveillance and control capabilities then will be provided by the six remaining Active force F–106 units, six Air National Guard F–106 units and six Air National Guard F–101 units at selected locations around the perimeter of the Continental United States.

If the six F–101's are phased out, the airspace surveillance and control mission will be provided by 12 F–106 squadrons, six in the Active force and six in the Air National Guard. In times of crisis, this force would be augmented by available tactical fighters.

In either case, as I testified before the House Armed Services Committee on February 7, 1974, we plan to convert any assets freed as a result of our evaluation into adjustments to the general purpose forces in the way that will be more relevant and more useful to the force posture of the United States. For example, some units of the Air Guard will be converted either into supplements for tactical air forces or the air mobility forces. With regard to the latter the units would be equipped with C–130's and C–141's.

Senator Young. If so, how many in FY 1975, in FY 74 and FY 77?

Secretary Schlesinger. The present programs calls for five deactivations in FY 1975 and nine in FY 1976. The FY 1976 inactivations depend on the outcome of our evaluation of the continued utility of the F–101 and the possible conversion to tactical fighters, tactical airlife and strategic airlift. We want the Guard and Reserve properly manner, trained and equipped with adequate numbers of modern aircraft so that we can maximize their contribution to the Total Force.

In the event of phasing out the F–101 aircraft, the Air Force has considered adjusting the basing of Air National Guard units by transferring some of the aircraft assets from other Air Guard units to locations presently equipped with interceptor aircraft. This action and the shift to tactical fighters, tactical airlift

and strategic airlift would modify any current deactivation schedule. The entire FY 1976 program will again be analyzed and evaluated during the Defense Planning, Programming and Budgeting cycle for FY 1976. Final decisions will probably not be available until late in the year.

Senator YOUNG. Where are these units located, and what kind of equipment do they now have?

Secretary SCHLESINGER. The FY 1975 deactivations are:

F–102's:

1. 106th Fighter Interceptor Gp., Suffolk County Airport, West Hampton Beach, N.Y.
2. 112th Fighter Interceptor Gp., Greater Pittsburgh Airport, Coraopolis, Pa.
3. 115th Fighter Interceptor Gp., Truax Field, Madison, Wis.
4. 163rd Fighter Interceptor Gp., Ontario Air National Guard Base, Ontario, Calif.

C–119's/U–10's:

5. 129th Special Operations Gp., Hayward Municipal Airport, Hayward, Calif.

The FY 1976 Air National Guard unit actions will not be decided until we complete preparation of the FY 1976 budget. This will include evaluation of the continued utility of the six F–101 units, the F–101/F–102 CCTS, and the possibility of using Air Guard units as supplements to the tactical fighter force, equipping units with C–130's and C–141's, and possibly a revised basing of the Air National Guard force. We will phase out the aircraft in two F–102 equipped units.

The nine units that would be involved in the current plan for FY 1976 actions are as follows:

The F–101 equipped units are:

1. 101st Fighter Interceptor Gp., Bangor International Airport, Bangor, Maine.
2. 107th Fighter Interceptor Gp., Niagara Falls International Airport, Niagara Falls, N.Y.
3. 119th Fighter Interceptor Gp., Hector Field, Fargo, N. Dak.
4. 141st Fighter Interceptor Gp., Spokane International Airport, Spokane, Wash.
5. 142nd Fighter Interceptor Gp., Portland Air National Guard Base, Portland, Oreg.
6. 148th Fighter Interceptor Gp., Duluth International Airport, Duluth, Minn.

The continued utility of the F–101/102 equipped combat crew training unit, which also has an Air Defense mission, is dependent upon the outcome of our current F–101 evaluation. It is:

7. Combat Crew Training School, 147th Fighter Interceptor Gp., Ellington Air Force Base, Houston, Tex.

The two F–102 equipped units are:

8. 124th Fighter Interceptor Gp., Boise, Idaho.
9. 154th Fighter Interceptor Gp., Hickam Air Force Base, Honolulu, Hawaii.

Senator YOUNG. Do you plan to inactivate Air Force Reserve units? If so, how many in FY 1975, FY 1976, and FY 1977?

Secretary SCHLESINGER. No flying units of the Air Force Reserve are programmed for elimination in FY 1975 or FY 1976. There are no interceptor units in the Air Force Reserve.

Senator YOUNG. How many Air Guard units were there at the end of FY 1973 vs. the number today?

Secretary SCHLESINGER. There were 92 Air National Guard flying squadrons authorized through FY 1973. In FY 1974, there are 91. The reduction of one squadron is a result of consolidating two collocated 6 UE C–130 units on one base into one 12 UE unit, and increasing the unit equipment to 16 aircraft similar to like type C–130 units in the active force.

In FY 1975, the Air National Guard reduces to 86 units. The FY 1976 program, as I have explained, is not yet defined but may involve a further reduction of nine units, down to a total of 77.

Senator YOUNG. Were these reductions made by OSD or the Air Force?

Secretary SCHLESINGER. The reductions result from my decision to redirect our CONUS Air Defense efforts toward operations to improve airspace surveillance and control and long-range warning capabilities. This decision, which placed reduced emphasis on defending against manned bomber attack, resulted in a resizing and reposturing of our Air Defense force.

ANG Technicians

Senator Young. If these inactivations take place, how many air technicians will lose their jobs as a result, and how many officers and enlisted personnel will be phased out? In FY 1975 and in FY 1976?

Secretary Schlesinger. For FY 1975, there is a net change of +389 air technicians, +85 officers and −2,734 enlisted personnel in the Air National Guard as a whole. The net change is a result of decreases identified to the inactivations, other program changes and increases in other areas. Since the technicians are Federal employees, the Department of Defense Placement Assistance Program for employees affected by reductions in force applies. Many of these technicians can and will be offered employment in areas where suitable vacancies exist. Military personnel will be encouraged to affiliate with other nearby Guard or Reserve activities. For these reasons, we cannot say with certainty how many air technicians will actually lose their jobs or how many officers and enlisted personnel will actually be phased out.

The following table shows the manpower impacts, at the specific location, subject to the qualification above, of the FY 1975 Air Guard actions:

	ANG military authorizations	ANG air technicians
Davis-Monthan AFB, Ariz., ANG Alert Detachment converts to Active w/F-106	−25	−22
Fresno Air Terminal, Calif., 102's convert to 106's	+18	+163
Hayward Municipal Airport, Calif., 112th SOG phases out	−797	−163
Ontario IAP, Calif., phase out ANG 102's, form Active Alert Detachment	−937	−270
Van Nuys Airport, Calif., C-130's consolidate	−18	−14
Jacksonville IAP, Fla., ANG 102's convert to 106's	−9	+157
Savannah Municipal Airport, Ga., ANG 124's convert to O-2's	−91	−68
New Orleans NAS, La., ANG Alert Detachment becomes Active	−25	−20
Bangor IAP, Maine, 18 to 17 F-101's	−24	
Otis ANGB, Mass., 18 to 15 106's	−19	−21
Selfridge ANGB, Mich., 18 to 15 106's	−19	−21
Duluth IAP, Minn., 18 to 17 F-101's	−24	
Great Falls IAP, Mont., 18 to 15 106's	−15	−21
Atlantic City Airport, N.J., 18 to 15 106's	−15	−21
Hancock Field, N.Y., A-37's to O-2's	−44	−33
Niagara Falls IAP, N.Y., 18 to 17 F-101's	−24	
Suffolk County Airport, N.Y., 102's deactivate	−987	−290
Hector Field, N. Dak., 18 to 17 F-101's	−24	
Will Rogers World Airport, Okla., 124's to 130's	−94	+1
Portland IAP, Oregon, 18 to 17 F-101's	−24	
Greater Pittsburgh IAP, Pennsylvania, phaseout 102's	−933	−206
McEntire ANGB, South Carolina, convert 102's to A-7's	−106	−35
Ellington AFB, Texas, phaseout 10 102's; add 6 101's	−60	−81
Spokane IAP, Washington, 18 to 17 F-101's	−24	
Truax Field, Wis., phaseout 102's	−994	−292
Total	−5,314	−1,257

Secretary Schlesinger. For FY 1976, the same procedures for Placement Assistance and affiliation with other nearby Guard and Reserve units apply, and because of the fact that we are just beginning the FY 1976 program and budget, I cannot furnish accurate employment and military strength data. The following table reflects the manpower impact of the FY 1976 Air Defense actions I identified earlier and which is subject to change:

	ANG military authorizations	ANG air technician authorization
Bangor, Maine	−1,059	−412
Niagara Falls, N.Y.	−1,006	−359
Fargo, N. Dak.	−1,006	−364
Spokane, Wash.	−1,064	−411
Portland, Oreg.	−1,010	−394
Duluth, Minn.	−1,001	−296
Houston, Tex.	−1,030	−442
Boise, Idaho	−943	−272
Honolulu, Hawaii	−855	−277
Total	−8,974	−3,227

Floor on ANG Units?

Senator Young. Is it your belief that there is or there is not a 92 squadron Congressionally mandated floor on numbers of ANG flying units?

Secretary Schlesinger. I am advised that there is no existing statutory or Congressionally mandated floor on numbers of ANG flying units. Historically, force structure has been considered to be an inherent responsibility of the Secretary of Defense.

Essentiality of Reserves

Senator Young. Doesn't it seem strange to you that, in the face of the Total Force Policy which proclaims the Reserve Components as an essential ingredient to national defense and recent legislative history that has addressed this subject, these units should be eliminated?

Secretary Schlesinger. I value very highly the contributions that the Reserve Components can and do make to our nation's defense. But as I took great pains to point out in my FY 1975 Defense Report: "Given the very tight defense budget constraints under which we now have to operate, we cannot in good conscience postpone any longer the basic adjustments our air defense program made necessary by the changing worldwide situation."

Effect of Reductions

Senator Young. Do we have enough forces to meet contingency requirements?

Secretary Schlesinger. The reductions contemplated in Air National Guard Units will not reduce our ability to meet the requirements of a conventional contingency. This is so because the reductions reflect my decision to reduce emphasis on defending against a manned bomber attack and to redirect our CONUS air defense efforts towards improved airspace surveillance and control and long-range warning capabilities. We are also looking at the possibility of using ANG units to supplement the tactical fighter force and equipping units with C–130s and C–141s, which would increase the contributions that these Air Guard units would make in the event of a conventional conflict.

Active/Reserve Mix

Senator Young. Should we have more or less in the Active Air Force and the Reserve Components?

Secretary Schlesinger. I believe our FY 1975 request represents the best mix between active and reserve forces, given our current assessment of the threat and prevailing budgetary constraints.

Role of Reserves

Senator Young. What is the purpose of the OSD Study of the Total Force requirements now being conducted?

Secretary SCHLESINGER. The Study deals with the place of the Reserve Components in the Total Force concept. As a point of departure, it starts with the force requirements determined by the Joint Chiefs of Staff. Within that context, the study will examine the availability, force mix, limitations and potential of the Selected Reserve in a national emergency. The study will treat organization, manning, recruiting, retention, equipment, training, readiness, deployment objectives, management programming, budgeting and funding procedures, and possible tradeoffs between Active, Guard and Reserve forces. It will provide a useful tool for force development, planning and programming and utilization of the Guard and Reserve. It should enable us to trade off support forces for combat forces thereby increasing the teeth-to-tail ratio in the Guard and Reserve. With the exception of assisting in determining the continued utility of the F–101 interceptor aircraft, it will not change the CONUS Air Defense decisions we have already made but it does not preclude consideration of transition of Air National Guard Air Defense units into tactical fighter or air mobility forces.

Senator YOUNG. Why would units be eliminated at the same time a study is being conducted to determine whether or not they are required?

Secretary SCHLESINGER. The units programmed for deactivation in FY 1975 are a result of strategic decisions which stem from the changing nature of the threat and the constraints we have accepted under the SALT I agreements. They are not related or dependent upon the study results. The continued utility of the F–101, however, is related to the results of the study and could affect the FY 1976 decisions.

Senator YOUNG. In the planning and rationale used in making your decisions, have you taken into consideration the use of aircraft scheduled to be phased out as continuity vehicles which could be used as training aircraft until other essential missions are developed?

Secretary SCHLESINGER. Yes. However, the Air Force concluded that the present course of action is the most desirable at this time.

OTHER ANG MISSIONS

Senator YOUNG. What other missions could be taken over by the Air Guard?

Secretary SCHLESINGER. The Air Guard has demonstrated an ability to handle almost all of the current Air Force missions. I do not believe a mission, such as strategic bombing, would have the same high economic advantage that other Guard/Reserve missions have. I expect our study to define more active duty Air Force missions which are suitable for assignment to Guard and Reserve forces.

Senator YOUNG. Have you given this full consideration?

Secretary SCHLESINGER. Yes, but it will be under continuous intensive review as we attempt to improve our overall military posture and readiness to take full advantage of the economy inherent in part-time forces.

Senator YOUNG. How about KC–135 Tankers?

Secretary SCHLESINGER. The Air Guard has demonstrated an ability to handle the tanker mission as well as flying any of our jet aircraft. There are no sacrosanct areas as far as I am concerned. My objective is a force tailored to the needs dictated by national security.

Senator YOUNG. The Guard flies KC–97's and has for at least 10 years. Many of their pilots are jet airline pilots in civilian life and it would appear to be a good mission. What about a MAC mission in C–141's?

Secretary SCHLESINGER. This is under consideration and, as peacetime utilization rates decline, the option should not be closed.

PEACETIME AIRLIFT

Senator YOUNG. Are the peacetime airlift requirements in this force less than your airlift capability?

Secretary SCHLESINGER. Yes, however, the capability of the airlift force is based on meeting wartime airlift requirements. The peacetime airlift capability is generated as a by-product of the minimum training necessary to exercise the system so that it can surge to meet the wartime requirements.

Senator YOUNG. I understand that MAC airlift is industrial funded—that is you operate like an airline. If you have fixed expenses and don't have the revenue from your military customers, where do the funds come from to make up the deficit?

Secretary SCHLESINGER. The fixed expenses you refer to are required to provide the minimum peacetime training for the airlift force. If the airlift capability generated through the minimum peacetime training is not utilized, the industrial fund is financed by the Air Force O&M account. As an example, the additional peacetime training hours necessary to support our programmed increased wartime utilization rates in the C–5 and C–141 will be funded by the Air Force O&M account.

Senator YOUNG. Why couldn't the Guard fly the aircraft over and above your needs?

Secretary SCHLESINGER. The peacetime flying hour program for the C–141 and C–5 is the minimum necessary to provide aircrew training so that the force is capable of performing its wartime mission. There are no peacetime flying hours flown in excess of these training needs.

ADDITIONAL FIGHTERS

Senator YOUNG. How about additional TAC fighters—do you need more—if so, have you considered a buy of additional A–7's, or the new lightweight fighters, the F–5, YF–16, or YF–17?

Secretary SCHLESINGER. All of these possibilities are under consideration, but we must plan our forces under the existing budget constraints.

ADDITIONAL C–130's

Senator YOUNG. How about additional Tactical Airlift, either the C–130's or the follow-on tactical Airlift Aircraft?

Secretary SCHLESINGER. Our program calls for adding C–130 capability to the Air National Guard, primarily by adding additional C–130's to the authorization of current Air National Guard C–130 units. With respect to the follow-on tactical airlift aircraft, we have made no decision on whether or not to advance beyond a prototype program with the Advanced Medium STOL Transport. That decision is about two to three years away.

AIR GUARD RECRUITING

Senator YOUNG. How does the Air Guard measure up to the other Reserve Components in their capability to recruit?

Secretary SCHLESINGER. The Air National Guard is the only component to show consistent gains above its FY 1973 end strength for the entire fiscal year. It was manned some 350 members above its FY 1974 mobilization objective on January 31, 1974.

ANG STRENGTHS

Senator YOUNG. What was their programmed end strength in FY 1973 vs. actual?

Secretary SCHLESINGER. Programmed: 88,876. Actual: 90,371.

Senator YOUNG. What is their required end strength in FY 1974 vs. their current on board strength?

Secretary SCHLESINGER. Actual, February 28, 1974: 93,134. The established mobilization objective (Congressional floor) for FY 1974 was 92,291.

ANG READINESS

Senator YOUNG. What is the percentage of (Air National Guard) units that are combat ready as opposed to the percentage that are C–4?

Secretary SCHLESINGER. I will submit that information for the record.

[The information follows:]

As of 12 March 1974, the following table depicts the readiness status of the Air National Guard:

[Deleted.]

SUMMARY

Secretary SCHLESINGER. It should be clear from the foregoing that we place considerable emphasis on NATO in our planning algorithm. However, because we are planning on a moderate basis to respond to the various NATO contingencies, we have the forces available for, and largely suitable to, other eventualities. At the same time, we are avoiding the extremes of an open-ended demand for general purpose forces and a completely arbitrary sizing and deployment of the

forces related only to intuition (however well informed) about the current political climate. To follow the moderate course I have outlined does not, however, absolve us from continuing to test our baseline forces against "off-design" contingencies. Nor should it cause us to ignore well-established political trends that warrant changes in our basic force structure and deployments.

I realize that in laying out the basis on which we plan our general purpose forces, I may invite controversy. Challenges no doubt can be leveled at the assumptions we make about contingencies, scenarios, threats, warning times, allied contribution and the other factors that are so critical to the size, composition and deployment of our forces. But since controversy already exists about these forces, I would prefer to see the public informed to the fullest extent possible so that we can join with our critics to see where specifically, our differences lie. Only then can we consider systematically the options and their implications.

My own view is that:

The general purpose forces will continue to grow in importance as nuclear parity continues.

We have a minimum of these forces considering the extent of our interests and responsibilities and the capabilities of potential opponents.

To reduce the force structure further would undermine the stability that comes from a basic equilibrium, and would lower the chances for a more enduring peace.

We are, however, reassessing the types of forces we have and, in particular, the size and contribution of the support structure, to see whether adjustments can produce a more effective overall force balance with greater combat capability.

Whether or not there is agreement with these judgments, I trust that there will be no doubt about the basis for them. I will now proceed to the specific programs we propose to support the general purpose forces.

B. LAND FORCES

In consonance with the foregoing policy considerations, we propose to maintain in FY 1975 a land forces structure of somewhat more than 25 Division Force Equivalents (DFEs)—21⅓ Army active and reserve component divisions and four Marine Corps active and reserve divisions. This force is ⅓ of a division larger than that planned for FY 1974, but it provides about 7⅔ fewer DFEs than we had at the end of FY 1968, the Vietnam peak. The Army intends to strive for a greater than planned combat strength in its FY 1975 force structure by reducing headquarters and support elements.

The land forces structure is expressed here in terms of Division Force Equivalents because that concept provides a good standard of measure for land forces capabilities. In the Army (active and reserve) it encompasses the division itself plus two support increments (SIs), totaling about 48,000 men. A comparable Marine Corps force, totaling about 32,000 men, would include the division itself, supporting force troop units, and selected helicopter, helicopter support, and anti-war missile units which are organic to a Marine Aircraft Wing.

The DFE is a notional concept in the sense that it is an average used for the planning and management of the overall force structure, particularly in the Army. For example, an Army force structure of 21 DFEs would require more than one million men when deployed abroad for sustained combat. In peacetime, however, some of the support increments for the active forces, including those deployed abroad, are maintained in the reserve components, as shown below for end FY 1974.

	Divisions	SI
Active Army:		
Deployed in Europe	4⅓	6⅔
Deployed in Korea	1	1⅓
Deployed in the United States	7⅔	6
Total active	13	14
Army Reserve components	8	27⅔
Total Army	21	41⅔

The support increments include not only such familiar service support units as medical, supply, maintenance, transportation, and construction, but also combat and combat support units such as separate brigades and battalions, armored cavalry regiments, artillery battalions, air defense battalions, surface-to-surface missile battalions, and aviation units.

Obviously, the composition of a particular force would be tailored to the requirements of the combat theater for which it is designed. An Army Corps designed for deployment in Western Europe, for example, would differ markedly from one designed for deployment in South Korea or Southeast Asia. These differences are taken into account in planning the total Army force structure.

While 48,000 may still be a good estimate of the number of personnel required to man and support a U.S. Army division in sustained combat abroad, I am by no means satisfied that the allocation between combat and support spaces is at the optimum. Nor am I satisfied that the number of service support units deployed abroad is at the proper level, considering our rapid reinforcing capabilities and the service support functions which our allies could provide both in peacetime and in wartime. As I indicated earlier, we are now actively reexamining these so-called "teeth to tail" issues, not only in the Army but also in the other services.

Force Structure Changes

In FY 1975, we will begin to see the effects of our efforts to reallocate Army resources from support and headquarters into combat forces; about nine maneuver battalions will be added to the active Army structure. The 25th Infantry Division, with only six active maneuver battalions, will continue to rely on one National Guard infantry brigade (two Bns), plus one separate Reserve infantry battalion for roundout. However, the Army has an independent brigade (197th) which is counted as part of the 13⅓ division force and which could be used to roundout this division in a nonmobilization situation. The associated reserve component units will be closely supervised by the parent division staff and will take their summer training with that division.

In addition, four reserve component brigades (1 airborne and 3 infantry) are being converted to two mechanized and two armored brigades in FY 1974. These four new "heavy" brigades will be added to the five existing mechanized and one existing armored brigade (making a total of seven mechanized and three armored brigades) now earmarked for early deployment in a major contingency. Two more infantry brigades may be converted to mechanized brigades in FY 1975, depending upon the availability of equipment. We know from experience that a reserve component brigade can be made ready for deployment much sooner than a reserve component division. Hence the emphasis is being placed on brigades, rather than on divisions, for the early deployment role.

Over and above these two ongoing efforts to make the total force concept a reality, we are now considering a plan to affiliate a substantial number of reserve component battalions with the active Army divisions and the early deployment reserve brigades. The brigades of an Army division are normally assigned three or four battalions but are organized to control as many as five battalions. By taking advantage of this broader control potential, we can significantly increase our early reinforcing capability, since in the event of a war the affiliated battalions could mobilize and deploy as part of the active Army divisions and early deployment reserve brigades.

This concept is a new departure for the United States Army. We will be watching with great interest the progress of this experiment in total force planning.

A comprehensive study is now underway to provide an in-depth analysis of all the factors involved in enhancing the contribution of the National Guard and the Reserve under the Total Force policy. Organization, manning, recruiting, retention, equipment, training requirements, operational readiness, mobilization deployment objectives, management systems and structures, programming, budgeting and funding procedures, and possible trade-offs between Active and Guard/Reserve forces will all be considered in this study.

Meanwhile, it would be inefficient to maintain units no longer needed, or units which cannot be adequately equipped or trained. Accordingly, we are now taking steps to make improvements in reserve component readiness, both in equipment and training. To provide resources for these improvements, I am proposing some reductions in the size of the Army reserve components, both in structure and in paid drill strength. The reductions in structure will come from units which are excess to our needs and from other management actions. We will provide the details on these structure changes as our planning progresses.

With respect to the combat support forces, the first CHAPARRAL/VULCAN air defense batteries are scheduled to be introduced into the Army reserve component in FY 1975. Subsequently, the first Aerial Fire Support Units will enter the forces.

In the active Army forces, the deployment of the new LANCE surface-to-surface missile will permit the last of the SERGEANT and HONEST JOHN units to be phased out. A modified version of the AH–1G equipped with the TOW missile, the AH–1Q (COBRA–TOW), will also be introduced into the active Army.

No significant changes are planned in the Marine Corps force structure. However, beginning in FY 1975 one rifle company in each of 18 of the 27 active infantry battalions may be carried at zero strength. (In FY 1973–74 one company in each of nine battalions was carried at zero strength.) This arrangement, or some suitable alternative, is made necessary by the general squeeze on active duty personnel. The equipment for these companies could be placed in storage. In an emergency, given the additional personnel authorization, the Marine Corps could quickly man these 18 companies by drawing on trained personnel in other less essential assignments.

Land Forces Modernization

In contrast to the naval, air and mobility forces, the land forces are organized primarily around formations designed to accomplish specific functions rather than around equipment. Hence, the same kinds of equipment are used by several different types of organizations, including both Army and Marine Corps. Accordingly, this discussion will be focused on specific items of equipment without reference to the kind of units that will employ them.

As I noted at the beginning of this section of the Report, in addition to continued equipment modernization we now need to improve substantially the materiel readiness of our general purpose forces, including the replacement of assets provided to Israel or otherwise consumed in connection with the recent Middle East conflict. Shown on the following table are the major land forces equipment modernization and improvement programs proposed in the FY 1975 Budget, as compared with the amounts provided for those programs in FY 1973 and now planned for FY 1974. The FY 1974 figures include the FY 1974 Supplemental requests, shown in parentheses.

Close Combat (Tank/Antitank) Program

The recent Middle East conflict reaffirmed our earlier conclusion that modern anti-tank weapons fired from the air as well as the ground can provide an effective counter to the modern tank. The anti-tank weapon, however, is primarily a defensive weapon and cannot take the place of the more versatile tank, particularly in the offensive role. Hence, a proper balance of both types of weapons is required in any combat theater that lends itself to mobile armored operations.

ACQUISITION COSTS OF MAJOR LAND FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS [1]

[In millions of dollars]

	Fiscal year—		
	1973 actual funding	1974 planned funding [2]	1975 proposed funding
Close combat (tank/antitank):			
Continued modification and procurement of M60 series tanks (including Marine Corps)	178	(47)227	250
Modification and procurement of M88 recovery vehicle (including Marine Corps)		3	59
Procurement of armored personnel carrier (M113A1)		(44)	
Development of new main battle tank	22	54	69
Development of mechanized infantry combat vehicle (MICV)	8	12	9
Development and procurement of armored reconnaissance scout vehicle	12	10	33
Development and continued procurement of TOW and Dragon antitank missiles (including Marine Corps)	97	(92)217	278
Attack helicopters:			
Procurement of TOW modification for Cobra attack helicopter (AH–1)		73	87
Procurement of Cobra-TOW attack helicopter (AH–1Q)			28
Procurement of Sea Cobra attack helicopter	34	26	31
Development of advanced attack helicopter	20	49	61
Air defense:			
Acquisition and testing of foreign short range air defense system (SHORADS) missile and Chaparral modifications	4	3	61
Stinger missile system	20	25	34
AN/TSQ–73 air defense control and coordination system	5	13	7
Acquisition of improved Hawk surface-to-air missile systems (Including Marine Corps)	144	137	110
Continued development of SAM–D surface-to-air missile system	171	194	111
Fire support (surface-to-surface missiles):			
Development, modification, and procurement of Pershing missile system	56	64	31
Acquisition of Lance missile system	104	81	65
Combat support (air mobility helicopter):			
Continued development of utility tactical transport aircraft system (UTTAS)	50	103	54
Continued development of heavy lift helicopter (HLH)	38	60	58

[1] Inc.ludes costs of R.D.T. & E., procurement of the system and initial spares, and directly related military construction.
[2] Figures in parentheses are the amounts included in the fiscal year 1974 supplemental.

Secretary SCHLESINGER. Placed in the NATO-Warsaw Pact context, where our overall strategy is primarily defensive while the other side's strategy is primarily offensive, modern anti-tank weapons in sufficient numbers can help to offset the Warsaw Pact's superiority in numbers of tanks. Accordingly, we plan to continue our efforts to improve NATO's anti-tank capabilities while at the same time we continue to modernize our tank forces.

M60 SERIES TANKS

For the near term modernization of our tank forces we propose to continue the procurement of the M60A1 series tanks. Last year, it was planned to increase the rate of production of the M60A1 series tanks from 360 per year (for the Army only) to 480 and then to about 515 per year through FY 1976 to provide the Marine Corps 428 M60A1 tanks to replace their old M48s and M103s. Now, in view of the lessons learned from the recent Middle East war and to replace the tanks furnished to Israel, we have decided to increase M60 series tank production to about 665 per year over the next few years.

Furthermore, we believe the Army should replace more of the gasoline powered M48 tanks still assigned to its reserve components. Accordingly, we have included in the FY 1974 Supplement about $47 million for an additional 133 M60A1 tanks, some of which will replace tanks sold to Israel. (In addition, the Army will buy 155 M60A1 tanks with the funds received from the sale of less costly, earlier model tanks to Israel.) Thus, a total of 768 M60A1 tanks would be funded in FY 1974—648 for the Army and 120 for the Marine Corps.

For FY 1975 are requesting a total of $250 million for M60 tanks, including $234 million for the procurement of 664 tanks (510 Improved M60A1s for the Army and 154 M60A1s for the Marine Corps), $8 million for RDT&E, and $8 million to equip some existing M60A1s with add-on gun stabilization, top loading air cleaner, improved reliability engines, and improved electrical systems.

The last of the 428 Marine Corps M60s are scheduled for procurement in FY 1976, at which time the Army plans to buy the M60A3 which, in addition to the add-on stabilization and other improvements mentioned above, will have a laser rangefinder, solid state ballistic computer, tube-over-bar suspension, and commander/gunner passive nightsight. The M60A3s (and the M60A1s to be retrofitted to the M60A3 configuration) will replace the earlier M60s in the active Army, and the earlier M60s in turn will replace old M48s in the reserve components.

M88 Recovery Vehicle

The M88 recovery vehicle, which has been out of production since the early 1960s, is designed to retrieve disabled tanks of M60 size from the battlefield under combat conditions. The existing M88s are powered by gasoline engines. We now propose to buy a diesel-powered version of this vehicle and convert all the existing M88s in the inventory to diesel power. A total of nearly $59 million is included in the FY 1975 Budget—$50.3 million for procurement of 117 M88s (77 for the Army and 40 for the Marine Corps), and $8.4 million for the conversion of the first increment of M88s to the M88A1 diesel engine configuration. A final buy of the M88A1 is planned for FY 1976, and retrofit kit procurement is planned through FY 1978.

Armored Personnel Carrier (M113A1)

We are also requesting about $44 million in the FY 1974 Supplemental for the procurement of 923 M113A1s—some to replace vehicles provided to Israel and the bulk of them to replace the M114 three-man, command and reconnaissance vehicles used in the reconnaissance role. The M114 has proven to be very difficult to maintain and the Army needs a more dependable vehicle, such as the M113A1. The use of the M113A1 in place of the M114 in Europe is intended as an interim measure since the M114s now in use there are scheduled to be replaced eventually by the Armored Reconnaissance Scout Vehicle (ARSV) which is now in development. These additional M113A1s, when no longer needed in Europe, would be used to replace other M114s in the active Army.

New Main Battle Tank

For the longer term modernization of the Army tank inventory, we are proceeding with the development of the new main battle tank, the XM–1. This program is the successor to the XM–803 (MBT–70) which was terminated by the Congress in 1971. The XM–1 development program was approved by the Deputy Secretary of Defense in January 1973, and in June 1973 contracts were placed with two firms to develop prototypes for competitive evaluation. The $69 million request for the XM–1 in FY 1975 is to continue development.

The XM–1 will probably have the same main armament as the M60A3 (i.e., the 105mm gun), improved fire control, and a new type of armor which promises increased survivability against modern anti-tank weapons. The acquisition cost of the tank itself will be about twice as much as the M60A3, but on a ten year system cost basis (i.e., the cost of buying the tank plus ten years of operation) the cost would be only 20 percent higher. Even so, the question remains: Is the XM–1 likely to be worth 20 percent more than the M60A3? The answer is not yet clear; it depends largely on how much better the new type armor proves to be as compared with the M60A3 armor.

Our M60A1 is certainly as good, if not better than the Soviet T–62. We cannot prudently assume, however, that Soviet tank technology has come to a standstill; they may be working even now on a new, significantly improved medium tank. Furthermore, as the recent Middle East war again has demonstrated, our tanks must not only be able to defeat the opposing tanks, they must also be able to survive against the opposing tanks and anti-tank weapons. In this respect, the XM–1 should have a distinct advantage over our M60 series tanks.

Accordingly, I believe it would be wise to proceed with the XM–1 development program to provide both an option for the production of a new, more survivable main battle tank for the 1980s, as well as a hedge against a Soviet breakthrough in tank technology.

MICV

The $9 million included in the FY 1975 Budget for the MICV program will continue development of this new lightly armored, tracked, infantry fighting vehicle and its primary armament, the Bushmaster system. First procurement for the operational inventory is scheduled in FY 1977. The initial procurement objective is 1,186 vehicles, enough to replace the M113A1 armored personnel carriers for the rifle squads of a portion of our Mechanized Infantry battalions and to provide for a training base. The MICV, which will carry a fully equipped squad of combat troops, is designed to operate as a companion vehicle with tanks as part of the combined arms team.

Armored Reconnaissance Scout Vehicle (ARSV)

The $33 million requested for the ARSV in FY 1975 includes $8 million for continued development, and $25 million for production tooling and the first 35 production vehicles for test. Three tracked protyped vehicles from one contractor and three wheeled prototype vehicles from a second contractor are now being subjected to competitive testing. No decision on the production test contract will be made until these tests have been satisfactorily completed.

The ARSV is a three-man lightly armored combat vehicle which is intended as the ultimate replacement for the M114 three-man command and reconnaissance vehicles with our cavalry units in Europe. As noted earlier, the M113A1 will serve as an interim replacement until the ARSVs are delivered. The initial procurement objective is 1,147, sufficient to equip most of our cavalry units and provided for a training base.

TOW and DRAGON

As I indicated earlier, our assessment of the results of the Middle East conflict has led us to the conclusion that the production of TOW and DRAGON anti-tank missiles should be substantially accelerated.

Production of the TOW missile is now running at 12,000 per year, all for Army. Procurement of the TOW missile for the Marine Corps was scheduled to begin in FY 1975. We now propose to increase FY 1974 procurement to 23,425 missiles—6,000 more for the Army and a first quantity of 5,425 for the Marine Corps. In addition, we plan to buy 985 more TOW launchers for the Army in FY 1974, making a total of 1,518. The first procurement of launchers for the Marine Corps was originally scheduled for FY 1975. We plan to buy the first 100 in FY 1974. A total of $92 million is included in the FY 1974 Supplemental for these purposes.

In FY 1975, we propose to buy a total of 30,319 missiles and 1,041 launchers—24,000 missiles and 762 launchers for the Army, and 6,319 missiles and 279 launchers for the Marine Corps. These procurements are substantially higher than planned for FY 1975 last year. A total of $149 million is included in the FY 1975 Budget for the TOW program—$138 million for procurement and $11 million to continue development of a night sight for TOW.

Under this accelerated program, the Army will achieve its TOW inventory objective by FY 1977 instead of FY 1978 as planned last year, and the Marine Corps, by FY 1976 instead of FY 1977.

Procurement of the DRAGON anti-tank missile began in FY 1972 with the purchase of a limited production test quantity of 560 missiles and 28 trackers for the Army. Last year it was planned to buy 9200 missiles and 900 trackers for the Army in FY 1975. We now propose to increase the FY 1975 procurement for the Army to 15,200 missiles and 1,200 trackers, and buy the first increment of 1,378 missiles and 158 trackers for the Marine Corps. A total of $129 million is included in the FY 1975 Budget for the DRAGON program.

Both the vehicle mounted TOW and the one-man portable DRAGON anti-tank missile systems offer significant improvements in combat effectiveness as compared with the weapons they will replace. The TOW is replacing the jeep-mounted 106mm recoilless rifle, and the DRAGON is replacing the two-man portable 90mm recoilless rifle. Army forces in Europe will receive first priority in the delivery of these weapons.

Attack Helicopters

Our experience in Vietnam confirmed our judgment on the usefulness of TOW-armed attack helicopters in the anti-armor role, particularly with respect to

Europe where the Warsaw Pact enjoys a substantial superiority over NATO in number of tanks. Accordingly, we intend to press forward with our TOW-armed helicopter programs during the coming fiscal year.

COBRA-TOW MODIFICATION

Last year $73 million was provided to modify the first 101 AH–1G Cobra helicopters (out of a prospective total of 298) to carry the TOW missile. Eight R&D prototype Cobra-TOW helicopters (designated the AH–1Q) had been previously funded.

We still plan to complete the modification of the remaining 189 AH–1Gs to the Cobra-TOW configuration in FY 1975. Evaluation of the performance of the prototype vehicles, however, indicates that engine upgrading and a change in the transmission will be needed if the AH–1Q is to carry a full load of eight TOW missiles in addition to the normal armament and fuel load of the AH–1G. The AH–1Q as presently configured can carry 2 to 6 TOWs (depending on the weather and altitude) in addition to its other armament and fuel load.

Accordingly, we now propose to increase the power of the current AH–1 engine and substitute the gear boxes and transmission used in the Marine Corps AH–1J for those now used in the AH–1G. We are requesting a total of $87 million in the FY 1975 Budget for the modification of the 189 AH–1Gs to this upgraded configuration. A final decision on the procurement of these modifications, however, will not be made until the test and evaluation of the improved AH–1Q has been satisfactorily completed.

COBRA HELICOPTER

Chairman MCCLELLAN. When do you anticipate a procurement decision on the COBRA helicopter modifications?

Secretary SCHLESINGER. I anticipate that limited development and operational tests will be completed in May 1975 and that a procurement decision will be made in June 1975.

Chairman MCCLELLAN. Proceed.

COBRA-TOW PROCUREMENT

Secretary SCHLESINGER. In addition to modifying a total of 298 AH–1Gs to the upgraded configurations, we also propose to buy about 300 new improved configuration AH–1s during the FY 1975–79 period. The Army needs a total of about 1335 attack helicopters to equip the current force structure (active and reserve). The current inventory is now about 260 below that figure, and the shortfall is expected to increase even further due to peacetime attrition and the phasing out of approximately 300 UH–1M utility helicopters now used as substitute attack helicopters.

The only new attack helicopter in development, the AAH, is expected to cost more than twice as much as the upgraded AH–1Q. Consequently, we would buy only enough AAHs to meet the most demanding requirement. The procurement of some 300 upgraded AH–1s in the FY 1975–79 period would not only avoid the potential shortage but also maintain a "warm" production base. A total of $28 million is included in the FY 1975 Budget for the procurement of the initial increment of 21 upgraded AH–1Qs.

SEA COBRA ATTACK HELICOPTER

The Marine Corps in recent years has been buying a twin engine version of the AH–1 for over-water operations. Forty-nine of these AH–1Js were procured in FY 1969 and prior years, 20 in FY 1973, and 20 more were funded in FY 1974. Another 35 are needed to complete the equipping of three active squadrons and two training elements (a total of 84 UE aircraft).

We believe that some of the AH–1Js should be configured to carry TOW, and all should be configured to carry the newly developed protective devices (e.g., infrared suppressors, detectors, jammers, and decoys), in addition to their current payload. In order to do so, however, the payload capability of the aircraft clearly needs to be improved substantially. The AH–1J (Improved) will cost about a half a million dollars more per aircraft than the current AH–1J ($1.5 million vs. $1.0 million). But we believe that the enhanced capabilities of the AH–1J (Improved) will fully justify the additional cost.

Accordingly, we now propose to buy 15 of the improved AH–1Js in FY 1974, instead of the 20 current model AH–1Js previously planned. The $31 million

included in the FY 1975 Budget for this program would provide $27 million for another 20 AH–1J (Improved) Attack Helicopters, plus about $4 million for advanced procurement for the final 20 to be procured in FY 1976.

Advanced Attack Helicopter (AAH)

The FY 1975 Budget also includes $61 million to continue development of the AAH for the longer term modernization of our attack helicopter force. As you know, the AAH is the successor to the Cheyenne attack helicopter program that was terminated by the Army in August 1972. The Army, OSD, and the Special Subcommittee on Close Air Support of the Senate Armed Services Committee (in its Report issued in June 1972) have all concluded that there is a need for both fixed wing and attack helicopter close-air support on the modern battlefield. The AAH would help to fulfill the attack helicopter portion of this mission in the 1980s and beyond.

The AAH program is being pursued on a design-to-cost basis in the hope that we can develop a suitable attack helicopter that is less costly and less complex than the Cheyenne. Development contracts have been awarded to two contractors. Each will fabricate two flying prototypes to be evaluated in a competitive fly-off in March 1976. If all goes well, the first production AAHs, for test and then inventory, would be procured in FY 1978–79.

Air Defense

Air defense of the army in the field has come under a great deal of scrutiny as a result of the recent Middle East conflict. One conclusion upon which there is general agreement in the Defense Department is that major improvements in our theater army air defense capabilities are urgently needed.

Air defense of an army in the field is usually provided by a mix of aircraft, SAMs, and AAA weapons systems supported by radars, command and control systems, electronic warfare equipment, and passive (camouflage, dispersion, etc.) defense measures. The air defense objective is to limit the opponent's effectiveness in attacking our critical assets and to counter the air attack in such a way as to permit our field army forces to maneuver as required.

The evolving Soviet field army air defense doctrine features highly mobile SAMs and AAA which are designed to provide protection for fast moving tank and mechanized infantry forces. In the recent Middle East conflict, however, Soviet field air defense equipment, particularly in the case of Egypt, was also employed in a heavy barrier defense involving three SAM systems (SA–2, SA–3 and SA–6) each operating in a different but overlapping altitude and range regime. This mode of deployment was probably peculiar to that situation; it would not be consistent with a highly mobile Soviet offensive in Europe.

Compared with the Soviet Union, the low-to-medium altitude air defenses (other than aircraft) of the U.S. Army in the field are considerably less mobile. The principal mobile elements of the Soviet system are the SA–4 and SA–6 SAMs, and the twin 57mm and ZSU–23–4 guns. The comparable U.S. elements are the HAWK and VULCAN/CHAPARRAL. The SA–6, for example, moves in two tracked vehicles—the missile launcher vehicle and the radar van—and can fire with little preparation. The HAWK, in contrast, moves in several wheeled vehicles and requires considerably more time to set up and fire, but it is quite effective in the medium altitude regime. The Soviet ZSU–23–4 is track-vehicle mounted and radar directed. The U.S. counterparts, the VULCAN gun and CHAPARRAL short range missile, are also mounted on tracked vehicles but they are not radar directed and therefore lack an all-weather capability.

Thus, our most immediate need for air defense of the army in the field is an effective all-weather, highly mobile, low altitude system. We also need an improved follow-on to the REDEYE man-portable SAM. For the longer term modernization of ground forces air defense, we are continuing the development of the SAM–D as a potential replacement in the 1980s for the NIKE HERCULES as well as for the Improved HAWK.

Development of Short Range Air Defense Systems (SHORADS)

Several of our allies have developed SHORAD systems which may be able to meet our need for an all-weather capability. By drawing on these developments, we can conserve our R&D funds for other essential developments programs which we, in turn, can share with our allies.

Accordingly, we have conducted preliminary firing tests of three foreign short range air defense missile systems—the French CROTALE, the German ROLAND II, and the U.K. RAPIER. We plan this summer to select one of the three systems for further intensive tests to determine whether it can be modified, and at what cost, to meet our particular requirements.

Inasmuch as it will take some time to test and produce the selected foreign system, and in view of the fact that the need for improvement in this area is urgent, we also propose to continue, as a hedge, the improvement program for the CHAPARRAL. The current improvements being tested would significantly enhance the effectiveness of the CHAPARRAL missile, but not to the level of effectiveness promised by the foreign systems.

The $61 million included in the FY 1975 Budget for the SHORADS program would provide $35 million to acquire from the U.S. licensee (there is a U.S. licensee for each of the three foreign missiles) a limited test quantity (about five sets of equipment and 100 missiles) of the selected SHORAD system, and $26 million to modify the first 1500 CHAPARRAL missiles. If we decide to acquire the foreign SHORAD for the operational inventory, it will be produced in the U.S. by a U.S. licensee, and the excess CHAPARRAL assets will be turned over to the Reserve Components.

Short Range Air Defense System

Chairman McClellan. Assuming a foreign short range air defense system is built in the U.S. under a license arrangement, what are the royalty provisions?

Secretary Schlesinger. General Counsel has advised that prior to release of the RFP, royalty information be purged from the licensing agreements DoD has access to since they might be prejudicial to an impartial evaluation. The RFP will require each offer to state the exact amount of royalty to be paid.

Chairman McClellan. Proceed.

STINGER

Secretary Schlesinger. The STINGER is an advanced man-portable air defense system being developed to replace the Army and Marine Corps REDEYE, which will need replacement in the late 1970s. STINGER will be faster than REDEYE, and will utilize a more effective guidance system.

The $34 million requested in the FY 1975 Budget would provide for continued development. The first production quantity is scheduled for procurement in FY 1976 for the Army. Procurement for the Marine Corps is scheduled in FY 1977.

AN/TSQ–73 Air Defense Command and Control System

The current AN/MSG–4 ground force Air Defense Command and Control system was deployed in 1958; it is extremely costly to operate and maintain, does not integrate easily into other services' C^2 systems, and can be easily jammed. Accordingly, we plan to replace that system with the new AN/TSQ–73. The $7 million included in the FY 1975 Budget for the AN/TSQ–73 is needed principally for the continued testing and engineering changes on the five units procured with FY 1974 funds. Procurement of additional units has been deferred pending the satisfactory completion of the tests and the successful accomplishment of the necessary engineering changes.

Improved HAWK

A total of about $110 million is included in the FY 1975 Budget for the Improved HAWK program—$89 million for the Army and about $21 million for the Marine Corps. The Army amount includes $81 million for the procurement of the last 9 battery conversion kits, 520 missiles and the last increment of 38 improved Platoon Command Posts (IPCPs), and $8 million for the development of further modification to improve the performance of the HAWK system. The Marine Corps amount ($21 million) provides $17 million for the procurement of 230 missiles, about $2 million for three IPCPs, and about $2 million for the installation and check-out of six battery sets.

HAWK

Chairman McClellan. Are our NATO allies buying the Improved HAWK surface-to-air missile system?

Secretary SCHLESINGER. On January 15, 1974, the NATO HAWK Manager, at the direction of the NATO HAWK Production and Logistics Organization in Paris, signed a Letter of Intent with the Raytheon Company of Massachuseetts calling for a fixed price contract totaling $660 million to be "definitized" by April 15, 1974. Approximately 50% of this sum, as well as another $100 million in smaller support contracts with U.S. firms and the U.S. Army, will be spent in the United States. The following countries are participating in the Improved HAWK buy: FRG, France, Netherlands, Italy, Denmark, Greece, and probably Belgium.

Chairman MCCLELLAN. Proceed.

The Improved HAWK conversion program is on schedule; the first Basic HAWK battalion was converted to Improved HAWK in November 1972 in USAREUR/Seventh Army. The Army will complete procurement of this system in FY 1977 with a total of 90 battery sets and the Marine Corps in FY 1976 with a total of 14 battery sets.

SAM–D

The SAM–D, which is intended as a potential replacement for the NIKE HERCULES and Improved HAWK, is a very complex surface-to-air guided missile system. The performance specifications call for a high single shot kill probability in a sophisticated electronic countermeasure environment, and an ability to conduct multiple simultaneous engagements against the type of high performance targes that potentially could be employed against U.S. forces in the field in the 1980s and beyond.

Chairman MCCLELLAN. How many units are planned for the SAM–D program? What is the total program acquisition cost?

Secretary SCHLESINGER. In the SAM–D program as previously structured the plan was to procure [deleted] fire units. However, I have placed the program back in advanced development and directed that the sole emphasis be on testing the missile guidance and phased array concepts. My staff is conducting the cost and operational effectiveness study requested by the Senate Appropriations Committee and it may result in a further restructuring of the program. If we go ahead with this program, we shall have to reexamine in detail the number of units to be procured. This reexamination must include the characteristics of the modified SAM–D and any possible foreign procurement.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. After an intensive review of the status of this program last year, we have decided to reexamine SAM–D in order to provide emphasis on austerity, and to ensure adequate testing of the guidance system and the phased array radar before we proceed with Engineering Development. Past experience with such complex systems has conclusively demonstrated that it is faster and cheaper in the long run to ensure the proper performance of the key components before proceeding with full scale development. A total of $111 million is included in the FY 1975 Budget to continue the SAM–D development program.

The two current acquisition programs in this area are the PERSHING and the LANCE.

PERSHING

The $31 million requested in the FY 1975 Budget would provide $20 million for the PERSHING I and $11 million to demonstrate technology for a major upgrading of the system.

The PERSHING I amount includes $11 million for the last increment (88 missiles) of a four-year missile modifiction program designed to exceed system life, $1 million for spare parts and $8 million for the procurement of 58 automatic azimuth reference systems.

The current PERSHING IA Missile System is a good example of "modernization by modification". Since the system was first fielded in 1962, it has been repeatedly modified through modular product improvements which have provided increased weapon system reliability and maintainability, better mobility, survivability, and flexibility in nuclear fire support for SACEUR's General Strike Plan. Recent additions to the system include the automatic azimuth reference system which enables the PERSHING to be fired from unsurveyed firing positions, and a sequential launch adapter which provides a reduction in firing response time in the Quick Reaction Role in support of the NATO mission.

Nevertheless, we now believe that we should start to examine the technical feasibility of a major upgrading of the PERSHING system that would incorporate the latest available technology. The $11 million would support that effort.

LANCE

A total of $65 million is included in the FY 1975 Budget for the LANCE surface-to-surface missile system. Of that amount, $30 million is for the procurement of another 194 missiles (less warhead sections) for the U.S. Army. The balance of $35 million is needed for the procurement of warhead sections (excluding the nuclear device which is provided by the AEC) both for the U.S. Army and for the support of LANCE systems sold or expected to be sold to our NATO allies.

The Congress has stipulated that a study of the cost-effectiveness of the nonnuclear warhead for LANCE be submitted prior to the request of funds for the procurement of such warheads or missiles to carry them. The Defense Department, of course, will comply with that request if our analyses indicate this option is worth pursuing.

COMBAT SUPPORT (AIR MOBILITY-HELICOPTER)

The United States in recent years has led the rest of the world in the use of helicopters to enhance the mobility of the land forces. Although the Soviet Union is now placing considerably more emphasis on this aspect of land forces mobility, we are still well ahead in this area, except for heavy lift helicopters. And, of course, we must also develop a successor to the Army UH–1 tactical transport helicopters, most of which were acquired during the Vietnam war build-up.

UTILITY TACTICAL TRANSPORT AIRCRAFT SYSTEM (UTTAS)

The UTTAS is the intended successor to the UH–1 in the tactical transport role. The development program, for which $54 million is requested in FY 1975, is proceeding well. The engine development contract was awarded in March 1972, and contracts for the development of prototype aircraft were awarded to two competing contractors in August 1972. The selection of a single contractor for final development and production is scheduled for November 1976, after a prototype fly-off and evaluation of the two competing designs has been completed.

The UTTAS would provide the Army in the 1980s with a utility transport helicopter that emphasizes reliability, maintainability, and survivability in sustained combat or field operations. In contrast to the UH–1, the UTTAS would be able to carry a full combat equipped Army squad. Also, it would be more effective than the UH–1 in the resupply and medical evacuation roles.

HEAVY LIFT HELICOPTER (HLH)

The current Army helicopter designed for the heavy lift mission is the CH–54. The lift capacity of this helicopter is about ten tons, not enough to lift many types of land forces equipment which are subject to damage in battle. Accordingly, the Defense Department is now developing the technology for a new helicopter, the HLH, that could lift about 22½ tons. We envision that this helicopter would be used to satisfy the heavy vertical lift requirements of all the services in both a combat support role, such as air-mobile operations or recovery of damaged vehicles, and in a combat service support role to move supplies and unload ships.

Chairman MCCLELLAN. If the heavy lift helicopter (HLH) is being developed to satisfy the heavy vertical lift requirements of all the Services, why is the Navy requesting funds in FY 1975 for the CH–53E program?

Secretary SCHLESINGER. The HLH is being developed to satisfy all shore-based heavy vertical lift requirements of the Services. The Navy and Marines believe that the HLH is not fully compatible with shipboard basing. Further they believe that a helicopter with greater lift capability than current helicopters and one which is fully compatible with shipboard basing is required to support certain Navy and Marine operations. We have therefore decided to prototype both the HLH and the CH–53E and at this time only the two prototype programs have been approved. Prior to any further development, we plan to reassess the requirements for and capabilities of both the HLH and CH–53E.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. To continue development of the HLH, we are requesting $58 million for FY 1975. This amount will continue design and fabrication

of the first prototype with rollout scheduled for May 1975. In addition, fabrication of a second prototype will be initiated. Extended reliability endurance testing will be accomplished on major dynamic components, the flight control system and engines. A full prototype flight test program will be undertaken in FY 1976 and a decision will then be made as to the future course of the HLH program.

Equipment of the Reserve Components

Emphasis on the modernization of equipment in reserve components continued during the past year in consonance with the Total Force Policy. Significant improvement in the levels and quality of equipment on hand in Guard and Reserve units has been achieved. Issues of major items of equipment to the Army Guard/Reserve and the Marine Corps Reserve during FY 1973 totaled $714 million, of which Army received approximately $682 million and the Marine Corps $32 million. As of the end of FY 1973, on hand combat-capable equipment in the hands of troops for the Army National Guard and Reserve totaled approximately $3.66 billion (about half of the mobilization requirement), and in the Marine Corps, about $155 million (almost all of the mobilization requirement).

It is interesting to note that from the end of FY 1969 through the end of FY 1974 a total of almost $3.3 billion of equipment will have been delivered to the Army reserve components compared with a total of less than $.7 billion of equipment retired. Nevertheless, some important Army reserve component equipment deficiencies remain to be corrected. These are mainly in the newer items of equipment—TOW/DRAGON anti-tank missiles, M60 series tanks, CHAPARRAL air defense missiles and modern communication equipment. Action is being taken to alleviate these deficiencies as fast as the needs of the active Army permit.

With the exception of long leadtime production items, which are funded but not yet delivered, the equipment required for the Marine Corps Reserve Division is either in the hands of existing units or in Prepositioned War Reserve Stocks.

Associated with the equipment program is the requirement to provide adequate storage and maintenance facilities, as well as field training areas, to complement the influx of equipment. To meet this requirement, the Department of Defense in 1970 undertook a facilities improvement program designed to provide adequate facilities for all Army Guard and Reserve units by the end of 1980. A total of $242.7 million has thus far been provided for this program, and another $102.7 million is requested for FY 1975.

NAVAL FORCES

As I indicated earlier, one of the major objectives of the General Purpose Forces Program is to ensure, together with our allies, the maintenance of an appropriate naval balance with the Soviet Union, taking into account the differences in the objectives of the two forces. In planning our naval forces during the past few years, we have had to take into account two internal considerations.

The first was the need, given the prevailing fiscal constraints and the block aging of many World War II-constructed ships, to reduce force levels over the near term in order to provide the funds needed for modernization over the long term. The number of commissioned general purpose ships in the fleet (including the Naval Reserve Force) has, in fact, been reduced from 951 at the end of FY 1968 to 588 at end FY 1973, and is programmed at 522 for the end of FY 1975. Beginning in FY 1977, the trend will be markedly reversed as the number of new ships delivered to the fleet exceeds the number being retired.

The second consideration—the need to pursue assiduously the so-called "high-low mix" approach to weapon system acquisition—has already been discussed. This concept is particularly applicable to the ship construction program, and the Navy has made a valiant effort to apply it, particularly to the surface escort and major aircraft platform categories.

Airlift Platforms

The planned program for sea-based aircraft platforms is an excellent example of the high-low concept in practice. As you know, we are now building three NIMITZ-class nuclear powered aircraft carriers, the last of which is expected to cost almost one billion dollars. These will be very large multipurpose aircraft carriers capable of operating the Navy's most sophisticated fighter/attack and ASW aircraft under the most demanding conditions in high threat areas. This extensive capability, however, is not needed in low threat situations, such as

escorting merchant ships or Naval underway replenishment groups in ocean areas outside the range of Soviet land-based aircraft. For this latter purpose, a relatively small and austere aircraft platform capable of launching V/STOL aircraft and helicopters for air defense and ASW protection would be sufficient. The Sea Control Ship, which is expected to cost less than $120 million in escalated, "then-year" dollars (excluding the lead ship and all outfitting and post delivery costs), is intended to fulfill this low cost/limited performance aircraft platform requirement.

Aircraft Carriers

The United States, since the Korean War, has kept five or more carriers continuously deployed—two in the Mediterranean and at least three in the Pacific. The wisdom of maintaining forward deployed carrier forces on a continuous basis has again been impressed upon us by recent events in the Middle East.

Normally, with all carriers homeported in the U.S., a total of 15 active carriers would be required to support five forward in peacetime. Indeed, the attack carrier force level has varied between 14 and 17 ships since 1960, with an average of 15.

Two years ago, in the face of increasing fiscal and manpower pressure, it was decided that the attack carrier force would have to be reduced. In order to support the five carrier forward deployment with fewer total carriers, it was also decided to locate the dependents of the crews of two carriers overseas—one in the Pacific, and one in the Mediterranean. With this arrangement, the five carrier forward deployment could be adequately supported on a continuous basis with a total of 12 carriers. For contingency operations of relatively short duration, the 12 carrier force could support more than five forward; and in wartime, of course, all available ships would be deployed forward. Accordingly, it was planned last year to reduce the carrier force from 15 at end FY 1974, to 13 at end FY 1975, and eventally to 12.

Now, however, in view of the difficulties encountered in completing the homeporting arrangements for a carrier in Greece and the need to retain a capability to deploy a carrier periodically in the Indian Ocean, we have decided to hold the carrier force at 15 through FY 1975, reducing to 12 in later years. The first of the three NIMITZ-class carriers (the NIMITZ) is now expected to be delivered to the fleet in FY 1975, and the second (the EISENHOWER) is contracted for delivery 21 months later (which now would be late FY 1976 or early FY 1977). The last NIMITZ-class carrier, the CARL VINSON, is expected to be delivered in FY 1981.

While no further changes in the estimated costs of the three NIMITZ-class carriers have been reported to my office in the past year, delays in the delivery of the NIMITZ and the EISENHOWER could increase their costs. The delays being encountered with the NIMITZ and the EISENHOWER are not expected to affect the delivery schedule for the VINSON which, as shown on the table beginning on the next page, was fully funded in FY 1974.

When the VINSON is delivered, the MIDWAY will be retired and we will then have a 12-ship force comprised entirely of large post-World War II carriers, including four nuclear powered. By 1985, however, the first of the FORRESTAL-class carriers will be 30 years old and we must be prepared to replace them some time in the 1980s if a force of 12 ships is to be maintained. Accordingly, we have tentatively programmed the first of a new class of lower-cost carriers, designated the CVX. The characteristics of the CVX have not been defined, but conceptual studies and preliminary design work are underway. We expect this effort to be oriented toward ship dimensions, propulsion system and other features that would be compatible with a design-to-cost goal of about $550 million in FY 1973 dollars. The study and preliminary design phase should result in completion of a Development Concept Paper (DCP) in 1974 and that will better define the characteristics of the proposed new carrier and the alternatives available.

ACQUISITION COSTS OF MAJOR NAVAL FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS [1]

[In millions of dollars]

	Fiscal year—		
	1973 actual funding	1974 planned funding [2]	1975 proposed funding
Aircraft platforms:			
Procurement of CVN-70 aircraft carrier	299	657	.....
Design and procurement of the sea control ship	13	29	143
ASW aircraft:			
Development and procurement of S-3A carrier-based ASW aircraft	618	548	562
Modification of SH-3 helicopter	9	17	24
Development of the HSX	.....	.....	2
Continued procurement of the P-3C land-based ASW aircraft	132	(50) 202	152
Other surface combatants:			
Procurement of DD-963 destroyers	249	612	464
Procurement of DLGN nuclear-powered frigates	.....	81	256
Acquisition of patrol frigate	204	6	437
Continued development of Aegis ship air defense system	79	40	67
Acquisition of the light airborne multipurpose system (LAMPS)	51	32	34
Development and test of surface effect ship	32	61	58
Acquisition of patrol hydrofoil missile ship	30	23	108
Antiship missiles:			
Acquisition of the Harpoon antiship missile	60	81	136
Development of encapsulated Harpoon	12	12	13
Acquisition of active Standard antiship missile	20	8	35
Acquisition of Condor antiship missile	28	33	30
Attack submarines:			
Procurement of SSN-688 class nuclear attack submarines	1,048	921	548
Continued development and procurement of MK-48 torpedo	176	183	160
Acquisition of the AN/BQQ-5 sonar system	30	57	72
Undersea surveillance systems: Development and deployment of Sosus and improved Sosus and development of TASS	127	144	137
Underway replenisment and support ships: Procurement of underway replenishment and support ships	189	.....	209

[1] Includes costs of R.D.T. & E., procurement of the system and initial spares, and directly related military construction.
[2] Figures in parentheses are the amounts included in the fiscal year 1974 supplemental.

CVX Carrier

Chairman McClellan. How much is in the FY 1975 request for R&D on the CVX program?

Secretary Schlesinger. The FY 1975 request for R&D contains $3.1 million for preliminary design for the CVX. This design effort is not scheduled to begin until mid-FY 1975.

Chairman McClellan. Proceed.

Secretary Schlesinger. The program to convert attack aircraft carriers (CVA) to the multipurpose or CV configuration is being continued. The CV operates fighter, attack and ASW aircraft and combines the role of the CVA and the ASW carrier (CVS). Experience to date has shown that the problems associated with operating all three types of aircraft on the large deck (ENTERPRISE/FORRESTAL class) carriers can be overcome. Three FORRESTAL-class carriers are now being operated as CVs, and three more are planned to be converted to that configuration in FY 1975. The ENTERPRISE and NIMITZ will be converted to the CVN configuration in FY 1976, and EISENHOWER will be delivered as a CVN. The last two FORRESTAL-class ships will be converted by FY 1977. After that we expect to operate 11 CV/CVNs and one CVA until the VINSON is delivered and the MIDWAY is retired.

Sea Control Ship

The Sea Control Ship (SCS), as I noted earlier, is expected to be the key element on the "low" side of the spectrum of sea-based air capability. Its primary

mission is to provide sea-based aircraft (V/STOL and helicopter) for protection of underway replenishment groups (URGs), amphibious groups, and convoys when operating in low air threat areas where protection by the much more capable and costly CVs is not available. In fulfilling this primary mission, the SCS with its embarked aircraft and accompanying escorts will provide surveillance against surface and submarine threats, localization and attack of identified submarine threats, and attack of surface and limited air threats beyond surface combatant range.

The SCS will be a relatively low-cost, austere vessel of about 14,000 tons, with a planned complement of 14 helicopters and three V/STOL aircraft, plus maintenance facilities for two LAMPS helicopters (which would be deployed aboard accompanying surface combatants).

SEA CONTROL SHIP AIRCRAFT

Chairman MCCLELLAN. Am I correct that the eight sea control ships, to be delivered to the fleet by 1981, will probably have an air complement of 14 SH–3H helicopters and three A–8A V/STOL aircraft each?

Secretary SCHLESINGER. The aircraft complement presently envisioned for use on the Sea Control Ship is essentially as you have indicated. In particular the lead Sea Control Ship, scheduled to deliver in 1978, will utilize SH–3H and Marine Corps AV–8A V/STOL aircraft. The aircraft which will be actually assigned to some or all of the follow-on ships depend to some degree on the progress of the Navy's advanced V/STOL and HSX development programs. If these programs result in suitable aircraft which enter service before some of the Sea Control Ships are delivered, they are expected to form part of the complement. On the other hand, SH–3s and AV–8s could be employed if more advanced aircraft were not available. The Navy is expected to narrow the range of candidates for these follow-on aircraft programs later this year, after which the follow-on Sea Control Ship aircraft complement will be more clearly identified.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. Last July the Navy completed a lengthy test of the SCS concept in a coordinated fleet environment using a helicopter assault ship, the USS GUAM, as the test platform and AV–8A HARRIERs and SH–3H helicopters as the initial test aircraft. These tests have verified the basic concept, but some deficiencies were identified, particularly with respect to the ability of the planned helicopter complement to sustain the continuous ASW and surveillance operations needed to fulfill the mission. The Navy plans to correct these deficiencies and conduct additional tests with a full complement of SH–3H helicopters and AV–8As, modified as required to ensure their suitability for the SCS role.

I am well aware of the uneasiness expressed in the Congress with regard to the SCS program. I am convinced, however, that the high-low concept offers the only feasible solution to the problem of maintaining the required total combat capability within current budgetary constraints. We must have quantity as well as quality if we are to maintain an appropriate naval balance with the Soviet Union.

The SCS with the SH–3H and the AV–8A would provide a useful capability at a relatively low cost, thus facilitating its acquisition in quantity. Moreover, like all air-capable ships, the SCS would be equipped, over its lifetime, with several generations of aircraft. Development of a new, more capable ASW aircraft, the HSX, is now under consideration, and eventually a new, improved V/STOL fighter will become available. These new aircraft would further improve the combat capabilities of the SCS.

In view of the fiscal constraints which are likely to prevail in the foreseeable future, we are proposing a program of eight SCSs. The lead ship would be funded in FY 1975, the next three in the following year, and two each in FY 1977 and 1978. We hope to hold the average cost of the follow-on ships to $117 million in escalated "then-year" dollars (excluding outfitting and post-delivery costs) through such techniques as rigid design to cost, competition between shipbuilders, and an independent design validation by a second shipbuilder. (The lead ship would cost $172 million.) Under this schedule, delivery of the ships to the fleet would be spread over the FY 1978–1981 period.

The FY 1975 Budget includes $143 million, which together with $29.3 million provided in FY 1974, will finance the construction of the first SCS (the lead ship). As directed by the Congress, none of these funds will be obligated, pending approval by both the House and Senate Appropriations Committee.

ASW Aircraft

The Navy plans to operate its CVs and CVNs with two squadrons of fighters, three or four squadrons of attack aircraft, and one squadron each of ASW fixed-wing aircraft and ASW helicopters per carrier. This aircraft mix can be varied within limits, depending upon the specific mission of the carrier, e.g., primary attack or primary ASW.

S–3

We plan to acquire one squadron (10 aircraft) of the new S–3s for each of the 12 carriers expected to be in the fleet in the late 1970s. If intensive ASW operations are required, two squadrons (20 aircraft) per carrier could be provided by drawing on the S–3 complements of other carriers—e.g., those undergoing overhaul or those which at least likely to encounter large submarine threats.

Procurement of 93 aircraft has already been funded, including 45 in FY 1974. A DSARC review of the S–3 program in October 1973 indicated that testing up to that point had been successful. Accordingly, execution of the contract option on the FY 1974 quantity of 45 aircraft was approved under the Continuing Resolution Authority. A total of about $562 million is provided in the FY 1975 Budget for the continued acquisition of the S–3, including $504 million (in addition to the $54 million provided for advance procurement in FY 1974) for the procurement of another 45 aircraft and $56 million of advance procurement funds for the remaining 41 aircraft to be procured in FY 1976.

The first few S–3s are expected to become operational this year. Five squadrons are expected to be available in FY 1975 and the full 12 squadrons by the end of FY 1977.

SH–3

The ASW helicopter force currently consists of nine squadrons (8 UE aircraft per squadron) of SH–3s. Eight squadrons are allocated for CV use and one squadron for testing abroad the "interim" SCS (i.e., the GUAM). Procurement of the SH–3 is tentatively scheduled to be resumed in the FY 1974–79 period to provide additional helicopters for the multi-purpose carriers and for the SCSs.

In addition, a program is now underway to modernize the current force of SH–3 A/D/C helicopters to the new SH–3H configuration (the one we plan to buy in the FY 1976–79 period) which will have significantly improved ASW and surveillance capabilities. The first two squadrons of SH–3s are being converted to the H model in FY 1974–75. Another $24.4 million is included in the FY 1975 Budget for the modification of an additional 14 SH–3s.

HSX

As noted earlier, the HSX is being developed as an eventual replacement for the SH–3H, as well as the Marine Corps' CH–46 medium assault helicopter, sometime in the 1980s. The HSX would have better ASW sensors and avionics than the SH–3, and greater endurance and payload. Thus, it would provide an improved ASW capability against the quieter and more capable Soviet submarines expected in the 1980s. Some $2 million is included in the FY 1975 Budget to initiate development of the HSX.

The Navy carrier-based ASW forces also include six S–2 and four SH–3 squadrons in the Naval Reserve. These units would be used to replace attrition in the active force. The S–2s will have this role only until FY 1978, when the active force will complete the transition to S–3s. The S–2s, however, could also be operated from forward land bases during a contingency, thus increasing our capability to conduct ocean surveillance and to provide protection to convoys.

P–3

In addition to the carrier-based ASW aircraft forces, the Navy also has a total of 36 squadrons of land-based ASW aircraft—24 active and 12 reserve. The active force is now equipped with the A, B and C models of the P–3, but the older P–3As are being replaced, one squadron per year, by the new P–3C. The P–3C has a more capable, computerized avionics system which permits it to operate more effectively with the more advanced ASW sensors, including the new DIFAR directional sonobuoy system. The P–3As released from the active force are being transferred to reserve units to replace the obsolete SP–2 ASW aircraft.

Replacement of the P–3A in the active force is scheduled to be completed in FY 1979, at which point we would have 15 squadrons of P–3Cs and 9 squadrons of

P–3Bs. Procurement of P–3Cs to replace the P–3Bs would be initiated with FY 1979 funds and the first P–3B squadron would be replaced in FY 1980. The FY 1975 Budget includes $139 million (in addition to the $9 million provided in FY 1974) to procure another 12 P–3Cs, plus $12 million of advance procurement funds for the planned FY 1976 buy, and $1 million for construction of a P–3 Tactical Support Center (TSC) Training Building.

The upgrading of the reserve force with P–3As and Bs released by active units will also continue through the decade. All 12 of the Naval Reserve units will be equipped with P–3As by the end of FY 1981.

Other Surface Combatant Ships

In addition to aircraft platforms, the Navy's surface combatant force includes cruisers, frigates, destroyers, and ocean escort ships. These other surface combatants have many potential missions, but the size of the force and the configuration of individual ships are determined primarily by the need to provide perimeter defense for high-value naval forces and, in conjunction with our allies, for military resupply shipping during a major conflict with the USSR. Surface combatant screens constitute the final defensive barrier protecting high-value surface ships, while tactical and patrol aircraft and attack submarines provide the outer defenses against enemy air and submarine threats.

Notwithstanding the substantial improvement in the Soviet surface navy during the past decade, the Soviet submarine force is still the principal threat to our naval forces and military resupply shipping. This is so because the submarine force is the only element of the Soviet Navy that can operate, in wartime, at long distances from bases for sustained periods without air cover. Accordingly, ASW screening needs must take precedence over AAW needs in determining the size and character of our surface combatant force.

Recent analyses tend to confirm our conclusion that surface combatant screens could contribute significantly to attrition of both the air and submarine threats to escorted units. These ships would be particularly important for close-in defense against the quieter Soviet torpedo attack submarines. Moreover, surface combatant screens can make a major contribution in AAW protection by attrition of incoming cruise missiles, which are a potent and steadily growing threat to our ships at sea.

The U.S. requirement for other surface combatants is related to the size and character of the Soviet threat, the number of forces and groups requiring protection, the level of defense desired for each protected force or group, and the contributions of surface combatants that can be expected from our allies. In addition, an allowance must be made for ships in overhaul at any one time.

The U.S. forces to be protected by surface combatants in a conventional war in Europe, the most demanding force planning contingency, include the 12 carriers, the amphibious shipping for 1⅓ Marine division/wing teams, about ten Underway Replenishment Groups (URGs), and five merchant ship convoys.

Based on discussions with our NATO allies, we conclude that a substantial number of ships capable of open-ocean escort duty would be made available for use in the Atlantic sea lanes in the event of a war with the USSR during the late 1970s and early 1980s. We would also expect significant help from allies in the Pacific. There is some doubt, however, that allied ships would be on hand where required for convoy duty early in a conflict. Consequently, we plan to provide enough U.S. surface combatants to protect the military convoys which would be sailed during the first month of a major war. As the allied ships become available, the U.S. surface combatants initially used for convoy duty would be made available as replacements for losses which would inevitably be suffered in the early stages of a major war against the USSR. In view of the many uncertainties involved in calculations of this sort, as well as the need to maintain a balanced modernization program, the Defense Department has established an interim goal of 250 escorts, including a large number with at least an austere area AAW capability.

At the end of the current fiscal year we will have a total of 198 such surface combatants, including 37 Naval Reserve ships in commission and two ships in conversion. In FY 1975 the downward trend will be reversed as one more DLGN and the first three DD–963s are delivered to the fleet. By the end of that fiscal year we will have 202 ships, including 72 dual-purpose (i.e., AAW–ASW) and 130 ASW-only. Of the latter, 37 will be Naval Reserve ships in commission. This force would be supplemented in wartime by 12 modern Coast Guard cutters which carry ASW weapons and sensors.

Some 137 of the 202 Navy escorts expected to be in the force at the end of FY 1975 will still be serviceable in the mid-1980s. By that time, three more DLGNs already funded, as well as 27 more DD–963s of the 30 now planned, will have been delivered to the fleet, giving us 167 serviceable ships. Adding the currently planned 50 Patrol Frigates (PF) and the proposed two additional DLGNs, will bring the total to 219, of which 115 would have at least an austere area AAW capability (the PF will have one surface-to-air missile launcher). If we include the Coast Guard Cutters, which have an ASW capability equivalent to that planned for the PFs, the total becomes 231.

The proposed program would still leave us somewhat short of the overall force goal. To remedy this apparent short-fall and to maintain an orderly replacement program, the Navy has proposed two new ship construction programs. The nearer term program would be a new class of area air defense destroyer, now designated the DGX, which would replace the older DDG and DLG type ships as they reach retirement age beginning in the early 1980s. The longer term program involves the development of a new type, high-speed "surface effect" destroyer, now designated the DSX. This latter effort has not yet progressed beyond the stage of experimenting with small scale (100 ton) test craft, and the mission and configuration of the ship are still undefined. Both ships are far enough in the future that no attempt has been made to fix the size of the programs, and there is ample time for further review of surface combatant requirements before it will be necessary to do so.

DD–963

With regard to the DD–963 destroyers, the FY 1975 Budget includes $464 million which, together with the $198 million provided in FY 1974 for advance procurement, would complete the funding for the last seven ships at the initial target price established in the contract with Litton Industries. That contract, in addition to the customary provision for the escalation of wage rates and materials costs, also provides for a resetting of the target price on the basis of actual cost experience, but not to exceed the ceiling price. On October 29, 1973, the contractor submitted such a repricing proposal. Negotiations are expected to take about four months, and a firm agreement on the increase in cost should be reached by the Spring of 1974.

On the basis of the data available at the time the FY 1975 Budget was prepared, it appeared that the cost increase on the 30 ships could amount to about $260 million—about $200 million for an increase in the target price, plus about $60 million in additional escalation charges resulting from the increase in the target price. The $200 million increase in target price, however, is still short of the $351 million difference between the initial total target price ($1,789 million) and the total ceiling price ($2,140 million). Moreover, the contractor's repricing proposal is higher than our estimate. Hence, we cannot now preclude the possibility that the firm agreement on the adjustment of the target price may exceed this $200 million increase.

Escalation of wage rates and material costs must be added to both the target price and the ceiling price. Escalation computed on the basis of the initial target price is estimated at about $397 million; this, together with the $60 million of additional escalation resulting from the increase in the target price, would bring the total escalation cost to $457 million. Adding that amount to our estimate of the revised target price, i.e., $1,989 million, would bring the total cost of the Litton contract up to $2,446 million. Including the cost of other DD–963 related contracts (GFE, etc.) the total cost of the 30-ship program would be more than $3 billion.

Since an agreed figure on the Litton contract cost increase was not available at the time the FY 1975 budget was prepared, and since the additional funds will not be required for obligation in FY 1975 in any event, we propose to finance any cost increase in the FY 1976 Budget.

Given the labor shortage at the Litton shipyard in Pascagoula, we cannot rule out the possibility that progress on the DD–963 program will be affected by the delays encountered with the LHA program, which was to have preceded it in construction. Work on the two programs is now proceeding simultaneously and the first LHA, as well as the first three DD–963s, are now expected to be delivered during FY 1975. The DD–963 lead ship was launched on November 10, 1973, and all 30 destroyers are now expected to be delivered by the end of FY 1978. In FY 1979, the last of the World War II destroyers are expected to be phased out of the active force.

DD–963

Chairman McClellan. What was the original planned delivery date for all thirty DD–963 destroyers?

Secretary Schlesinger. The original planned delivery dates for the DD–963s are as follows:

Ship:	*Delivery date*	Ship—Continued	*Delivery date*
DD–963	Oct. 31, 1974	DD–978	Mar. 31, 1977
DD–964	Apr. 30, 1975	DD–979	Apr. 29, 1977
DD–965	Jun. 30, 1975	DD–980	May 21, 1977
DD–966	Jul. 31, 1975	DD–981	Jul. 29, 1977
DD–967	Oct. 31, 1975	DD–982	Aug. 31, 1977
DD–968	Feb. 27, 1976	DD–983	Sep. 30, 1977
DD–969	Apr. 30, 1976	DD–984	Oct. 31, 1977
DD–970	Jun. 30, 1976	DD–985	Nov. 30, 1977
DD–971	Jul. 30, 1976	DD–986	Dec. 30, 1977
DD–972	Sep. 30, 1976	DD–987	Jan. 31, 1978
DD–973	Oct. 29, 1976	DD–988	Feb. 28, 1978
DD–974	Nov. 30, 1976	DD–989	Mar. 31, 1978
DD–975	Dec. 31, 1976	DD–990	Apr. 28, 1978
DD–976	Jan. 31, 1977	DD–991	May 31, 1978
DD–977	Feb. 28, 1977	DD–992	Jun 30, 1978

Although these dates are still the planned delivery dates, given the labor shortages at the Litton shipyard in Pascagoula, we cannot rule out the possibility that progress on the DD–963 programs will be affected by the delays encountered with the LHA programs.

Chairman McClellan. Proceed.

DLGN

Secretary Schlesinger. We now have five nuclear-powered frigates (DLGNs) under construction. Delivery of these ships, together with the cruiser and two frigates now in the fleet, will give us a total of eight nuclear-powered surface combatants—enough for two nuclear-powered attack carrier task forces when none are in overhaul. Two DLGN–36 class ships funded in FY 1967 and FY 1968 are nearing completion; the first, CALIFORNIA, is now scheduled to be delivered to the fleet in FY 1974, and the second, SOUTH CAROLINA, in FY 1975. Delivery of the first three DLGN–38 class ships, which were funded in FY 1970–1972, will be delayed about seven months each because of a shortage of skilled labor in the shipyard. Based on the revised schedule, DLGN–38 is expected to be delivered in FY 1976, and DLGN–39 and 40 in FY 1977.

Last year the Congress added to our FY 1974 budget request $79 million for advance procurement of long leadtime items for two more DLGNs (DLGN–41 and 42). Notwithstanding the high cost of this class of ships, we have decided to go ahead with one in FY 1975 and protect the opition to go ahead with the second in FY 1976. Accordingly, we have included in the FY 1975 Budget a total of $256 million—$152 million to complete the funding of the first of these two ships (DLGN–41) for which $116 million—($46 million in FY 1970–71 and $70 million in FY 1974) has already been provided, $92 million in additional advance procurement funds for the second of these two ships (DLGN–42) for which $19 million ($10 million in FY 1970 and $9 million in FY 1974) has already been provided, and $12 million for escalation and postdelivery costs on the five DLGNs already under construction. Another $167 million would be required in FY 1976 to complete the funding of DLGN–42. Thus, the total funding would amount to at least $268 million for DLGN–41 and $278 million for DLGN–42.

Clearly, we will not be able to afford many surface combatant ships at these prices. Yet, as I noted earlier, we must in this decade phase out all of the remaining World War II surface combatants from the active forces. If we are to procure the large numbers of ships that will be needed to maintain a force of even 200–225 other surface combatants, it is evident that the bulk of them must come from the "low" side of the spectrum. It is for this reason that we want to press forward with the Patrol Frigate program.

"High-Low" Mix in Navy Ships

Chairman McClellan. We continually hear of a "high-low mix" in U.S. Navy ships. In effect, will this not actually result in "two navies"?

Secretary SCHLESINGER. I don't expect that the planned procurement of both "high-mix" and "low-mix" ships will lead to "two navies". The primary intent of the high/low mix concept is to insure that the Navy has sufficient *overall* combat capability by maintaining a balance between larger numbers of capable low cost ships and fewer numbers of highly capable but expensive first line ships. Requirements for overall naval combat effectiveness depend in large part on the expected threat. In some ocean areas where our Navy is planned to operate, the threat is expected to be of relatively low intensity and to consist of principally submarine-launched torpedoes and cruise missiles with only small numbers of surface ship- and aircraft-launched cruise missiles. Requirements for individual ship effectiveness are less demanding in such areas than would be the case in higher threat environments, where additional threats from aircraft would be expected. I am sure you recognize that, in addition to the need for first-line ships capable of operations in high threat areas, there are many important missions that can be effectively carried out by less complex and less expensive ships and that an appropriate mix of "high" and "low" ships would be suitable for intermediate threats.

In this decade, we must phase out virtually all of the remaining World War II surface combatants because their deteriorating material condition and declining combat value are making them increasingly inefficient. If we are to procure the large number of ships needed to maintain even current force levels, the bulk of the new ships must be from the "low" side of the "high-low" spectrum. The numerical requirements alone for surface escorts needed to protect military and commercial shipping in open ocean and lower threat areas of the world lead us towards the use of less complex ships under present budgetary constraints.

Chairman MCCLELLAN. Proceed.

PF

Secretary SCHLESINGER. The PF will be much smaller and less costly to procure and operate than the DLGN–38 and DD–963 class ships currently under construction, but it will be designed to provide protection against both air and surface, as well as submarine attack. With a displacement of 3,500 tons, the ship will have a launcher and fire control system for surface-to-air and anti-ship (i.e., STANDARD and HARPOON) missiles, a 76mm gun, ASW torpedoes and accommodations for two LAMPS helicopters. The "design-to-cost" approach is being supplied vigorously to the PF program, and the average unit procurement cost to completion for 50 ships, including both an allowance for inflation and outfitting and post-delivery costs, is now estimated at about $70 million (i.e., in then-year dollars). The production contract for the lead ship, funded in FY 1973, was recently awarded, and construction is scheduled to begin in late 1974. The FY 1975 Budget includes $437 million to finance the currently estimated cost of the first seven follow-on ships (excluding outfitting and post-delivery costs). Another 11 ships are scheduled for procurement in FY 1976, and the remaining 31 ships would be funded in the FY 1977–1979 period under the current plan. The PF lead ship would be delivered to the fleet by the end of FY 1977 and the follow-on ships during the 1978–1983 period.

While the PF program as currently planned will provide significant numbers of austere but capable ships for the modernization of the surface combatant fleet, we must also be prepared to replace the current DLG/DDG ships which will begin reaching retirement age in the early 1980s. The DGX, mentioned earlier, is being planned for this role. This ship would be equipped with the new AEGIS fleet air defense system which has a high power, long range phased array radar with a greatly improved target tracking and designating capability, and which uses the modified STANDARD missile. The Navy believes that engineering development of the AEGIS system will be sufficiently advanced by FY 1977 to warrant funding of the first DGX in that year. The preliminary design goal calls for a ship with a displacement of about 6,000 tons and an average cost per follow-on ship of about $125 million in FY 1973 dollars.

AEGIS

The AEGIS system, which has been in engineering development for four years, is now being oriented toward the new DGX. But because of its modular design, the system will be adaptable to other classes of ships as well. DGX is currently planned to have a one launcher system, but a two launcher version is still an option for ships of DLGN size. Another $67 million has been included in the FY 1975 Budget to continue development of the AEGIS system.

LAMPS

Another important system that is being acquired to improve the capabilities of our surface combatants is the Light Airborne Multi-Purpose System (LAMPS). This system involves a helicopter operating from a destroyer-type ship, together with the associated support, communication and acoustic data processing equipment aboard the ship. Its role is to provide surveillance and detection of hostile submarines and surface ships, localization and attack of detected submarines, and targeting information on surface ships. LAMPS could be used on all surface combatants which are equipped for helicopter operations.

LAMPS is being acquired in two phases. The MK I, which involves installation of shipboard equipment and conversion of H–2 helicopters already in the inventory to an SH–2 configuration, became operational in FY 1972, and the bulk of the modifications have been funded. The MK III, the second phase, includes the development of improved avionics and shipboard systems to be used with a modified version of a current or new airframe. Three H–2 helicopters are being modified to test components and the integration of the new airborne and shipboard systems. After the airframe has been selected, now scheduled for late 1975, contracts will be let for the eight prototype LAMPS MK III helicopters and the related avionics and sensors for test and evaluation. A production decision on LAMPS MK III will not be needed until the late 1970s.

The FY 1975 Budget contains $34 million for LAMPS—$14 million for the MK I modification program, $18 million to continue the MK III development effort, and $2.5 million for a LAMPS helicopter maintenance hangar.

SES

For the modernization of the surface combatant force in the more distant future, the Navy is pursuing the development of the Surface Effect Ship (SES). The SES, as you know, is a variation of the air cushion vehicle and will use rigid sidewalls integral to the hull structure to contain the air cushion. If the required technology can be successfully developed, it would make possible the construction of ocean-going ships with speeds of 80 knots or more.

The development effort to date has concentrated on testing of the two 100-ton test craft completed in 1972, the preliminary design of a 2000-ton prototype ocean-going ship, and the development of the key subsystems for the larger ship. The preliminary design studies, recently completed by several competing contractors, have examined the technical feasibility and cost of a 2000-ton SES and provided technical proposals for the development of such a ship.

100-Ton Surface Effects Ship

Chairman McClellan. Will funds requested for FY 1975 complete testing of the two 100-ton test surface effects ship?

Secretary Schlesinger. We plan to complete the first phase of 100-ton SES testcraft testing, encompassing all required contract tests, in FY 1974. During FY 1975 these two craft will be modified and operated to support subsystem development and test for the 2000-ton SES program. Test operations of various sorts with the 100-ton craft will probably continue for several years as we probe more deeply into new aspects of surface effect technology.

Chairman McClellan. Proceed.

Secretary Schlesinger. The SES development program is admittedly a high risk venture from the technological point of view, but it could also have a high payoff in terms of combat effectiveness. The central problem is to develop an ocean-going version of the SES with sufficient range, payload capacity and sea-keeping capability to warrant its cost. The key technical areas which must be mastered are the air cushion seals, the waterjet inlets, and ride control systems, i.e., the subsystems unique to this type of craft.

Accordingly, the principal emphasis in the FY 1975 program will be on the further development of the technology required for the principal subsystems, including additional testing of the 100-ton craft. When these steps are completed, we will again review the status of the program and decide on whether to undertake full scale development of the propulsors, transmissions, lift fans and seals, and complete the detailed design of the 2000-ton prototype. Pending that decision, which would be reflected in the FY 1976 Budget, we are requesting $58 million for the SES development program in FY 1975.

PHM

In addition to the major surface combatants, which I have just discussed, the Navy also operates a small number of "minor" combatants, i.e., patrol ships of less than 300 tons. These ships normally operate against surface combatant ships as well as other surface craft in the conduct of surveillance, screening and special missions in coastal areas, island waters, and inland or narrow seas. The force now consists of 14 Patrol Gunboats, all of which were built since 1965. In FY 1975 this force will be augmented by the first two of a new class of Patrol Hydrofoil Missile ships (PHM).

The PHM in a cooperative NATO development program in which the U.S. is sharing its hydrofoil technology with other NATO nations. A Memorandum of Understanding signed by Italy, the Federal Republic of Germany and the United States in November 1972 provides for a cooperative development and production effort.

Patrol Hydrofoil Missile Ship

Chairman McClellan. What are the funding commitments of the U.S., Italy, and West Germany in the NATO patrol hydrofoil missile ship program?

Secretary Schlesinger. Under terms of the Memorandum of Understanding (MOU) signed by the three nations in November of 1972, the U.S., Italy, and The Federal Republic of Germany (FRG) are each obligated to pay their pro-rata share of the costs of the common design, which are currently estimated as $9.18 million each for Italy and the FRG, and $13.55 million for the U.S. These sums represent the estimated non-recurring costs for the design of the "NATO Standard" PHM which comprises that part of the ship common to all national variants. The U.S. share is somewhat greater because the U.S. is building two prototype PHMs for its own use, while Italy and the FRG each plan only one. The MOU provides for adjustment of these cost estimates in light of experience or agreed changes in plans as the program progresses.

Each of the three nations must individually bear the cost of designing its own national variant of the "NATO Standard" PHM. The FRG is currently negotiating a contract for the design of their variant, but neither Italy nor the FRG has yet made formal commitments of funds under the MOU beyond those described above. However, the MOU does require that each country build the prototype of its national variant PHM in the U.S.

Chairman McClellan. Proceed.

Secretary Schlesinger. Two U.S. lead ships are currently under construction, and we tentatively plan to build 28 more of these ships for our use. The FRG has indicated its intention to have its ten ships built in the U.S. Italy expects to have at least one ship built here, and may build additional ships in its own yards. A production agreement among the three participating governments is expected to be signed later this year.

These hydrofoil ships will be capable of both hullborne and foilborne propulsion, and the U.S. version will be equipped with the U.S. HARPOON anti-ship missile, an Italian designed rapid-fire gun, and a Dutch designed fire control system. The ships produced for the FRG and Italy are expected to be equipped with an anti-ship missile of a European design.

Out of a total of $108 million in the FY 1975 Budget for this program, some $16 million in RDT&E funds is for the completion of construction and initial operational test and evaluation of the two leadships and for the preparation of a development data package for use in competitive bidding for the construction of the follow-on ships. The remaining $92 million is for construction of the first four follow-on ships for U.S. use. But before these follow-on ships are placed on contract, the results of the initial operational test and evaluation of the two leadships, now scheduled to be completed in early 1975, will be carefully reviewed together with analyses of mission requirements to ensure that the ship is ready for quantity production and to verify the quantity required.

HARPOON

One of the most urgent needs of our surface combatant force is an ability to cope effectively with the large and still growing Soviet anti-ship missile threat, particularly when operating beyond the range of our land-based airpower and unaccompanied by sea-based airpower. Under these conditions, Soviet surface ships armed with SSMs can greatly outrange our gun-equipped surface combatants. In response to this need, the Defense Department has undertaken sev-

eral anti-ship missile development programs, including aircraft and submarine launched, as well as surface launched systems.

The principal Navy anti-ship missile program is the HARPOON. This missile is designed to be launched from all of our surface combatants (except the Patrol Gunboats), the S–3 and P–3 ASW aircraft, the Navy's A–6 and A–7 attack aircraft and, in a special encapsulated version, from all but the oldest SSNs. The status of the program was reviewed by the DSARC in May 1973, and the conclusion reached was that developmental progress had been excellent and that initiation of engineering development was fully warranted. Accordingly, the weapon system development contract was awarded in June 1973, and the program is proceeding satisfactorily. Test firings have verified the missile design concepts, and test vehicles have been launched successfully from a P–3 aircraft and from the ASROC launcher of a Destroyer Escort.

The next phase of the HARPOON program involves the fabrication and testing of actual prototype missiles. The June 1973 contract provides for 40 prototype missiles as well as command and launch systems for P–3 and S–3 aircraft and a variety of surface combatants. These equipments will be used for the development test and evaluation phase to be conducted by the contractor with the assistance of Navy personnel, beginning in early 1974.

The progress in this testing and evaluation effort will be reviewed in the summer of 1974, and if the results up to that point are satisfactory, we will initiate production of pilot line missiles. Accordingly, we have included in the FY 1975 Budget a total of $136 million—$58 million to continue the HARPOON development effort, and $78 million for the procurement of 150 pilot line missiles (58 for operational test and evaluation and 92 for the first operational deployment of HARPOON).

HARPOON Missile

Chairman McClellan. Do you anticipate that test and evaluation results of the HARPOON missile will be available in time to obligate procurement funds in FY 1975 for 150 missiles?

Secretary Schlesinger. Yes, the HARPOON missile development is on schedule and cost. We expect to complete IOT&E in early June 1974 and make a pilot production decision following a DSARC Program Review later that month. The final decision on the number of pilot production missiles will be made at that time although we are planning for 150. The pilot line is intended to produce the missiles for operational evaluation from which we can make a full production decision. Following production of these operation test missiles, we will maintain a minimum sustaining production rate to avoid total loss of contractor production personnel and the resultant high start-up cost for follow on productions.

Chairman McClellan. Proceed.

Encapsulated HARPOON

Secretary Schlesinger. The encapsulated HARPOON is a HARPOON missile fitted with a launch capsule that would make it compatible with existing torpedo tubes. It would give our first line SSNs a longer range weapon, to complement their torpedoes, for use against surface ships. Prototype capsules are being developed and will be given structural and hydrodynamic tests during FY 1974. The Navy plans to complete system test and evaluation and to initiate pilot line production during FY 1975. The FY 1975 Budget includes about $13 million to continue this program—$10 million for development and $3 million for procurement of the first 20 capsules. (The missiles themselves are included in the 58 HARPOONs being procured for OT&E.)

Standard SSM

The STANDARD SSM program was initiated in 1971 to provide an interim anti-ship missile capability until the HARPOON could be developed and deployed. The STANDARD SSM is operational in two versions, with a third now in development. The first version, the semi-active STANDARD missile (SM–1–MR) is now installed in six DEG and two Patrol Gunboats (PG) not previously missile-equipped. The second version, the STANDARD anti-radiation missile (ARM) is planned for installation on 12 DDGs and four PGs (two PGs already have this system installed). The third version, Active STANDARD with a radar seeker, is still in development. This version of the STANDARD missile will have a range capability beyond the ship radar horizon.

The range of the STANDARD semi-active missile is limited to the range of the ship's radar, since the missile's target must be illuminated by a ship radar. The STANDARD ARM and Active STANDARD, equipped with an anti-radiation homing capability and an active terminal seeker, respectively, eliminate the need for illumination of the target by a ship radar and thus permit engagement of targets beyond the ship radar horizon.

Unfortunately, Active STANDARD has encountered development delays and can no longer be regarded as an interim program. It is now concurrent with HARPOON, and under current schedules, could be introduced to the fleet only a few months before HARPOON. Development of the HARPOON, however, is not sufficiently advanced to warrant cancellation of the Active STANDARD at this time. Accordingly, we are continuing development of the Active STANDARD missile, but only as a backup to HARPOON. Both programs will be carefully reviewed later this year, following completion of development testing of both systems, to assess the need for the continuation of Active STANDARD as a backup to HARPOON.

Meanwhile, FY 1974 funds will be utilized to initiate an 18-missile Active STANDARD test program—eight for development test and evaluation and ten for operational test and evaluation. If the DT&E firings are successful, and if HARPOON experiences development delays, then we would proceed with the ten operational tests and authorize long leadtime procurement for the Active STANDARD missiles needed to equip and support 12 DDG/DEG ships. This number of ships would give the Navy a reasonable interim capability pending availability of HARPOON.

Since procurement of the Active STANDARD missiles could be started in FY 1975 if OT&E is successful, we have included $35 million in the FY 1975 Budget for this program—$1 million to continue development and $34 million for the procurement of the 74 missiles needed to equip the 12 ships. Thus, if HARPOON development does slip, we will be in a position to start procurement of Active STANDARD without further delay.

CONDOR

The Navy is also developing a long-range, electro-optical air-to-surface missile, CONDOR, for use by attack aircraft against both land and sea targets. This stand off missile could significantly improve the capability of our aircraft carrier forces to bring opposing surface ships under attack.

Development of the basic missile is essentially complete, and pilot line production missiles are being procured with FY 1973–74 funds for operational test and evaluation of CONDOR. Engineering development and flight testing of the dual mode radar and electro-optical seeker version of CONDOR will be conducted in FY 1975–76. This version would have a night/all weather capability. To reduce unit cost, a non-secure data link is also under development. Operational test and evaluation of the dual mode CONDOR is now scheduled to be completed in FY 1976. The FY 1975 Budget includes about $30 million for this program—$10 million for continued development and $20 million for the procurement of 35 pilot line missiles, the minimum number needed to keep the line going pending a decision on full scale production, now expected in early 1975.

CONDOR Missiles

Chairman McClellan. Will $20 million in FY 1975 provide the minimum amount necessary to keep the pilot production line open?

Secretary Schlesinger. Yes, the $20 million will provide a minimum deployment capability, and at the same time maintain a minimum production base for the CONDOR.

Chairman McClellan. Proceed.

Attack Submarines

Secretary Schlesinger. Attack submarines are potentially the most effective element of our varied ASW forces. Nuclear-powered attack submarines (SSNs), because they are uniquely able to operate covertly, can be used to establish effective ASW barriers in waters which are otherwise under the control of enemy surface and air forces, and in which it would be untenable for other types of U.S. ASW forces to operate. SSNs could also be used in open ocean search for opposing submarines, and some would be needed in the Mediterranean.

In addition to the foregoing missions, the Navy is also investigating the use of SSNs for escorting high-value surface ships such as carriers in open ocean areas, a role now being fulfilled primarily by surface ships. There are, however, several tactical employment problems to be resolved; for example, the difficulties involved in coordinating a "friendly" submarine with other types of ASW forces in wartime.

Given the prevailing fiscal constraints, we believe that a force of about 90 SSNs should be sufficient, together with other ASW forces, to support the essential requirements as we see them now. At the end of FY 1974 we will have 61 SSNs in the fleet and 27 funded but not yet delivered—for a total of 88. Of the 23 688-class nuclear powered SSNs funded through FY 1974, none will have been delivered to the fleet by the end of that fiscal year. Indeed, all 11 SSNs funded in FY 1973–74 were placed on contract within the last six months and the last one is scheduled for delivery in FY 1981. Thus, the shipbuilders involved have a very large backlog ahead of them. The submarine building program proposed for FY 1975 and subsequent years takes this backlog into account and is designed to maintain at least the 90 SSN force level over the next several years.

SSN–688

Our current plan is to procure three 688 class SSNs in FY 1975 and five every two years thereafter for the remainder of the 1970s. That will not only support a force level of 90 SSNs but also permit the early retirement of some of the older SSNs. Looking to the longer term future, I believe we should examine the feasibility and desirability of building a new class of SSNs that would be smaller and less costly than the 688 class which is now costing us almost $200 million each.

The 688-class leadship, LOS ANGELES, was originally scheduled for commissioning in August of this year. This ship will be delayed about six months due to late delivery of contractor-furnished equipment and a slower-than-planned buildup of the workforce at Newport News, which is also building a variety of surface ships. Thus, the first SSN–688 class ship is expected to be delivered in FY 1975, with an additional 22 to be delivered by the end of FY 1981. The $548 million included in the FY 1975 Budget would provide $503 million, which together with $78 million provided in FY 1974 for advance procurement, would complete the funding of the three submarines proposed for procurement in FY 1975, plus $45 million for escalation, outfitting and post-delivery costs on prior year programs.

MK–48 Torpedo

The effectiveness of our attack submarines is being significantly improved with the acquisition of the MK–48 Torpedo. This wire-guided, acoustic homing torpedo was designed primarily for use against submarines, but it also has a good capability against surface ships. Operational evaluation of the MK–48 was completed in 1972, and the system was finally approved for fleet use in October 1972.

Procurement of the MK–48 in quantity began in 1972, and some 500 torpedoes were funded in both FY 1973 and FY 1974. The FY 1975 Budget includes $155 million for the procurement of another 450 torpedoes, plus about $5 million for RDT&E. When these 450 torpedoes are delivered, a large part of the current Navy procurement objective will have been fulfilled.

Chairman McClellan. What is the inventory objective of the MK–48 torpedo?

Secretary Schlesinger. The inventory objective of the MK–48 is [deleted]. The acquisition objective is [deleted] and allows for damage losses and inventory testing.

Chairman McClellan. Proceed.

AN/BQQ–5 Sonar

Secretary Schlesinger. While the MK–48 torpedo will be the primary weapon of the attack submarine force, the new digital, multibeamed sonar system, with both bull mounted and towed acoustic arrays, will be the principal sensor. This system, designated the AN/BQQ–5, underwent extensive developmental testing during 1972 and 1973, and was approved for production last year. It is being installed in all of the new 688-class SSNs, and it will be backfitted into all PERMIT and STURGEON-class SSNs during regular overhauls commencing in FY 1976. The FY 1975 Budget includes a total of about $72 million for this program—

$16 million for development and $56 million to procure eight systems for the backfit program, plus one training unit. When the AN/BQQ-5 enters service in FY 1975 not only will current Soviet submarines be detectable at significantly greater ranges than currently possible, but also the advanced beam forming and display features of this equipment will allow our SSNs to substantially increase their search rates.

Undersea Surveillance Systems

The primary U.S. undersea surveillance system is now the fixed Sound Surveillance System (SOSUS), but mobile and deployable Towed Array Surveillance Systems (TASS) are also under development. In addition, the Navy is examining the potential usefulness in the future of different types of systems, such as the Moored Surveillance System (MSS), which would employ buoys, and the Suspended Array Surveillance System (SASS), which would use large, fixed, buoyantly suspended hydrophone arrays.

Towed arrays have also shown considerable potential as tactical sensors. In the tactical escort role the towed array would be used by surface combatants in much the same manner as current active sensors. The ships would have a processing capability on board to evaluate contacts, and LAMPS or other ASW aircraft would be used to prosecute the attack. Navy analyses and at-sea tests have shown that towed arrays should make a significant contribution to the ASW effectiveness of surface combatants.

The Navy plans to award a contract and start design and fabrication of an engineering development model of the surveillance TASS in FY 1975 and subject this model to at-sea test and evaluation in FY 1976. Work would also be started in FY 1975 on an advanced development model of the Escort TASS.

A total of $137 million has been included in the FY 1975 Budget for the SOSUS and the TASS programs—$116 million for SOSUS improvements and $21 million for the development and test of the two versions of TASS.

Amphibious Lift and Mine Countermeasure Forces

The current amphibious lift force objective is to provide a sufficient number of modern 20 knot ships to transport simultaneously the assault elements of 1⅓ Marine Amphibious Forces (MAFs), i.e., 1⅓ Marine division/wing teams together with their unit equipment (excluding fixed-wing aircraft which are transported on attack carriers or flown to the theater) and initial stocks of supplies This force would enable us to conduct a division-size amphibious assault in a major combat theater (e.g., on the northern or southern flank of NATO), while at the same time retaining limited amphibious assault capability to cope with a minor contingency elsewhere.

The present amphibious force of 65 ships has sufficient capacity to lift just over one MAF, but is short of helicopter platform ships. We are now able to maintain three battalion landing team amphibious forces (corresponding to about 1/9 of a MAF) deployed forward continuously, one without helicopters because of the shortage of helicopter decks. A fourth unit, usually without helicopters, is deployed on an intermittent basis in the Caribbean.

When the five large general purpose Amphibious Assault Ships (LHAs) now under construction are delivered to the fleet, the remaining older, less efficient, ships will be retired, the helicopter platform shortage will be eliminated, and the overall lift capacity will be increased to 1⅓ MAFs (including ships in overhaul). At that time (late FY 1977) the amphibious lift would consist of 66 ships, all with speeds of about 20 knots. With this force, we will be able to maintain four battalion-size amphibious forces, all with major helicopter ships deployed forward continuously. However, even with the LHAs, it would be necessary to transfer ships from the Pacific to the Atlantic to be able to mount a division-size amphibious assault in the NATO area.

LHA

As you know, the LHA program has experienced numerous delays and contractual disputes. The first LHA was finally launched in December 1973 and is expected to be delivered to the fleet in March 1975, a delay of about two years from the original contract delivery schedule. Two more ships are scheduled to be delivered in each of the next two fiscal years, the last about 33 months beyond the originally scheduled date.

LHA Ships

Chairman McClellan. The original LHA program called for how many ships? Why has this number been reduced to five?

Secretary Schlesinger. The Amphibious Assault Ship (LHA) program originally consisted of nine ships. The Navy contracted with Litton Ship Systems for the construction of the LHAs in 1968. However, in 1970, as a result of fiscal constraints and a re-evaluation of the requirement for amphibious assault lift capability, the LHA procurement program was reduced from nine to five and the long-range objective for amphibious assault lift reduced to the current level.

Chairman McClellan. Proceed.

Secretary Schlesinger. The current dispute concerns the contractor's (Litton Industries) request for an equitable adjustment of $271 million in the contract price, which was submitted in March 1972. The Navy found this request to be unsubstantiated, and on 28 February 1973 the Navy Contracting Officer issued a unilateral decision setting the new target price at ceiling. Litton thereupon filed an appeal with the Armed Services Board of Contract Appeals, and the Navy subsequently filed its response. Hearings before the Board are yet to be scheduled.

On the basis of the Contracting Officer's decision, the total cost to the Government of the five LHAs will amount to about $1,145 million. Of that amount, the Congress has provided about $1,127 million, leaving about $18 million in outfitting, post-delivery and escalation charges to be funded as the ships are delivered.

The active mine countermeasure forces have undergone substantial reductions in recent years and further reductions are planned in the FY 1974–75 period as additional ships are transferred to the reserve forces. In part, this reduction has been offset by the greater use of mine countermeasures helicopters, of which there are now 21 specially equipped RH–53Ds in the force. These 21 helicopters, alone, could support a MAF-size amphibious assault against a medium mine threat, asuming several days' time to clear the area.

Underway Replenishment and Fleet Support Ships

The Navy operates a total of about 120 underway replenishment (UNREP) ships, large tenders, and other fleet support ships such as salvage ships, tugs, and submarine rescue vessels. These ships provide wartime underway logistics support and mobile, forward area maintenance and repair facilities for deployed naval forces. In peacetime, support ships deploy to the Mediterranean and Western Pacific to support the Sixth and Seventh Fleets. Additional support ships can be deployed from the United States to sustain increased combatant ship activity in these or other areas during a crisis or in wartime.

Support ship force levels reflect requirements for both wartime and peacetime support of naval forces. The wartime requirements for UNREP ships are derived from estimates of the number of naval forces to be supported simultaneously, their expected location and distance from logistic bases, consumption rates for ordnance, fuel, stores, and repair parts, and the projected duration of the conflict. Peacetime requirements are derived from calculations of what is needed to support a smaller number of deployed ships operating in more widely dispersed areas.

Planned UNREP ship forces will provide a wartime capability to support deployed carrier and amphibious task groups in up to about four or five locations simultaneously. Denial of foreign bases, however, would reduce the number of simultaneous fleet operating areas which could be supported with our programmed UNREP forces. For example, a requirement to conduct sustained wartime operations, including carrier operations and a division-size amphibious assault, without foreign bases in an area such as the Eastern Mediterranean would force a drawdown in combatant ships deployments elsewhere because of the increase in UNREP ship cycling distances involved.

Forward deployments of UNREP ships in peacetime generally include about 16 to 18 ships. With the continuing decrease in the size of the UNREP force, however, it is becoming increasingly difficult to sustain this deployment without undue personnel hardships. Accordingly, the Navy plans to homeport a few support units overseas and operate others through the Military Sealift Command (MSC). MSC-operated ships are manned almost wholly by U.S. civil service crews. The ships remain abroad, even for overhauls, and the crews are rotated annually by air. Consequently, MSC–operated ships can achieve greater time on-

station and, hence, higher utilization rates in peacetime than active Navy-operated ships. Five Fleet Oilers and one Store Ship would be operated by MSC in FY 1975, and three more Oilers in FY 1976, for a total of nine UNREP ships under MSC control.

Tender force level goals are derived from planned wartime roles based on estimates of the number and location of ships to be deployed, the estimated volume of repair work needed, and the availability of overseas bases. Current forces can provide sustained maintenance and limited battle damage repair capability for most deployed surface ship forces in wartime, assuming concurrent availability of U.S.-operated ship repair facilities in either Japan or the Philippines. Peacetime forward deployment of tenders is generally limited to two ships in each ocean, which can easily be maintained within planned force levels.

Force levels for minor fleet support ships are derived from estimates of the likelihood of major damage to combatants requiring salvage or towing in a forward area, routine towing and other tug duties, and other service support requirements. Planned forces can support early deployment of several tug-type vessels for salvage support in a contingency. In peace time, forward deployments are limited largely to a few submarine rescue vessels, ocean tugs and salvage ships, which can be accommodated within the planned force. As in the case of the UNREP force, the Navy plans to operate more of the minor fleet support ships in the MSC. A total of 13 ships will be MSC-operated by the end of FY 1976, and five more will be added from new construction by the end of FY 1979.

Because of their lower priority, the large scale moderanization of the support ship forces has been repeatedly deferred and now lags far behind modernization of the combatant ship forces. Consequently, there will still be more than 50 World War II-constructed support ships in the active fleet at the end of FY 1977, the year in which the last of the ships now under consruction or funded is delivered to the fleet. Clearly, a major effort to modernize the support ship force can no longer be deferred.

AE, AFS, AO, AD AND ATF

Accordingly, we propose to undertake in the FY 1975–1979 period a substantial ship building program in this area. A total of 32 ships would be built, at a currently estimated cost of about $2 billion. The program would include ten Fleet Oilers (AO), five Destroyer Tenders (AD), two Submarine Tenders (AS), two Ammunition Ships (AE), three Combat Stores Ships (AFS), and ten Fleet Ocean Tugs (ATF). These ships would be delivered to the fleet between FY 1978 and FY 1983, leaving about 25 World War II-constructed ships still in the active fleet at the end of FY 1983. A total of $209 million is included in the FY 1975 Budget to procure the first three ships—an AD, an AO, and an ATF.

TACTICAL AIR FORCES

The general purpose air forces—comprising the Navy carrier air wings, the Marine Corps aircraft wings, and the tactical air units of the Air Force—are the most expensive component of the general purpose forces in terms of investment costs. In contrast to the land forces, which are heavy in personnel, the tactical air forces are heavy in equipment. And, because of the incessant growth in complexity, as well as in capability, each new generation of aircraft in the past has cost several times as much as the one it replaces, even after an appropriate adjustment is made for inflation. This growth in the cost per unit has, in turn, placed increasingly severe constraints on the number of new aircraft which could be procured each year.

But quantity as well as sophistication is essential if our general purpose air forces are to be able to perform successfully their assigned missions. No matter how effective a particular tactical aircraft may be, a certain minimum number is needed to cover a battlefield, a front or a combat theater; or to equip an aircraft carrier force. In view of the growth in the size and quality of the Soviet tactical air forces during the past few years and the further growth in capabilities projected over the next few years, I believe we stand in danger of failing below that minimum quantitative level if present trends are allowed to continue unabated. Consequently, here again we must apply the principle of the "high-low" mix, and the programs proposed in this area for FY 1975 reflect that application.

I noted in my discussion of the land forces that one conclusion drawn from the recent conflict in the Middle East is that major improvements in our field army air defense capabilities are required. Another conclusion we have drawn

is that the defense suppression capabilities of our tactical air forces must be further improved. We learned that lesson earlier in Vietnam and a variety of actions, both technical and tactical, were taken to improve our capabilities in this regard. But the intensity and effectiveness displayed by the ground air defenses in the Middle East conflict impressed upon us even more compellingly the need to take still further actions to enhance the defense-suppression capabilities of our tactical forces.

Our tactical air forces not only represent a great investment of national resources, they are also a most essential element in our national defense strategy. We count on them to offset in part possible numerical inferiorities in land forces as compared to potential adversaries. And, particularly in the NATO-Warsaw Pact context, where we bear in relation to our allies a proportionately greater responsibility for tactical air, our tactical air forces serve as an "equalizer". Hence, we must ensure their continuing ability to perform their mission effectively.

That objective can be achieved, we believe, by providing our tactical air forces with improved self-protection radar warning (RW) equipment, tactical electronic warfare (EW) support forces, and a greater number and variety of improved defense-suppression weapons and devices. Both in Vietnam and in the Middle East, it has been demonstrated that tactical air forces which are provided with this type of support can successfully accomplish their mission even in the face of heavy, sophisticated air defenses. Accordingly, special attention is given to this need in the FY 1974 Supplemental and the FY 1975 Budget.

Force Structure

The Navy will operate 15 aircraft carriers in FY 1975 with a total of 14 air wings. This arrangement is temporary, since the number of carriers is scheduled to decline to 12 later in this decade. At that time the number of wings will equal the number of carriers. Each carrier wing is normally assigned three attack squadrons (one medium and two light) and two fighter squadrons. The wings associated with the new NIMITZ-class carriers, however, will be provided an extra light attack squadron. When the last two HANCOCK-class carriers are retired, all the remaining A–4 and F–8 squadrons will be phased out of the active forces.

By end FY 1974 the three Marine Corps wings will consist of ten attack squadrons (five A–4s and five A–6s), three HARRIER (AV–8A) squadrons, and 12 fighter squadrons (all F–4s), for a total of 25 squadrons. This structure will be continued through FY 1975, except that one squadron of F–4s will be replaced by the first squadron of F–14s.

The Navy and Marine Corps reserve, which at the end of FY 1974 will have a total of 18 squadrons (11 attack and 7 fighter), will be reduced to 17 squadrons in FY 1975 (11 attack and 6 fighter). These units, however, will be modernized over the next several years as F–4s and A–7s are released from the active forces.

The active Air Force at the end of FY 1975 will have a total of 69 squadrons in 22 wings. We propose to modernize substantially the equipping of this force during the next several years. All of the A–7 squadrons would be phased out and replaced by A–10s, and about half of the F–4 squadrons would be phased out and replaced by F–15s.

The A–7s and F–4s released from the active Air Force would be used to modernize the Air Force reserve components. The Air National Guard at the end of FY 1975 will have a total of 27 tactical fighter and attack squadrons, 17 of which will be F–100s. All of these F–100s will eventually be replaced with A–7s and F–4s. The Air Force Reserve, which now has four A–37 and three F–105 squadrons for a total of seven squadrons, would be modernized by replacing the F–105s with F–4s.

In addition to the attack and fighter aircraft discussed above, the Navy, Marine Corps and Air Force also have a number of specialized electronic countermeasure aircraft which are specifically designed for defense suppression. The principal aircraft in this category is the EA–6. The Navy now has about 30 EA–6Bs and the Marine Corps has 23 EA–6As. The Navy's EA–6B inventory will be built up during the next few years to equip fully the 12-carrier force.

Acquisition Programs

As shown on the table beginning on the following page, the FY 1975 Budget provides for both the near term and long term modernization of the general purpose air forces.

F–14

The largest single aircraft acquisition program for the Navy and Marine Corps is the F–14. We now plan to buy a total of 334 F–14s, enough to equip 12 squadrons for the Navy carrier air wings and four squadrons for the Marine Corps wings.

The F–14, as you know, is a two-place, twin engine, variable geometry, supersonic high performance carrier-based aircraft that has been designed particularly for fleet air defense. It has an all-weather capability to deliver the long range PHOENIX and medium range SPARROW air-to-air missiles, as well as a visual attack capability using an M–61 gun and the SIDEWINDER short range missile for close-in, air-to-air combat. Its primary role in fleet air defense is to destroy enemy bombers carrying air-to-surface missiles (ASMs) before the ASMs can be launched. Hence, the F–14/PHOENIX system's ability to operate at extended ranges from an aircraft carrier is crucial to successful fleet defense in the face of a significant air-to-surface missile threat at sea.

ACQUISITION COSTS OF MAJOR TACTICAL AIR FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS [1]
[In millions of dollars]

	Fiscal year—		
	1973 actual funding	1974 planned funding [2]	1975 proposed funding
Navy and Marine Corps aircraft:			
Continued development and procurement of F–14 multimission fighter	628	737	756
Acquisition of Phoenix missiles	99	100	100
Development of a new austere fighter, the VFX			34
Acquisition and modification of A–6 attack aircraft	241	184	199
Acquisition of A–7E attack aircraft	181	150	159
Procurement of A–4M aircraft	2	(58) 116	67
Procurement of AV–8A Harrier aircraft	125	56	
Development of Navy V/STOL fighter	11	24	19
Acquisition of EA–6B aircraft	157	124	129
Acquisition of E–2C fleet early-warning aircraft	175	160	119
Procurement of F–5E aircraft		(10)	
Air Force aircraft:			
Continued development/procurement of F–15 air superiority fighter	908	1,129	1,076
Development of lightweight fighter prototypes (including engine)	43	47	23
Development of air combat fighter			36
Development and advanced procurement of A–10 close-air support aircraft	48	107	268
Acquisition of Maverick missiles	79	61	88
Development and procurement of E–3A (AWACS)	194	163	770
Development of EF–111 jamming system	3	15	37

[1] Includes costs of R.D.T. & E., procurement of the system and initial spares, and directly related military construction.
[2] Figures in parentheses are the amounts included in the fiscal year 1974 supplemental.

Secretary SCHLESINGER. Procurement of the F–14 began in FY 1971 and the first two squadrons entered the forces in FY 1973. The program, from a technical point of view, is progressing satisfactorily, but the financial aspects have caused great difficulties.

In March 1973, however, Grumman (the prime contractor), finally agreed to build the 48 aircraft in Lot V (FY 1973 funding) under the terms of the original contract (i.e., at the contract ceiling price) thus bringing the total number of aircraft under the contract to 134. In September 1973, the Navy and Grumman successfully completed negotiations on all outstanding issues relating to Lots IV and V (FY 1972–73 procurements) and signed a contract for the procurement of the next 50 aircraft funded in FY 1974. An equitable adjustment of $18.3 million was allowed on Lot IV to cover both a six-month slip in the commencement of that Lot due to the effects of the crash of aircraft No. 1 and to provide for some additional tooling to increase production from four to six aircraft per month in order to recover the schedule. No adjustments were made on Lot V. The new airframe contract for the 50 aircraft funded in FY 1974 is a fixed-price incentive instrument with a target cost of $281.5 million, a target price of $306.5 million and a ceiling price of $325 million.

Chairman MCCLELLAN. How much has the total and unit program cost of the F–14 aircraft program increased since the original estimate?

Secretary SCHLESINGER. As shown in the 31 December 73 SAR, the 1969 development total program cost for the F–14 was estimated to be $6,166.0M in then-

year dollars while the current etimate is $6,352.9M in then-year dollars, a cost growth of $186.9M. The original estimate was based on a total procurement of 469 aircraft (463 production plus 6 R&D) while the current cost is based on procurement of only 334 aircraft (322 production plus 12 R&D). Therefore, the total program cost and unit cost changes are as follows:

F-14 PROGRAM COST HISTORY

[Dollars in millions]

Absolute costs	1969	Present	Percent change
Total program cost:			
Constant fiscal year 1975	$5,949	$6,286	6
Then-year	$6,166	$6,352	3
Unit cost (quantity)	(469)	(334)	
Constant fiscal year 1975	$12.7	$18.8	48
Then-year	$13.1	$19.0	45
Costs adjusted for quantity and program stretch-out:			
Total program cost:			
Constant fiscal year 1975	$5,107	$6,286	23
Then-year	$5,282	$6,352	20
Unit cost (quantity)	(334)	(334)	
Constant fiscal year 1975	$15.3	$18.8	23
Then-year	$15.8	$19.0	20

Secretary SCHLESINGER. The above costs include RDT&E for the F–14B while the program unit cost shown in December 1973 SAR ($17.91M) excluded this cost.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. The FY 1975 Budget includes a total of $756 million for the F–14 program—$12 million for R&D, $674 million for the procurement of the next increment of 50 aircraft, and $70 million for advance procurement. The production rate will be built up to six per month as previously planned, but two per month (for a period of 15 months) will be produced for the Iranian Air Force. The Government of Iran, as you know, placed an order for 30 F–14s and associated spares, missiles, etc. Twenty-four of these aircraft will be delivered to Iran in FY 1976 and the remaining six in FY 1977.

PHOENIX

The PHOENIX long range air-to-air missile program is proceeding on schedule. The first units are now operational and about $100 million is included in the FY 1975 Budget for the procurement of another 340 missiles and initial spares.

VFX

While some minimum number of F–14As is clearly essential for fleet air defense, we cannot afford, nor do we need, an all F–14A carrier or Marine Corps fighter force. Consequently, the Navy is now studying the characteristics of a new austere, lower cost fighter (designated the VFX) to serve as the eventual replacement for the remaining F–4s, in both the Navy carrier and Marine Corps air wings. We believe this practical application of the high/low concept should be pursued as expeditiously as possible. Accordingly, $34 million is included in the FY 1975 Budget to provide the option to commence engineering development of the VFX.

A–6E

A total of $190 million is included in the FY 1975 Budget for the A–6E program—$10 million for R&D, $130 million for the procurement of 12 more A–6Es for the Navy, $2 million for advance procurement, $57 million for the modification of 48 A–6As to the A–6E configuration and $0.5 million for military construction. It is currently planned to complete the conversion of all Navy and Marine Corps A–6 squadrons to the A–6E configuration by FY 1978. Beginning in FY 1979, the Navy A–6E squadrons would be increased from the current nine UE to 12 UE per squadron. The Marine Corps A–6 squadrons already have 12 UE aircraft each.

A–7E

The FY 1975 Budget also includes about $159 million for the A–7E program—$8 million for R&D, $147 million for another 34 A–7Es and $4 million for advance

procurement. During the next five years, all of the remaining A–7A and Bs in the active Navy units will be replaced with A–7Es and the older aircraft transferred to the Navy Reserve to modernize those forces.

A–4M

The $58 million requested in the FY 1974 Supplemental for Marine Corps A–4Ms would provide for the replacement of aircraft furnished to Israel. The $67 million requested in the FY 1975 Budget would provide $58 million for the procurement of 24 more A–4Ms for the Marine Corps plus $2 million for advanced procurement and about $7 million for RDT&E. All of the remaining A–4Es and Fs in the active Marine Corps will be replaced by the much more effective A–4M, and the A–4Es and Fs to be transferred to the Marine Corps Reserve will replace the still older A–4Cs which were produced in the 1958–62 period.

NEW V/STOL FIGHTER

The $56 million provided in FY 1974 will complete the funding of AV–8A (HARRIER) V/STOL fighter procurement for the three Marine Corps squadrons. The Navy, however, is now working on an advanced V/STOL technology development program consisting of three separate aircraft designs: the XFV12A prototype, with the thrust-augmented wing (TAW); a design with the lift-plus-lift cruise engine; and the Advanced Harrier. Because of the TAW's great potential, the Navy has given it first priority among the three designs, pending successful completion of development milestones in 1974. The first and most critical milestone, the thrust augmentation demonstration, is scheduled in March 1974. A full-scale lift demonstration is planned by the end of 1974. If successfully developed, this aircraft would be the prime candidate for use aboard the Sea Control Ship. The FY 1975 Budget includes $19 million to continue this development effort.

NEW V/STOL FIGHTER

Chairman MCCLELLAN. You say the thrust-augmented wing V/STOL fighter, if successfully developed, would be the prime candidate for use aboard the sea control ship. What time frame do you visualize?

Secretary SCHLESINGER. The thrust-augmented wing V/STOL fighter should be ready to enter the fleet in FY 1981.

Chairman MCCLELLAN. Proceed.

EA–6B

Secretary SCHLESINGER. As noted earlier, the Navy is still in the process of acquiring sufficient EA–6B electronic countermeasure aircraft to equip the 12-carrier force. The $129 million included in the FY 1975 Budget would provide $6 million for R&D and $123 million for the procurement of an additional six aircraft.

E–2C

Last year the Navy planned to acquire a total of 30 E–2Cs, which together with the earlier model E–2Bs, would provide one squadron (4 UE aircraft) of Fleet Early Warning Aircraft for each of the planned 12 carrier air wings. The funds requested in the FY 1974 Budget were to provide for the procurement of the last nine of the thirty aircraft.

A recent review of the fleet early warning capabilities has persuaded me that it would be desirable to acquire at least six more E–2Cs. An inventory of 36 E–2C aircraft would permit the formation of a sixth squadron. This, in turn, would enable the Navy to maintain two squadrons forward (one each with the 6th and 7th Fleets) at all times on a normal one-in-three rotation cycle. The E–2C is markedly superior to the E–2B, particularly in a high threat environment and in overland target detection.

A total of about $119 million is included in the FY 1975 Budget for the procurement of the six E–2Cs.

F–5E

The $10 million included in the FY 1974 Supplemental for the F–5E would provide five aircraft for the Navy Fighter Weapons School to replace five A–4s furnished to Israel. These F–5Es would be used in place of A–4s to simulate the MIG–21 in the training of Navy fighter crews, a purpose for which they are much more suitable than the A–4s.

F–15

The F–15 is the first fighter in many years which has been specifically designed to excel in air-to-air combat. It will be armed with a new medium range air-to-air missile system and an improved close-in- air-to-air missile system, as well as the proven M–61 20 mm gun, and it should be superior to any fighter the Soviet Union is likely to deploy in the next 10–15 years.

Flight testing of the F–15 is proceeding satisfactorily and the aircraft has met all of its performance milestones on or ahead of schedule with the exception of engine qualification. The problem with the engine encountered last year has been resolved and the qualification test is now complete. On the basis of the test results to date, we believe the aircraft is technically sound and will be able to perform in full the mission for which it has been designed.

We now plan to buy a total of 729 F–15s. The first procurement of 30 F–15s was funded in FY 1973. Another 62 aircraft were funded in FY 1974. The FY 1975 Budget includes a total of $1,076 million—$183 million for R&D and $893 million for the procurement of a third increment of 72 aircraft. The remaining 565 aircraft are scheduled to be procured in the FY 1976–80 period.

LIGHTWEIGHT FIGHTER VS. F–15

Chairman MCCLELLAN. Could not a successful "lightweight" fighter program greatly reduce the planned total buy of 729 F–15 aircraft? What could be the dollar savings per unit?

Secretary SCHLESINGER. A successful lightweight fighter (LWF) program might lead to some reduction in the planned total buy of F–15s. It is too early to determine whether there should be any reduction since we are just beginning to get some feel for LWF cost and performance. However, if the LWF lives up to our expectations, it should be a fighter superior in maneuvering combat to the F–15 but without the larger aircraft's radar and stand-off capability.

During the year-long prototype fly-off now underway, we will determine the performance we can expect from an operational lightweight fighter. To date, flight testing of one of these prototypes, the YF–16 indicates our expectations, as far as performance is concerned, are being fulfilled. At this point we have in mind a mixed fighter force, which would exploit the advantages of both aircraft; this force might perhaps be larger, but cost no more than an all F–15/F–4 fighter force. Both the Air Force and my staff are examining the issue of the best mix of these aircraft and the most appropriate means of implementing such a force structure.

The cost issue is also difficult to address at this time because so little is known about the LWF. I believe the unit cost savings with respect to the F–15 could be as high as half the F–15 cost depending on which LWF prototype is selected, how it is configured and when it is procured. The relative dollar savings per unit would also depend on when the remaining F–15s are bought and at what rate. I would prefer to assess further flight test results and my staff's and the Air Force's force structure studies before committing myself to any reduction in the F–15 buy.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. This schedule represents a stretchout of the procurement program planned last year. There are a number of reasons why this action would be desirable.

First, the revised production rate will better match the aircraft to the availability of its new air-to-air weapons.

Second, a slower production build-up will preserve options on the total quantity of F–15s to be procured, and allow a more orderly introduction of improved versions of the aircraft. Given the interest of several allies in this aircraft, keeping the production line open beyond the originally planned date may well result in some foreign orders for the F–15.

Third, while lower unit cost can be achieved at higher production rates, the cost of slowing the F–15 production build-up will be more than matched by the higher force and readiness levels which could be achieved during FY 1975 and 1976 through the use of funds that would otherwise have to be expended for a higher rate of F–15 production in those years. In sum, we believe the trade off between a faster rate of F–15 procurement and the retention of near term combat capabilities should be resolved in favor of the latter.

The FY 1973 and 1974 procurements will permit the Air Force to form a training squadron and the first two operational F–15 squadrons in FY 1976.

Lightweight Fighters and Air Combat Fighters

As in the case of the Navy, we cannot afford, and we do not need, an all high-capability fighter force in the Air Force. It was to meet the need for a fighter at the low-cost end of the high/low mix that the "lightweight" fighter prototype development program was initiated in FY 1972. This program involves prototype development by two contractors of two different experimental versions of a low-cost, visual combat fighter aircraft incorporating new, advanced aircraft design concepts. At the same time, the prototype development of a new advanced technology, high thrust-to-weight turbo-jet engine was also initiated.

Lightweight Fighter Prototypes

Chairman McClellan. How do the two prototype lightweight fighters differ in design?

Secretary Schlesinger. The basic differences in design between the two lightweight fighters are in the number of engines and tails, wing maneuvering flaps, and the control systems. The General Dynamics YF–16 has one turbo-fan engine and one vertical stabilizer and rudder. The Northrop YF–17 has two turbo-jet engines and two vertical stabilizers and rudders. The YF–16 uses wing leading-edge maneuver flaps while the YF–17 uses both leading- and trailing-edge maneuver flaps. The YF–16 uses side stick control and an all electronic "fly-by-wire" control system on all three axes, while the YF–17, although it now uses "fly-by-wire" for aileron control, uses a conventional system in pitch and yaw, and incorporates a conventional stick control.

Chairman McClellan. Proceed.

Secretary Schlesinger. The first of these "lightweight" prototype fighters (General Dynamics' YF–16) was rolled out last December and flew in January; the second (Northrop's YF–17) is expected to fly in April of this year. These experimental prototype fighters (two from each contractor) will be put through a comprehensive 12-month flight test program during which we intend to assess the combat value of the many technological innovations incorporated in these aircraft.

On the basis of the work already accomplished in the experimental prototype lightweight fighter program, we believe that the development of a new low-cost high performance fighter which can perform tactical air missions under visual flight conditions is entirely practical and should be vigorously pursued. Accordingly, we have included in the FY 1975 Budget $23 million ($13 for the aircraft and $10 million for the engine) to proceed with the experimental prototype lightweight fighter program on an accelerated basis, and $36 million to start the development of a new Air Combat Fighter.

A–10

The A–10 represents another major application of the high/low mix concept. It incorporates in a relatively low-cost airframe all of the principal characteristics that are essential for close air support—maneuverability, responsiveness, lethality, survivability, long loiter time and simplicity. Armed with the high velocity 30mm GAU–8 gun, the MAVERICK air-to-surface missile and other ordnance, the A–10 promises to be very effective against tanks and other armored vehicles. Consequently, it would be particularly valuable in Europe, since the Warsaw Pact ground forces are very heavy in armor.

Testing of the two Fairchild prototype aircraft and the GAU–8 30mm gun is continuing. While Fairchild is now fabricating six full-scale development models of the A–10, the first of these is not expected to be delivered until December 1974. Furthermore, the GAU–8 gun, which is a key element of the A–10's armament, will not be ready for full-scale testing until late this year. Hence, the fly-off between the A–10 and the A–7, directed by the Congress last year, will have to be conducted with one of the two available prototype aircraft, which is not fully representative of the A–10 we propose to produce, and which will not have the GAU–8 gun.

By the end of this year, however, the GAU–8 gun/aircraft compatibility tests and two back-to-back 150-hour engine qualification tests should be completed. Based on the results of these tests and the A–10/A–7 fly-off, a decision will be made on the production of the A–10.

Chairman McClellan. When do you anticipate a production decision on the A–10 aircraft program?

Secretary SCHLESINGER. We expect a decision in June 74, which will lead to the commitment of $30 million to long-lead items in July 74 and an initial low-rate production decision in November 74. We anticipate a full-rate production decision on the A–10 program in October 1975.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. Pending this production decision, we have included a total of about $268 million in the FY 1975 Budget for the A–10 program—about $94 million to continue development and to provide for the fabrication of four RDT&E aircraft, $145 million for the procurement of the first 26 production aircraft, and $29 million for advance procurement. We tentatively plan to buy a total of 729 A–10s to equip the planned active and reserve component squadrons.

MAVERICK

The MAVERICK air-to-ground missile promises to be one of the most cost-effective air-launched weapons in our inventory, particularly against such small, hard, moving targets as tanks and armored personnel carriers. The MAVERICK's performance in the recent Middle East conflict was quite impressive, although the conditions there were much more favorable for such electro-optical weapons than would be the case in Europe. The FY 1975 Budget includes about $88 million for the procurement of another 6,000 MAVERICK missiles for the Air Force.

AWACS

Defense planners have been convinced for some time that future demands on our surveillance, warning and control capabilities in support of tactical air operations, particularly in the context of a European conflict, will be quite severe. This conviction was reinforced by the complexities of the surveillance, warning and control function in both the Southeast Asia and the Middle East conflicts.

Recent flight demonstrations in Europe, as well as the U.S., have confirmed the high potential of AWACS to meet this requirement for long-range airborne surveillance and warning, and positive and precise control of forces engaged in the full range of tactical air operations. We believe AWACS would also be capable of supporting ground, naval and amphibious operations by providing commanders with an integrated air-ground situation summary in real time. Finally, AWACS could assist in the NORAD air defense mission, since some of these aircraft would normally be based in CONUS as part of our general purpose forces mobile air defense pool.

Because of its potential effectiveness in the tactical role, as well as its inherent flexibility and mobility, we propose to continue AWACS engineering development and procure the first 12 aircraft in FY 1975. The final production decision would be made in December 1974, and would be based on the successful completion of the System Integration Demonstration flight tests, and Airborne Integration Laboratory and Software Development Laboratory testing, and studies of additional command, control and communications equipment needed to support the tactical mission. The FY 1975 Budget includes a total of about $770 million for the E–3A program—about $220 million for R&D and $550 million for procurement.

E–3A

Chairman MCCLELLAN. You request $550 million for procurement of E–3A aircraft in FY 1975. How many aircraft will this buy?

Secretary SCHLESINGER. $550 million will provide for procurement of 12 fully equipped aircraft and includes $21 million for procurement of long leadtime components toward the 12 additional aircraft planned for FY 1976.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. We tentatively plan to buy a total of 34 aircraft, including the three test aircraft already available, which will be reconfigured as operational AWACS. Twelve more aircraft would be bought in FY 1976 and the last seven aircraft in FY 1977. In contrast to the first 12 (Block I) aircraft, the Block II aircraft would be fully configured for the tactical mission. Current planning for the Block II buy includes identifying joint Service requirements to assist in determining alternative equipment configurations and evaluating the impact of these alternatives for long lead time funding. We are also working with our NATO allies, who have expressed interest in AWACS as a common system to improve NATO's air defense and command and control capabilities.

EF–111

The current inventory of tactical aircraft with the primary mission of defense suppression consists of two squadrons of F–105G Wild Weasel aircraft, two squadrons of F–4C Wild Weasel aircraft, and 35 EA–6Bs. The F–105Gs are scheduled to be replaced with advanced F–4 Wild Weasel aircraft in the late 1970s, and, as noted earlier, the authorized inventory of EA–6Bs is scheduled to increase.

The F–105G and F–4C Wild Weasel systems were developed using off-the-shelf hardware as a quick-reaction counter to the surface-to-air missile (SAM) threat in North Vietnam. Combat experience in that conflict, however, disclosed a number of deficiences which the advanced F–4 Wild Weasel system, now under development, is intended to correct. But as the Middle East conflict demonstrated, our tactical air forces should be prepared to operate in a very intense air defense environment. To be able to do so effectively, the Air Force needs an airborne jammer with a much greater capacity than can be fitted into an F–4. The EF–111A, which would be an Air Force F–111A equipped with ALQ–99 jammers of the type used in the Navy EA–6B, is intended to fulfill that requirement. The $37 million included in the FY 1975 Budget for this program would permit a continuation of the prototype development effort now in progress.

Defense Suppression Weapons and Equipment

In addition to specialized electronic countermeasure aircraft, defense suppression involves a wide variety of weapons and equipment, and these also deserve greater emphasis than they have been receiving. Accordingly, funds are included in both the FY 1974 Supplement and the FY 1975 Budget to augment our capabilities in these areas.

The following are some examples of the increases that are provided in the FY 1974 Supplemental:

$31 million to procure the Advanced Location Strike System (ALSS). The ALSS is an airborne/ground-based, all-weather system designed to locate air defense electronic emissions at extended ranges and to guide an air-to-ground weapon against the emitters. It uses Time-of-Arrival (TOA) techniques for emitter location and Distance-Measuring Equipment (DME) for guidance of air-to-ground weapons.

$3 million to improve the capability of ALSS to locate and identify electronic emitters more rapidly, to control simultaneously a greater number of DME guided weapons, and to make it more mobile.

$75 million for new pods and modification of existing pods to improve the capability of our tactical aircraft to cope with the Soviet tactical air defense threat.

$5 million to procure additional chaff dispensers for our tactical aircraft. As the Israeli Air Force has demonstrated, chaff, if used properly and in sufficient quantities, is an effective means of aircraft self-protection even against high density SAM defenses. Chaff provides false tagrets to the SAMs and masks the aircraft from the SAM radars.

$20 million to procure Radar Homing and Warning (RHAW) receivers for Air Force F/RF–4s, A–7s and F–111s. These receivers will provide real time warning of air defense electronic emissions directed at the aircraft, thereby enabling the pilot to initiate the proper countermeasures to degrade the air defenses.

$23 million to procure 800 additional SHRIKE (AGM–45A) missiles. The SHRIKE is the major air-launched, anti-radiation missile (ARM) is our current inventory. It can be carried by all Navy attack aircraft and most F–4 and F–105 Air Force aircraft.

$2 million to accelerate development of an infrared countermeasures system to protect Navy tactical aircraft from SA–7 type weapons.

$4 million to accelerate development of the High-speed Anti-Radiation Missile (HARM), a follow-on to the current ARM.

$18 million to accelerate the development of guided glide bombs, initiate development of a long-range stand-off defense-suppression missile, and make other improvements in defense-suppression weapons.

Among the defense-suppression efforts included in the FY 1975 Budget are the following:

$25 million to develop a Precision Emitter Location and Strike System (PELSS) based on Time of Arrival/Distance Measuring Equipment (TOA/

DME) techniques. This system may be a modified ALSS or a new PELSS, depending on the cost effectiveness of possible improvements.

$9 million to continue development of the Modular Guided Glide Bomb (MGGB–II). The MGGB–II is currently being developed as an area stand-off weapon for use with ground and airborne locator and strike systems.

$18 million to continue development of HARM.

Passive Airbase Defense

Recent JCS and Air Force analyses have shown that hardened aircraft shelters that can completely protect aircraft from strafing, and also provide greatly improved survivability from other conventional munitions, constitute one of the most effective passive defensive measures we could take. The availability of such shelters for all of NATO's tactical aircraft could have a major influence on the outcome of a conventional war in Europe.

Shelters have been provided for all in-place and dual-based USAF aircraft in the NATO Central Region. At the urging of the U.S., the NATO Ministers approved in December 1973 the expansion of SACEUR's protection program to include 70 percent of U.S. rapid reaction earmarked aircraft scheduled for deployment to Europe. Even so, a sizeable number of the U.S. aircraft planned for later deployments to Europe would remain unsheltered.

To remedy this situation, we now propose to undertake a five-year program which would provide additional hangarettes needed to shelter the entire USAF force of fighter, attack and reconnaissance aircraft planned to be deployed to NATO. Also included in this program would be other passive defense measures, such as dispersal and camouflaging, and protected POL storage areas, maintenance shops and similar essential facilities. Some $65 million is included in the FY 1975 Budget for the first increment of this program. As a necessary complement to this program, we will also continue our efforts to encourage our NATO allies to fund adequate shelters for all of their tactical aircraft.

E. MOBILITY FORCES

I noted earlier that one of the most urgent improvements needed in our general purpose force posture is a major increase in our strategic airlift capability. An increase in our total mobilizable strategic airlift capacity is needed to enhance our ability to move large-scale reinforcements to Europe during the critical early weeks of a NATO-Warsaw Pact conflict. An increase in our active strategic airlift capacity is needed to enhance our ability to resupply an ally promptly in an emergency, without resort to a mobilization of the reserve forces. These enhanced capabilities, I am convinced, will greatly strengthen the deterrent to aggression against ourselves and our allies, in Europe and elsewhere; and they will also enable NATO to accept with greater confidence a NATO-Warsaw Pact mutual and balanced force reduction agreement which involves a partial withdrawal of both U.S. and Soviet forces from the central region of Europe.

In addition to the strategic airlift forces provided by the Military Airlift Command (MAC) and the Civil Reserve Air Fleet (CRAF), our mobility forces also include the strategic sealift forces provided by the Military Sealift Command (MSC) and the U.S. Flag Merchant Marine, as well as the tactical airlift forces assigned to the Tactical Air Command, the Unified Commands, and the Reserve Components. The strategic sealift and tactical airlift forces also require improvement, but the first priority at this time must be given to the strategic airlift forces.

Strategic Airlift

The military strategic airlift now consists of four squadrons of C–5As (79 aircraft) and 13 squadrons of S–141s (275 aircraft), together with an equal number of C–5A and C–141 Reserve Associate Units which do not have any aircraft of their own. These Associate Units are collocated during peacetime with the active force squadrons and assist in the operation and maintenance of the active force aircraft on a part-time basis. When mobilized, these units make possible a rapid increase in the rate of utilization of the active aircraft. In addition to these military assets, there are now 246 long-range commercial aircraft in the Civil Reserve Air Fleet, including 153 cargo-convertible and 93 passenger aircraft. These aircraft become available to the Defense Department upon activation of the CRAF.

The crucial importance of immediately available strategic airlift force of substantial capacity was once again convincingly demonstrated during the recent Middle East conflict. We have every reason to believe that our ability to resupply the Israeli armed forces promptly and in sufficient quantity at the critical point in the conflict not only restored the military balance but also was one of the decisive factors in bringing about the cease-fire.

Throughout the period of the airlift, October 13-November 14, MAC C–141s and C–5s maintained a steady flow of supplies to Israel, including weapons, ammunition, spare parts, medical supplies and other material. More than 22,000 short tons of cargo were delivered during that period, with as many as six C–5A and 17 C–141 missions per day. The C–5A with a total of 145 missions accounted for almost 10,800 tons, and the C–141 with a total of 421 missions accounted for more than 11,600 tons. The C–5A averaged 74 tons of payload per mission, while the C–141 averaged 27 tons. Lajes Air Base in the Azores was the only intermediate point available for refueling and crew staging on these missions, which averaged 6,450 nm one way.

Middle East Airlift

Chairman McClellan. Had air bases other than Lajes in the Azores been available to refuel our strategic airlift during the recent Middle East conflict, how might the effectiveness of our operation been improved and cost decreased?

Secretary Schlesinger. It should be noted that the US did not formally request the use of other bases to refuel our airlift aircraft. However, use of the North Atlantic route and additional refueling sites would have permitted increased flight payloads, thus reducing the number of missions required in those cases where cargo weight (and not cube) was the limiting factor. The single route through the Mediterranean, and the use of Lajes necessitated recycling returning aircraft through that base. The use of an alternative route for returning aircraft would have enhanced the efficiency of the operation and reduced the need for increased support at Lajes.

Chairman McClellan. Proceed.

Secretary Schlesinger. The C–5A, because of its ability to carry equipment too large or too heavy for other aircraft, was a key factor in the success of this airlift effort. The cargo moved by C–5A included M–60 and M–48 tanks, each weighing about 50 tons. Among the other large and heavy items airlifted by the C–5A were fuselages for A–4E aircraft, CH–53 helicopters, 175mm self-propelled guns weighing 29 tons each, and 155mm howitzers weighing 25 tons each. All of these items are air-transportable only in the C–5A.

A high degree of reliability was maintained during the airlift: the departure reliability rate for the C–5s was 96 percent and for the C–141s, 98 percent. At the same time, MAC also airlifted the UN peacekeeping force to Cairo; supported three JCS exercises, the SAC redeployment from the Pacific and 100 other special missions; and, in addition, maintained its regular cargo and passenger flights over its worldwide route structure.

Although the Middle East airlift was an impressive performance, it involved the movement of only about 22,000 short tons of cargo. In contrast, the deployment in Europe of the Army and Air Force units initially earmarked for a NATO contingency, together with their essential equipment and initial supplies, would involve the movement of more than a half a million short tons of cargo, albeit over a shorter distance—an average of about 4,700 nm one way vs. 6,450 nm in the case of the Middle East airlift. Moreover, given the well founded probability that the Warsaw Pact forces are geared for a short, intense war in Europe, plus the possibility that some of the U.S. forces currently deployed in Europe may be withdrawn in the future, there is a great premium on being able to move those forces and their equipment much more rapidly than is now planned. Clearly, under those circumstances, the first few weeks of a war in Europe could well be the most critical.

Hence, a dependable U.S. capability to deliver large scale reinforcements to Europe quickly in an emergency could not only be decisive in preventing a NATO defeat, it could also be decisive in deterring the attack in the first place. Indeed, I can think of no more impressive a deterrent to a Warsaw Pact attack on NATO than a clearly demonstrable U.S. capability to put down in Europe a fully-equipped combat-ready division (including its supporting forces) every few days. That is why I am so firmly convinced that a major expansion of our strategic airlift capacity deserves a very high priority in the allocation of resources among our general purpose forces programs.

As matters now stand, it would take an average of about 19 days per division to move to Europe a force of several divisions with their Initial Support Increments and all of their combat essential equipment if we were to move them by airlift only. However, there are several actions we can take now to increase substantially our strategic airlift capabilities within the next few years.

C–5A and C–141 Wartime Utilization Rates

The first of these actions involves an increase from 2.0 to 2.75 in the active forces crew ratios for the C–5A and the C–141s, plus a commensurate increase in maintenance personnel and in the war reserve stocks of C–5A and C–141 replenishment spares. These increases would permit a sustained wartime aircraft utilization rate of ten instead of eight hours per day, and an initial surge wartime utilization rate (for a period of 45 days) of 12½ instead of ten hours per day. That would be equivalent to a 25 percent increase in the wartime capability of the MAC strategic airlift forces.

This action alone could reduce the average deployment time per division from about 19 days to somewhat less than 15 days. The additional cost would be $200 million per year ($160 million in FY 1975, the first year) for military personnel and operations and maintenance, plus a one-time cost of about $130 million for war reserve spares. As shown on the following table, about $109 million is included in the FY 1974 Supplemental and $21 million in the FY 1975 Budget for the procurement of additional replenishment spares for this purpose.

C–141 Modification

The second action involves the modification of the C–141s to increase their useable payload capacity. As you probably know, the C–141 for most missions is space-limited, rather than weight-limited. Hence, by increasing the size of the fuselage we can increase the payload capacity without any significant loss of effective range or cruise speed.

More specifically, the C–141 modification would involve lengthening the fuselage by 280 inches (part fore and part aft of the wing), modification of the wing fairing and aircraft controls to reduce drag, and the installation of in-flight refueling (receiving only) equipment. (The C–5As already have an aerial refueling capability.) These modifications will increase the payload volume of the C–141 by 30 percent; it will be able to carry 13 cargo pallets compared with the present 10 This improvement, which is equivalent to adding 90 C–141s to the airlift force, could further reduce the time required to deploy the planned force to an average of about 12½ days per division.

ACQUISITION COSTS OF MAJOR MOBILITY FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS[1]

[In millions of dollars]

	Fiscal year—		
	1973 actual funding	1974 planned funding[2]	1975 proposed funding
Strategic airlift:			
Procurement of additional replenishment spares for C–5A and C–141 aircraft	23	(109)	21
Modification of C–141 aircraft to increase their capacity		(40)	50
Acquisition of 3d C–5A fatigue article		21 (6)	
Planning and initial engineering of C–5A wing modification			16
Modification of civilian wide-bodied passenger aircraft to a convertible (cargo-passenger) configuration		(19)	155
Tactical airlift:			
Procurement of additional C–130 aircraft	94	216 (33)	22
Prototype development of advanced medium STOL transport (AMST)	25	25	56

[1] Includes costs of R.D.T. & E., procurement of the system and initial spares, and directly related military construction.
[2] Figures in parentheses are the amounts included in the fiscal year 1974 supplemental.

Secretary Schlesinger. Moreover, all of the MAC strategic airlift will have an air-to-air refueling capability and thus will be less dependent on foreign bases. Selected air crews, however, will have to be provided regular training in refueling techniques, which has not been the case in the past.

The cost to modify the entire fleet of 275 C–141s is estimated at about $450 million. The impact of this modification on operating costs cannot be precisely estimated, but little or no increase is now believed to be involved. (The cost of adding 90 C–141s to the fleet would be about $1.4 billion for procurement and $135 million a year for operation.) We have included $40 million in the FY 1974 Supplemental to commence engineering and tool design. Another $50 million is included in the FY 1975 Budget to complete engineering, fabricate the tooling, and begin the modification of the first few aircraft.

Modification of C–141 Aircraft

Chairman McClellan. You say that by spending $450 million to modify the fleet of 275 C–141 aircraft, the result is equal to adding 90 aircraft to the fleet at a procurement cost of $1.4 billion. This is a ⅔ savings to meet the short haul requirement. But how cost effective is the modification when you consider the fatigue life remaining in the 275 current aircraft?

Secretary Schlesinger. We believe that this modification is very cost effective. Although the C–141 was procured for an expected life of 30,000 hours, the Air Force is fairly confident that the aircraft will now realize a life of at least 40,000 hours. Further, the Air Force believes that the proposed modification will not significantly reduce this 40,000 hour life. Thus, with the average life of the C–141 now about 15,000 hours we will actually be getting a stretched C–141 with about 25,000 hours of useful life left or about 80% of the life we initially planned to procure with the new aircraft.

Chairman McClellan. Proceed.

C–5A Fatigue Tests

Secretary Schlesinger. To reduce still further the number of days required to deploy the planned force we need even more airlift capability, especially the capability to carry large and heavy items of equipment. The C–5A was developed specifically for this role. Unfortunately, it is now out of production; furthermore, its wings are structurally deficient in relation to the original fatigue life goal. This deficiency has been alleviated in part by the incorporation of a new "load distribution" system in the wings, as recommended by the C–5A Independent Review Team. With this system, it is estimated that the service life of the aircraft may be much as 18,000 to 20,000 hours, but as yet we have no empirical data to support that estimate.

To acquire that data in a more timely fashion, we now propose to accelerate the acquisition and test of the third fatigue article, which incorporates the new load distribution system. Accordingly, the $5.8 million needed for this purpose has been included in the FY 1974 Supplemental (rather than the FY 1975 Budget as previously planned) thereby increasing the funds available for obligation in FY 1974 to about $21 million.

C–5A Wing Modification

The Independent Review Team also recommended that a further and more extensive wing modification, which would extend the service life of the C–5A to at least 30,000 hours, be developed and installed. The Air Force estimates that this program would cost more than $600 million for the 79 C–5As now in the force.

Inasmuch as these aircraft are accumulating an average of only about 1,000 flying hours per year, I believe we should obtain the complete fatigue test results on the current load distribution system modification before we commit ourselves to another, more costly modification. Pending the receipt of these results, however, I believe it would be useful to examine more closely the work involved, the benefits to be derived, and the most probable cost of this new modification program. Accordingly, $15.5 million has been included in the FY 1975 Budget to initiate engineering and planning for this modification.

Wide-Bodied Passenger Aircraft Modifications

In view of these problems, it would obviously be premature to consider the procurement of additional C–5As at this time. Moreover, we believe that a large amount of additional airlift capacity can be acquired at a far lesser cost through a Government-financed program for the modification of existing civilian wide-bodied passenger aircraft (Boeing 747s and McDonnell-Douglas DC–10s) to a

convertible (cargo-passenger) configuration, and for the operation of these modified aircraft under the CRAF program.

Two cargo-configured 747s are now in commercial operation. These aircraft have a visor door in the nose and can accommodate all but "outsize" cargo (i.e., cargo that can be carried now only by the C–5A). By installing a large, side-loading cargo door aft of the wing trailing edge, however, the 747 could be configured to accommodate about one-third of the "outsize" cargo involved in moving the planned force. The remaining two-thirds of the "outsize" cargo would still have to be carried by the C–5As. Thus, the capacity of the existing C–5A force sets a practical limit on the expansion of our strategic airlift capability over the near term, that is until a new large cargo aircraft can be developed and produced, or the production of an appropriately modified C–5 can be resumed.

Assuming that we go forward with the two airlift proposals I discussed earlier (i.e., the increase in wartime utilization rates and the modification of the C–141s), the addition to the CRAF program of about 110 cargo-convertible 747s (or their equivalent in DC–10s, calculated at about two-thirds of a 747) would bring our airlift capability up to the full potential permitted by the existing C–5A capacity. This strategic airlift force—the C–5As, C–141s, existing CRAF, plus about 110 convertible 747s—could airlift the planned force (including the Initial Support Increments) to Europe at an average rate of about seven days per division.

There are now about 110 U.S. airline-owned 747s in service. Another 55 747s are operated by the airlines of our NATO allies. In addition, U.S. airlines also operate about 100 DC–10s, but only about 20 are the long-range version. (The wide-bodied Lockheed 1011 is too short range to be considered in this context.)

Our current plan is to negotiate agreements with the U.S. airlines to make their 747s available for modification and then to operate them as part of the Civil Reserve Air Fleet. In order to ensure that these aircraft will be available in an emergency to operate into hostile areas in the same manner as the military airlift aircraft, we may need new legislation similar to that covering merchant seamen. This new legislation would require U.S. certificated commercial airline crews, in event of a national emergency declared by the President, to operate wherever the necessities of war may dictate.

We may also be able to work out some sort of an agreement with our NATO allies that would bring their 747s into the program. I have already discussed this matter in a preliminary way with some of the NATO Defense Ministers, but it is too early to draw any conclusions as to the prospects for such agreements.

The modification of the 747 passenger aircraft to a cargo-convertible configuration would involve the installation of a nose visor cargo door and/or a large side-loading door, the strengthening of the upper cargo deck, and the installation of a cargo floor weight distribution system. The modification cost per aircraft would be about $5.6 million with the nose door only, and $6.6 million with both doors. Since these aircraft would be out of service during the period of modification, the airlines would have to be paid compensation for the loss of revenue, which we believe would amount to about $800,000 per aircraft. In addition, the convertible feature would increase the operating cost to some extent; this might amount to about $400,000 per aircraft over a ten-year period.

Modification of 747 Aircraft

Chairman McClellan. I note that many commercial 747 aircraft have been grounded due to the petroleum shortage. Won't this situation reduce your estimate of $800,000 per aircraft for loss of revenue during the modification period?

Secretary Schlesinger. It could reduce our estimate. However, our number is only an approximate estimate and the actual price we would have to pay would be a function of the situation at the time the negotiations are conducted with the individual airlines.

Chairman McClellan. Proceed.

Secretary Schlesinger. Finally, we may have to provide the airlines with some sort of an incentive payment for assuming the additional obligations and inconveniences involved in this program. Heretofore, we have relied upon the award of peacetime airlift contracts as the principal inducement for the air carriers to participate in the CRAF program. With the sharp decline in contracted airlift following the withdrawal of U.S. forces from Vietnam, there will not be enough Defense business to provide the necessary incentives for an expanded CRAF program.

Taking all of these factors into account, the cost to the Government could amount to about $9–10 million per modified 747.

The long range DC–10s could be modified wtih a side-loading cargo door and a strengthened upper cargo deck for about $5 million per aircraft. Although these DC–10s carry about two-thirds of the payload weight of a 747, they are height limited and therefore cannot carry many items of military equipment. Hence, they would be usfeul primarily as bulk carriers, as are the existing CRAF aircraft.

In addition to the modification of the aircraft, we must also develop and procure the new Material Handling Equipment (MHE) needed to load and unload military equipment expeditiously. In contrast to the C–5A and C–141, whose main cargo decks are at about truck-bed height, the main cargo decks of the 747 and DC–10 are about 16 feet above ground level. The cost of acquiring the new MHE, however, would be relatively small in relation to the cost of modifying the aircraft.

To start this wide-bodied passenger aircraft modification program promptly, we have included $19 million in the FY 1974 Supplemental to initiate engineering and planning, and $155 million (including $5 million for MHE) in the FY 1975 Budget to complete engineering and tooling, and to modify the first 10–12 747s.

Admittedly, there are many other problems, besides the availability of airlift, that must be solved if we are to develop a capabiilty to move large forces to Europe promptly in an emergency. The forces to be moved must be maintained in a state of readiness commensurate with the expanded airlift capability. Appropriate actions must be taken to ensure the availability of adequate airport facilities to assemble and load the cargo at the point of departure and to unload and clear the cargo at the point of arrival. And, of course, there is the question of vulnerability at the point of arrival, which in turn is related to the question of strategic warning. Assuming we are able to detect a Warsaw Pact mobilization within a week after it begins, we may be able to close a large part of the force before the start of hostilities. In any event, a clear and convincing U.S. capability to move large forces quickly overseas in an emergency should provide a powerful deterrent against attack.

Sealift

The DOD-controlled sealift capability, which is already quite limited, will continue to decline. In the late 1970s the Military Sealift Command force is expected to consist of only two Roll On/Roll Off cargo ships and eight tankers, plus three cargo ships and ten tankers on controlled fleet charter.

Nine of the ten tankers are being acquired through a build and charter arrangement and do not involve any capital investment by the Defense Department. These tankers are relatively small, shallow draft ships used primarily to transport POL into smaller, less developed ports. All nine are scheduled to be available to the MSC-controlled fleet by the end of FY 1975.

Last year it was planned to acquire two Multi Mission Ships (MMS), also through a build and charter arrangement. A lack of response from the shipbuilding industry because of the limited number of ships contemplated, however, has caused this program to be reevaluated. Thus these ships will not be available to MSC in FY 1975 as originally scheduled. Instead, we have now scheduled one ship to be available in FY 1976 and the second one in FY 1977.

Notwithstanding our current emphasis on strategic airlift, we will still need a substantial sealift capability to sustain and augment the forces initially deployed by airlift. Even in a NATO-Warsaw Pact conflict some of the later deploying forces (e.g., Army reserve component divisions and their support increments) would have to move by sea, as would the bulk of the resupply for all of the U.S. forces already deployed. Sealift accounted for 96 percent of the tonnage moved to Vietnam during the course of that conflict, and even with the expanded airlift, it will no doubt account for a high percentage of the tonnage moved in any other sustained conflict in which we may become involved in the future.

Since the capability of the DoD-controlled sealift will probably be insufficient to support even a minor contingency in a timely fashion some years hence, heavy reliance will have to be placed on the U.S. Merchant Marine and, in the case of a NATO conflict, on the commercial fleets of our NATO allies as well. The National Defense Reserve Fleet, which stood us in good stead during the Vietnam war, now consists of 130 ships which are currenlty scheduled to be phased out in FY 1978.

The sealift problem is not so much a matter of total capacity as it is of early availability of suitable ships. Given sufficient time to assemble the ships, the U.S. Merchant Marine, augmented by up to 200–300 NATO flag ships, could provide more than enough sealift to meet even the most demanding NATO contingency. Consequently, the principal emphasis in this area has been placed on early availability, not only in a mobilization declared by the President, but also for lesser contingencies not involving mobilization.

With regard to the mobilization contingency, a major step forward was taken last year in conjunction with our NATO allies to increase the availability of NATO flag shipping in the event of a major U.S. deployment of forces to Europe. Under the agreement reached last September, the NATO Defense Shipping Executive Board (DSEB) which is designed to control in wartime the more than 3,000 deep draft, dry cargo vessels in the NATO shipping pool, would be activated promptly upon the declaration of a NATO mobilization. Some 300 suitable NATO flag ships (primarily break bulk and some roll-on/roll-off), which normally frequent U.S. East and Gulf Coast ports, would be "earmarked" in peacetime to facilitate their early acquisition in a contingency. These ships would be channelled to U.S. on-load ports in response to specific U.S. deployment requirements. We have assured our NATO allies, however, that European flag ships would not be requested if suitable U.S. flag ships were available.

With regard to contingencies involving the deployment of perhaps one or two divisions, the Defense Department has been striving for a number of years to develop a system which would provide sufficient commercial sealift without the declaration of a mobilization by the President. The MSC under the Sealift Readiness Program has obtained commitments from the commercial shipping lines to make at least 117 ships available for such a lesser contingency, with at least half to be available in the first 30 days.

One of the key difficulties inherent in this Sealift Readiness Program is that operators would risk the loss of their regular trade routes to other U.S. as well as foreign lines if they took their ships off those routes to carry Defense cargo for any substantial period of time. This problem emerged briefly during the Vietnam conflict. However, we were still able to draw on the Victory ships in the National Defense Reserve Fleet (NDRF), and there was still a large number of World War II-built ships in the Tramp fleet. Now, however, the Tramp fleet is just about gone, and the ships presently in the NDRF are scheduled to be retired in FY 1978.

It is apparent to us that before that time arrives we should examine again the need for a capability of the sort now represented by the NDRF. A revitalized NDRF would fit in well with the Sealift Readiness Program. We would have to rely on the berth line industry only during the initial stages of a non-mobilization contingency, until the NDRF ships could be broken out of the reserve and placed back in service. This arrangement would limit the deleterious effect on the competitive position of the berth line operators. We believe that the Defense Department, together with the Maritime Administration, should reexamine the feasibility of continuing some of the ships still in the NDRF beyond FY 1978, as well as the possibility of adding newer ships to the NDRF to replace or supplement the old Victory ships. Meanwhile, the National Academy of Sciences has undertaken a study to determine whether the berth line industry can respond to long or short term nonmobilization emergencies without loss of their competitive position, which eventually could result in a reduction of the U.S. flag fleet, thus eroding our sealift mobilization base.

Another problem involving the Defense Department's relation with the U.S. shipping industry concerns the manner in which we procure sealift in peacetime. Under the present so-called MAX-MIN procedure no shipper is permitted to carry more than 50 percent of DoD cargo on most MSC routes (75 percent on a few), and the low bidders must agree to reserve a minimum of 25 percent of their capacity for Defense cargo. This system preserves the competitive principle, while at the same time it places some restraints on competition in the interest of maintaining a broad mobilization base. A bid rank or "pecking order" is established among the bidding lines, and the cargo is then allocated to the low bidders among the carriers actually offering service on a given route.

Last August the Maritime Administration (MARAD), supported by the Federal Maritime Commission (FMC) and most of the berth line operators, proposed a cargo allocation system whereby all carriers offering service on a route would be assured of some cargo, with the amount allocated to any one carrier being a function of the "bid" spread. Their contention is that the MAX-MIN procedure causes large fluctuations in cargo allocations as the positions of the car-

riers in the bid rank change from one bidding cycle to the next. MARAD and FMC believe that these fluctuations create a "feast-or-famine" situation which is particularly harmful to those carriers in poor financial condition, and which could lead to erosion of the sealift mobilization base. While we fully appreciate the concern of the Maritime agencies and the industry, we do not believe the evidence thus far presented is sufficiently convincing to justify either the relaxation of competition or the acceptance of the additional costs that would necessarily be involved.

3. Tactical Airlift

The tactical airlift forces at the end of FY 1974 will consist of 17 C–130 squadrons (with about 325 aircraft) in the active force and 36 units (with about 370 aircraft, mostly C–130s) in the Air Force reserve components. We plan to maintain essentially the same force levels through the late 1970s, but with some further modernization of the reserve component units, which account for about 40 percent of our total tactical airlift capability. During the next few years all of the remaining C–124s and C–123s in the Air National Guard will be replaced with C–130s.

We are also taking action to reduce the overhead and command structure of the reserve components by consolidating certain units which are collocated at the same installation. Four AFR and two ANG units, which were previously programmed to have eight UE C–130 aircraft each, are now being combined to form two AFR and one ANG squadrons with 16 UE aircraft each, the same size as the active force squadrons. This change will enable us to achieve an annual saving at about $2.7 million with no loss in wartime capability.

C–130

The C–130 is probably the most versatile and reliable tactical airlift aircraft in the world and is now in use by many other nations. Procurement of the C–130 for U.S. forces had been expected to be completed with the FY 1974 buy, but once again our inventory of C–130s has been reduced, this time by the transfer of aircraft to Israel. Accordingly, $33 million has been included in the FY 1974 Supplemental for the procurement of six more C–130s for the Air Force. Another $22 million is included in the FY 1975 Budget for four additional C–130s to replace two C–130s and two C–7s which are expected to be transferred from the Air Force Reserve to South Vietnam as attrition replacements.

Although no further procurement of C–130s for U.S. forces is planned, the production line is expected to remain open during the next few years to meet the demands of other nations. Thus, we will have the option to procure additional C–130s later on if that proves to be necessary.

AMST

While the C–130 is a proven, effective aircraft, we continue to believe that tactical airlift modernization will eventually be needed, probably sometime in the 1980s. The objective of the Advanced Medium STOL Transport (AMST) prototype program is to demonstrate new STOL technology and provide an option to replace not only the C–130, but also the current STOL aircraft, the C–7 and C–123.

I am aware that there has been considerable opposition in the Congress with regard to the AMST program and that the FY 1974 budget request for that program was cut from $67 million to $25 million. The two basic objections registered were: (1) that the AMST would need an advanced turbofan engine (the development of which had been terminated) to be effective; and, (2) that it will be too expensive relative to the proven C–130.

The Air Force maintains that a new engine is not needed, and points to the fact that both prototype contractors are using proven engines that will meet the established design and performance goals. As for costs, two of the principal objectives of the prototype program are to obtain visibility on costs and operational factors associated with short field performance, and to define engine and airframe characteristics which would substantially reduce maintenance support requirements.

The two contractors involved, Boeing and McDonnell-Douglas, are each building two prototypes and are using different powered lift concepts for achieving improved STOL performance. The total cost of the four aircraft prototypes, assuming a continuation of both contractors' programs, would be about $210 million, and there is no commitment to engineering development or production.

Because of their different technical approaches to powered lift, the fabrication and testing schedules of the two contractors differ. Major assembly by McDonnell-Douglas began in late 1973; Boeing is scheduled to begin in mid-1974. First flight as well as completion of the one-year flight test program differ for the contractors by a similar period of about half a year.

The current design-to-cost goal for AMST is now being reexamined. But as a practical matter, we will not have a sound basis for estimating the production costs of the AMST, or for determining whether it will be an economically attractive alternative to the existing or a modified C–130, until the prototype phase of the program is completed.

On balance, I believe that we would be best advised to proceed with the AMST prototype program, and about $56 million has been included in the FY 1975 Budget for that purpose.

Advanced Medium STOL Transport Program

Chairman McClellan. Will the FY 1975 request of $56 million, plus available funds, permit the development of two prototypes by each of two contractors (total of four aircraft) in the advanced medium STOL transport program?

Secretary Schlesinger. The Air Force, which is currently in the process of negotiating with the contractors, has stated that these funds will permit continued development using a stretched out schedule.

Chairman McClellan. Proceed.

Secretary Schlesinger. The bulk of the funds would be devoted to the fabrication and assembly of the prototypes. In addition, the propulsion systems would be verified, and tests of structural components begun. Because the impact of the $42 million reduction in the FY 1974 request has not as yet been fully assessed, and because each of the contractors is using a different technical approach, I cannot state at this time whether one of the contractors will be eliminated, or the work of both stretched out. I hope by the time the Air Force witnesses appear before this Committee the matter will have been resolved.

IV. MANPOWER FOR DEFENSE

The Department of Defense will complete during FY 1975 its transition to a peacetime force structure. The last of the draftees will have concluded their required service, and we will begin to see whether the volunteer force will receive the measure of support needed to maintain the Armed Forces in the size and quality required for the nation's security. It is clear that the volunteer force concept cannot prove a success unless the Armed Forces do have the full support of the people and the Congress.

For our part, we in the Department are doing our best to make the volunteer force succeed and at as low a cost as possible. With this in mind we have set ourselves the following manpower objectives for FY 1975:

To attract and retain a sufficient number of people of adequate ability to maintain the peacetime force structure and state of readiness needed to protect our national interests.

To use personnel more efficiently.

To continue improving the living and working conditions in the military services.

As has been mentioned previously in this report, U.S. forces are now much smaller than they have been in more than two decades. By the end of FY 1975, our military manpower strengths, as shown in the table on the following page, will have been reduced almost 40 percent from the 1968 Vietnam peak. Civilian manpower has been similarly reduced, although to a lesser extent—largely due to increased civilianization of military positions.

Civilianization

Chairman McClellan. Although military manpower has been reduced almost 40% from the 1968 Vietnam peak, civilian manpower has declined only about 20% during the same period. Your statement indicates this is largely due to increased civilianization of military positions. Please provide the totals by year of the number of military positions that have been civilianized and the number of civilian spaces authorized, from program inception through FY 1973 and planned through FY 1975. Has one civilian space been authorized for each military space reduced? If not, has a standard military/civilian conversion ratio been used in each fiscal year? If not, why not?

Secretary Schlesinger. The intent of the Statement was to stress the fact that the reduction in the civilian force would have been larger had it not been for the FY 1973–FY 1975 program of civilianization of military positions. The key rea-

son why civilian strength declined less proportionately than military strength is that the Vietnam buildup was primarily military, and, thus, so was the resulting drawdown.

Between FY 1964 and FY 1968 our military strength increased by 32% and the civilian strength by 24%. During that same period we civilianized 92,000 military positions, with a reduction in military end-strength of 114,000. Had that civilianization not occurred, the FY 1964–FY 1968 military strength increase would have been 36% and the civilian, 15%. In like fashion, if the current civilian substitution program were not in effect, our FY 1968 to FY 1975 reductions would be military, 38%, and civilian, 23%.

We have converted our positions on a one-for-one basis, with additional reductions to military end-strength to account for the support 'tail' (primarily trainees and transients) associated with a given working military population. The tail factor varies by Service and over time as a function of the actual ratios of supported and supporting personnel. The data you requested are as follows:

	Fiscal year—			
	1973	1974	1975	Total
Positions converted	4,566	26,710	8,718	39,994
Civilian direct-hire increase	4,566	25,808	8,670	39,044
Civilian indirect hire increase		898	48	946
Military strength reduced	5,541	32,357	9,964	47,862

No conversions were programmed for the period FY 1969–FY 1972.

Chairman McClellan. Proceed.

Secretary Schlesinger. This reduction in our active forces still leaves us with a formidable recruiting task—one young man in three of those qualified and available must volunteer for military service if we are to meet our goals.

The smaller size of our active forces also means that the Reserves and National Guard are assuming greater importance in our total security posture. But if they are to play the role required of them in these new strategic and manpower circumstances, improvements in both organization and readiness will be required. I will say more about this later.

ACTIVE DUTY MILITARY PERSONNEL

[End of fiscal years in thousands]

	Total DOD	Army	Navy	Marine Corps	Air Force
Fiscal year:					
1950 (pre Korea)	1,460	593	382	74	411
1952 (peak Korea)	3,636	1,596	824	232	983
1964 (pre Vietnam)	2,687	973	668	190	857
1968 (peak Vietnam)	3,548	1,570	765	307	905
1974	2,174	782	551	196	645
1975	2,152	785	540	196	630

Note: Totals may not add due to rounding.

DIRECT-HIRE CIVILIAN PERSONNEL—MILITARY FUNCTIONS

[End of fiscal years in thousands]

	Total DOD	Army	Navy/Marine Corps	Air Force	OSD-JCS and other defense agencies
Fiscal year:					
1950	715	266	293	154	2
1952	1,308	515	481	310	2
1964 [1]	1,035	[1] 360	332	[1] 305	38
1968 [1]	1,287	[1] 462	419	[1] 332	75
1974	[2] 1,029	356	326	270	76
1975	1,027	359	324	270	75

[1] These totals include Army and Air National Guard technicians who were converted from State to Federal employees in fiscal year 1969. The fiscal year 1964 and 1968 totals have been adjusted to include approximately 38,000 and 39,000 technicians respectively. The fiscal year 1968 total excludes 32,000 disadvantaged youth employees.

[2] Includes 19,000 positions in fiscal year 1974 supplemental.

Note: Totals may not add due to rounding.

A. VOLUNTEER FORCE

Secretary SCHLESINGER. The last draft call was issued at the end of 1972. When induction authority officially expired on July 1, 1973, a total of 51,000 draftees remained in uniform. By the end of fiscal year 1975, the last conscripted soldier will have completed his required service, and the active forces for the first time in more than a quarter of a century will be manned solely by volunteers.

Making the volunteer force work is one of our highest objectives. While the challenge is considerable, our resolve is firm. A comparison of the numbers of true volunteers from previous years with projected future year requirements provides some indication of the magnitude of the task ahead.

[In thousands]

	Estimated true volunteers,[1] fiscal year—			Enlisted accession requirements (projections),[1] fiscal year—				
	1971	1972	1973	1974	1975	1976	1977	1978
Army	102	127	165	201	217	185	180	170
Navy	50	75	84	83	90	95	80	85
Marine Corps	42	49	54	59	53	55	55	55
Air Force	59	72	88	75	78	100	90	75
Total, DOD [2]	253	323	390	419	438	430	405	385

[1] All sources—men, women, prior service, nonprior service.
[2] Totals may not add due to rounding.

TRUE VOLUNTEER ESTIMATES

Chairman MCCLELLAN. Would you describe how estimates of "true volunteers" are made? Is data for years prior to FY 1971 available? If so would you provide it for the record?

Secretary SCHLESINGER. True volunteer estimates for the period before use of the draft ended in December 1972 are based on an analysis of the draft lottery numbers of non-prior service male enlistees. We assume that all new male enlistees whose lottery numbers were in the last third of the order of call were "true volunteers" because there was little likelihood that they would be drafted and they knew this. Thus, their enlistment was due to some reason other than the draft. We also assume that there was an equal number of true volunteers among men with sequence numbers in the top and middle third of the order of call. For men who enlisted before their order of call had been determined we used responses to survey questionnaires to determine the proportion that would have enlisted if there had been no draft. This procedure gave us an estimate of the true volunteer non-prior service male enlistments. We have added the number of female and prior service enlistments to the non-prior service male estimate to obtain a total true volunteer enlistment estimate.

Prior to January 1970 we did not have any empirical basis for determining the true volunteer content of the non-prior service male enlistment total. However in sample surveys undertaken in 1964 and 1968, first-term enlistees were asked whether they would have enlisted if there had been no draft. Based on their response to this question and taking into account the number of female and prior service enlistments, we estimate that the annual averages of true volunteers for fiscal years 1962–64 and 1966–68 were 233,000 and 267,000 respectively.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. At this point, I would like to review the major problems encountered to date in moving to the all-volunteer concept.

ACTIVE FORCES

STRENGTHS

Total military strength at the end of December 1973, was 98 percent of original Service planning objectives. The principal shortages were in the Army and the Navy, with the Army's shortage largely attributable to recruiting shortfalls and the Navy's to revised Service planning for FY 1974. (It should be noted that strength shortfalls of this magnitude and larger also occurred periodically during the era of the draft.) The strengths, by Service, are shown in the following table.

MILITARY STRENGTH (DEC. 31, 1973)

	Requirement [1]	Actual	Shortfall
Army	802,000	782,000	20,000
Navy	566,000	556,000	9,000
Marine Corps	194,000	189,000	4,000
Air Force	674,000	674,000	0
Total, DOD	2,235,000	2,202,000	33,000

[1] Fiscal year 1974 President's budget.

Note: Totals may not add due to rounding.

Secretary SCHLESINGER. We estimate that the Navy and Air Force will, at the end of FY 1974, be close to their revised end strength authorizations. The Army, which is 2½ percent short of its prescribed end strength, has in the last four months met 95 percent of its recruiting objectives. This is a favorable development, but it would be premature to regard it as a harbinger of success, especially in light of the requirement recently imposed by the Congress that at least 82 percent of all new enlistees be of average or above average mental ability and that at least 55 percent of all new enlistees be high school graduates.

RECRUITING OBJECTIVES

Senator YOUNG. I see by your statement that you are optimistic about the services' ability to recruit sufficient personnel under the all-volunteer force concept.

Were strength objectives met in FY 1973 and what is the status of the services so far in FY 1974?

Secretary SCHLESINGER. At the end of FY 1973, the Army was 14,000 (2%) below its desired strength level and the Navy was 9,000 (1%) below objective; the Marine Corps and Air Force strengths were essentially on plan. The Army and Navy understrengths were the result of Service efforts to test their capability to attain high "quality" goals and were not an indication of an inability to meet total enlistment objectives.

We currently estimate that the Army will be 10,000–20,000 below the FY 1974 planned end strength and the Marine Corps will be 10,000–15,000 short primarily because of the legislative restraint on recruiting of non-high school graduates.

Chairman MCCLELLAN. Proceed.

B. ACCESSIONS

(1) NON-PRIOR SERVICE ENLISTMENTS

Secretary SCHLESINGER. The category of military manpower that presents the most difficult recruiting challenge is, of course, that of non-prior service male enlisted personnel, which accounts for the bulk of the annual accessions to the military forces. The acquisition of other categories of personnel—officers, women, prior service enlistees—while not entirely free of problems, is a more manageable undertaking. The successful attainment of an all-volunteer force, therefore, rests heavily on our ability to acquire a sufficient number of qualified non-prior service male enlistees for both the active and the reserve forces.

Assuming an active duty strength of about 2.2 million men and a Selected reserve (i.e., drill pay) strength of about 1 million men over the next five years, we estimate that we will have to acquire about 460,000 non-prior service male enlistees each year—about 360,000 for the active forces and 100,000 for the reserve forces. Recruiting that number of men each year will require the enlistment of about one out of every three militarily qualified and available (non-college) males under the age of 23 years. This goal, on the face of it, may initially appear unattainable. But the actual performance in calendar year 1973, particularly with respect to the active forces, was not far off that mark. As shown in the table on the following page, the four Services together recruited approximately 327,000 non-prior service male enlisted personnel, about 91 percent of the total number required.

(2) Prior-service Reenlistments

One of the brightest spots in the All Volunteer Force program has been the success the services have achieved in reenlisting prior-service personnel. Not only does this reduce the requirement for non-prior service personnel, but it substantially lowers training costs.

Training Cost Increases

Chairman McClellan. You indicate that success in reenlisting prior service personnel substantially lowers training costs. Table No. 1, however, shows very significant increases in Program 8 (Training, medical, other general personnel activity)—on the order of $2 billion per year FY 1973–75. What is the cost of training alone when split out of Program 8? Why are our training costs increasing each year, if higher numbers of prior service personnel reenlist? Is this merely a function of inflation and increased costs of paying trainer salaries? Please provide the training costs in current and constant dollars.

Secretary Schlesinger. The increases in Program 8 are primarily in categories other than training; Retired Pay is the largest single item with a growth of 29%, or $1.3 billion from FY 1973 to FY 1975. The training mission portion of Program 8, for those years, is as follows:

[In millions of dollars]

	Fiscal year—		
	1973	1974	1975
Current	4.6	4.9	5.0
Constant	5.3	5.2	5.0

In constant dollars, the data reflects a consistent downward trend, which would tend to disappear or to reverse itself, had we not achieved such success with prior-service reenlistments.

Chairman McClellan. Proceed.

Secretary Schlesinger. In November 1973, the Services attained 110 percent of their objective for prior-service accessions. In December, the figure rose to 119 percent. Overall, in the first half of FY 1974, the Services have attained 104 percent of their objective. Special efforts are being made to ensure that we continue this high level of achievement. The upswing in recent months would indicate that these efforts are meeting with success.

c. Quality

The mental ability requirement specified by the Congress is not expected to pose a serious recruiting problem. As indicated in the following table, all of the Services except the Army have been able, thus far, to meet the 82 percent mental standard, and the Army is only slightly below that standard.

PERCENT OF NONPRIOR SERVICE ENLISTED ACCESSIONS IN MENTAL CATEGORIES I, II, AND III (AVERAGE AND ABOVE)

	Fiscal year—		
	1964 [1]	1973 [1]	1974 (July–December)
Army	80	84	81
Navy	89	84	97
Marine Corps	91	84	93
Air Force	96	96	99
All DOD	85	87	89

[1] Includes draftees.

NONPRIOR SERVICE MALE ENLISTMENT, CALENDAR YEAR 1973

In thousands]

	Program objective	Actual accessions	Percent achieved
January-March:			
Army	38.7	35.7	92.2
Navy	14.0	14.3	102.1
Marine Corps	11.8	11.4	96.6
Air Force	20.0	20.0	100.0
DOD	84.5	81.4	96.3
April-June:			
Army	33.5	25.6	76.4
Navy	22.9	16.3	71.2
Marine Corps	10.9	11.3	103.7
Air Force	19.1	19.1	100.0
DOD	86.4	72.3	83.7
July-September:			
Army	52.1	41.5	79.7
Navy	24.5	23.7	96.7
Marine Corps	16.0	13.7	85.6
Air Force	18.5	18.7	101.1
DOD	111.1	97.6	87.8
October-December:			
Army	40.6	37.8	93.1
Navy	13.6	13.7	100.7
Marine Corps	11.0	9.8	89.1
Air Force	13.9	14.0	100.7
DOD	79.1	75.3	95.2
Calender year total:			
Army	164.9	140.6	85.3
Navy	75.0	68.0	90.7
Marine Corps	49.7	46.1	92.8
Air Force	71.5	71.8	100.4
DOD	[1] 361.1	326.5	90.4

[1] Individual service strength plans. Program objectives exclude add-ons to compensate for previous shortfalls.

Secretary SCHLESINGER. Indeed, the trend for the Department as a whole shows some improvement, particularly compared with FY 1964, the last pre-Vietnam draft year. Moreover, these new entries into military service compare very favorably with the 17–22 year age group of the non-college civilian population, of which only 64 percent are in mental categories I, II and III.

The 55 percent high school graduate standard, however, could cause recruiting difficulties for the Army and the Marine Corps. As shown in the following table, the Marine Corps has been below that level for some time; and the Army fell below it in the first six months of FY 1974. Consequently, it is possible that, at least in part because of this limitation, both the Army and the Marine Corps could fall short of their currently planned June 1974 end strengths.

PERCENT OF NONPRIOR SERVICE ACCESSIONS THAT ARE HIGH SCHOOL GRADUATES [1]

	Fiscal year—		
	1964	1973	1974 (July–December)
Army	67	60	54
Navy	58	71	73
Marine Corps	61	51	51
Air Force	84	87	96
All DOD	68	68	66

[1] Includes draftees.

Secretary SCHLESINGER. The Department will, of course, abide by the mental qualification and high school graduation standards prescribed by the Congress. But it should be borne in mind that there are other quality attributes, while less measurable, can be equally or more important from a military point of view. These attributes include motivation, physical condition, trainability and moral background. The young man who really wants to serve in the armed forces of the United States, and who has the physical capacity and mental aptitude to adapt readily to the stresses and strains of military life is a very valuable asset, particularly in the combat arms. It is not apparent that the nation can afford to deprive itself, arbitrarily, of the services of such men just because they do not have a high school diploma.

ENLISTMENT OF MENTAL GROUP IV PERSONNEL

Senator YOUNG. What is your position regarding the enlistment of non-high school graduates and mental group IV personnel?

Secretary SCHLESINGER. The testing process permits us to enlist many individuals who may not have proven themselves with high school diplomas or steady jobs, yet once in the Service can demonstrate a capacity to learn military jobs. Such individuals thus become proficient at a skill and make a contribution to society—both in service and afterwards.

Our underlying policy—that each enlistee must perform satisfactorily—is firm. Yet, there has been criticism that the All-Volunteer Force has required a lowering of standards. Actually, the reverse is true. The trend is clearly toward a better quality mix. Below-average individuals now make up only 10 percent of all new enlisted entrants for the four Services, compared to 15 percent in 1964. Today, the actual content in the Army of Category IV personnel—the below-average group—is 18 percent, down from 22 percent in June 1972.

The high school diploma is another indicator of quality. Non-high school graduates tend to have more discipline problems and higher retraining rates, and more early discharges. For that reason, the Services seek to maximize the intake of high school graduates. However, the Army's experience shows that four out of five non-high school graduates make good soldiers. We were disappointed, therefore, that the Congress took action this year to restrict new entrants to a minimum level of 55 percent high school graduates. When the number of high school graduates available is not enough to meet requirements, then the Service should have the option of recruiting non-high school graduates. Altogether, the four Services are doing about as well today in terms of new accessions as in 1964 when high school graduates averaged 68 percent of all enlisted accessions, including draftees. Among the Services, however, there are substantial variations. So far in fiscal year 1974, the Army is averaging 54 percent high school graduates in its new accessions, compared to 67 percent in 1964.

That is not the whole story, however. Non-high school graduates have an opportunity to obtain their diplomas while in service, and many do. Because of the number who achieve high school equivalency in service, the Army's high school graduate content has actually increased, from 70 percent in June 1972 to 71 percent today—and this, in spite of a heavier intake of non-high school graduates this year.

A diploma is primarily a measure of motivation and discipline. In the volunteer era, the Army is able to use a supplemental evaluation system during the first six months of an enlistment that permits it to identify those who do not have the potential for success. These individuals are then separated, but without embarrassment either to them or to the Army. Such a supplemental system was not possible while the draft was in effect, since it would have allowed draftees who did not want to be in the Army to disrupt training and otherwise cause trouble, in order to be discharged. Today, personnel who make it through the training process and are assigned to units are better motivated, which reduces administrative burden and turbulence and improves unit esprit.

Senator YOUNG. Even though the services experience more problems with non-high school graduates and mental group IV personnel, I understand some of them make good soldiers. Can we set these people aside and deprive them of the opportunity to serve their country?

Secretary SCHLESINGER. Many mental group IV personnel and non-high school graduates perform successfully in the Military Services. The Department of Defense and the Military Services are striving to come up with better ways of identifying those non-high school graduates and mental group IVs who will be

successful. There are costs to both the Military Services and to the individual who is enlisted but is unable to pass training or to perform his job satisfactorily and who must be prematurely discharged for unsuitability.

The use of aptitude testing prior to enlistment enables the Services to enlist those mental group IVs who show an aptitude for specific training; additionally, the individual has an idea of the jobs for which he qualifies before he enlists.

The Military Services have established entrance standards based on the requirements of military jobs, training courses, and the probability of successful completion of an initial term of service. Non-high school graduates and category IVs who meet these standards are offered the opportunity to serve their country.

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. I believe it would be prudent, therefore, to give the Services some degree of discretion in making exceptions to the two general standards established by the Congress. Each potential recruit should be treated as an individual, taking into account all of his qualifications for a particular military job, not just his general intelligence and level of formal education achieved.

In an attempt to further refine existing quality standards, the Services are moving away from the use of the Armed Forces Qualification Test (prescribed by the Department of Defense during the draft) as the principal measure of mental ability. Much greater use is now being made of specialized aptitude tests for determining initial eligibility for military service and for assignment to a particular occupational specialty. These tests assess a wide range of skill aptitudes and assist the Services in determining the military jobs for which an individual is best qualified. In this respect, they are proving to be a more reliable indicator of job performance than either high school graduation or mental category status. In point of fact, high school graduation appears to be a better indicator of prospective disciplinary problems than of ability to perform a job.

MENTAL ELIGIBILITY TESTS

Chairman McCLELLAN. I understand the military departments now use at least four different tests to determine mental eligibility for military service. What are these tests, which department administers each, and who grades the test? Have any studies been conducted to determine comparability of mental ability between the various tests? Is it not possible that one service is being penalized by the use of a different test?

Secretary SCHLESINGER. The Army administers the new Army Classification Battery (ACB–73) to determine eligibility for military service, enlistment guarantees, and assignment to occupations. The Battery is administered either at the Armed Forces Examining and Entrance Stations (AFEES) or by mobile testing teams. The tests given by the mobile testing teams are scored by test administrators. Most of the tests at the AFEES are machine scored, under the supervision of a test control officer. Testing personnel at AFEES have no recruiting function.

The Navy administers the Short Basic Test Battery (SBTB) at the Recruiting Station to determine eligibility for military service. The test is administered and scored by recruiters. The SBTB will be phased out by 1 July 1974. The Basic Test Battery is administered at the Recruiting District to determine enlistment guarantees. The test is administered and scored by a personnelman (PN 2612) and has no recruiting responsibility. The Basic Test Battery is also administered during recruit training to personnel not previously tested. It is administered by a personnelman (PN 2612) and machine scored.

The Marine Corps uses the Armed Forces Qualification Test (AFQT) to determine eligibility for military service, and Booklet II of the new Army Classification Battery (ACB–73) to determine eligibility for military service and enlistment guarantees. Both tests are administered and scored by test administration personnel at the Armed Forces Examining and Entrance Stations. The Marine Corps administers the old Army Classification Battery at recruit training to determine assignment to occupations. It is administered by test administrators and machine scored.

The Air Force uses the Armed Services Vocational Aptitude Battery (ASVAB) to determine eligibility for military service, enlistment guarantees, and assignment to occupations. The test is administered and scored by test administrators at the AFEES.

The Department of Defense administers a test in the high schools. The Armed Services Vocational Aptitude Battery (ASVAB). It is administered by test ad-

ministrators and machine scored at a central location in Texas. Young people who apply for military service within two years of taking the ASVAB in high school are accepted into the Military Services on the basis of their ASVAB scores.

The Military Services are required to furnish the office of the Assistant Secretary of Defense (Manpower and Reserve Affairs) a conversion table from scores on their proposed test to scores on the Armed Forces Qualification Test for purposes of cross-service comparisons of mental ability. The correlations between scores on Service tests and the AFQT are high, but they are not perfect. The Office of Secretary of Defense (Manpower and Reserve Affairs) and the Military Departments are constantly reviewing and improving testing policies and procedures.

Army Classification Battery Test

Chairman McClellan. The Armed Forces Examining and Entrance Station administers the Army Classification Battery (ACB) test to Army and Marine aplicants. As this is a consolidated Department of Defense operation, why would it not be desirable for all military service applicants to receive this test to determine mental ability?

Secretary Schlesinger. The Armed Forces Examining and Entrance Stations (AFEES) are a consolidated Department of Defense operation under administration of the Army. One of the functions of the AFEES is to test applicants for mental qualification for military service. The Army, Air Force and Marine Corps use the AFEES for this purpose. The Army also uses mobile test teams scheduled into local areas. The Navy prefers to use personnel specialists at the district recruiting level for this purpose.

The Army Classification Battery is an Army test, developed for use in the Army. The Marine Corps has traditionally used Army tests in lieu of developing its own. There is a Department of Defense test—the Armed Services Vocational Aptitude Battery (ASVAB) which is used in the High School Testing Program. The Air Force uses the ASVAB as its sole test for determing eligibility for military service, enlistment guarantees, and assignment to occupations. Young people who apply for military service within two years of taking the ASVAB in high school are accepted into the military on the basis of their ASVAB scores. Further extensions of use of the ASVAB are under consideration.

Testing of Applicants

Chairman McClellan. Do any recruiting officers grade tests of potential applicants? If so, does this procedure not lend itself to possible compromise?

Secretary Schlesinger. Navy recruiters do grade Short Basic Test Battery (SBTB) results of applicants. The Navy does not believe that this practice has led to any compromise. However, the possibility of compromise does exist. The Navy is discontinuing use of the Short Basic Test Battery 1 July 1974. At that time, all Navy testing will be performed by personnelmen.

Chairman McClellan. Proceed.

Secretary Schlesinger. Moral standards are also a measure of potential disciplinary performance. In this area, we strictly limit the number of enlistment waivers granted for felony policy records and for drug usage. In the Army, for instance, the number of such waivers has been reduced from 5.6 percent of accessions in Fiscal Year 1970 to 1.4 percent in Fiscal Year 1973.

Felony Enlistment Waivers

Chairman McClellan. You state that you limit the number of enlistment waivers granted for felony police records and drug usage. What are the specific number of waivers, by service and overall Defense Department, that are being used as the standard?

Secretary Schlesinger. The Department of Defense policy is that waivers for felony convictions will be granted only in exceptionally meritorious cases when there is clear evidence of total rehabilitation on the part of a criminal offender. Waivers for drug use are not granted to former users of hard drugs. For marijuana and amphetamines, waivers are granted only for infrequent or experimental use at least one year prior to application for enlistment. During FY 1973, approximately 400 felony waivers were approved by all Services. Nearly all of these involved a single juvenile felony. During the same year, about 2,000 waivers were granted for the use of non-habit forming drugs.

Chairman McClellan. Proceed.

Secretary SCHLESINGER. In the present voluntary environment, the Army can now use the first several months of service to screen out those who prove to be disciplinary or motivational problems. Although there may be an increased cost in terms of attrition rate, it is on balance a more cost-effective method of retaining the largest number of qualified men from the available pool.

TRAINING DISCHARGE PROGRAM

Chairman MCCLELLAN. What has been the attrition due to the Trainee Discharge Program (179 days) since its inception? What percent is this of the accessions during this period?

Secretary SCHLESINGER. The results of the Army's Trainee Discharge Program have generally been as expected. Approximately 1,000 enlistees a month are being discharged under this program. Losses continue to be weighted in areas which are generally more adverse—discharge prone. Non-high school graduate enlistees attrite at a rate of about 3 times that of the high school graduate; Mental Category IV enlistees attrite at about 1.5 times the rate for Mental Category I–IIIa enlistees. However a very high proportion of the non-high school graduate enlistees continue into the career force and are successful. Their potential for success is evidence that continued acceptance of non-high school graduates complemented by a workable screening device will provide us with the quality force we are seeking. About 7% of each month's enlistees are being discharged under the Trainee Discharge Program during their six-month training period. These separations are over and above the other discharges for medical and non-behaviorable causes during this period.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. In general, our experience to date has not supported initial apprehensions that ending the draft would result in a degradation in quality. Standards of enlisted in-Service performance have been maintained, and unit readiness has not only been sustained but is improving as personnel turnover is reduced.

COSTS

Claims that the major cost of military personnel is largely attributable to the volunteer force effort are in error. The largest single factor in growing manpower costs has been pay increases designed to achieve and maintain comparability with civilian sector wages. It is important to recognize that the principle of maintaining comparability, established by law in 1967, predates the decision to pursue a volunteer force. There is no question that comparability would have been necessary in achieving a volunteer force, but the principle itself is sound, with or without the draft, and stands on its own merits.

Estimates of the cost of the volunteer force vary depending on what programs the estimator chooses to include as being directly or indirectly attributable to the decision to end conscription. The range of estimates shown below results from various plausible assumptions about which budget programs should be attributed to the volunteer force effort.

RANGE OF ANNUAL AVF COSTS

[In millions of dollars]

	Case I (base costs)	Case II (project volunteer programs)	Case III (maximum attributable costs)
Fiscal year—			
1974	$733.6	$3,032.6	$3,745.9
1975	743.4	2,977.9	3,677.4

Case I (Base Costs).—The Case I estimate is, in our opinion, the most realistic estimate of Volunteer Force cost since it reflects additions to Service budgets after FY 1971 for programs considered absolutely essential to making the conversion. In both FY 1974 and FY 1975, more than one-third of the total cost represents expansion of active and reserve forces recruiting/advertising programs. Another third is comprised of legislated compensation programs such as the ground combat enlistment bonus* and R.O.T.C. scholarships. The remaining third

*Includes the pending Armed Forces Enlisted Personnel Bonus Revision Act with a full year cost of $77.8 million.

accounts for such programs as education and travel entitlements and improvements in living conditions and services.

Case II (Project Volunteer Programs).—This mid-range estimate covers, in addition to Case I costs, the budget costs associated with "Project Volunteer" programs. These are the pay and allowances increases granted in November 1971, to provide pay comparability with the civilian sector for junior officer and junior enlisted personnel. It is our view, as it was that of the Gates Commission, that these pay and allowance increases should have been provided as a matter of equity. It is for this reason that we do not feel these costs are properly chargeable to the All Volunteer Force as such.

Case III (Maximum Attributable Costs).—This estimate includes all programs, however remote, which can in any way be related to the AVF effort. These additional costs, amounting to over $600 million in both FY 1974 and FY 1975, are primarily for programs to improve the living and working conditions of Service men and women. About three-quarters of this amount represents Army costs for barracks construction programs and the civilianization of certain menial non-mission oriented tasks. While these programs may have aided the successful conversion to an AVF, they are actions which would or should have been taken in any event.

With the exception of Case I, a modest decline in cost is projected for FY 1975 as compared with FY 1974 owing to a smaller force size and downward adjustments in grade structure.

None of these cost alternatives take into consideration the concept of the "net cost" of the volunteer force. All of the estimates would be lower if savings from other agencies and activities were taken into account, such as the reduced Selective Service budget and diminished training and Permanent Change of Station (PCS) costs made possible by increases in lengths of enlistment.

Most important are the substantial cost savings resulting from reduced personnel turnover. In FY 1974, for example, two-year enlistments represented 76 percent of total enlistments in the Army's Combat Arms. Today only nine percent of that total are two-year enlistments. This represents an increase utilization per training dollar of 57 percent. During the high draft years (1967 to 1969) each military accession contributed an average of 3.3 productive man-years, including an allowance for reenlistment experience. Today each accession contributes an average of 4.1 productive man-years. After FY 1975, this figure is expected to increase to 4.5 productive man-years. We estimate that the annual reduction in costs that will flow from these changes will amount to between $400 and $500 million in FY 1975 and between $500 and $600 million in FY 1976 and beyond.

Training Cost Savings

Chairman McClellan. You mention an increased utilization per training dollar of 57% over FY 1971 resulting from longer enlistment tours. Mention is also made of annual cost reductions between $400 and $500 million. Can you tell us precisely where these savings show up? Are they accounted for in your budget, which shows substantial increases in *all* program categories from FY 1974 to FY 1975 except Support of Other Nations?

Secretary Schlesinger. There is a significant increased utilization per training dollar, as illustrated by the Army combat arms example of 57% increase over FY 1971 which you referenced. Overall in DoD, the average length of initial-term service has increased by 14% from 2.9 years in FY 1971 to 3.3 years so far this fiscal year. This is a cost avoidance; the training budget would have been higher if it were not for the increased length of enlistments.

Chairman McClellan. Proceed.

Secretary SCHLESINGER. There has been some conjecture concerning a possible need to return to a system of conscription. Before the nation entertains any thoughts along these lines, we need additional experience with the volunteer force. I would also caution that the cost savings associated with a return to the draft appear to be minimal—on the order of $300–500 million annually (not considering the offsetting effects on costs of increased personnel turnover that would follow). This is assuming that present levels of pay would not be reduced were we to revert to the draft.

PROBLEM AREAS

(1) ARMY RECRUITMENT

One of the most pressing problems we have been facing in the "all volunteer" atmosphere has been that of recruiting shortfalls in the Army, where many jobs are viewed as being less than attractive and where enlistment requirements are more than twice those of any other service. The reasons for the shortfalls are several and varied. A general reason has been the post-Vietnam disenchantment with the military in general—disenchantment characterized by indifference. Until this indifference changes into positive support, we will continually be challenged in meeting Army accession requirements. The other causes underlying the shortfalls relate to the application of quality standards and to numbers of recruiters.

With respect to quality standards, in February 1973, the Army limited male non-high school graduate recruitment to 30 percent of its monthly enlistment total in an effort to increase high school graduate enlistments. Prior to this, the male volunteer non-high school graduate enlistee intake had been running about 48 percent. The loss of large numbers of potentially good soldiers from the non-high school graduate pool prompted the Army to return in July 1973, to a program which maximized the intake of high school graduates without limiting non-high school graduates. During the time that the 30 percent restriction was in effect, the Army recruited 13,800 fewer non-high school graduates than it did during the same period the previous year. Since supply is highly sensitive to high school graduation status (for FY 1975 the difference between a 70 percent and 55 percent high school screen would mean approximately 37,000 accessions), this type of screen will have to be carefully set and controlled.

Another major cause for recruiting shortfalls was an understrength condition in the Army recruiter force. The table below shows that the recruiting force was short approximately 1,000 recruiters during the summer months, the height of the recruiting season. It is difficult to quantify the precise effect of the understrength condition, but there can be little doubt that it was substantial. The more important consideration at this point is the action being taken to correct the situation. The Army has moved to bring its number of "production (front-line)" recruiters up to full strength. All newly assigned recruiters will be operating in a fully-trained capacity by early spring 1974.

RECRUITER CAPABILITY

Chairman MCCLELLAN. You state that all newly assigned recruiters will be operating in a fully trained capacity by early spring 1974. What has been the percentage of recruiters for the past two years who have not been fully trained? Has this been a significant problem? If so, what is the cause?

Secretary SCHLESINGER. Because of normal rotation for all reasons, approximately 400 new recruiters join the recruiting organizations each month. It takes about six months for these new recruiters to attend school and gain sufficient experience to be considered fully trained. Hence, at any given time approximately 2,400, or 20%, of the recruiting force is not fully trained. This became

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a problem in mid-1973 when Army attrition exceeded gains for several months and recruiter strength fell about 1,000 below authorization. The shortfall was corrected between August and November 1973. However, this meant that, in addition to normal rotation, the Army had an additional 1,000 inexperienced recruiters. These recruiters will reach a fully trained status in early spring 1974 and no further problems are anticipated.

ARMY RECRUITING PERSONNEL

	January 1973	July 1973	December 1973
Total recruiter personnel:			
Authorized	6,658	6,636	6,510
On station	6,341	5,221	[1] 6,825
Percent	95	79	105
Production recruiters:			
Authorized	4,725	4,725	4,725
On station	4,446	3,752	[1] 5,341
Percent	94	79	113

[1] Temporary overstrength authorized.

Army Recruiter Force

Chairman McClellan. How long do you plan to operate the Army recruiting force on an overstrength basis?

Secretary Schlesinger. The basis of the current overstrength is to insure that the Army will have its authorized number of production recruiters on duty at all times. The overstrength accounts for individuals in transit, in school and in leave status. We plan to maintain this overstrength until there is clear evidence that the Army can meet its manpower goals with the present recruiter force.

Chairman McClellan. Proceed.

Secretary Schlesinger. In November 1973, the Army also began assigning specially selected officers to take charge of recruiting areas (the geographic entities directly under the 64 recruiting main stations). These talented, high quality officers should prove an effective complement to the senior non-commissioned officers already assigned to these areas, particularly in communicating with educators, parents of prospective enlistees, and community leaders.

Unit of Choice Option

Guidance for Unit-of-Choice and Station-of-Choice recruiting, the Army's most successful recruiting option, has been revised to permit commanders to recruit against projected losses nine months into the future, assuming that every man in their unit or station will depart after 16 months. This has effectively tripled the number of vacancies for which commanders can recruit. By providing canvassers throughout the country—as was done successfully in FY 1973—it should be possible to increase the number of accessions significantly.

Unit of choice convassers

Average number 1972	625
April 1973	485
July 1973	509
December 1973	1,034

Hometown Canvasser

Chairman McClellan. What was the FY 1973 cost of hometown canvassers and what are the estimates for FY 1974 and FY 1975? These personnel serve as an augumentation to the recruiting force. Do you believe this augmentation is required in view of the recruiting personnel overstrength?

Secretary Schlesinger. The cost of the hometown canvasser or Unit-of-Choice recruiting program was $18.9 million in FY 1973. Future costs are estimated at $22.6 million for FY 1974 and $26.4 million for FY 1975. These personnel do serve as an augmentation to the recruiting force and have been largely responsible for the success of the Army's Unit-of-Choice and Station-of-Choice recruiting programs. At the present time, it appears that this augmentation will be

needed for the foreseeable future. The hometown canvasser augmentation brings the Army generally in line with the DoD average cost per enlistment.

Chairman McClellan. Proceed.

Two-Year Enlistment Option

Secretary Schlesinger. Another step which the Army has taken to enhance recruitment is a recent modification of its two-year enlistment package. For enlistees in mental category III or higher, an option is now being offered wherein a man or woman who enlists for two years can select assignment to European duty or to a school (within a limited set of courses), but not both. It is likely that a considerable number of additional accessions will be attracted by this option who would not otherwise enlist. However, we will be watching developments in this area very closely since there is a possibility that longer term enlistments may be adversely affected.

It should be recognized that there are practical limitations on the extent to which options of the type above can be offered:

(1) The Service must be in a position to maintain its credibility by honoring the obligations associated with such guarantees.

(2) The greater the number of option enlistees, the less flexibility there is for Army managers to assign personnel.

(3) Many highly skilled individuals take options which do not fully utilize their talents.

Combat Arms Bonus

The Army's four-year combat arms enlistment bonus remains an essential tool for meeting strength requirements of the combat arms in the all volunteer environment. It is estimated that shortfalls in the combat arms without the bonus would be on the order of 10,000 enlistments per year. This shortfall would result because the Army requires nearly half of all DoD accessions (it is presently first choice among only one-fourth of prospective enlistees), with the combat arms requirement representing 25 percent of all Army enlistments. If the same incentives were used for the combat arms as are used for the rest of the Army, only 15 percent of Army accessions would select combat arms versus the 25 percent required. The bonus goes a long way toward closing the gap, with any shortage made up by assigning selected numbers of enlistees from among those not committed under other options.

In May, 1973, the bonus policy was changed in an attempt to upgrade quality. Instead of offering a $1,500 bonus to high school and non-high school enlistees alike, the $1,500 bonus was discontinued and a $2,500 bonus offered only to high school graduates of mental category III or higher. The costs associated with the $2,500 amount are roughly equal to those incurred under the $1,500 program, but it is estimated that the supply of high school graduates into the combat arms has increased by about 15 percent. Although the original intent of upgrading quality is being served, the total supply of all personnel into the combat arms has decreased by about ten percent.

Combat Arms Bonus

Chairman McClellan. Although the combat arms bonus now being offered ($2,500 to high school graduates) has upgraded the quality, it has resulted in a 10% decrease in the total supply of the combat arms, since the $1,500 bonus for all enlistees has been discontinued. If the combat arms bonus is principally a tool for meeting strength requirements, isn't elimination of the bonus for non-high school graduates somewhat counterproductive, as well as being somewhat discriminatory?

Secretary Schlesinger. The bonus amount, its eligibility criteria, and its skills, are continuously studied to assure effective use of this flexible tool. We currently use a $2,500 combat arms bonus for high school graduates who score average or above on mental tests. This bonus does provide upgraded quality, as your question states, and it further provides 4-year terms for these potential leaders. Although a bonus is not offered to those who did not complete high school, it should be noted that additional non-high school enlistees to the Army as a whole do result indirectly from the bonus. This is because we have a restriction on the proportion of non-high school enlistees so that each 55 new high school graduate accessions entitle us to enlist 45 non-high school graduates. It is, further, true that the high-school-only combat arms bonus has decreased the enlistments earmarked exclusively for combat arms, but there are unas-

signed enlistments which are allocated to make up combat arms requirements.

Chairman McClellan. Proceed.

Secretary Schlesinger. We are evaluating this situation to ensure that we are addressing our needs in the right priority. Changes will be made as required.

We have remained well within the budgetary limitation of the $46.5 million for bonus payments approved by the Congress. Of the more than 400,000 persons enlisting in the military Services during FY 1973, only seven percent were enlisted for the bonus.

The effects of the four-year enlistment on turnover in the combat arms is shown in the table on the following page. During the first half of FY 1974, about 40 percent of non-prior service personnel entering the combat arms received the four-year bonus, and it is estimated that 50 percent of these would not have enlisted in the combat arms without the bonus.

The Marine Corps has less of a problem in meeting combat arms requirements since total accession requirements are less than a third of those of the Army. The bonus is not used for the Navy or Air Force.

Education and Training

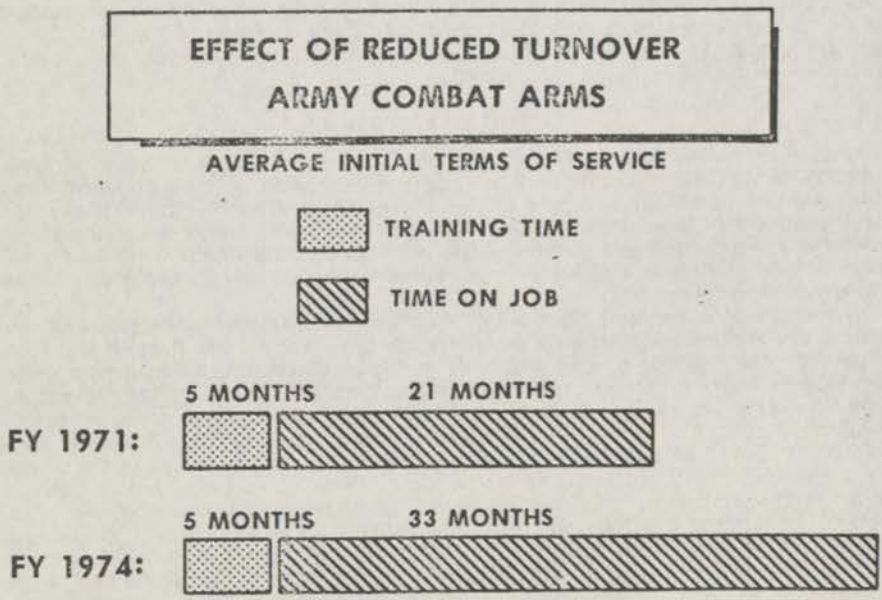
A survey taken last year indicated that education and training opportunities continue to be prime incentives for enlistment. Approximately one-fourth of the enlistees surveyed indicated that they would not have enlisted without the GI Bill. About two-thirds said they were strongly influenced by opportunities for advanced education and training. Continuation of such benefits appears essential for the volunteer force effort.

Physical Standards

We are presently reviewing medical standards associated with entrance into the Armed Forces to determine if they are higher than necessary. Any adjustments in the standards will be undertaken only after the most careful analysis.

(2) Minority Accessions

There has been considerable speculation that a volunteer force will primarily attract enlistees from disadvantaged socioeconomic backgrounds. Whether or not there is a higher percentage of minorities in the Services than the population at large is not a concern to us. The Department of Defense is an equal opportunity employer and is concerned solely with how well an individual performs his job, a fact well illustrated by the 26 percent black composition of the 82nd Airborne, our most combat-ready division.



Secretary SCHLESINGER. The Gates Commission devoted considerable research to the contention that a draft-free Army would eventually become predominantly black. The Commission estimated that the proportion of black personnel in a volunteer Army would approximate 18 percent as compared to the 12.8 percent prevailing at that time (1971). After one year under the volunteer mode (through December 1973), black personnel comprise about 20 percent of total Army enlisted strength, or about 15 percent of total DoD enlisted strength.

BLACK PERSONNEL AS PERCENT OF TOTAL ENLISTED STRENGTH

	Army	Navy	Marine Corps	Air Force	DOD
Fiscal year 1971	14.3	5.4	11.4	12.3	11.4
Fiscal year 1972	17.0	6.4	13.7	12.6	12.6
Fiscal year 1973	18.6	7.7	16.9	13.4	14.1
1st half fiscal year 1974	19.9	8.1	17.7	13.8	14.9

The Department of Defense will continue to apply the same standards of trainability and adaptability to military discipline to black enlistees as we do to those of other races. Those who meet our standards will be accepted. Those who do not will be rejected.

(3) CRITICAL SKILLS SHORTAGES

Currently, approximately one-sixth of all physicians on active duty are serving voluntarily. Of the remainder, the majority are serving because of the recent "doctors draft", while the rest are fulfilling DoD training obligations. Since drafted physicians serve for only two years and first term retention rates are quite low, between one-third and one-fourth of the physician force turns over each year. The challenge of maintaining an adequate number of physicians while shifting from the draft to a volunteer system is a major one.

This fiscal year marks the beginning of some very real problems with respect to numbers of military physicians. Chief among the reasons for poor retention and attraction of health professionals to the military is the very substantial difference between their pay and that of their civilian counterparts. Proposed legislation now before the Congress provides for variable incentive pay ranging up to $15,000 per year and an increase of special pay for physicians with two years of service to $350 per month.

RETENTION OF MILITARY DOCTORS

Chairman MCCLELLAN. Your statement indicates that pay differential is a key reason why the military cannot retain an adequate number of doctors. It has been mentioned by some that pay is not the most significant reason for non-retention of doctors, but rather the fact that they are so frequently assigned to general practice rather than to specialties which they are interested in and for which they have been specifically trained. Do you have any data that would support your view that pay is most crucial?

Secretary SCHLESINGER. The Department of Defense recently conducted a survey of its physicians on active duty relating to the effects of a bonus on physician retention. In one section of this survey the respondent was presented a selection of sixteen goals and aspects of a career in medicine and asked to rate their desirability and importance. Of these sixteen items the respondents indicated that one item was of the highest desirability and importance; this item was "Annual income of at least $35,000." Over 47% of the approximate 4,800 responses to the survey thought that this item was critically important, and over 63 of the respondents felt that this was the most attractive potential change. These results, Mr. Chairman, show that low income is far and away the most important single irritant for military physicians, and I believe strongly suggests that unless the perceived low military income situation is significantly ameliorated, the effectiveness of all other personnel policies will be severely reduced. I do not mean to imply that the reduction of the present disparity between military medical pay and civilian income opportunities is the only irritant, but the DoD Physician Survey clearly shows that it is the most important one in the eyes of the physicians themselves.

Chairman MCCLELLAN. Proceed.

Secretary SCHLESINGER. The Armed Forces Health Professions Scholarship Program is proving an effective tool for procuring professionals in the critically short-supply health professions. It provides annual financial assistance for some 5,000 students pursuing graduate education in these critical areas in return for an active duty obligation of one year for each year, or fraction thereof, of program participation. A minimum obligation of two years is required by each of the military departments. Scholarships cover tuition and related costs and provide an annual income of approximately $5,300. A total of 4,777 students have participated since the program's inception in September 1972. Of these, 511 students who entered the program in their senior year have graduated. There are currently 2,787 medical students, 1,160 dental students, and 319 other health professional students in the program.

The number of health professionals needed in the Armed Forces is presently being reappraised in an inter-agency study on military health care. This joint effort by the Department of Defense, the Department of Health, Education and Welfare, and Office of Management and Budget will assess alternative means of resolving problems related to the potential shortage of military physicians created by the end of the draft. Specifically, it will:

Assess the ability of current military medical programs to meet the future health needs of the Armed Forces;

Evaluate the existing military medical care system and alternatives to it with respect to their costs, quality of care, requirements for health care professionals and ability to meet DOD health care objectives; and

If appropriate, recommend modifications to the military health care system that will be considered with DoD missions and objectives, be compatible with civilian health care needs, and minimize the overall costs of military medical care.

The problems of attraction and retention in the critical skills area are by no means limited to physicians. They extend to all skills which command a premium wage on the open market. Continued excessive turnover of expensively trained specialists lowers the effectiveness of our military units and imposes heavy repetitive training costs.

To cope with this problem, authority is needed to pay enlistment and reenlishment bonuses on a cost effective basis in selected short-supply occupations in return for a commitment to serve for a stipulated number of years. Such bonuses can be viewed as a prepaid wage differential based on the qualifications of the individual and the unique needs of the Services.

Legislation has been proposed which provides for expanding enlistment and reenlistment bonus authority. Under existing law, enlistment bonus authority is restricted to individuals enlisting for at least three years in specified combat elements of the Army and Marine Corps. A more flexible application of the enlistment bonus as has been requested would increase enlistment of critical skills personnel in the Army alone by between 10,000 and 12,000 per year—and obtain more than one extra year of time on the job per enlistment. This would in turn reduce training costs, thereby offsetting the cost of the bonuses. It is estimated that by offering an enlistment bonus within the $3,000 limitation, the Services would meet their requirements in the following critical skills and avoid substantial costs for each bonus enlistee:

Skill	Training cost	Training savings per bonus accession [1]
Army light air defense electronic repairman	$20,000	$12,100
Marine Corps ground radar repairman	8,500	3,700
Hawk fire control repairman	45,000	27,700
Weapons system radar repairman	19,300	16,900

[1] Does not include subtraction of bonus payment.

When shortages in a particular skill develop, alternative management actions will be pursued prior to employing the bonus. Whenever a bonus is applied, it will be done in the most cost effective manner possible.

Current law provides for a Regular Reenlistment Bonus which is paid to all reenlistees without regard to specialty. As a result, 25 percent of these payments are made in skill areas where sufficient retention can be achieved without a bonus. This translated to more than $43 million in both FY 1972 and FY 1973 in unnecessary payments.

Regular Re-Enlistment Bonus

Chairman McClellan. Your statement is critical of the Regular Reenlistment Bonus which is paid to all reenlistees without regard to specialties, and which translated to a "waste" of $43 million in FY 1972/1973. Has a similar amount of money been budgeted in FY 1975 for the Regular Reenlistment Bonus? Is it your recommendation that current law be changed to eliminate that Regular Reenlistment Bonus? If so, please identify the specific items that should be reduced by the Committee in connection with the elimination of this bonus.

Secretary Schlesinger. Current law requires the Regular Reenlistment Bonus, up to a $2,000 maximum for a twenty year career, to be paid to all who reenlist. The Defense sponsored Armed Forces Enlisted Personnel Bonus Revision Act which was passed by the Senate in December 1973 and has been reported out by the House Armed Services Committee on March 1, 1974, contains provisions for an improved reenlistment bonus system, the Selective Reenlistment Bonus. Enactment of this new reenlistment bonus concept will allow Defense the flexibility of paying a bonus to only those reenlistees in skills suffering from chronic inadequate retention. Members serving in skills where sufficient reenlistees are being obtained would not receive a bonus. It is estimated that an out year savings of $77 million by FY 79 will result from the employment of the Selective Reenlistment Bonus; however, the proposed legislation contains a save pay clause for all members presently on active duty. Under this save pay provision members currently in the force would be entitled to a minimum of $2,000 in reenlistment bonuses. Consequently, no specific items can be reduced until the Selective Reenlistment Bonus has been enacted and has been in operation for several years.

Chairman McClellan. Proceed.

Secretary Schlesinger. Current law also provides for a Variable Reenlistment Bonus which is paid only to reenlistments in critical skills and only for the first reenlistment. This fails to address retention problems for certain critical skill shortages at the second reenlistment point.

The Selective Reenlistment Bonus we have proposed would provide the flexibility of applying the incentive after 21 months of a member's initial ten years of service. The amount paid would depend on the severity of the retention problem in a particular skill. Members who reenlist in a skill where no shortage exists would no longer receive a bonus. While additional costs of about $4 million would be incurred in each of the first two full conversion years (FY 1975 and FY 1976), annual savings would be up to $77 million by the fifth full year of operation. Enactment of this proposed bonus would enable us to spend our retention funds more effectively and to reduce substantially our future costs.

(4) Women in the Services

Today there are more than 60,000 women serving in military uniform. This is consistent with our longer-term goal of having approximately 130,000 women in uniform by FY 1978. The following table depicts future year targets for each Service.

DOD PLANNED END STRENGTH FOR WOMEN, FISCAL YEAR 1975–78

[In thousands]

	Fiscal year—			
	1975	1976	1977	1978
Army:				
Enlisted	34.4	40.4	43.8	47.3
Officer	4.6	4.8	5.0	5.4
Total	39.0	45.2	48.8	52.1
Navy:				
Enlisted	17.2	20.2	20.4	20.5
Officer	3.9	4.1	4.3	4.3
Total	21.1	24.3	24.7	24.8
Marine Corps:				
Enlisted	2.3	2.5	2.7	2.7
Officer	.4	.4	.4	.4
Total	2.7	2.9	3.1	3.1
Air Force:				
Enlisted	25.4	31.2	37.3	43.5
Officer	5.3	5.6	6.0	6.6
Total	30.7	36.8	43.3	50.1
DOD:				
Enlisted	79.3	94.3	104.2	114.0
Officer	14.2	14.9	15.7	16.7
Total	93.5	109.2	119.9	130.7

Note: Totals may not add due to rounding.

Secretary SCHLESINGER. In FY 1973, 20,800 women enlisted in the four services. The FY 1974 goal calls for enlisting more than 30,000 women—an increase of almost 50 percent. We are confident this goal will be met. All career fieds are now open to women except for certain combat and direct combat-support positions denied them by law or regulation.

The average term of service for female enlisted personnel has increased from 2.44 years as of June 30, 1972, to 2.70 years as of June 30, 1973. This lower turnover will act to reduce both turbulence and training costs.

(5) CIVILIANIZATION

As we move toward an All-Volunteer Force, we have been reexamining our "mix" of military/civilian personnel to determine the extent to which increased civilianization can reduce the requirement for military personnel and, collaterally, personnel costs. The policies governing the use of military and civilian personnel have remained substantially unchanged for more than 20 years. Simply stated, they provide for the use of civilian personnel in jobs which do not require military incumbents. The more obvious constraints on how far we can proceed in this direction are the effect on combat capability and on the military rotation base.

Our present intentions are to push civilianization as far as we possibly can within the limitations of the above constraints. We are presently engaged in civilianizing some 31,000 military positions, to be completed by June 30, 1974. An additional 6,600 military positions, representing the "support tail" for the 31,000 are also being eliminated. The military spaces for these jobs were deleted in last year's budget. In FY 1975, more than 8,500 military jobs will be civilianized along with an associated 1,250 position "support tail".

RESERVE FORCES

Under the Total Force policy, the Selected Reserve of the National Guard and Reserve provides approximately 30 percent of the manpower immediately available for national security in any future emergency. The economies of the Guard and Reserve in relation to the cost of like active force units are real economies only to the extent that the Guard and Reserve can produce levels of readiness

commensurate with Total Force needs and can respond within a timeframe which makes their contribution meaningful.

In the Air National Guard, the Air Force Reserve and in selected units of other components, training and mobilization planning have progressed to the point where responsive readiness is being attained. In others, further efforts have to be made to improve training and shorten response time. While significant improvements in readiness potential have been achieved through providing additional and newer equipment, much remains to be done to ensure adequate premobilization readiness.

The economies of the Guard and Reserve also depend to a large extent on the relationship of the force structure of these components to the actual needs of the active forces for emergency augmentation. In this regard, some restructuring of Guard and Reserve units has been effected. The Army has converted all Guard and Reserve units to standard active Army tables of organization and equipment. The Navy has restructured its aviation program to provide equipped and deployable force units rather than flight training programs for replacement personnel. The Air Force has eliminated certain medical and postal units for which there was no immediate need and has converted a portion of its units to the associate concept which provides for full mobilization utilization of selected active Air Force transport aircraft. These examples represent a positive first step in the direction of what the Total Force must provide. We intend to accelerate the effort to relate every unit and every individual in the Selected Reserve to a specific priority mobilization mission. The Military Manpower Requirements Report for FY 1975 will provide details relating Guard and Reserve manning levels to present force structure.

While the initial emphasis of the Total Force policy was to increase the readiness and capability of forces in being, priority is now being given to a review of mission assignments, force structure, and training concepts. With this review in progress, efforts to improve manning, equipping, and training will continue to go forward. These efforts will be particularly directed toward improving the readiness of those units which have demonstrated their ability to meet manning objectives and to meld newly available equipment with manpower resources into an effective mobilization force.

Manning the Guard and Reserve

With the exception of the Air National Guard, reserve components have not been able to recoup fully the sudden losses in Selected Reserve strength which occurred with the temporary expiration of induction authority during the summer of 1971 (the present trend in Army National Guard recruitment, however, is quite favorable). The following chart shows Selected Reserve manning as of December 31, 1973, and compares it to the combined officer and enlisted strengths that existed when the general losses began.

SELECTED RESERVE STRENGTHS

	ARNG	USAR	USNR	USMCR	ANG	USAFR
Dec. 31, 1973:						
Officer	34,648	37,721	18,299	2,753	11,658	10,435
Enlisted	[1] 357,813	[1] 189,517	100,814	30,371	80,813	35,776
Aggregate	[1] 392,461	[1] 227,238	119,113	33,124	92,471	46,211
June 30, 1971: Aggregate	402,175	263,299	130,041	47,006	85,689	50,180
Net Change	−9,714	−36,061	−10,928	−13,882	+6,782	−3,969

[1] December figures do not include 6,282 nonprior service enlistees awaiting training in ARNG nor 1,249 in the USAR.

While officer strength has remained high, non-prior service enlisted accessions in all DOD reserve components for the first six months of FY 1974 were 17,802 against a program objective of 53,224 for the same period. Improvements in recruiting, however, have begun to reverse the downward trend, producing net gains in strength since the beginning of FY 1974 in three of the six Guard and Reserve components. Volunteer enlistments in the first two quarters of FY 1974, have been almost twice those of the same quarters of FY 1973.

Prior service accessions have generally been better than expected (73,170 compared to the December 31, 1973, objective of 51,679) and significant improvement has taken place in the retention of first term members of both the

Guard and Reserve. For example, the Army National Guard, which had a first term reenlistment rate of 13 percent in FY 1972, increased that rate to 21 percent for the first quarter of FY 1974 and Naval Reserve rates which were 15 percent in FY 1972, increased to 40 percent during the same quarter.

Today's personnel shortages in the Guard and Reserve stem from two basic causes. The first cause was the expiration of induction authority. The second was the associated absence of recruiting personnel and expertise—understandable when one considers that commanders and administrators had been accustomed to processing draft-motivated enlistment applications on a waiting-list basis, rather than actively seeking new members. A major effort has been made to improve Guard and Reserve recruiting capability. Total Guard and Reserve budgets for recruiting and recruiting advertising have been increased from $18.9 million in FY 1972 to $71.6 million in FY 1974, with much of the increase being applied to the assignment and training of recruiters.

While increased effort and recruiting capability have been the most apparent contributors to the slowing of loss rates, other Total Force initiatives are also having an effect. The basic concept of a Total Force has in itself provided a new sense of purpose. Guardsmen and Reservists now see growing evidence that they *will* be called and have a role to play in future emergencies. Equipment modernization is seen to symbolize genuine interest in Guard and Reserve readiness. Supply priorities have been revised to reflect missions and deployment schedules and no longer differentiate between active force and Reserve component elements. These improvements in equipping coupled with improved facilties and increased involvement with the Active Forces in joint training exercises are enhancing motivation which should augur well for retention of current personnel. Under new "round out" concepts, Army Guard and Reserve units of various sizes are added to active Army units at the next higher command level to increase the capability of the active units. Where such assignments have been made, the close integration of the Army Guard or Reserve unit into its parent organization has resulted in better readiness and increased enthusiasm among unit members.

Since these initiatives and improvements in training do more to increase retention of those currently in the program than they do to attract new members, ways must be found to increase accessions of non-prior service enlisted personnel. With an eye toward retaining to the maximum extent possible present cost differentials between Reserve and Active forces (annual pay for Guardsmen and Reservists runs about one-sixth of that received by their active force counterparts), improvements have been sought which are most likely to yield maximum results at minimum cost: relaxation of limitations on purchases in military exchanges for members of the Selected Reserve, extension of full time coverage under Servicemen's Group Life Insurance, provision of equitable benefits for Guardsmen and Reservists who are injured or killed while on active duty for less than 30 days or while traveling to and from training, and permission for retired active force enlisted personnel to participate in the Selected Reserve without loss of their retired pay.

In addition to those legislative proposals which have already been submitted, additional actions which might assist in improving Reserve recruitment are being considered. Two of these measures concern retirement. The first involves a revision in the Reserve retirement system (compatible with the new system proposed for the active forces) which would provide additional retirement options to the Reserve member and improve the protection available for his family should he die before reaching age 60. The second measure would raise the current limit on inactive duty training credit for retirement purposes so that those individuals who are required to perform extra training to improve unit readiness would be able to include this training in the computation of their retired pay. A great deal of effort is going into developing these proposals in such a manner that they remain in the low cost category of incentives.

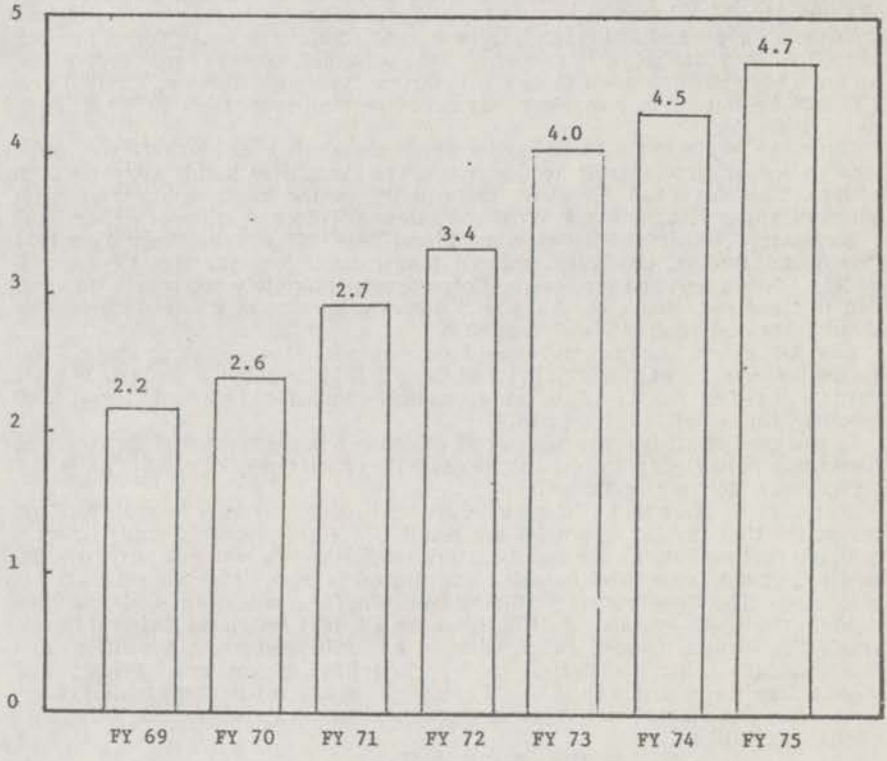
Another proposal under consideration which has substantial support within the Guard and Reserve community would entail limited tuition assistance during membership in the Selected Reserve. We are also investigating the degree to which application of improved training methods and advanced training technology can reduce the time required for initial active duty training. Reducing the time of required absence from civilian life to a period more compatible with normal civilian vacation schedules could be a great help in attracting high school graduates who have the summer free before they begin college or whose civilian jobs are programmed to start in the fall of the year. If it is determined that the

time can be reduced without impairing training, we will propose a revision to the appropriate law.

COSTS

Funds budgeted for support of the Guard and Reserve have risen steadily over the past several years to their present level of $4.5 billion. They will increase to $4.7 billion for FY 1975. Personnel costs presently constitute approximately 41 percent of the total with the balance made up for the most part by items designed to improve operational readiness—higher levels of operational training, better training sites, more maintenance facilities, and improved capability for maintaining modern equipment.

RESERVE COMPONENT BUDGET
(Dollars in Billions)



THE FUTURE OF THE GUARD AND RESERVE IN THE TOTAL FORCE

Secretary SCHLESINGER. As mentioned previously a major and comprehensive study has been initiated to examine all aspects of the Guard and Reserve role in the Total Force picture and to recommend actions which will insure future Total Force effectiveness. This study is placing a major emphasis on availability, force mix, limitations, and the potential of the Selected Reserve for use in future emergencies. It will also respond to the Congressional Amendment to the Armed Services Procurement and Authorization Act which calls for assessing the Air National Guard and Air Force Reserve readiness and management effectiveness and the potential for merger of the two organizations.

In view of the broad scope and sweeping nature of this study, the Guard and Reserve structure which subsequently emerges may be considerably different in many respects from the present structure. The end product should be a Total Force comprising the active Armed Forces and those units of the Selected Reserve which are essential to meeting initial military contingency requirements and which can be further augmented through mobilization of additional Reserve elements.

B. MANPOWER UTILIZATION

In this time of high personnel costs it is more imperative than ever that we utilize our people in the most effective manner possible. Toward this end, we are taking a hard look at how we might enhance our overall combat capability. We are also realigning domestic and overseas base support structures to keep them consistent with projected force levels and requirements.

By the same token, we seek the beneficial effects of inter-Service competition while avoiding the non-beneficial. The notion that each of the Services should be independent of the others so that it doesn't have to rely, as it were, on external sources of support is outdated. We can no longer afford it. We have to now think in terms of Total Force structure as opposed to separate interests. Consolidation of certain aspects of the Service training efforts represents a step in this direction.

Headquarters Reductions

During our military involvement in Southeast Asia, substantial augmentation of a number of headquarters establishments was necessary to cope with attendant problems of command and control, logistics, and administration of forces totaling more than four million military and civilian personnel. Over the past four years, we have been phasing down these headquarters functions. Between FY 1971 and FY 1973, headquarters manpower was cut 16 percent, more than 20,000 military and civilian jobs.

Chairman McClellan. In an earlier appearance this year you referred to the termination of certain Army headquarters. The Committee highly approves such actions. The Navy and Air Force are equally prolific in the number of headquarters, along with the Army. What reductions are planned in the other services?

Secretary Schlesinger. Between end Fiscal Year 1971 and the Fiscal Year 1974 President's Budget, the Navy reduced management headquarters by approximately 5,500 spaces and the Marine Corps by approximately 900 spaces. In addition to these reductions, the Navy will decrease the size of its headquarters by about 1,600 by the end of Fiscal Year 1975.

The Air Force has undergone headquarters reductions totaling about 7,600 spaces between the end of FY 1971 and the FY 1974 President's Budget. The Air Force will reduce the size of its management headquarters by an additional 5,500 people by the end of Fiscal Year 1975.

In the case of all Services we intend to convert the current savings resulting from these reductions into assets to increase the effectiveness of combat units.

Chairman McClellan. Proceed.

Secretary Schlesinger. Although substantial reductions have been made, I am persuaded that further economies are possible. We are presently studying ways to make further cuts in our headquarters establishments without adversely impacting combat force effectiveness. I am pleased to report that a good start has been made. The President's FY 1975 budget calls for a reduction of almost 9,000 headquarters jobs by June 30, 1975, from the FY 1974 estimates included in last year's Presidential budget. In addition, some 7,000 headquarters positions and functions are being transferred to field activities to improve efficiency and standardize headquarters functions. I expect to achieve further substantial reductions after the present review is completed and to use these savings to improve combat capability.

Headquarters Manpower

Chairman McClellan. You indicate that headquarters manpower was cut from FY 1971 to FY 1973. How much has been merely a reclassification of jobs, rather than an actual reduction? Which headquarters specifically were reduced and how many job spaces have been eliminated? If 9,000 more headquarters jobs are being eliminated, would you describe to us where these jobs are?

Secretary Schlesinger. None of these spaces are merely reclassifications; that is, all are actual decreases in the size of management headquarters. However, it is very difficult to trace back with high accuracy to FY 1971 because the definition of a headquarters was derived after that time. Our best estimate is that we reduced the size of Department of Defense headquarters by more than 21,000 spaces, between end Fiscal Year 1971 and the Fiscal Year 1974 President's Budget. These reductions were distributed as follows: Army about 6,500; Navy about 5,500; Marine Corps about 900; Air Force about 7,600; and other DoD headquarters (including OJCS, International and Unified Headquarters, and DoD Agencies) about 1,100 spaces.

The number of headquarters spaces reduced between the Fiscal Year 1974 President's Budget and the proposed budget for Fiscal Year 1975 is 9,000. Decisions reached since submission of the President's FY 1975 budget will delete over 5,000 additional spaces. The total cut from last year's budget, therefore, is

about 14,000 spaces or 13%. The actual allocations of these reductions to various headquarters is still being determined but the largest cuts are approximately as follows:

Army:	
Army staff	1,300
CONUS armies	700
Training command	400
AMC	800
ARADCOM	450
USAREUR	750
USARPAC	600
Other	1,000
Total	6,000
Navy and Marine Corps:	
Washington Headquarters	700
NMC	700
Naval District	200
Sealift Command	300
Other	100
Total	2,000
USAF:	
Air Staff	400
AFSC	500
AFLC	400
AFCS	400
MAC	400
ADC	700
SAC	500
TAC	500
USAFE	400
PACAF	600
Other	700
Total	5,500

Again, we intend to use the spaces saved to increase the effectiveness of combat units.

Chairman McClellan. Proceed.

Base Closures

Secretary Schlesinger. The base realignment announcement of April 1973, is affecting Defense installations and activities in 32 States, the District of Columbia, and Puerto Rico, and is resulting in the elimination or reassignment of approximately 42,800 positions (26,200 civilian and 16,600 military).

April 1973 Base Closures

Chairman McClellan. Have all the 274 actions announced in April 1973 to consolidate, reduce, realign, or close military bases in the United States and Puerto Rico been completed?

Secretary Schlesinger. No sir. Most of the 274 actions were not scheduled to be completed by this date. As of March 15, 1974, however, some 100 actions were completed ahead of schedule. The other actions are now in the process of being carried out for the most part.

Base Closure Personnel Reductions

Chairman McClellan. Have the 26,200 civilian and 16,000 military positions associated with the April 1973 base realignments been eliminated?

Secretary Schlesinger. To the extent they are scheduled to be, they have been eliminated. Some were initially scheduled for 1975, some have since been slipped to 1976, and some have been overtaken by subsequent decisions. Foremost among the subsequent decisions is the cancellation of plans to convert the Navy's Pacific Missile Range to contract operation, involving elimination of 1,673 positions.

We estimate that about 34,000 of these positions (16,000 military; 18,000 civilian) will have been eliminated by the end of this fiscal year, and 37,000 (17,000 military; 20,000 civilian) by the end of FY 1975.

Base Closure Savings

Chairman McClellan. What savings were realized in FY 1974 as a result of the April 1973 base closure actions?

Secretary Schlesinger. Savings of $99.9 million, offset by costs of $216.1 million are reflected in the FY 1974 column of the FY 1975 budget.

Chairman McClellan. By service and appropriation, identify the total savings which have been realized in the FY 1975 budget as a result of the April 1973 base closures.

Secretary Schlesinger. The following costs and savings are reflected in the FY 1975 budget as a result of the April 1973 base closures:

SAVINGS FROM APRIL 1973 ACTIONS

[In millions of dollars]

	Fiscal year 1974	Fiscal yea 197
Army:		
Military personnel, Army	7.5	13.8
Savings	8.9	13.9
Costs	1.4	.1
Operation and maintenance, Army	2.4	21.8
Savings	16.9	23.4
Costs	14.5	1.6
Military construction, Army	4.5	8.4
Savings		9.3
Costs	4.5	.9
Total Army	5.4	44.0
Savings	25.8	46.0
Costs	20.4	2.6
Navy:		
Military personnel, Navy	−19.8	31.1
Savings		36.6
Costs	19.8	5.5
Operation and maintenance, Navy	−54.2	99.6
Savings	16.4	175.4
Costs	70.6	75.8
Research, Development, Test and Evaluation, Navy	−11.8	−11.4
Savings	.7	1.9
Costs	12.5	13.3
Military construction, Navy	−38.6	−4.2
Savings	15.1	28.6
Costs	53.7	32.8
Total Navy	−124.4	115.1
Savings	32.2	242.5
Costs	156.6	127.4
Air Force:		
Military personnel, Air Force	10.0	39.4
Savings	20.8	39.6
Costs	10.8	.2
Operation and maintenance, Air Force	9.1	24.6
Savings	21.1	25.9
Costs	12.0	1.3
O. & M., Air National Guard	−1.6	−3.3
Savings		
Costs	1.6	3.3
O. & M., Air Force Reserve	−12.0	−13.7
Savings		
Costs	12.0	13.7
Military construction, Air Force	−2.7	
Savings		
Costs	2.7	
Total Air Force	2.8	47.0
Savings	41.9	65.5
Costs	39.1	18.5
Total DOD	−116.2	206.1
Savings	99.9	354.6
Costs	216.1	148.5

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. Attendant with this realignment, 28 communities have thus far asked for Federal assistance. Through the end of December 1973, the President's Economic Adjustment Committee has seen to it that these communities have received $2.4 million in technical assistance funding, $6.7 million in manpower retraining funds, and $1.5 million in other Federal program resources related to the conversion effort. More important, the President's Committee has helped each of these communities formulate a recovery strategy. This kind of assistance—designed to help communities help themselves—will continue until each has overcome the economic impact of realignment actions.

At this time, exceedingly few civilian personnel have had to be laid off without a job opportunity. A good example is the case of the Hunters Point Naval Shipyard in San Francisco where virtually all of the approximately 4,000 workers who have been displaced to date have been provided suitable alternatives.

Additional realignments of military installations both at home and abroad are presently under consideration. As a part of this program, we have recently ordered changes affecting 59 overseas activities/installations which in turn will affect approximately 4,000 personnel and result in an annual savings of about $35 million.

TRAINING

While individual training is a fundamental prerequisite to combat readiness, it is also expensive, making very high demands on scarce resources. In monetary terms, individual training costs in excess of $6 billion each year. In manpower terms, about one-sixth of all military personnel—students and trainees, instructors and support personnel—are engaged in the training mission and therefore unavailable for duty in operational units. The following table shows the general trend over the past decade.

TRAINING PERSONNEL

	Fiscal year—						
	1964	1968	1971	1972	1973	1974 estimate	1975 estimate
Individual training personnel (military end-strength, thousands)	403	700	507	405	354	364	341
Training personnel (as percentage of total strength)	15.0	19.8	19.9	17.5	15.6	16.6	15.8

Secretary SCHLESINGER. A high proportion of individual training, notably recruit training and initial specialized skill training, is a function of the number of new entrants into the Services. This, in turn, is sensitive to such factors as term of enlistment and loss rates. As the table shows, training personnel consumed almost 20 percent of total military strength in FY 1968, when two-year inductees formed a high percentage of new entrants.

TRAINING FUNDS

Chairman McCLELLAN. I understand that 83% of new recruits are joining the Armed Forces for more than a two-year period. Can training funds be reduced in FY 1975 as a result of the manpower being available for a longer period?

Secretary SCHLESINGER. The training funds requested in the FY 1975 Budget for entry-level training are predicated on the number of accessions we need to replace projected losses. The requested funds do take account of the longer average term of service now being experienced. Our FY 1975 accessions, however, are influenced by the losses of inductees and enlistees with shorter terms who entered the Service in FY 1973 and prior years.

In the FY 1975 Budget, we are asking only for the level of funding required to support the training of the new accessions we need to maintain the requested strength of the Services. Training funds, therefore, cannot be reduced further without reducing our capability to train the new accessions we require.

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. Although the present trend is down, we are trying to further reduce the resources devoted to individual training by all means consistent with maintaining a skilled and combat-ready force. One approach we are pursuing is that of tailoring the training to the real rather than theoretical de-

mands of a specialty. As an example of the kind of savings obtainable from this approach, we have achieved an annual savings of more than $2 million in the training of electronic and cryptographic equipment repairmen alone.

We are also emphasizing joint training, consolidating as many single-Service courses as practical into joint courses. An inter-Service Training Review Board has been formed which in its first months of operation identified 37 training courses which were subsequently consolidated into 18 joint courses. This resulted in an annual recurring savings of $480,000. Other courses with large enrollments are currently under review for possible consolidation.

Another approach we are pursuing is that of applying advanced technology to the training mission itself. For instance, we have undertaken a major program to expand the use of simulators in flight training. The long-term objective of this program is to substantially reduce flying hours consumed in flight training which in turn will generate savings in both aircraft maintenance and fuel consumption.

There are other ways of conserving training resources without loss of effectiveness which we are pursuing—lateral entry (enlisting skilled personnel at pay grades commensurate with their training and experience); better use of trained personnel; use of on-the-job training in appropriate skills; and better management of training support and overhead, to mention only a few.

C. MANPOWER REQUIREMENTS

Manpower requirements result from the force levels described earlier in this report. The force levels themselves are derived from the national strategy designed to cope with a specified level of threat. Recommended military manpower strengths for FY 1975 are shown in the table on the following page. These recommended strengths will be explored in considerable depth in the forthcoming FY 1975 DoD Manpower Requirements Report to the Congress.

We strive for precise determinations of requirements in all areas of manning for all situations. The Services develop their respective manpower requirements through the use of planning factors, industrial engineering techniques, computer simulation and the like. We have high confidence in the requirements calculations, particularly with respect to strategic and general purpose forces. Some areas, of course, are more difficult to quantify than others since their requirements may be relatively independent of total force size. For example, such matters as how many intelligence officers should be assigned any given unit are more a function of the threat to be assessed than they are the size of the unit involved. The same sort of consideration holds true for research and development manpower where requirements relate primarily to technology and to the weapons developments of potential adversaries.

This uncertainty in programming the optimum level of requirements in some support functions stems from the difficulty in relating support levels directly to force effectiveness. Through various studies presently in progress, we are attempting to better define, and analytically quantify where possible, the relationships between support resource inputs and force effectiveness outputs.

Another relatively imprecise aspect of determining manpower requirements is that of forecasting future needs. Our stated requirements at any given time are those we believe to be essential in light of our assessment of security needs and of the need to allocate available resources between competing demands such as research and development and weapons procurement. As we get closer to plan execution, we refine our estimates to conform more closely to the realities of what is a continually changing situation. This is, of course, the same process used by any major industrial firm.

MILITARY MANPOWER REQUIREMENTS

[Active duty end strengths in thousands]

	Fiscal year		
	1973 actual	1974 estimate	1975 estimate
Strategic forces	124	123	115
General purpose forces	909	901	929
Land forces	512	513	537
Tactical air forces	165	169	169
Naval forces	190	178	176
Mobility force	43	41	47
Auxiliary forces	162	156	139
Intelligence and security	63	56	48
Communications	47	49	40
Research and development	35	33	34
Support to other nations	4	5	5
Geophysical activities	14	13	13
Mission support forces	342	309	311
Reserve component support	14	15	14
Base operating support	239	208	212
Crew and unit training	36	35	35
Command	52	51	49
Central support forces	389	358	346
Base operating support	47	42	42
Medical support	92	83	82
Personnel support	32	31	31
Individual training	151	140	131
Command	44	38	37
Logistics	21	21	20
Federal agency support	3	4	4
Individuals	326	327	312
Transients	106	90	88
Patients and prisoners	12	10	10
Trainees and students	197	215	201
Cadets	10	12	12
Total, DOD	2,252	2,174	2,152

Note: Total may not add due to rounding.

Secretary SCHLESINGER. Other complicating factors also have to be taken into consideration. In a no-draft environment, for instance, the seasonality of volunteer accessions and the retention rates of those already in the forces will affect actual strengths at any point in time. Another example of such factors is the impact of inflation on funds for military personnel appropriations as the year progresses. If Permanent Change of Station move costs or food prices increase more than expected, the military personnel program may have to be adjusted in other areas to stay within the total funds available. This adjustment in the personnel program may take the form of forced losses (early-outs) or reduced accessions, either of which may affect on-board strength at the end of the year.

The point to be made, in short, is that there are fundamental uncertainties involved in manpower planning. In spite of the increase in such uncertainties that emanates from an "all volunteer" environment, we are sizing our military forces on the assumption that we will meet whatever recruiting goals are needed. In fact, we have programmed an increase in Army strength for FY 1975—a move which I think demonstrates our confidence in being able to meet or stay close to requirements.

D. PERSONNEL POLICIES

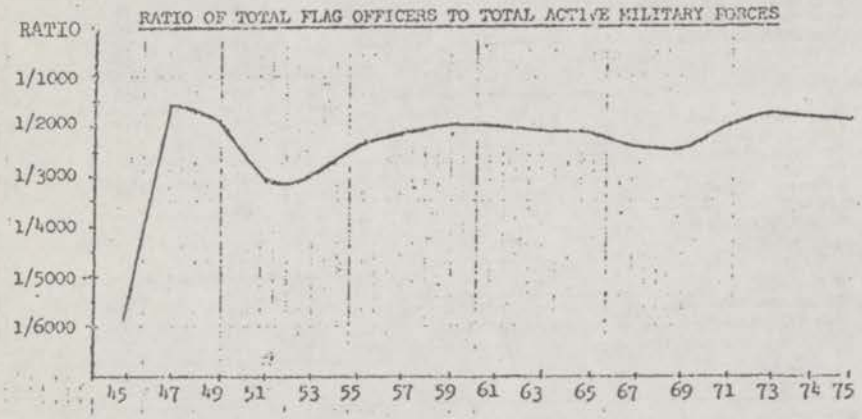
While it is important that we seek to improve utilization of manpower, it is equally important that we do so in the most equitable manner possible. In this regard, nothing impacts so much on morale as the policies we employ in managing our personnel. The potential impact of every action we take in this area must be carefully weighed in advance to ensure the fairest possible treatment for everyone.

We are attempting to apply this standard in those initiatives presently underway: realignment of the military and civilian grade structures, modernization of the military retirement system, and restructuring of the military compensation system.

Grade Structure

We are examining very closely the present grade structure to ensure that it is no richer than that required to meet the combined needs of readiness and personnel management.

The status of flag and general officers has recently been the subject of a great deal of scrutiny by individual members and working committees of the Congress. Invariably it is noted that the number of flag/general officers on active duty today is proportionately higher with a 2-million strength military establishment than it was with a 12-million strong establishment in 1945.



Secretary Schlesinger. The change that has taken place over the past three decades has largely evolved from significant functional and organizational changes. The Defense Reorganization Act of 1958; the establishment of the Department of Defense, a separate Air Force, and the Joint and combined staffs and commands; the Defense research and developmental effort; and the sophistication of weapons and support systems have all contributed to additional flag officer requirements within the Defense establishment. Although these requirements would suggest the need for more rather than fewer senior officers, the Department of Defense has remained within its authorizations established either by statute or as limited administratively by the Senate Armed Services Committee. In addition, as we complete the post Vietnam adjustments in our force posture, our Fiscal 1975 program calls for reducing the active duty strength of our top military managers from 1,352 to 1,231, the lowest flag officer level since 1954.

With respect to the remainder of the officer corps, the Services are confronted with the difficult task of scaling down a relatively large career force which has been maintained since 1951; a task made all the more difficult by the substantial expansion required for the Vietnam war. Time and a period of stability are necessary to achieve a balance of age, experience, and rank in the smaller forces programmed for the future if we are to avoid unnecessarily harsh and debilitating actions against our career people.

Table 1 on the following page demonstrates the dynamic changes that have occurred in the military personnel structure over the past decade. By the end of

FY 1975, the officer force will have been reduced by 124,000, nearly one-third since the Vietnam peak. Table 2 shows a representative sampling of the commissioned officer grade distribution over the same period of time as compared to the programmed levels for FY 1975. The comparison shows that since the peak Vietnam strength was reached in 1969, the Services have been controlling and managing their structures downward.

During FY 1975 one out of every two military positions eliminated will be an officer. While large numbers of junior officers (many of whom were brought to active duty during the war years) have been released, the release of senior officers has presented some problems—for two basic reasons. First, reductions in force do not generally produce proportionate reductions in senior officers, primarily because there are fixed organizational and management functions which are not eliminated or significantly reduced when forces are reduced. A second and perhaps equally significant reason is that of tenure afforded by law. A regular officer may not be involuntarily retired before his mandatory length-of-service retirement date except under punitive conditions or by reason of physical disability or unsatisfactory performance of duty. Thus, existing procedures provide for the separation of certain officers, but they do not permit the early involuntary retirement of officers who are excess to the needs of the Services in times of force reductions.

To address this problem, we have proposed legislation that would authorize the Service Secretaries to involuntarily retire certain regular officers serving in the grades of Lieutenant Colonel/Commander and Colonel/Captain. It is a necessary piece of legislation if we are to respond to demands that grade structure balance be maintained during periods of force reductions.

TABLE 1.—DEPARTMENT OF DEFENSE—TOTAL OFFICER AND ENLISTED STRENGTHS

[In thousands]

	Fiscal year				
	1964	1969	1973	1974	1975
Officers [1]	337	419	321	305	295
Enlisted	2,349	3,041	1,932	1,870	1,858
Total	2,686	3,460	2,253	2,175	2,153

[1] Includes warrant officers.

TABLE 2.—DEPARTMENT OF DEFENSE—COMMISSIONED OFFICER GRADE DISTRIBUTION

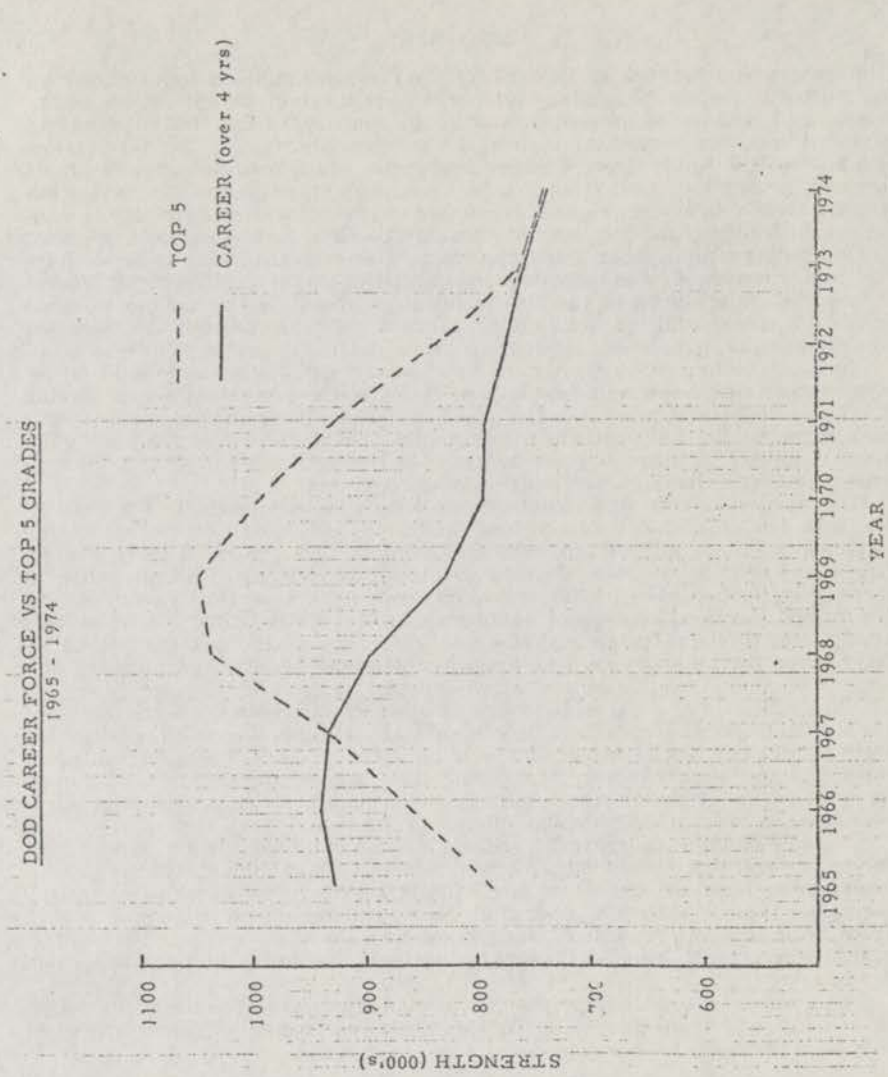
Commissioned officers	Fiscal year					Change since 1969	
	1964	1969	1973	1974	1975	Number	Percent
Generals/admirals	1,294	1,336	1,291	1,248	1,231	−105	−7.9
Colonels/captains	15,323	18,277	16,231	15,911	15,734	−2,543	−13.9
Lieutenant colonels/commanders	36,347	43,999	36,454	34,839	33,646	−10,353	−23.5
Majors/lieutenant commanders	55,081	73,645	59,801	56,887	55,427	−18,218	−24.7
Captains/lieutenants and below	213,085	251,147	186,481	176,470	170,634	−80,513	−32.1
Total	321,130	388,404	300,258	285,355	276,672	−111,732	−28.8

Secretary SCHLESINGER. This proposal represents an advance portion of an even more extensive legislative package recently forwarded to the Congress, the purpose of which is to implement the recommendations of the Report on Officer Grade Limitations submitted to the Congress in May 1973. The new grade limitations recommended in this report for Colonel/Captain through Major/Lieutenant Commander are designed to enable us to meet our officer requirements on a long term basis while providing adequate career opportunity for attracting and retaining young officers. This proposed legislation would provide new tools essential to more effective management of the officer force, provide adequate career opportunity, and unify what have heretofore been disparate rules among the Services. In this connection, it should be noted that the Air Force is currently provided comparability in career progression with other Services through temporary grade authority which expires September 30, 1974. If the proposed legislation discussed above is not enacted during the 93rd Congress, it will be necessary

for us to take separate action to extend the temporary grade authority for the Air Force.

On the enlisted side, there are nine different pay grades, the top five of which (E–5 through E–9) include "sergeants" varying in title from "buck" sergeant to sergeant major. Many are NCOs, but many others are skilled technicians and specialists who operate and maintain complex equipment. At the end of FY 1974, we expect to have about 251,000 NCOs and technicians in these five pay grades in the Army. The bottom four enlisted grades include recruits, privates, privates first-class, and specialists/corporals. Recruits and privates will total about 252,000 at the end of this fiscal year and specialists/corporals about 176,000. Thus 37 percent of the enlisted force occupy the top five grades with the remaining 63 percent in the lower four grades. In other words, there are about 1.7 times as many in the bottom group as in the top.

As can be seen in the table on the following page, the numbers of enlisted personnel in the top five grades for all Services have been continuously decreasing since FY 1969, when over one million held the highest ranks. Some 20 percent of this group consisted of personnel in their first four years of service who were advanced to the higher grades to meet Defense needs. By reducing the number in the top five grades and establishing minimum time-in-service criteria for promotion, fewer personnel are now attaining the grades of E–5 and up during their first four years of service. This results in a better correlation of experience with grade levels and a more equitable relationship between experience and compensation. Since less than four percent of the enlisted force had more than 20 years' service at the end of FY 1973, the present decline in the number of careerists can only be accelerated through forced attrition. Forcing large numbers of personnel out of the service short of retirement without severance pay would severely deplete the experience level of the force (until such time as it could be systematically restructured), adversely affect retention, and require higher procurement of inexperienced volunteers. In summary, it is our intention that the downward trend in numbers of careerists and those in the top five grades will continue at a manageable rate—in keeping with the principles of sound personnel management.


DOD CAREER FORCE VS TOP 5 GRADES
1965 - 1974
TOP 5
CAREER (over 4 yrs)
STRENGTH (000's)
1100
1000
900
800
700
600
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974
YEAR

RETIREMENT

Secretary SCHLESINGER. In March 1971, the President appointed an Interagency Committee to review the military retirement and survivor benefit system and to recommend changes as deemed necessary. In January 1972, a DoD Retirement Study Group was formed to review the recommendations of the Interagency Committee. The Study Group's recommendations, which provide the basis of our proposal presently before Congress for changing the non-disability retirement system, treat retirement as one of a number of interrelated elements of the compensation system (basic pay, survivor benefits, bonuses, special pay, and the like).

The compensation system itself has changed over recent years as active duty pay and allowances have increased substantially. In the past, a highly liberal retirement system could be justified in terms of off-setting the low pay received by an individual while on active duty. Since direct compensation has increased so dramatically, it has been appropriate to reappraise the retirement system.

The DoD Retirement Study Group noted several defects in the present retirement system: no retirement benefits are vested in the individual before serving 20 years; retirement annuities are based on terminal pay; appropriate separation payments are not available; the annuity formula does not provide a sufficient retention incentive beyond 20 years of service; and the system itself is generally ineffective as a personnel management tool.

With respect to cost, $2.4 billion were allocated to retirement in FY 1969; in FY 1973, the cost rose to $4.4 billion; and in FY 1974, with no change to the retirement system, $5.2 billion would be required. The projected growth in retirees and retired pay costs is going to place this element of compensation in increasing competition with other requirements for scarce DoD resources. The Uniformed Services Retirement Modernization Act (HR 12505) addresses this aspect and attempts to rectify other shortcomings of the present system. A comparison of the long-term cost implications of the present and proposed systems is shown in the table on the following page.

When all parts of compensation are considered, individuals who retire under the new retirement system will receive substantially more overall compensation throughout their service career and retirement than members who retired before these changes occurred. Notwithstanding these larger considerations, however, the proposed retirement system will still be a liberal, progressive system when compared to most plans presently offered in the nonmilitary sector.

A review of the standards and criteria for disability retirement showed that the laws governing such retirement were sound, but that the standards used in determining physical "unfitness" for military service were unrealistic. Accordingly, on January 29, 1973, new guidelines were issued which require that a findings of physical "unfitness" for purposes of disability retirement be a factual finding that a member is unfit to perform the duties of his office, rank, grade or rating.

The number of disability versus non-disability retirements during the period March through September 1973, has decreased considerably when compared to the same period in 1972 (see second table).

Retirement Cost Projections, Present and Proposed Systems
($ Billions)

	Present System			Proposed System (Retirement Modernization Act-RMA)			
	Retired Pay of Past Retirees (Persons retired before FY 75)	Retired Pay of Future Retirees (Persons retired in FY 75 and later)	Total Retired Pay	Retired Pay of Past Retirees (Persons retired before FY 75)	Retired Pay of Future Retirees (Persons retired in FY 75 and later)	Total Retired Pay	Cumulative 1/ Difference for All Intervening Years
FY 1976	$ 5.4	.7	6.1	$ 5.4	.8	6.2	+.1
FY 1980	5.3	2.6	7.9	5.3	2.5	7.8	0.0
FY 1990	4.8	8.1	12.9	4.8	7.6	12.4	-2.9
FY 2000	3.4	15.6	19.0	3.4	14.6	18.0	-12.1

ASSUMPTIONS:

1. RMA is implemented effective 1 July 1974.
2. Force size is fixed at 2.14 million.
3. Base Pay increases 5%/YR and CPI increases 1.5%/YR.
4. All involuntary separatees choose lump sum equity pay rather than deferred annuity.
5. Readjustment Pay is not included in RMA total. It would reduce total cumulative year 2000 from $12.1 billion to $10.5 billion.

1/ Difference includes all years starting with FY 75, not just those years shown.

MILITARY RETIREMENTS
Comparing First Seven Full Months Under New Guidelines
With Same Period One Year Earlier (Mar-Sep)

Grade	*	1972	1973
07 - 010	1	169	183
	2	77	14
	3	45.6	7.7
06	1	2,676	2,288
	2	525	151
	3	19.6	6.6
04 - 05	1	5,377	4,981
	2	566	263
	3	10.5	5.3
01 - 03	1	743	462
	2	359	187
	3	48.3	40.5
WO	1	813	1,110
	2	105	67
	3	12.9	6.0
Total Officers	1	9,778	9,024
	2	1,632	682
	3	16.7	7.6
E7 - E9	1	19,385	22,578
	2	2,107	901
	3	10.9	4.0
E4 - E6	1	18,494	16,013
	2	3,728	1,841
	3	20.2	11.5
E1 - E3	1	1,418	1,285
	2	1,020	939
	3	71.9	73.1
Total EM	1	39,297	39,876
	2	6,855	3,681
	3	17.4	9.2
All Personnel	1	49,075	48,900
	2	8,487	4,363
	3	17.3	8.9

*1 Total Retirements
2 Disability Retirements
3 Percentage Retiring with Disability

Compensation

Secretary Schlesinger. All compensation changes are addressed to two problems: (1) manpower shortages resulting from a zero-draft environment, and (2) inefficiencies in the military compensation structure which result in excessive personnel costs. Most compensation changes address both of these problems, but with varying degrees of emphasis.

a. *Flight pay.*—The existing system of flight pay was developed in 1948, and later adjusted in 1955. While this system has in the past assured sufficient volunteers for aviation it has been generally ineffective in retaining a sufficient portion of trained aviators beyond their initial obligation. A principal reason for this has been the way in which flight pay incentives are structured. The highest rates are awarded to senior officers of over 18 years of service, while junior officers at their retention decision point and most flying-intensive years are offered relatively modest incentive rates. The inadequate retention resulting from this system has resulted in substantial training costs.

Legislation presently before the Congress (H.R. 8593) provides for restructuring the flight pay system. If enacted, it would increase the incentive for younger aviators at their retention decision point. The current FY 1974 officer flight pay budget is $213 million. The estimated cost of the proposed system is $211.8 million. Since it costs approximately $300,000 to train a new pilot (exclusive of certain fixed costs), it is anticipated that considerable additional savings will also accrue from improved retention.

b. *Military Pay Adjustment System.*—The current military pay adjustment system is linked to that of Federal classified employees. However, the uniformed services operate under a pay and allowances system rather than a salary system, and current law requires that all upward pay adjustments be placed into basic pay with nothing going into allowances. This practice coupled with periodic non-comparability related increases in allowances serves to distort the entire comparability process and greatly increases the cost of military compensation items dependent on basic pay for their computation—most notably retirement pay.

To correct this imbalance, we have proposed legislation (H.R. 10370) that would provide for the allocation of a portion of future comparability pay increases into quarters and subsistence allowances. Such a system would increase allowances to more meaningful levels, reduce the size of basic pay increases, lower the costs of retirement and other basic pay related compensation items, and make the military compensation system for active duty personnel more nearly comparable to that of Federal classified employees (the intent of current law). It is estimated that savings of more than one billion dollars would accrue by the fifth year of operation when contrasting the effect of the new system with what would otherwise occur under existing comparability law.

Civilian Employment

The greatest problems confronting us in this area are the simultaneous and contradictory demands from the Congress to effect further reductions in civilian employment while simultaneously civilianizing additional military positions.

a. *Grade levels.*—As with other Federal agencies, the Department of Defense has over the long-term experienced a persistent rise in the average grade of civilian positions. In August 1971, a program was implemented to reverse the trend with encouraging results:

GENERAL SCHEDULE—AVERAGE GRADE

	DOD	Decrease from 1971	Federal average	Increase from 1971
1971	7.81	----------	7.92	----------
1972	7.73	−.08	7.96	+.04
1973	7.66	−.15	7.95	+.03

While anticipated civilian work force reductions in the Department of Defense will tend to raise the average grade, more liberal retirement benefits will tend to offset this effect. However, true civilian personnel cost reductions will only be achieved through management practices that keep positions and organizational structures in line with actual work requirements. Through our ongoing program

of position review and evaluation we will continue to pursue our goal of improving manpower utilization.

b. *Selective retirement.*—While we are concerned about making improvements in grade structure, we are equally concerned about the aging status of our civilian work force. The present system permits employees the option of remaining employed for as many as 15 years after attaining full retirement eligibility, while management has no option whereby it can replace senior, retirement-eligible individuals with younger, potentially more versatile employees.

The problem has been compounded in recent years by the sharp downward trend in our civilian employment as we have moved to a peacetime posture. Reduction-in-force procedures tend to increase the average age of the work force and inhibit the development and retention of recently recruited younger employees. U.S. Civil Service Commission statistics show that 16.3 percent of the total civilian work force in June 1972, were over 55 years of age, compared with 15.7 percent in June 1970. It is significant, too, that approximately 16 percent of the Federal civilian employees in 1970 who were over age 55 had more than 30 years of service, while nearly 21 percent of the 1972 work force over age 55 had more than 30 years of service.

In an effort to increase retirements during periods of manpower turbulence, legislation was obtained (PL 93-39) in June 1973, which during periods of major reductions in force permits employees with 25 years of service (regardless of age) and with 20 years of service at age 50 to optionally retire. Although PL 93-39 has provided some relief, the problem could be further eased if we were granted some measure of authority to initiate retirement on a selective basis. We would propose such retirement for those Civil Service employees who meet the requirements for optional retirement eligibility and whose retirement would permit the retention of younger members of the work force who would otherwise be separated by reductions in force.

As presently constituted, the Civil Service retirement system provides management with little or no role in deciding which employees are to retire and at what time. The only true options are vested in the employee who can retire anytime he wants after age 55 if he has completed 30 years of service—but who doesn't *have* to retire until he reaches age 70 or becomes disabled.

A reasonable middle ground would be to authorize the selective retirement of employees at the GS-13 level and above who are at least 55 years of age and have at least 30 years of service. Their agency should have the authority to compensate them accordingly through a supplemental benefit. This proposal would give management a cost-effective option approaching that long given employees. It would also leave protected those employees who have insufficient service to receive full annuities.

c. *Minority Employment.*—Our performance in civilian minority employment has been better in the blue collar sector than it was for white collar workers. Minority representation in Wage Grade employment has remained above 25 percent despite sharp cutbacks in the blue collar work force between 1969 and 1973. While the total number of Wage Supervisors also fell during this timeframe, the number of minorities holding such positions has increased from 3,663 to 4,268—a 22.5 percent rate of increase.

Improvement in white collar (GS) Defense employment has not kept pace with our progress in blue collar minority employees and supervisors—or with the rest of Federal GS employment. In 1967, minority employment at the GS 9-11 levels was 6.5 percent, close to the 7.0 percent of non-Defense agencies. By 1973, it had only risen to 8.2 percent while the non-Defense agencies had reached 11.0 percent. The same held true at the GS 12-15 levels: 3.1 percent in 1967 vs. 3.5 percent for the rest of the Federal Government; increasing to 4.4 percent by 1973, when the rest of government had reached 6.2 percent. We are seeking to improve our record in this area through more diligent executive search for minority candidates whenever vacancies occur.

Of those Defense contractors reviewed during the first three quarters of calendar year 1973, total employment had fallen 136,000 since 1969, while minority employment had increased by nearly 57,000. We have reason to believe that this trend will continue.

E. SPECIAL PROBLEMS

RACE RELATIONS

Race relations in the Services remain a problem as racial incidents continue to occur. The fact that disciplinary measures are often perceived by minorities to be

impacting on them in an inequitable manner serves to further exacerbate their frustrations and dissatisfactions. These perceptions contribute to polarization which in turn leads to confrontations.

The principal program designed to offset these problems is the race relations education program, the nucleus for which is the Defense Race Relations Institute (DRRI) at Patrick Air Force Base, Florida. Upon completion of training at DRRI, graduates of the Institute (approximately 1,200 each year) are expected to conduct race relations training within their respective Services. A Racial Perceptions Inventory Study is currently being developed on a contract basis which will enable commanders to assess the effectiveness of this training.

We require race relations training each year for all military personnel. In addition, all General and Flag rank officers receive special race relations orientation and equal opportunity management courses.

Most of our equal opportunity thrusts have been directed toward the black-white problem. Historically, the concerns of other minorities have been overshadowed by their small statistical representation. As gains for black Americans have become visible, through, these minorities have begun to seek improvement in their own lot and to rightfully demand their constitutional share of the benefits of our society. The specific problems of all minorities in the Services are now being addressed through the curriculum at the Defense Race Relations Institute.

While substantial gains have been made in enlisted minority accessions, a continuing need exists for more minority officers of all types. Increased emphasis has been placed on this aspect of recruitment, but progress to date has been slow and is expected to continue in this vein—particularly in view of the highly competitive alternatives available in the private sector.

Our present directive pertaining to off-base housing is the strongest and most effective document promulgated on this subject to date. It now protects women, permits the use of verifiers in cases of suspected discrimination, requires commanders to impose 180-day sanctions against violators, provides greater relief for complainants and extends application overseas.

Drug Abuse Control

The Department of Defense still has many serious problems concerning drugs and alcohol in the Armed Forces and will continue to have them to a certain extent as long as the abuse of these substances remains endemic to our society. However, the use of heroin, which was the most alarming problem in 1971, has abated considerably, and problems with other types of drugs also appear manageable at this time. Service programs for identification, treatment/rehabilitation and prevention through education continue to be refined and new, innovative techniques developed.

Identification of the drug abuser remains the key to reducing and controlling the drug problem. The major objectives of the present identification program are: (1) to identify drug abusers at an early point, before serious physical or psychological harm has occurred; (2) to provide a degree of deterrence for some individuals who might otherwise be inclined to experiment with illegal drugs; and (3) to provide improved data on the prevalence of drug abuse by area.

Our exemption policy which enables self-referral to treatment programs on a non-punitive basis is our most effective means of identification. Under this policy, more than 73,000 Service members involved with drug abuse have volunteered to receive treatment and rehabilitation. Not only does this approach exempt the Service member from disciplinary measures, but it also enables him to leave the Service under honorable conditions if in-Service rehabilitation doesn't prove feasible.

The DoD urinalysis screening program is another effective method of identifying drug abusers. Rigorous sensitivity standards identify the casual or experimental user as well as those who are more seriously involved. Eleven regional drug testing laboratories are presently in operation, which have to date handled more than 4,000,000 tests.

All Services have developed treatment/rehabilitation programs which have proven effective in returning the majority of drug abusers to duty. The disposition of recently identified military drug abusers as of the end of FY 1973 is as follows:

JUNE 1971 TO JUNE 1973

	Number	Percent
Rehabilitated and returned to duty	44,692	52.0
Still undergoing rehabilitation	8,609	10.0
Separated after rehabilitation	27,606	32.1
Transferred to Veteran's Administration hospital for additional treatment	5,107	5.9
Total	86,014	100.0

From a peak of 8,818 discharges reached in calendar year 1971, administrative discharges for drug abuse continue to decline. For the first six months of CY 1973, only 1,820 discharges were given. This can be attributed to a decline in the incidence rate of drug abuse, full implementation of the exemption program, and the success of rehabilitation programs in returning servicemen to duty.

Alcohol Abuse

The Department of Defense alcohol abuse prevention program has been implemented worldwide for all Services. Educational material has been made available for all personnel, and courses of instruction in alcohol abuse prevention are to be included in all school curriculums, from basic training through the Service Academies.

Emphasis on guidance and counseling for the individual who experiences difficulty with alcoholism is reflected in the increased admissions rates at treatment facilities.

	Calendar year—	
	1972	January–June 1973
Army	5,255	5,344
Navy	1,059	1,134
Air Force	408	341

Reporting procedures for rehabilitees are being refined to provide follow-up for determining the success rate of treatment.

V. MANAGEMENT

In this final chapter of the Defense Report, I would like to describe briefly the principal management improvements that Deputy Secretary of Defense William P. Clements, Jr., and I are pursuing. Our emphasis is on improvements in four areas:

Planning and management guidance given to the Military Departments and Defense Agencies,

Management of the weapons acquisition process,

Achievement of efficiencies and economies in the support structure,

and, in this difficult time of energy shortage, ensuring that we have good energy management and conservation practices.

A. PLANNING AND MANAGEMENT GUIDANCE

Deputy Secretary Clements and I decided to continue the practice of our immediate predecessors and give the Services budget guidance rather than detailed force guidance.

Budget guidance, in our view, together with my general defense planning guidance and the military planning guidance of the Joint Chiefs of Staff encourages the Services to analyze more fully the tradeoffs between alternative uses of resources. Naturally, this guidance takes into account the needs of the Department as a whole. It aims at ensuring that the Services are working in the right strategic direction in shaping their program recommendations and that the Service programs are complementary, not duplicative. This policy is one of our major efforts to strike the right balance between the beneficial effects of de-

centralization and inter-Service competition and the adverse effects of inter-Service redundancy and excessive rivalry.

We have continued the Planning, Programming and Budgeting System (PPBS) essentially unchanged in preparing the FY 1975 program and budget. This has proved a satisfactory arrangement for preparing, reviewing and determining the force structure and major equipment programs we require. We are examining the PPBS system, however, to see how it can be strengthened and, particularly, whether or not it is possible to achieve better coverage of the support area within the PPBS. I will give you a more complete analysis on this in my next Defense Report.

We also have begun a management by objectives (MBO) program in order to focus top management attention on a key list of specific management objectives we expect to accomplish, primarily in the support area. The MBO program is being used to supplement the PPBS and to provide a "results" oriented approach to DoD management.

Both Deputy Secretary Clements and I realize, of course, that good management is not so much a matter of management systems, whatever they are called, as it is of the demonstrable results achieved. It is our intention to stress results.

We also are trying to improve the communication and interchange with the Congress on management issues and data. For example, among the most important elements of our reporting system are the Congressional Data Sheets and the Selected Acquisition Reports (SARs). In December, 1973, I initiated a review of the SAR system and directed that the results be discussed with interested Congressional committees prior to any substantial change in the system. Our goal in the review is to streamline the SAR so that it can be fully responsive to DOD management needs as well as providing Congress with the timely information it needs and desires.

The review is well underway. The review committee is considering 22 separate issues—including recommendations from the Congress, the Comptroller General, and the Department—for improvement and refinement of the SAR.

SELECTED ACQUISITION REPORTS

Chairman McCLELLAN. You have stated that the Selected Acquisition Reports (SAR) review committee is considering 22 separate issues for improvement and refinements of the SAR. When is its report expected to be issued?

Secretary SCHLESINGER. Within a few weeks.

Chairman McCLELLAN. Will this committee be given an opportunity to comment on any proposed SAR changes before they are implemented?

Secretary SCHLESINGER. Yes. I have directed that any substantial change in the system be discussed before implementation.

Chairman McCLELLAN. Can you describe to us your personal view of the value of the SAR and Congressional Data Sheet system?

Secretary SCHLESINGER. Considering their separate purposes, each serves a necessary function. The SAR is an important segment of the management data which I consider essential to monitoring the acquisition status of priority weapons programs. The primary purpose of the Congressional Data Sheets is to explain and support the President's procurement authorization request each year.

Chairman McCLELLAN. What, in your view, are its major shortcomings and weaknesses?

Secretary SCHLESINGER. As a reporting system, I believe the major shortcoming of the SAR is inadequate distinction between inflation and other factors as causes for program cost change. Of course, timeliness is a problem recognized by all concerned.

Chairman McCLELLAN. How closely do the Secretary and Deputy Secretary review the SAR's submitted by the Services? Do you find it to be an effective management tool, or is it becoming a major burden to comply with?

Secretary SCHLESINGER. While we do not personally review all of the SAR's transmitted to the Congress each quarter, the members of our staff concerned with weapon system acquisition review the Service submissions in depth. In addition, we are provided with a summary of the significant program highlights and changes reported each quarter to acquaint both the Deputy Secretary and myself with the more important contents of the reports. As I have indicated, the SAR is an effective management tool for reviewing and monitoring program progress throughout the acquisition life cycle, and we are taking renewed measures to assure that it does not grow into a compliance burden.

Chairman McCLELLAN. Why can't the SAR's and Congressional Data Sheets be combined?

Secretary SCHLESINGER. While the SAR and the Congressional Data Sheets (CDS) differ in many respects—purpose, frequency, scope, and coverage—much of the data is identical. For the 31 December data each year, I believe there is good potential for combining these submissions to the Congress. In this connection, I agree with some recent observations by the Comptroller General in which he stated that the systems of Congressional Data Sheets, Systems Acquisition Reports, GAO staff studies and other reports have grown over a period of time and now constitute considerable data on major weapons systems to the Congress. The Comptroller General suggested that we form a small task force of GAO and DoD personnel to assure, among other things, that duplication of effort is avoided to the maximum extent possible. We will be joining the Comptroller General in this effort shortly.

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. I am concerned that we achieve the right balance between Congressional oversight of the Department of Defense and the flexibility necessary within the Department to manage our programs efficiently. Secretary Laird spoke to this issue from his extensive background in both the Congress and the Department of Defense in his final report to the Congress in January 1973. It is too soon for me to have adequate insights or specific recommendations for achieving this balance, but it is an area in need of scrutiny and discussion between us. I will have more to say about this later. I am sure the Congress will be as interested in this question as are we in the Department.

B. FORCE AGING AND MODERNIZATION

We have said that we want to keep force structure in order to maintain perceived balances. To do so, we also want to keep pace with potential adversaries in modernization. At the same time, there is a need to maintain a certain average age of systems in the force. However, the rising costs of our newer weapons systems, the relatively modest increases in real value of Defense budgets, and some previous postponements or other delays in modernization (notably those that arose during the war in Southeast Asia) have led to a significant aging problem in the force. The aging problem is seen in the increasing approach to the end of service life of particular force elements (i.e., bloc obsolescence), retirements without replacement, greater maintenance backlogs and funding requirements, and extensions of expected service life. Aging leads to significant pressures on force structure, for systems either wear out and are withdrawn from the force without replacement, or they are replaced on a less than one-for-one basis by significantly more costly systems.

Various solutions to this problem have been discussed, such as "high/low" mixes of systems, increased procurement funding, reduction of force structure where possible, and better management during the development and procurement cycle so as to reduce the unit costs of systems.

We have conducted studies of this problem in the past year. One significant effort has been to have the Services draft "extended planning annexes" which look at modernization in the force beyond the present planning period, that is FY 1980 and beyond. This was one of the recommendations of the DoD Cost Reduction Study. These extended planning annexes have been used by the Services to estimate the impact of forces in the 1980's of a constrained level of budget in constant dollars. The major variables for trade-offs in these studies were force, age and size as well as the unit costs, leaving aside consideration of performance against the future threat. Thus we have made the assumption that the presently planned force structure is generally appropriate for the foreseeable future. The studies also assumed that maintenance requirements of new equipment will be the same as those for current equipment (probably optimistic), and assumed in some cases (such as Navy fighters) that new systems will cost less than those currently being procured. These studies have also left aside the possibility of radical changes to the U.S. Defense budget or the demands of any conflicts that might occur. The studies concentrated on major acquisitions, which constitute about 65 percent of total procurement. Thus the Army reviewed in detail about $2 billion of their annual assumed procurement budget, the Navy about $7 billion, and the Air Force between $3 and $4 billion, depending on the year. The remaining procurement funds would support other procurement (munitions, spares, modifications, etc.).

The conclusions reached in these studies were that our General Purpose Forces tended to age throughout the next 15 years. Major exceptions were tanks and airlift aircraft. These exceptions were also the only cases in which the average age of the systems was maintained at half the expected service lift. All other major categories of systems tended to age at a significant rate. The most pressing problem is the tactical Air Forces where the Services now project much longer system life than history would suggest is realistic. This assumption requires further study before acceptance. But whatever the assumption, the age of tactical aircraft is increasing at nearly half a year per year, resulting in an average force age of over 10 years by 1985, in comparison to the current age of less than six years.

AVERAGE AGE OF AIRCRAFT

[Years]

	1975	1980	1985	1989
Navy fighters	5.1	7.3	8.8	7.9
Navy attack	5.6	7.9	12.2	11.7
Air Force fighter/attack	NA	7.0	9.0	11.0

Other systems show the following aging trends:

AVERAGE AGE OF SYSTEMS

[Years]

	1980	1984	Normal life
Army helicopters	11.2	12.2	12–15
Army tanks	10.8	9.8	20–30
Navy general purpose ships	11.4	12.9	25–30
Air Force airlift aircraft	17.0	15.0	20–25

Secretary SCHLESINGER. These average ages compare to projected lifetime shown below. Life projections are based primarily on engineering service life estimates and do not reflect technical reasons for changing models. In general, while the experience column below reflects the combination of all reasons, the air frame service life should be expected to exceed the actual service life. Using historical experience with the life of systems as the basis for projecting the life of newer systems would tend to increase the magnitude of the aging problem, since new aircraft would have to be procured in order to keep the force at an acceptable age. More rapid turnover of the inventory would be the result.

EXPERIENCE VS. PROJECTED LIFETIME

(Fighter/attack aircraft—years)

Experience	*Projection*
F–8—10	F–4B/N—17.5
F–100—18	F–14—19.6
F–105—16	A–7—20.2
F–104—10	A–6—18.4
A–1—20	

We have attempted to make some estimates of the resources needed in the 1980–85 period to stabilize the aging process for all major classes of weapons, and suspect that as much as a $1 to $2 billion increase in major procurement funding may be needed in that period to stop the aging process if no force level changes are made. Rolling back the age of equipment would take more and would depend on how long we wait.

In the budget review of the past several months, we have initiated and accelerated a number of procurement programs for existing proven systems in order to arrest aging while maintaining force structure. We have also funded system reworks and modifications which should contribute to extending the service life. We will now make sure that our estimates are correct. We will also set long-term force level goals and realistic long-term funding expectations. Certainly more stability in planning Defense resources than we have had heretofore would be

of assistance. Whether the international situation, conflicts, or domestic considerations will permit this remains to be seen. We are also attempting to reduce the age of weapon systems by the following measures:

Improved independent cost analysis in the Services and OSD. The Cost Analysis Improvement Group (CAIG) was established in January of last year. It is described in greater detail later in this section.

Design to Cost.—Production unit costs have been established by defining unit cost thresholds in the development concept paper (DCP) approved by the Deputy Secretary. The cost threshold obligates the program manager to attempt to develop a weapons system that can be acquired within the cost threshold.

"Fly Before Buy".—Operational test and evaluation (OT&E) before production has received major emphasis with the establishment of a Deputy Director of Defense for Research and Engineering for T&E. DOD Directives now require an initial operational testing phase prior to the production decision. This should reduce the need for costly modification and retrofit programs after production initiation and should increase the probability of avoiding major failures in production systems.

Prototype Programs.—A few prototype development programs have been initiated which may provide low cost procurement options without requiring in advance a commitment to procurement.

Low Cost Systems Development.—Systems such as the A–10, patrol frigate, and Sea Control Ship were conceived as low unit cost weapons systems.

In conclusion, the program we have presented this year should enable us to keep the greater part of the present force structure while making significant progress in replacement and modernization. However, we have some indications of significant aging problems which will come upon us in the future, particularly in the 1980–85 time period. This may require some significant changes in procurement programs in the coming years.

C. THE WEAPONS ACQUISITION PROCESS

In December 1972 a study was completed in the Department and subsequently reviewed in detail by Deputy Secretary Clements recommending improvements in our weapons acquisition procedures. During the last year a number of decisions have been taken to implement the major recommendations. The principal changes are noted in the following report sections on long-range planning and review and weapons systems cost reduction.

Long Range Planning and Review

We are preparing three experimental Mission Concept Papers (MCPs) on strategic offense, continental air defense, and theater air defense. These papers are planning documents designed to provide an understanding of the broad functional and fiscal context into which proposed new systems should fit during their development, acquisition and operational life.

Mission Concept Papers

Chairman McClellan. When will the Mission Concept Papers on Strategic Offense, Continental Air Defense and Theater Air Defense be completed? Are not these papers duplicative of some of the existing documentation now utilized by the Department?

Secretary Schlesinger. Final drafts of these three Mission Concept Papers (MCPs) are scheduled to be completed this Spring and, following a period of review and evaluation, a report is to be submitted to me in June regarding their potential utility as a management and planning tool in the defense system acquisition process. These three MCPs are pilot efforts. They do "duplicate" some existing defense documentation, but intentionally so. They were conceived with the idea of broadening the scope of the data covered in current documents so that decisions might be made and plans laid, with greater consideration for the implications of those decisions and plans. Should these pilot efforts be judged to represent a documentation concept worth formalizing, we would certainly cancel the requirement for predecessor documents.

Chairman McClellan. Proceed.

Secretary Schlesinger. The MCPs include assessments of the threat, resources currently projected as available for the specific mission area, potential military

needs, and major deficiencies in projected operational capabilities. They will have the following uses in the procurement of new weapons systems:

Early identification of new technology required.

Aid in setting unit cost targets and evaluation of affordability.

Planning for efficient use of the industrial base.

Estimating resource allocation and availability.

Scheduling weapon system development and replacement, including force implications of new developments.

Weapons System Cost Reduction

To decrease the cost associated with the greater performance demanded of replacement weapons systems, we are making a sharp distinction between systems that are needed and those that are "nice to have". As obvious as this sounds, its implementation requires that we have clearly established force objectives and requirements. We are doing this in Development Concept Papers (DCPs) and within the Defense Systems Acquisition Review Council (DSARC). We are structuring our forces with the "Hi-Low" force mix concept. For a particular mission, we would have a small number of high-performance, sophisticated weapons capable of coping with the maximum enemy threat and a larger number of less sophisticated and less expensive but capable weapons for countering the lower capability enemy threats.

We are changing our weapons acquisition objectives from an emphasis on improving the state-of-the-art in performance to an emphasis on quality equipment having an acceptable performance for an affordable cost. When a requirement for a particular weapon system is objectively substantiated, we ask how this need can be satisfied as economically as possible. Controlling of sophistication must be accomplished very early in the weapons system life cycle process. We cannot afford unnecessary items in any system, and we must adhere to the requirement that any post-contract design changes be tied to decisions on dollar availability.

Having decided on design essentials, the designer must focus clearly on unit production costs, as well as on the cost of operating the system, before the design goes into production. In order to do this, we have tasked "Request for Proposal (RFP)/Contracts Requirement Review Boards" set up in all Services to examine RFPs and contracts to ensure:

Minimum use of exclusive military material specifications in favor of more general commercial standards and practices where practicable.

Production via RFPs of full use of "off-the-shelf" and/or standardized components developed for either military or commercial use.

Maximum flexibility allowance in contractor design to encourage tradeoffs in performance, schedule or other specifications for savings in acquisition or life cycle costs.

We have developed a design-to-a-cost concept within the Department that makes cost, along with performance and schedule, of primary management concern throughout the acquisition process. The Services have submitted unit flyaway cost goals for major systems still in development. These will be the basis for determining design-to-a-cost goals. By the end of the fiscal year, our plan is to have extended these procedures to all major weapon systems where it is possible to use them.

With design-to-a-cost, the Services and their project managers will have the authority to make the performance and schedule adjustments necessary to achieve cost goals. For future programs, a design-to-a-cost estimate will be established at the earliest possible date, but not later than entry into the full scale development phase of the acquisition process.

Unit Flyaway Cost Goals

Chairman McClellan. Please provide for the committee the unit flyaway design-to-cost goals now set by the services and OSD for each major system still in development. What systems cannot use design-to-cost, and why?

Secretary Schlesinger. My staff is currently preparing a detailed summary of the status of design-to-a-cost implementation on all major Defense programs. This summary would answer both of your questions. It should be available about April 1, 1974, and a copy will be provided to the Committee at that time.

Chairman McClellan. Proceed.

Secretary Schlesinger. A Cost Analysis Improvement Group (CAIG) was established within OSD to assess the reasonableness of cost estimates and the criteria used in their development. At the same time, each Service has developed

a staff component capable of preparing independent parametric cost estimates. These Service components, working with the OSD CAIG, prepare an independent cost analysis each time a weapons system is reviewed by the DSARC.

Cost Analysis Improvement Group

Chairman McClellan. In how many Defense Systems Acquisition Review Council decisions have the Cost Analysis Improvement Group's findings been significantly in excess of either the program manager's cost estimate or the service independent cost estimates? Have any programs been cancelled or modified because the Group found that the costs were unrealistic? Have you or Deputy Secretary Clements ever sent a service "back to the drawing or planning board" because the cost of the system was estimated to be too high, or cost estimates were unrealistic? Please describe these situations.

Secretary Schlesinger. The CAIG exists primarily to provide the DSARC and myself with an independent review of the reasonableness of the program manager's estimate so that I may decide what figures to use as my "best estimate." Of the 45 or so independent cost analyses reviewed by the Cost Analysis Improvement Group since its inception two years ago, only five have been significantly above the program manager's or service independent cost estimate.

In one case, a program also had substantial technical problems which required a major program redirection.

In another case, the estimate appeared much too high for the required mission. The service involved was directed to simplify and redesign the system in order to reduce the costs.

In the other situations, additional reviews were directed in order to understand the reason for the differences in the cost estimates.

Chairman McClellan. Proceed.

Secretary Schlesinger. The CAIG is still too new for us to assess fully the effect it will have, if any, on reducing cost growth. Some results, however, already are evident. The development of a separate cost estimate, free from the optimism and pressures of the program advocacy channels and using different techniques, has provided an independent and objective check on the reasonableness of the project manager's estimate. Perhaps the most important benefit, however, has been that conflicting cost views become visible at the top level, thus allowing free and open discussion of the cost issues involved in defense systems procurement at the highest policy levels before important decisions are made.

We are emphasizing the use of new technology for reducing costs and improving reliability as well as for increasing the performance and range of capability for our weapons systems. New technology is useful, however, only when it becomes a proven scientific or engineering capability ready for application. DoD has a record of too often adopting new technology that is insufficiently proven and then having problems in system development which cause unanticipated increases in cost. This situation must be corrected. Spending more on experimental prototype demonstrations of new technology and demanding demonstration before its adoption ("Fly-Before-Buy") can yield highly leveraged. multifold savings in the later costs of engineering development and production. New technology can be used directly to save money by :

Simplifying design, decreasing materiel and manufacturing costs and increasing shelf or service life.

Improving safety and ease of handling of weapons, equipment and material thus decreasing the logistic and maintenance support required.

Providing knowledge and the apparatus necessary to automate manufacturing and logistic operations in order to gain manpower savings.

New technology can be applied indirectly to save money through increases in effectiveness of weapons systems or through design of modular components useful in more than one weapons system.

Within a relatively fixed total DoD budget, any savings from technology applications will hopefully be realized in the form of military potential retained in the face of an increasingly competitive environment. Such savings could help to keep us from "pricing ourselves out of the market". Savings in the form of retained capability are not easily measured and, consequently, are hard to prove. They are nevertheless real and important. New technology will yield savings only if we take a hard line in limiting the application to meeting truly essential requirements in efficient ways. This we intend to do.

Project Managers

The success of a major weapons system acquisition program is determined not only by our ability to acquire equipment which meets the stated technical performance objective within planned schedules and costs, but also by how effectively the system operates in combat and by its ability to be supported and maintained in the field. The project manager's responsibility encompasses all these aspects of weapon system development and acquisition. Experience, good judgment, and a long tour in the assignment are essential if the project manager is to meet these responsibilities successfully. Recognizing this, the Services are continuing to place greater emphasis and importance on selection of project managers, on giving them the authority and accountability required to run their programs and then on keeping them in the job for a longer period of time. Examples of Service efforts are noted below:

The Navy bases the selection of Navy major project managers on selection board procedures similar to those used for the selection of command officers of major combatant ships, since the project manager position is the equivalent of a major combatant ship command in terms of career enhancement. The other Services have placed equivalent emphasis upon attaining high caliber individuals for project managers assignments.

The Army has increased the average tenure of project managers. The tenure of officers reassigned during the period January 1 through June 30, 1973, was 3.3 years as compared to 1.3 years during the same period in 1969. Similar or greater increases in tenure time have been shown by the other Services.

The Services are seeking ways to streamline the reporting requirements of the project managers to higher authority. Under the Air Force "Blue Line" reporting system, for example, the project manager is allowed direct communication with the commander of the Air Force Systems Command, the Air Force Chief of Staff and the Secretary of the Air Force. He uses "after-the-fact" reporting to intermediate commanders.

Project Manager Tenure

Chairman McClellan. You mention the average tenure of Army project maiagers has increased from 1.3 years in 1969 to 3.3 years in 1973. What has been the experience of the other services?

Secretary Schlesinger. The average tenure for Navy project managers was 29 months in 1969 and 38 months in 1973. For Air Force program directors the average tenure was 45 months for 1969, 44 months for 1970, 39 months for 1971, 47 months for 1972 and 36 months for 1973.

Civilian Project Managers

Chairman McClellan. Provide the number of civilian project managers by service and compare with active military project managers for FY 73 through FY 75.

Secretary Schlesinger. The number of civilian and military project managers for FY 1973 through FY 1975 is as follows:

	Military	Civilian
Army: fiscal year 1973 through fiscal year 1975	69	0
Air Force: fiscal year 1973 through fiscal year 1975	44	6
Navy:		
Fiscal year 1973	59	1
Fiscal year 1974	59	0
Fiscal year 1975	55	0

Chairman McClellan. Proceed.

Secretary Schlesinger. In order to ensure that the Services continue to place a high priority on acquiring and keeping able people as project managers and that the project managers are given the authority, responsibility and accountability required to successfully accomplish their tasks, we have formulated a project manager objective as part of the Management by Objective program. It consists of:

Increased emphasis on education and experience in selection of project managers.

Greater promotional opportunities for project managers.

Equating major project managers with major commands in terms of career enhancement.

Rotation of project managers to coincide with program milestones rather than an arbitrary date. This allows longer tenure for project managers.

Clearly defined charters from higher authority to the project manager delineating his range of authority and responsibility.

Accountability to higher authority by the project manager for the successful and timely completion of project milestones.

MANAGEMENT BY OBJECTIVES

Chairman McCLELLAN. Under management by objectives (MBO), are specific objectives for each service or Defense functional area established?

Secretary SCHLESINGER. Specific actions under each objective are assigned to an Assistant Secretary of Defense or Service Secretary for implementation. When an action is assigned to an Assistant Secretary of Defense, and requires coordination with the Service, normal functional lines of communication are used.

Chairman McCLELLAN. What are the specific objectives established in MBO?

Secretary SCHLESINGER. For FY 1974, there are twelve objectives of a rather general nature. Under each objective we have actions which represent our major focus for achieving the objectives.

Objective 1.—Continue modernization and improving readiness of Strategic Forces.

Actions:

1. Develop force level and aging profiles for Strategic Force systems based on the current FYDP.

2. Develop Strategic Cruise Missile concept.

3. Take action to permit operational launch of MINUTEMAN in winter of 1974–75.

Objective 2.—Continue modernization and improving readiness of General Purpose Forces.

Actions:

1. Develop force level and aging profiles for General Purpose Force Systems based on the current FYDP.

2. Improve coordination of NATO General Purpose Force R&D efforts in order to increase commonality of total effectiveness of allied R&D efforts.

Objective 3.—Increase airlift and sealift capability for deployment of ground troops and essential equipment.

Actions:

1. Conclude agreements with NATO allies regarding use of allied shipping under the Planning Board of Ocean Shipping procedures in event of a contingency.

2. Conclude agreements with NATO allies regarding use of host-nation mobility support resources and facilities.

3. Complete by January, 1974, an assessment of the advantages of additional wide-body cargo jets and determine the effectiveness and cost of: Additional military wide-body cargo aircraft; additional U.S. commercial wide-body cargo aircraft; modified military cargo aircraft; modified commercial cargo aircraft.

Objective 4.—Improve the Guard and Reserve Force contribution to the overall defense program.

Actions:

1. Conduct a review of the Guard and Reserve force structure and missions.

2. Increase the readiness and operational response time for high priority units.

Objective 5.—Improve the World-wide Military Command and Control System (WWMCCS) and its information support.

Actions:

1. Execute on schedule the approved FY 74 portion of the overall WWMCCS objective plan.

2. Conduct by May, 1974, a World Wide Command Post exercise (NICKLE PLATE) designed to evaluate the performance of the WWMCCS under realistic conditions.

3. Prepare and issue by June, 1974, a coordinated set of WWMCCS planning documents which relate support of national policy directly to specific WWMCCS hardware and software acquisitions.

Objective 6.—Sustain the required level of manpower strength, skill and quality as the Armed Services operate in an All Volunteer environment.

Actions:

1. Recruit required numbers of qualified non-prior-service and prior-service personnel to satisfy overall strength needs and projected skill requirements while still meeting Service quality objectives.

2. Improve Service reenlistment performance in order to meet Service qualitative and quantitative goals.

3. Increase the recruitment of women for the military Services.

4. Improve the officer grade structure to achieve a better balance between officer grade levels.

5. Secure passage of a modernized military nondisability retirement system legislation to make retirement pay compatible with recent changes in direct compensation.

Objective 7.—Improve the capability of the weapons acquisition process to assess proposed defense systems against their cost by strengthening the existing Development Concept Paper/Defense Systems Acquisition Review Council process and implementing additional management concepts.

Actions:

1. Develop and evaluate by 1 June 1974, three prototype planning documents ("Missions Concept Papers") in the following missions areas: strategic Offense; continental Air Defense; theater Air Defense.

2. Develop by March, 1974, guidelines for bringing future systems and systems currently under development under Design-to-Cost targets.

3. Extend Design-to-Cost acquisition procedures to all feasible major weapon system developments by 30 June 1974.

4. Prepare by December, 1973, POM Extended Planning Annexes (EPA) to show the 15 year impact of current programs on RDT&E, procurement and operations costs. Evaluate these documents by May, 1974, to assess their utility in long-range planning.

5. Enhance effectiveness of the Project Manager by increasing his authority, responsibility, and accountability, and by ensuring that career development patterns produce proven and experienced personnel to serve in these positions.

6. Develop an improved system by which projected cost increases, performance degradations, and schedule delays in major weapons systems will be brought to the attention of top management in an accurate and timely fashion.

7. Promulgate standardized procedures governing the DCP/DSARC process by June, 1974.

8. Task the "Request for Proposal/Contracts Requirement Review Boards" of the Military Services to improve the following aspects of the acquisition review process:

(*a*) Request for Proposal (RFP) procedures:

Minimize the use of exclusive military materiel specifications in favor of more general commercial standards and practices where practical.

Ensure that RFPs promote full use of "off-the-shelf" and/or standardized components developed for either military or commercial use.

Standardize RFP formats from all Services to get standard replies without duplication and to minimize cost.

Allow maximum flexibility in responding to RFPs so as to encourage trade-offs in performance, schedule or other specifications for savings in acquisition and/or life cycle costs.

(*b*) Contract procedures.

Simplify contract format and contracting procedures.

Eliminate unnecessary requirements including excessive end-item performance specifications, and superfluous requirements for contractor management systems, military specifications, data reports, etc.

Improve contract change order procedures in order to eliminate claims.

Objective 8.—Improve the capability and efficiency of DoD management systems in the support area.

Actions:

1. Develop a cost-effective system to identify maintenance and other operations costs by weapons system.

2. Expand the application of DoD labor productivity measurement to cover all major support functions.

3. Expand and update the "Logistics Performance Measurement and Evaluation System" in order to enhance top management visibility over key logistics functions and areas.

4. Advance standardization of DoD management systems in areas where standardization will reduce development, maintenance, or operating costs without sacrifice of support essential to management.

5. Develop methods for systematically reviewing items in the inventory to reduce or eliminate varieties and sizes to the minimum number compatible with the operating needs of the Military Services.

6. Eliminate duplicate wholesale inventory management of items used by more than one Service.

Objective 9.—Decrease the size of the Defense support establishment.

Actions:

1. Reduce the number of bases through a realignment of the DoD domestic and overseas base support structure.

2. Begin reductions in headquarters staffing by 30 June 1974 through a reduction in both the number and size of DoD management headquarters.

3. Determine the requirements for DoD laboratories and assess the capability of present laboratories to meet the requirements. Identify excess capacity, overlapping capability, shortfalls and instances where R&D could be contracted to industry.

4. Reduce the number of intelligence personnel by June 30, 1974, through management efficiencies, technological advances, and mission reductions.

Objective 10.—Improve the efficiency and economy of Defense support activities.

Actions:

1. Identify by April, 1974, base support services currently provided by military organizations which could be provided as effectively at lower cost by contracting out to the private sector.

2. Increase the use of flight simulators in undergraduate, graduate, and proficiency flight training on the basis of least risk to operational capability.

3. Identify and exploit opportunities for inter-Service maintenance support, including decreasing the number of overhaul and repair facilities.

4. Standardize ammunition on an inter-Service and inter-ally basis.

Objective 11.—Further DoD's social and human goals.

Actions:

1. Provide effective economic adjustment assistance to communities impacted by DoD base realignments by: assistance to displaced DoD employees; assistance to the community in attracting new business.

2. Establish and implement numerical goals and milestones by January, 1974, for increasing the number of women and minority members at all civilian grade levels in DoD in accordance with merit principles and affirmative action responsibilities.

3. Increase the goal of the FY 74 Minority Bank Deposit Program over the $10M level currently established. Achieve the revised FY 74 goal.

4. Establish new goals and timetables by January, 1974, for granting of minority group concession contracts on Defense installations. Achieve FY 74 goals.

5. Commence a major evaluation during FY 74 of the military health care delivery system.

6. Complete by 30 June 1974, a major evaluation of on-going drug abuse programs to include current procedures for: identification; education and prevention; and treatment.

Objective 12.—Implement a 15 percent reduction from FY 73 in total energy use within DoD.

Actions:

1. Consistent with the need to ensure an adequate posture of military readiness and training the following actions will be taken:

Reduce aircraft flying hour programs.

Reduce Navy ship operations.

Reduce use of high speeds in Navy ship transits.

Increase the use of shore training facilities in order to minimize time at sea.

Emphasize energy conservation policies in the R&D program.

Limit vehicle speeds to 50 mph.

Limit administrative use of vehicles and aircraft.

Senator McCLELLAN. Are the objectives quantifiably measurable?

Secretary SCHLESINGER. Wherever possible we have defined performance indicators for the actions which are quantifiably measurable. For those actions which are not quantifiably measurable we use a list of events keyed to completion dates, called milestones, for tracking the accomplishment of the action.

Chairman McCLELLAN. Proceed.

D. SUPPORT STRUCTURE

Secretary SCHLESINGER. I am placing intense management effort on the realignment of our support structure. The Services, Defense Agencies and the Office of the Secretary of Defense are critically examining the requirements and needs of the operating forces for support. It is my intention to allow the Services to reallocate to the combat force those resources saved by decreasing and consolidating the support establishment. This conversion of support resources to combat resources provides an incentive and the means by which the military Services can help to maintain the level of combat forces necessary for our national security. We are seeking "swords from fat".

BASE REALIGNMENTS

The DoD base realignment program has as its objective the significant reduction of operating costs by reviewing the use of military installations at home and around the world and by reducing or realigning those bases which must be kept. Reduction of operating costs is being approached in a two-phased program.

In the first phase, and within a short timeframe, we expect to reduce or realign a variety of bases both here and abroad as the result of internal military department management improvements. The Service Secretaries have advised me that when these actions are completed they will have drawn down the military base structure to a level consistent with current force structure support.

In this connection, I would like to point out that over the past decade there have been almost 3,400 separate actions taken to close, reduce or realign military installations on a worldwide basis. These actions have resulted in the reduction of approximately 700,000 military and civilian personnel.

It is obvious, however, that the Defense Department must press ahead toward the achievement of additional savings in the overhead and support areas associated with military bases. If we do achieve, in fact, a military base structure consistent with the requirements for support of current forces then we must move on to the next plateau. This involves a concerted effort to maximize the cross or joint Service utilization of bases and facilities. This is not seen as cross or joint Service use in the rather conventional sense of similar but separate Service facilities at a single installation. Rather it is seen as the sharing of certain logistical functions that give evidence of commonality. Such functions as aircraft and vehicle maintenance and repair fit this context, for example. There are several others.

JOINT USE OF BASES

Chairman MCCLELLAN. You mention a concerted effort to maximize the joint Service use of bases and facilities. This would appear to provide for meaningful savings. Provide the percentage which joint use of bases and facilities has increased since 1968.

Secretary SCHLESINGER. As you know we are determined to reduce costs in support and overhead areas. We are investigating opportunities for reducing some overhaul, repair and logistics facilities by combining separate Service facilities in the area into one facility under the management of one Service. These projects are still in the planning stages. It is too early to determine their impact on the basic structure.

The Services have not maintained records on the proportions of their bases and facilities which were jointly utilized. Thus it is impossible for us to determine the percentage of joint use in 1968 and the extent of increase since then. The Services have, however, been able to estimate joint use of their principal bases in the United States at the present time. Defining joint utilization of a base to be the performance of a major mission by one Service at the facility of another, the Services' current estimates of joint use of their major U.S. installations are as shown in the following table:

	Army	Navy	Air Force	Total
Major U.S. installations	94	201	156	451
Number with joint use	16	25	10	51
Percentage with joint use	17	12	6	11

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. Additionally, we are reviewing the organization of the military departments with respect to the numbers and kinds of headquarters and headquarters facilities. Given the significant reduction in size of the Armed Forces over the past several years, opportunities now exist to consolidate or eliminate some of these headquarters activities.

STANDARDIZATION OF MANAGEMENT SYSTEMS

Many of the basic characteristics of management systems within the Department are common to more than one DoD component. Significant advantages can be realized if these management systems are standardized with respect to system design and related automatic data processing equipment and procedures. Among the advantages are more effective use of limited personnel resources with hard-to-find talents, reduced training requirements, ease of audit and management review. Although standardization of management systems has been a consideration in system design in the past, we feel that increased emphasis from top management in the Department will bring further improvements. Our particular targets are those different systems operated by different defense components to perform essentially identical functions. Differences which are essential to satisfy inescapable variations in component missions will be accommodated, but unnecessary differences, which exist only because of long term usage, will not be tolerated.

As part of our management by objectives program we have established a task force under the direction of the Assistant Secretary of Defense (Comptroller) to standardize defense management systems where standardization will reduce systems development or maintenance costs, or operating costs, without sacrifice of support essential to management.

SUPPORT COST ACCOUNTING BY WEAPONS SYSTEM

Support costs in general are not accounted for along weapon system or support system lines. It is not possible with the present DoD management and accounting system to find out, without a specific large-scale study, how much we spend to support specific weapons systems. Nor is it possible to assess easily the impact on readiness of alternative budget allocations which relate to these costs. Present management guides and controls are inadequate to give confidence that reductions do not impact readiness.

SYSTEM SUPPORT COSTS

Chairman McCLELLAN. You mention that it is impossible with the present accounting systems to find out without a specific large scale study, how much we spend to support specific weapons systems. What systems have been the subject of a such specific study? What are the estimated costs of some of our major systems?

Secretary SCHLESINGER. The current DoD accounting system is not organized along weapon system lines in the operations and maintenance or replenishment support areas. Several years ago the Department's accounting system was structured to highlight control of the manager for his resources at each organization, command and base. This current accounting structure does not allow for the Department to identify precise funds for a weapon system in the various operations, maintenance and replenishment support areas. As I stated in my FY 1975 Defense Report, a large-scale study or special effort would be required to identify weapon system support costs. To date we have not completed any studies on any single weapons system to precisely accommodate all support costs. We have recently established a task group to review the problems involved with identification of support costs by weapon system. I will apprise you of the results of this task group review and relay the preliminary weapon system support costs when they have been accumulated.

Chairman McCLELLAN. Proceed.

Secretary SCHLESINGER. The Department of Defense management and accounting system is designed primarily to identify costs organizationally and functionally. In the interest of more efficient management of the resources used in operations and maintenance of weapons systems, we believe it is necessary that we have cost-effective management and accounting of support costs by weapons support system. The break-out of operation and maintenance cost by

weapon or support system is necessary to meet our major goal of optimum readiness within budget constraints. While there have been previous efforts to establish equipment maintenance cost accounting by weapon support system, these have been limited in scope, and implementation is only partially complete.

As another one of our management by objectives actions, we have established a task group to consider management focus, data needs, data systems and cost, system uniformity and phasing of implementation to develop a system to identify maintenance and other operations costs by weapons or support system.

Logistic Support Aspects of Weapons Acquisition

The improvement of reliability, maintainability and life cycle support of new weapons is receiving increased emphasis within DoD. Logstic support is a major design parameter with the objective of reducing the number of equipment failures, cutting repair costs, and decreasing distribution and inventory costs of components through greater standardization. To assure that design objectives are reached and that required logistic planning has been accomplished, a plan for logistic support has been made an integral part of weapons system development plans. Demonstration that logistic design parameters have been achieved is a major objective of developmental and operational testing and evaluation. System program managers have been charged with the responsibility for assuring that support resource requirements are integrated with operational requirements to accomplish successful deployment of new systems.

Logistic Systems Management

Many of the logistics systems within the Department were, for the most part, developed individually by each of the DoD components in support of their separate logistics operations. The lack of centralized planning and control of these systems has been noted by Congressional committees, the GAO, and OSD study groups such as the President's Blue Ribbon Defense Panel (on which Deputy Secretary Clements served) and the Joint Logistics Review Board.

Specific criticisms have been directed toward the need for OSD to strengthen its overall direction and control of these systems; to reduce their proliferation; to increase their functional and technical compatibility, interface, standardization and integration across the DoD components; and to better manage the rapid increases in development costs associated with highly integrated systems using third generation computers and advanced telecommunications.

To alleviate these criticisms we have taken several specific management actions in the last few years in cooperation with the DoD components. Among these were the establishment in 1970 of a DoD Logistics Systems Policy Committee (LSPC) whose principal goal was to develop coordinated long range logistics objectives and assign implementing actions. Among the recommendations of the LSPC was integration into single Defense agencies of separate Service organizations for management of subsistence stocks and for property disposal management.

On October 1, 1973, implementation of the plan for worldwide integrated management of subsistence stocks began. This plan consists of two phases: Phase I brings all wholesale stocks into an integrated management system and Phase II extends that system to all retail stocks. The Defense Supply Agency will be authorized overall policy and direction in the area of inventory management of wholesale subsistence stocks. Despite this fundamental change, requisitioning procedures for ships and units remain the same and thus little disruption or confusion will be caused at the user level. The integrated nature of this system will allow us to be more fully aware of what we need, what we have, where it is, and how to move the DoD subsistence stocks most efficiently. There are a number of small problems remaining in the implementation, but we are confident that this new management system will prove to be both economical and responsive in peace or wartime.

A plan to integrate the DoD property disposal program on a worldwide basis became a reality on July 1, 1973, when the Headquarters of the Defense Property Disposal Service (DPDS) became fully operational. DSA will exercise overall responsibility for the program to include centralized policy direction, inspection, and audit functions.

Program management and staff supervision are to be exercised by the DPDS. Major features of this integrated management effort are worldwide inventory management, worldwide management information and a centralized accounting system.

Reduction of Items in Inventory and Elimination of Duplicate Inventory Management

The support of U.S. Armed Forces is expensive in terms of materiel costs and management effort. The use of improved technology in communications, automation, transportation and distribution will offset some of the funding problems. Innovative management can provide economical support without disrupting essential missions. Our military supply system must include only the minimum number of items required for effective Service operations. Not only must older, seldom-used items be phased out of the system, but the vast range of sizes, types and varieties of the same basic item must be reduced. Efforts to control proliferation of items in the inventory are necessary for an economical support system.

A program for eliminating duplicate management of consumable items in the Department of Defense is now in effect. The responsibility of each military Service to procure and manage the items it need and uses has resulted in the past in competition between the Services for procurement of available materiel. With the advent of an integrated materiel management of consumable items program, a single manager is designated to assume total wholesale logistic support responsibility for all users of a single item. He is no longer an Army, Navy or Air Force manager exclusively. He has become a DoD manager obligated to provide impartial support to all military Service customers. The effort marks a major milestone in attaining a logistics objective of one item/one manager.

While management responsibilities have been determined for all consumable items, there still remains the task of transferring responsibilities and inventories from one or several managers to another. A special joint task group is monitoring the completion of the logistics support responsibility realignments.

Productivity Program

In August 1973 Deputy Secretary Clements established a DoD productivity program under the leadership of the Assistant Secretary of Defense (Installations and Logistics). The objectives of the program are to:

Promote productivity improvements at all levels of responsibility throughout the Department.

Foster the development and use of productivity measurements.

Establish a working environment giving full consideration to meaningful and mature worker/manager relationships in which both can fully participate and realize mutual benefits.

The program includes coordination of productivity improvement efforts within the Department and development of a management information system which will provide useful productivity data for DoD management purposes.

Management efforts in the productivity program are geared toward workload stabilization, procedures simplification, organization realignments, application of human engineering and productivity improvements through capital investments. All of these efforts are necessary to offset the increased cost of personnel.

Productivity

Chairman McClellan. You mentioned the productivity program, but your statistics on pay and inflation seem to ignore any mention of increasing productivity. As a professional economist, do you think it is valid to ignore productivity improvements when considering the impact of higher costs and higher pay on the budget?

Secretary Schlesinger. As I indicated earlier in my answer to your question on page 19 about pay raises, the DoD does utilize productivity measures where they are applicable.

Chairman McClellan. Proceed.

Secretary Schlesinger. Enhancing productivity through capital investments is a relatively new emphasis within the Department which can make significant contributions toward improved productivity in future years, and the Army Materiel Command (AMC) initiated a test program on this in FY 1973. The Ammunition Procurement and Supply Agency (APSA) was given authority by AMC to administer a capital investment program at government-owned contractor-operated plants without requesting prior approval for each project from higher command. Of 24 projects approved, 15 had paid back their costs by the end of December 1973. The total cost of the 24 approved projects was approximately $480,000. The savings will be $1.7 million annually if current production rates continue.

With the success of this test program, AMC has budgeted $1.9 million for the program in FY 1974.

Within the entire Department the potential applications of the APSA test are significant. The Air Force has initiated a program whereby the Air Force Logistics Command has been given approval authority for depot maintenance facilities projects and the Navy is reviewing the possibility of applying a similar program.

E. ENERGY MANAGEMENT AND CONSERVATION

DoD energy consumption represents a $2.5 billion item in our FY 1974 budget, mostly to be spent for procurement of petroleum fuels. Recognizing that this area represented a prime opportunity for economy and better control of fuel distribution, we placed bulk petroleum fuels under integrated management control as of July 1, 1973. This was implemented through the transfer of personnel and petroleum stocks, excluding "on-base" stocks, to the Defense Fuel Supply Center (DFSC) of the Defense Supply Agency.

The timeliness of this move was evident as the system was put to its first real test almost immediately with the advent of the oil embargo. As significant shortages of bulk fuels began to occur, we were able to distribute the diminishing resources more effectively. This was particularly important when the immediate effect of the oil embargo was the cutting off of our overseas forces from local sources of fuel, necessitating replenishment of depleted stocks directly from the United States. A current inventory and location of bulk fuels in support of the Mediterranean forces was quickly available, and an assessment of product availability and measures necessary to provide continuing support to both the Navy and Air Force was developed rapidly.

In September, 1973, the Defense Energy Task Group was established to conduct a comprehensive study to define DoD energy-related problems and to recommend measures for strengthening the management of DoD energy resources. As a result of that study, a Director for Energy, reporting directly to the Assistant Secretary of Defense (Installations and Logistics), has been established with overall program manager authority for this vital resource.

The study established that the Department consumes 2.4 percent of all the energy used in the United States and 3.5 percent of the national petroleum usage. Within the Federal Government, DoD is the largest consumer, accounting for 85 percent of Government energy use. In FY 1973 DoD procured nearly half of all its petroleum from foreign sources, primarily for overseas use.

To meet the current problem, the military Services have taken strict actions to conserve fuel through reduced consumption, while trying to avoid an unacceptable impact on readiness. Among actions taken are:

A major reduction in aircraft flying hours.

A reduction in the speed of Navy ships during transits and operations and a major overall reduction in Navy ship operations.

An increased emphasis on reducing energy requirements through R&D programs.

An aggressive energy savings program throughout DoD to decrease heating, lighting, and vehicle fuel use.

Aircraft Flying Hours

Chairman McClellan. You mention a major reduction in flying hours. Provide the actual hours flown during FY 1973 by military service and compare with the hours programmed for FY 1974 and FY 1975.

Secretary Schlesinger. The actual FY 1973 Operations and Maintenance program for active and reserve forces is 9,443,000 hours compared with 8,101,000 for FY 1974 and 8,225,000 for FY 1975. Information by Service follows:

[Millions of hours]

	Fiscal year—		
	1973	1974	1975
Army	2.025	1.679	1.680
Navy	2.493	2.244	2.428
USAF	4.925	4.178	4.147

Reserve Forces Fuel Consumption

Chairman McClellan. On November 16, 1973, Deputy Secretary Clements directed a reduction of 20 to 25 percent in the fuel consumption of National Guard and Reserve elements below that programmed for FY 1974. Show the FY 1973 actual fuel consumed and compare with the programmed FY 1974 and FY 1975 levels.

Secretary Schlesinger. The FY 1974 and FY 1975 budget figures submitted for the record are based upon Secretary Clements' memorandum of November 16, since rescinded, and do not reflect the effect of the 90 percent of the FY 1974 Presidential Budget program level established by me on 6 February 1974. As a result, the program data are being analyzed so that the necessary changes can be effected to coincide with the current approved program level which is a 10% reduction.

[In thousands of barrels]

	Fiscal year—		Fiscal year 1975 budget	
	1973 actual	1974 program	Fiscal year 1974	Fiscal year 1975
Reserve forces	5,685	6,192	5,972	5,19
Guard forces	9,600	11,314	9,600	8,70
Total	15,285	17,506	15,572	13,89

Chairman McClellan. Proceed.

Secretary Schlesinger. I am proud of the conservation performance of the armed forces which has resulted in Defense leadership of all federal agencies in energy conservation. Our currently programmed level of petroleum consumption in Fiscal Year 1974 is at the lowest level in *16 years*. It is almost 42 percent below the peak consumption years of the Southeast Asia war and approximately 15 percent below the FY 1973 consumption rate.

Petroleum Procurement

Chairman McClellan. Mr. Secretary, would you please identify the bulk petroleum fuels procured during FY 1973 and programmed for FY 1974 and FY 1975. Compare with consumption for the same period by military service.

Secretary Schlesinger. The answer to this question is contained in the following budgetary data which I submit for the record.

DOD BULK PETROLEUM, PROCUREMENT AND CONSUMPTION, FISCAL YEARS 1973–75

[In thousands of barrels]

	Procurement	Consumption
Fiscal year 1973:		
Army	23,158	24,327
Navy (including Marines)	93,143	100,207
Air Force	156,632	154,500
Defense agencies		426
Total	272,933	279,460
Fiscal year 1974 (estimated):		
Army	22,417	22,417
Navy (including Marines)	84,017	84,017
Air Force	128,400	128,400
Defense agencies	669	669
Total	235,503	235,503
Fiscal year 1975 (estimated):		
Army	21,341	21,341
Navy (including Marines)	86,517	86,517
Air Force	134,600	134,600
Defense agencies	973	973
Total	243,431	243,431

Chairman McClellan. Proceed.

Secretary Schlesinger. While we shall continue to share the same hardships and sacrifices being borne by other sectors of the nation in our housekeeping and administrative support elements, we must have sufficient fuel for our combat forces to remain operationally ready. To assure this, we shall seek priority allocation under the Emergency Petroleum Act of 1973 whenever operational readiness requires.

Beyond conservation, there is at least one other action that can be taken to help meet the immediate fuel needs of the nation and thus of national defense. That is temporary activation of the Naval Petroleum Reserve No. 1 at Elk Hills, California. Within 60 days of Congressional approval, Elk Hills could be contributing up to 100,000 barrels a day or more to the nation's crude oil supply. And, within a relatively short time thereafter production could be brought up to 160,000 barels a day. This would offset well over half the maximum potential impact imposed on the domestic economy by denial of foreign-source petroleum to U.S. Forces. To this end, I am hopeful the Congress will support the request of the Administration to achieve production from Elk Hills for one year.

In summary, our contributions to energy conservation will be:

Using only those energy resources needed to maintain operational readiness.

Avoiding wasteful practices and improving energy resource management.

Obtaining priority supply under appropriate authority for only the minimum essential needs for national defense.

Directing energy-related R&D in helping develop alternate energy sources and in improving energy-consumption efficiency.

Economic Stimulus

Chairman McClellan. Mr. Secretary, the media has recently contained numerous items with reference to the amount which was added to the fiscal year 1975 Defense request in order to stimulate the economy. Some estimates have been as high as $5 billion. You have been quoted as indicating a figure between $1 billion and $1.5 billion. Will you comment on this matter?

Secretary Schlesinger. Everything in the requests you are now considering—the FY 1974 readiness supplemental and the entire FY 1975 estimate—is needed to meet military requirements. Our program was developed upon this basis, and can only be justified upon this basis. I ask that the Congress review our requests on this basis, and this basis alone. If, in the judgment of the Congress, there are items in this request which fail the test of military need, they should not be approved.

Nothing is included in our request for the purpose of stimulating the economy.

As we were projecting our military requirements and budgetary needs last fall, it appeared for a time that our FY 1975 requests might have to be held to a relatively low level. This did not involve any conclusion that our requests did not meet the test of military need, but rather stemmed from overall budgetary considerations and the economic outlook at the time—the need to fit many competing needs, for Defense and other programs, within a budgetary total that was felt to be appropriate at the time.

I presented our case for the Defense budget on the basis of military need, and I was prepared to make a strong case on this basis should lower figures be suggested within the Executive Branch. However, the overall budgetary totals were increased somewhat as the economy softened. It was possible to provide for our military requirements within the higher total for Federal outlays.

I think it is safe to say that the Defense budget is higher than it would have been had the economy not softened. The President, acting on the counsel of his budgetary and economic advisers, probably, didn't take as hard a line on the Defense budget as he might have if he felt he had to reach a much lower spending total.

It is very difficult to calculate an exact amount of money resulting from all these developments—to determine what the Defense budget might have been under different conditions. In the first place, I am not privy to all the contacts between the President and his top budgetary and economic advisers. I don't know what they might have been thinking or projecting. Nor could they themselves state with exactitude what they might have advocated, had circumstances been different. Had they advocated significant reductions in the Defense budget, I would have presented a strong case for a higher budget level. Again, one can only speculate how this might have been settled.

So we are down to a case of what might have been. Under different circumstances, there might have been a different Defense budget level. The level approved supports essential military requirements and that is the basis upon which it should be judged.

TABLE 1
Department of Defense
FINANCIAL SUMMARY
(In Millions of Dollars)

	FY 1964	FY 1968	FY 1973	FY 1974[a/]	FY 1975[b/]
Summary by Functional Classification					
Military Personnel	12,983	19,939	23,639	24,452	25,898
Retired Military Personnel	1,211	2,093	4,392	5,164	6,014
Operation and Maintenance	11,693	20,908	22,148	24,156	26,596
Procurement	15,036	22,550	18,574	18,653	19,867
Research, Development, Test, & Evaluation	7,053	7,264	8,020	8,333	9,389
Military Construction	977	1,555	1,464	1,821	2,150
Family Housing & Homeowners Asst. Prog.	602	614	1,009	1,148	1,273
Civil Defense	111	86	82	82	86
Special Foreign Currency Program	-0-	-0-	3	3	3
Naval Petroleum Reserve	-0-	-0-	-0-	-0-	24
Military Assistance Program	989	588	1,120	3,295	1,279
Total - Direct Program (TOA)	50,655	75,597	80,452	87,105	92,579
Summary by Program					
Strategic Forces	8,505	7,236	7,253	6,883	7,628
General Purpose Forces	16,406	30,375	25,810	27,899	29,183
Intelligence and Communications	4,378	5,551	5,683	5,949	6,464
Airlift and Sealift	1,044	1,756	860	973	1,053
Guard and Reserve Forces	1,768	2,196	3,897	4,385	4,796
Research and Development	4,813	4,277	6,463	7,003	8,409
Central Supply and Maintenance	4,639	8,422	8,643	8,873	9,330
Training, Medical, Other Gen. Pers. Activ.	6,959	12,183	16,361	18,193	20,078
Administration and Assoc. Activities	1,077	1,237	1,719	1,849	2,164
Support of Other Nations	1,066	2,364	3,762	5,098	3,474
Total - Direct Program (TOA)	50,655	75,597	80,452	87,105	92,579
Summary by Component					
Department of the Army	12,275	24,972	21,656	22,096	23,618
Department of the Navy	14,458	20,765	25,425	27,575	29,568
Department of the Air Force	19,958	24,917	24,707	25,523	28,029
Defense Agencies/OSD	1,007	1,519	2,008	2,165	2,649
Defense-wide	1,857	2,750	5,454	6,399	7,350
Civil Defense	111	86	82	82	86
Military Assistance Program	989	588	1,120	3,295	1,279
Total - Direct Program (TOA)	50,655	75,597	80,452	87,105	92,579
Financing Adjustments	14	1,143	-49	-178	320
Budget Authority (NOA)	50,669	76,740	80,404	86,928	92,899
Outlays	50,786	78,027	73,828	79,500	85,800

a/ Amounts for proposed legislation for the volunteer force, military retired pay, and flight pay are distributed ($99M).

b/ Amounts for military and civilian pay increases, and military retired pay reform, volunteer force and other proposed legislation are distributed ($2242M).

NOTE: Details may not add to totals due to rounding.

TABLE 2

SUMMARY OF SELECTED ACTIVE MILITARY FORCES

	Actual June 30, 1964	Actual June 30, 1973	Estimated June 30, 1974	Estimated June 30, 1975
Strategic Forces:				
Intercontinental Ballistic Missiles:				
MINUTEMAN	600	1,000	1,000	1,000
TITAN II	108	54	54	54
POLARIS-POSEIDON Missiles	336	656	656	656
Strategic Bomber Squadrons	78	30	28	27
Manned Fighter Interceptor Squadrons	40	7	7	6
Army Air Defense Firing Batteries	107	21	21	0
General Purpose Forces:				
Land Forces:				
Army Divisions	16 1/3	13	13	13 1/3
Marine Corps Divisions	3	3	3	3
Tactical Air Forces:				
Air Force Wings	21	22	22	22
Navy Attack Wings	15	14	14	14
Marine Corps Wings	3	3	3	3
Naval Forces:				
Attack & Antisubmarine Carriers	24	16	14	15
Nuclear Attack Submarines	19	60	61	67
Other Warships	368	242	186	191
Amphibious Assault Ships	133	66	65	65
Airlift and Sealift Forces:				
Strategic Airlift Squadrons:				
C-5A	0	4	4	4
C-141	0	13	13	13
Troopships, Cargo Ships, and Tankers	101	53	32	32

Table 3
Active Duty Military Personnel,
Civilian Personnel and Reserve Component Strength
(end of fiscal years in thousands)

	1964	1968	1973	1974	1975
Direct-Hire Civilian					
Army 1/	360	462	333	356	359
Navy	332	419	322	326	324
Air Force 1/	305	331	271	271	270
Defense Agencies	38	75	72	76	75
Total 1/	1,035	1,287	998	1,029	1,028
Active Duty Military					
Army	972	1,570	801	782	785
Navy	667	765	564	551	541
Marine Corps	190	307	196	196	196
Air Force	856	905	691	645	630
Total	2,685	3,547	2,252	2,174	2,152
Reserve Components (in paid status)					
Army National Guard	382	389	386	383	372
Army Reserve	346	312	284	280	252
Naval Reserve	132	131	129	120	111
Marine Corps Reserve	48	48	38	37	36
Air National Guard	73	75	90	92	90
Air Force Reserve	67	46	45	56	54

1/ These totals include Army and Air National Guard Technicians, who were converted from State to Federal employees in FY 1969. The FY 1964 and 1968 totals have been adjusted to include approximately 38,000 and 39,000 technicians respectively.

QUESTIONS SUBMITTED BY SENATOR CHILES

Chairman McCLELLAN. Mr. Secretary, Senator Chiles has asked that some questions he has prepared be answered for the record. If that is satisfactory, the questions and answers will appear at this point.

Secretary SCHLESINGER. I will provide the responses.

[The questions and answers follow:]

STRATEGIC MISSIONS

Senator CHILES. Would you please discuss how you measure strategic offensive capability?

Secretary SCHLESINGER. U.S. strategic offensive capability is measured in terms of the ability of programmed forces to implement the U.S. nuclear policy of deterrence.

U.S. forces must be sufficient to deter aggression at all levels of conflict. In the event deterrence fails, these forces must be sufficiently survivable and flexible to be withheld for an extended period of time so that the conflict can be kept at the lowest possible level while providing the President options appropriate to the level of conflict. To the extent escalation cannot be controlled and a major nuclear war occurs, then the objective for employment of these forces is to obtain the best possible outcome for the United States and its allies.

PERFORMANCE CHARACTERISTICS

Senator CHILES. What are the most important performance characteristics when it comes to accuracy, reliability, throw-weight, range, or penetration capability?

Secretary SCHLESINGER. No one weapon system performance characteristic can be singled out as being most important to the implementation of U.S. nuclear policy. Each contributes to varying degrees depending upon the scenario and targets under consideration. For example, if one postulates a limited scenario dictating a surgical attack to minimize collateral damage then accuracy is of prime importance assuming the weapon arrives over target. On the other hand, if one is concerned with utilization of the bomber force against a large area target heavily deefnded by area and terminal air defenses, then penetration capability is of prime importance.

R. & D. PROJECTS

Senator CHILES. Can you provide us with a summary listing of all the R&D projects being conducted that are directed at each of these performance characteristics like accuracy, reliability and others?

Secretary SCHLESINGER. In the Fleet Ballistic Missile line we have an R&D project to define the characteristics and improve the accuracy of our future SLBMs. There are R&D projects in the MINUTEMAN line to develop the technology which would permit us to improve the accuracy, increase the number of warheads, or increase the warhead yield of MINUTEMAN III, should it prove necessary to deploy such measures. In the Advanced Ballistic Reentry Systems line there is an advanced development program for a highly accurate maneuvering reentry vehicle for SLBMs and ICBMs. The TRIDENT program includes the demonstration of an evader maneuvering reentry vehicle for potential improvement in penetration capability should that be needed. All of our systems in development have performance characteristics which are specified in terms of accuracy, reliability, range, payload and the other factors which denote performance.

COMPARISON OF STRATEGIC CAPABILITIES

Senator CHILES. Could you provide us with a table or chart that compares U.S. and Soviet strategic offensive systems, not in terms of physical characteristics but performance characteristics, including range reliability, throw-weight, yields, accuracy, etc.? Is it possible for you to give us a measure of each of these system's contribution to strategic offensive capability? In other words, how does each contribute to our ability to perform strategic offense, which are the most productive, which are the least productive?

Admiral MOORER. It is not possible to measure separately the effectiveness of any element of the TRIAD in the absence of an assumed scenario. Each of these

systems is designed to insure that the U.S. maintains a survivable deterrent in conjunction with the other two systems. The same difficulty in assessing relative merits exists in regard to Soviet ICBMs, SLBMs, and bomber force.

Bomber forces contain too many variables, i.e., air frames, air-to-surface missiles and gravity bombers, to chart. Charts, however, of ICBMs and SLBMs follow.

[Additional classified information was separately furnished to the committee.]

Replacement of Older Systems

Senator Chiles. Are you able to graph for us how older systems will be replaced by newer systems, like Trident, and when will they enter the force?

Secretary Schlesinger. Trident submarines will be deployed according to a 1, 2, 2, 2, 2, 1 schedule beginning in FY 79. Replacement of older submarines depends on the provisions of a SALT II agreement. However, assuming extension of the Interim SALT Agreement fixing the number of SLBMs permitted, Polaris/Poseidon SSBNs will be phased out on a launcher-for-launcher basis.

The planned deployment of Minuteman III missiles will be completed at the end of FY 75. At this time, all MM–I missiles will have been phased out and the Minuteman force will be comprised of 550 MM–IIIs and 450 MM–IIs.

A production decision on the B–1 is not scheduled until November 1976.

The Annual Defense Department Report for FY 1975 (SECRET), Appendix Table 2, "U.S. Strategic Forces" provides more detailed data on projected force levels.

Primary Strategic Defense Systems

Senator Chiles. Under strategic defensive forces; you mention AWACS, IMI, SAM–D and other systems that contribute to strategic defense capability. Don't many of these systems, in fact, contribute to other defense missions? What is the primary mission justification for the AWACS and SAM–D: theater tactical warfare or strategic warfare?

Secretary Schlesinger. Defensive systems such as AWACS and SAM–D, which are currently under development, have capabilities which could be applied in either tactical or strategic warfare. However, they are intended primarily for theater tactical warfare.

Senator Chiles. Would you provide a complete list of all the systems in the military inventory and being considered that would, in one way or another, contribute to the mission of strategic defense?

Secretary Schlesinger. The following list includes all U.S. strategic defensive systems plus those general purpose force systems which could be used to augment our defensive forces for surveillance and limited defense of the U.S. during a crisis:

Interceptors:
- F–101
- F–102
- F–106
- F–4
- F–14
- F–15

Surveillance and Warning Systems:
- CONUS Over-the-Horizon Backscatter (OTH–B) Radars
- DEW Line Radars
- CONUS Surveillance Radars
- Airborne Radars
  - EC–121s
  - E–3As (AWACS)
- FAA Radars

Ballistic Missile Surveillance and Warning Systems:
- Safeguard ABM Radars
- [Deleted]
- Ballistic Missile Early Warning Radars (BMEWS)
- 440L Over-the-Horizon Radars
- 474N SLBM Dish Radars
- SLBM Phased Array Radars

Surface-to-Air Missiles:
- Nike-Hercules
- Hawk
- SAM–D

Ballistic Missile Interceptors:
- Spartan
- Sprint

Space Surveillance Systems
- Phased Array Radars
- Dish Radars
- Space Surveillance Fence
- Ground Based Optical Sensors

SR–71

[Additional classified information was separately furnished to the committee.]

COST-EFFECTIVENESS MEASURES

Senator CHILES. How do you judge which of these are the most cost-effective contributors?

Secretary SCHLESINGER. As you know, the cost-effectiveness of systems is judged on the basis of the need, capability, and cost. Each of our strategic defensive systems has unique capabilities which compliment the capabilities of other defensive systems to meet our strategic defensive needs at the lowest possible cost.

COST AND EFFECTIVENESS RELATIONSHIPS

Senator CHILES. How do you judge whether the modernized continental air defense systems should consist of AWACS and IMI or AWACS/IMI/OTH–B or all those plus SAM–D? At what point does the increase in effectiveness not justify the cost of the next system added?

Secretary SCHLESINGER. Our current program does not include plans for deploying a modernized CONUS air defense force. Without effective ABM defenses, air defenses are of very limited value against potential aggressors primarily armed with strategic missiles.

We are continuing to pursue a broadly based R&D program in the strategic air defense area. That program is focused on research and the advancement of technology, rather than an engineering development of new strategic defensive weapon systems.

It is not possible to say, at this time, just which systems would comprise our air defenses should some change in the strategic situation make the deployment of new systems for continental air defense desirable in the future.

STRATEGIC DEFENSE GOALS

Senator CHILES. What level of total strategic defense mission capability are you seeking?

Secretary SCHLESINGER. We are seeking a strategic defensive capability level that is consistent with the threats we face and our ability to counter these threats in air defense we must ensure the sovereignty of our airspace and maintain forces sufficient to prevent free access to U.S. airspace by an intruder. On the other hand, maintaining significant air defenses designed to defend against Soviet strategic bomber forces would be of little value when the USSR threat to us is dominated by large numbers of strategic missiles and when we have an ABM treaty to limit defenses against missile attacks.

ROLE OF AWAC'S AND SAM–D

Senator CHILES. Are the system designs for AWACS and SAM–D optimized for the continental air defense mission or are they optimized primarily for the theater tactical air warfare mission? What compromises were made?

Secretary SCHLESINGER. In the case of the SAM–D, it is being optimized for theater air defense—primarily NATO and no compromies are being made. In the case of the AWACS, we have considered many different possible configurations since the origin of the program—some of which could be considered as being optimized for either the CONUS air defense role or the tactical role and some of which were optimized for both roles. In the latter case one could argue that a compromise is necessary to arrive at an adequate solution for both operational requirements; however, I don't believe this is correct. In the approach we are now pursuing, we are developing an aircraft which will adequately support the General Purpose Forces and one which can do a creditable job in the continental air defense role should that need arise.

NEW SYSTEMS

Senator CHILES. What new system concepts are now in the R&D pipeline that would also contribute to strategic missions, offensive and defensive, reconnaissance, command and control.

Secretary SCHLESINGER. There are numerous new concepts of the type you describe which are being considered by the Defense R&D community for possible strategic application. The more promising concepts are:

a. *Advanced Ramjet Concepts.*—Technology in this area is now moving quite rapidly after a period of inactivity during which the Soviets and others, includ-

ing the French, have made great strides. Advanced Ramjet Concepts show promise for long-range cruise missiles and a new multi-mission missile while the Air Force is investigating. Two advantages of ramjets are that they operate at much faster speeds than turbojets and at much longer ranges than rockets for the same volume.

b. *Electronically Agile Radar Systems (EARS).*—This system is designed to be the first tactical, airborne, phased-array radar. Because of its inherent capabilities it is being considered as a possible option for the B–1 weapon delivery system. It is a forward-looking radar which incorporates high-resolution ground mapping and accurate all-weather terrain following capabilities.

c. *HIT Interceptor Technology.*—The Army is exploring the feasibility of a non-nuclear interceptor technique called Homing Interceptor Technology (HIT). The concept involves a small interceptor that guides itself by infrared optics into the path of an incoming warhead. Kill of the warhead is accomplished by the physical impact of the small vehicles with the high velocity warhead. [Delete.]

The Army is currently conducting laboratory feasibility studies of this novel intercept technique.

d. *Bomber Defense Missiles.*—Technology developments are under way to support active defenses for strategic bombers. Candidate missiles which could be used for bomber defense include the Multi-Purpose Missile (MPM) and the Short Range Bomber Defense Missile (SRBDM). [Delete.]

[Delete.]

f. *Solid State Phased Array Technology.*—The Army is developing technology for an all solid-state array radar to operate at microwave frequencies. The all solid-state approach promises to provide high reliability, low operating cost and increased traffic capacity. The Army technology development is focused on missile defense applications but this basic technology is applicable to a wide range of strategic and tactical radar systems.

SUBCOMMITTEE RECESS

Chairman McClellan. It is past 12. We will resume at 2 o'clock this afternoon in room S–126, the Capitol. We have votes this afternoon and I think it will be more convenient for all of us to be there.

[Whereupon, at 12:10 p.m. the subcommittee was recessed, to reconvene at 2 p.m. in room S–126, the Capitol.]

(AFTERNOON SESSION, 2:10 O'CLOCK, TUESDAY, MARCH 5, 1974)

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE AIR FORCE

STATEMENT OF HON. JAMES R. SCHLESINGER, SECRETARY OF DEFENSE—Resumed

AIR NATIONAL GUARD

Chairman MCCLELLAN. We will resume with Secretary Schlesinger.

Senator Case, you were not here this morning when others had an opportunity to question. We will now defer to you, sir.

Senator CASE. You are very kind.

Chairman MCCLELLAN. You may ask the Secretary such questions as you have.

Senator CASE. I appreciate that but I have no questions now. If I have, I will be in touch with you or the Secretary or the Admiral.

Chairman MCCLELLAN. Senator Young, do you have any more questions of the Secretary at the moment?

Senator YOUNG. I have quite a few that you, Mr. Secretary, and Admiral Moorer can answer. I would like to ask just a few now.

Chairman MCCLELLAN. Very well.

Senator YOUNG. With respect to the Air Guard, Secretary Schlesinger, there have been reports in the media about inactivating a number of Air National Guard units. In the first place, does your present program call for these inactivations?

Secretary SCHLESINGER. I believe that would occur over a 2-year period, Senator. I had the opportunity to sign a letter to you the same day that unfortunate leak occurred on the "Today Show" and I believe that it mentioned the 14 units.

Senator YOUNG. I remember the letter but did you mention the location?

ANG INTERCEPTOR SQUADRONS

Secretary SCHLESINGER. I cannot recall that, Senator, but we can supply that information to you for the record if you wish.

[The information follows:]

The 14 Air National Guard interceptor squadrons scheduled for phase out during FY 1975 and 1976 are located at:

F-101 Units:
Portland, Oreg.
Spokane, Wash.
Duluth, Minn.
Hector, N. Dak.
Niagara Falls, N.Y.
Bangor, Maine.

F-102 Units:
Boise, Idaho.
Burlington, Vt.
Pittsburgh, Pa.
McEntire, S.C.
Ontario, Canada.
Suffock County, N.Y.
Truax, Wis.
Hickam, Hawaii.

However, not all of these units are to be deactivated. Current plans are to convert seven of the units to other missions and aircraft.

DEACTIVATION OF INTERCEPTOR UNIT

Senator YOUNG. You are deactivating an interceptor unit at the Air Force base at Grand Forks. I think it is the only one this year that I have objected to because I believe it provides the best possible defense. We have an Air National Guard unit at Fargo, N. Dak. This unit won the William Tell Award with the Canadians and the Air Force and they operate at about half the cost that a regular unit does. I understand.

Secretary SCHLESINGER. No question that they cost less. However, the cost is less primarily because the Guard units fly less.

Senator YOUNG. Are you going to deactivate this unit or change it?

Secretary SCHLESINGER. I will have to check on the details, and provide them for the record.

First we have reduced the air defense program because the Soviet strategic force structure is based primarily on missiles and since we cannot protect American cities against devastation by the Soviet missiles there is little to be gained by trying to defend them against Soviet bombers. In the 1950's, as you know, when the Soviet force structure was primarily bombers we built up our air defenses against them. But that is no longer the case. What we would like to do with some of the Air National Guard interceptor units is to convert them into general purpose forces units, and we are looking at the units in North Dakota with that purpose in mind. That would either involve, equipping them with A–7's, for example, or equipping them with air transport aircraft. These would be more relevant to the requirements of national defense in the 1970's than would the air defense units.

Senator YOUNG. Are you going to phase out all the units like that?

Secretary SCHLESINGER. No, sir. We are going to keep the F–106 units.

Present plans for the unit at Fargo, N. Dak. are to convert it to a C–130 equipped tactical transport squadron to provide added airlift capability in the Northern United States.

Senator YOUNG. Then why do you want to phase out a unit that is as good as anything the Air Force has or the Canadians? They are equipped and trained so why do you want to get rid of them?

SELECTION OF INDIVIDUAL UNITS

Secretary SCHLESINGER. Well, I do not know the basis of the selection of the individual units, Senator. I will check on that and get back to you.

[The information follows:]

All F–101-equipped units are to be phased out at the end of FY 1976, so the retirement of individual units has not been a matter of selection.

Senator YOUNG. Here is a unit that there is no question about their abilities as fighter pilots and they operate at less cost. If we are going to have a fighter squadron, why eliminate this one? I will follow this in the future. I will leave that for now.

Chairman MCCLELLAN. We have a rollcall vote in progress. We will recess for a few moments to answer the rollcall.

[Whereupon, a short recess was taken.]

Chairman MCCLELLAN. We will proceed.

Senator Young, any more questions?

Senator YOUNG. Just one more, Mr. Secretary.

What is the reason for phasing out that Air National Guard unit? Is it envy within the Air Force? Are they envious of this very fine unit, the best in the United States?

Secretary SCHLESINGER. Absolutely not.

Senator YOUNG. Is it in the interest of national defense?

Secretary SCHLESINGER. It is our judgment that the resources can better be employed in ways other than for air defense. This reduction in air defense is discussed in my defense report on pages 68 and 69. The rationale, as mentioned earlier, is that the Soviet Union is in the position to destroy any targets in the United States that it chooses to do so with ballistic missiles. For that reason, the purpose which air defense served in the past, which was to reduce population loss in the United States in nuclear war, is a purpose which is no longer effective. What we want to do in the 1970's is to maintain control of the air space over the North American Continent, recognizing that we cannot reduce mortalities from a Soviet attack in a nuclear war. We also are maintaining fairly heavy air defenses in the southeastern quadrant of the United States for reasons that are obvious. The only conventional air threat that is posed to the United States, other than by the Soviet Union, is from Cuba.

Now I am not sure about the circumstances that you refer to but I suspect that the problem was that this particular squadron had F–101's or F–102's. The F–101's and F–102's are going to be phased out of the inventory. The F–106's are the aircraft that will continue to be in the inventory.

Senator YOUNG. You intend to phase out all fighter squadrons such as this, get rid of all of them?

Secretary SCHLESINGER. No, sir.

Senator YOUNG. Why do you pick one of the best ones first?

Secretary SCHLESINGER. It is because it is equipped with the F–101's.

Senator YOUNG. You can change the equipment, can't you, with fighter pilots as skilled as these are?

Secretary SCHLESINGER. The F–102's are the ones that go out of the inventory first. This squadron has been equipped with F–101's, which will be taken out of the inventory at the end of fiscal year 1976.

Senator YOUNG. How many interceptor squadrons do you have in the Air Force?

Secretary SCHLESINGER. In the active air defense forces we now have seven which will be reduced to six by the end of fiscal year 1975. In the Guard we now have 18, which will be reduced to six, F–106 squadrons after fiscal year 1976.

Senator YOUNG. And you picked the first one in North Dakota. Any particular reason for that?

Secretary SCHLESINGER. No, sir. We certainly would not single out North Dakota in that regard.

Senator YOUNG. What was the reason for picking this one?

Secretary SCHLESINGER. We are eliminating most of the F–102 squadrons in fiscal year 1975. All remaining F–102 and the F–101 units are being eliminated in fiscal year 1976. There is nothing that suggested that North Dakota is being discriminated against. The reason was the type of equipment the squadron has.

Senator YOUNG. Then the skill of the pilot is sort of meaningless. If one happened to be equipped with more modern planes, those are kept?

RETENTION OF AIR DEFENSE SQUADRONS

Secretary SCHLESINGER. That is a valid point, Senator. As I indicated earlier, I would have to check on that and get back to you with additional details.

[The information follows:]

The only air defense squadrons which will be retained after fiscal year 1976 are those with F–106 aircraft, which is more modern aircraft than the F–101 or F–102.

Senator YOUNG. Defense wants to save money by cutting the Air Guard and most people support saving money if there is adequate defense to protect the United States. Now you want to get rid of the Air National Guard.

Secretary SCHLESINGER. No, sir. we do not want to get rid of the Air National Guard. We are reducing air defense in both the Active Forces and in the Reserves. We hope to strengthen the Air National Guard by making it more related to the general purpose forces mix rather than the air defense mix.

Senator YOUNG. I remember back during when Secretary McNamara was Secretary of Defense he wanted to get rid of all the reserves and we are getting back toward that thinking again. All he thought about was nuclear war and the next war was not a nuclear war, it was a conventional one and it was in Vietnam.

Secretary SCHLESINGER. No, we certainly don't feel that way, Senator. The Department is fully committed to the total force concept. The Air Force Reserve components are effective supplements to the Active Forces. The only reason for these reductions is because air defense in the mix is less relevant in the 1970's given the change in the Soviet force posture.

Senator YOUNG. I won't argue further but your answer is totally inadequate. I base my feelings on the position you take on things like this where I think you are totally wrong.

Chairman MCCLELLAN. Senator Fong.

Senator FONG. No questions.

Chairman MCCLELLAN. With the submissions of the questions that I have presented to you, Mr. Secretary, to which I have referred this morning, I have no further questions at the moment.

We will hear from Admiral Moorer. Mr. Secretary, whether you wish to remain is up to you.

We will proceed.

Secretary SCHLESINGER. Will you have further use for me?

Chairman MCCLELLAN. I don't think so. That is why I was trying to ascertain if you wish to go. As far as I am concerned, you are excused for this aftrenoon. If we should need something, we will call you back. I think the answers to the questions that everybody is going to submit to you will pretty well cover the many areas of concern.

Thank you, Mr. Secretary.

Chairman MCCLELLAN. The statement of Terrence E. McClary, Assistant Secretary of Defense, will be placed in the record at this point.

[See statement on page 311.]

STATEMENT OF ADM. THOMAS H. MOORER, U.S. NAVY, CHAIRMAN, JOINT CHIEFS OF STAFF

U.S. MILITARY POSTURE

Chairman McCLELLAN. Admiral, you have a prepared statement.

Admiral MOORER. I have a statement I would like to enter into the record. Instead of reading the statement I would like permission to brief the committee on the relative posture between the United States and the Soviet Union and the People's Republic of China.

Chairman McCLELLAN. We shall proceed in the fashion you suggested. Your prepared statement will be included in the record at this point. Also to be included are some questions to be answered for the record.

[The prepared statement and the answers to the committee's questions follow:]

STATEMENT BY ADMIRAL THOMAS H. MOORER

Admiral MOORER. I appreciate this opportunity to present my views on the military posture of the United States. In my opinion, no task assigned senior U.S. military leaders is more important than the duty of keeping the Congress and the American people fully informed on military matters. In the final analysis, our military posture and our national security can be no stronger than the determination of the American people to defend our Nation and its freedoms. This collective will is both developed and represented, in large measure, by Congressional attitudes and decisions. Your role in this process is vital.

In my prior assessments of the military balance and in the over 100 appearances before Congressional Committees, it has always been my intention to relate the military issue at hand to the actual and potential challenge facing the United States on the international scene. That remains my intention in this, my fourth assessment as Chairman of the Joint Chiefs of Staff.

The military posture of the United States can be judged meaningfully only by relating our military forces—both strategic and general purpose—to those of our most powerful potential adversary—the Soviet Union.

In this regard, the negotiation and signing of the Treaty on the Limitation of Anti-Ballistic Missile Systems (ABM Treaty) and the Interim Agreement on Certain Measures with Respect to the Limitation of Strategic Offensive Arms (Interim Agreement) constituted first steps in our effort to restrain the obvious and destabilizing momentum of the USSR strategic force buildup and to establish some control over the deployment of significantly increased strategic forces by both the U.S. and USSR. The force levels for the U.S. and USSR established by the ABM Treaty are equivalent, but the numerical ICBM and SLBM force levels authorized for the Soviet Union by the Interim Agreement are larger than those authorized for the United States. Because of technological and other strategic offensive advantages possessed by the United States, this temporary imbalance was considered acceptable, particularly when weighed against the advantages of reaching some agreement on limiting strategic arms. In the Joint Resolution authorizing the acceptance of these agreements, however, you will recall that the Congress specified the President should seek a future agreement which "would not limit the United States to levels of intercontinental strategic forces inferior to the limits provided for the Soviet Union." Compliance with this Congressional mandate is a primary objective of the current follow-on negotiations to conclude a permanent agreement.

I report to you today that aggressive modernization programs, which could place the United States in a position of strategic inferiority in the foreseeable years ahead, now are being undertaken by the Soviet Union. These programs, although aggressive, are within the terms of the Interim Agreement now in effect.

If we are to maintain our relative position, we must continue the development and deployment of the strategic systems requested by the President and must continue to insist upon the equivalence which the Congress so wisely has called for as an ultimate goal in our Strategic Arms Limitations negotiations.

With regard to the balance between the general purpose forces of the Soviet Union and the United States, I have noted with apprehension for the past several years that a major shift in the naval balance is taking place. The U.S. still has the edge with regard to the projection of our naval power as a result of the global reach of our fleets through our carrier and amphibious task forces. The USSR, however, is building a modern and increasingly powerful naval force capable of interdicting sea lines of communication and obstructing this projection of our military power across the oceans to assist our allies. The exact role of the new Soviet carrier force is not clear, but we may be sure that it portends a new era in the projection of seapower by the USSR.

The tactical air forces of the Soviet Union are in the midst of a major and significant modernization program. The program appears to be directed at overcoming the long-standing qualitative advantage held by U.S. tactical air forces in the ground attack role. The Soviet tactical air forces hold major quantitative and some qualitative advantages in the air superiority role.

The Soviet weapons and equipment observed in the Middle East, together with other evidence, clearly show that the large USSR ground forces also are being modernized with new tanks and new combat vehicles, as well as new and sophisticated combat support weapons and systems. Additionally, there are indications that the Soviet Union is developing air mobile units with ground attack helicopter support which, when combined with its new tanks and combat vehicles, will increase the tactical mobility and firepower of its ground forces.

The strategic programs of the Peoples Republic of China (PRC), by contrast, are proceeding somewhat slower than estimated last year. We still expect the Peoples Republic of China, however, to deploy by the end of this decade a small, but effective, ICBM force which will be capable of striking all of the Continental United States. PRC general purpose forces are being modernized, but also at a relatively slow rate—when compared with those of the U.S. and USSR. Nevertheless, the Peoples Republic of China is continuing to increase its overall military power.

Events of the past few months in the Middle East once again have proven that the military balance must be assessed on the capabilities of potential adversaries rather than on their announced or estimated intentions. Intentions change much more quickly than capabilities and often change solely on the basis of the opportunities that a lack of opposing capability presents. Therefore, the only sound course of action for our future defense planning is to analyze, as best we can, the military balance between the United States and opposing forces based on the capabilities of existing forces projected over the next few years.

Before I turn to the first set of charts, I would like to remind you of the principal caveats.

First, the U.S. force data are drawn from the currently projected Five Year Defense Program. USSR and PRC data are based on the latest intelligence estimates and projections. Both U.S. force data and USSR estimates assume that the ABM Treaty and the Interim Agreement will remain in force for the next five years.

Second, the intelligence organizations can estimate with a fair degree of precision the forces our opponents will have operational in the next year or two. Beyond that point, the estimates become less certain.

Third, while the intelligence organizations cannot predict quantitative deployments very far into the future, they can provide a good indication of the kinds of weapons systems which may be deployed several year from now.

Finally, some degree of personal judgment cannot be avoided in comparing the military posture of one nation with another. Consequently, some of my colleagues may disagree with me on specific details, but I believe there is a general consensus within the Defense Department on the fundamental aspects of these comparisons. You will have, of course, other opportunities to discuss these matters when each of the Service Chiefs presents his report on the major programs of particular concern to his Service. For this reason, I will give somewhat more attention to the ongoing initiatives of the USSR and PRC than to those of the US.

STRATEGIC FORCES

I have emphasized in the past that no task is more important, from a military perspective, than that of developing, maintaining, and protecting a credible strategic deterrent. Détente, offering the opportunity for relaxation of tension, requires that we be strong enough to negotiate with confidence and to insure that our good will is not misconstrued as lack of will, thereby encouraging confrontation. This task presents many challenges because, in making an assessment of the military capabilities of our potential adversaries, we cannot afford to look only at the capabilities of those forces in being today. The long lead time of modern strategic weapon systems demands that we also devote our best efforts to the evaluation of the relative military balance as it is likely to evolve in the years ahead and as it is likely to be perceived in the eyes of our potential adversaries, our allies, and the rest of the world. If we are to maintain a credible strategic deterrent, actual military strength is essential, but the appearance of military strength cannot be neglected.

SIGNIFICANT U.S. AND U.S.S.R. INITIATIVES—STRATEGIC OFFENSIVE SYSTEMS

Shown on Chart 1 are the ongoing US and USSR strategic offiensive initiatives which will have significant impact on the strategic balance. I will highlight these initiatives so that the dynamic nature of military balance for the foreseeable future can be fully understood.

SIGNIFICANT US & USSR INITIATIVES
STRATEGIC OFFENSIVE SYSTEMS

US		USSR
	ICBM	
MINUTEMAN III		SS-X-16
SILO MODIFICATION		SS-X-17
		SS-X-18
		SS-X-19
		NEW SILOS
		SS-11 MRV
		SILO MODIFICATION
	SLBM	
POSEIDON CONVERSION		SS-N-8
TRIDENT		DELTA
C-4		SS-N-6 IMPROVEMENTS
	BOMBERS	
B-1		
B-52 MODIFICATIONS		BACKFIRE

CHART NO 1

Admiral MOORER. The Soviet Union clearly has embarked on an unprecedented major commitment to the modernization of its strategic offensive force.

Four new ICBM designs of varying classes and characteristics currently are being flight tested. These new systems will incorporate improved launch, guidance, and reentry techniques, which will permit the USSR to introduce accurate MIRVs into its missile inventory. A corollary of these significant new missile programs is the parallel construction and modification of hardened silos, capable of surviving appreciably higher overpressures and ground shocks. Additionally, a multiple reentry vehicle (MRV) version of the SS–11 is being deployed rapidly in some of these new silos for "light" ICBMs.

The USSR has moved forward rapidly in modernizing its SLBM force. The new 4200 nm SS–N–8 has been deployed aboard the first three DELTA-class submarines—now in series production. Improvements for the SS–N–6, the SLBM deployed abroad YANKEE-class submarines, may be nearing operational status. This new MRV variant of the SS–N–6 is expected to have a slightly longer range and may be deployed in YANKEE-class submarines.

We are uncertain as to the exact military role of the new BACKFIRE variable-geometry wing, supersonic bomber. It is certainly capable of performing intercontinental attack missions, but it is probably best suited for peripheral attack. We anticipate that it will be assigned both roles.

In contrast to the Soviet Union's dramatic program, ongoing US initiatives in the strategic arena are modest and deliberate. The United States does not have any new ICBM systems under engineering development, but it is carrying out advanced development work on improved ICBM technology. Continued improvements also are being made in both MINUTEMAN II and III systems. By the end of FY 1975, all MINUTEMAN Is will be replaced by MINUTEMAN IIIs. Additionally, the hardness of MINUTEMAN II and III missiles and silos is being upgraded, and a Command Data Buffer system is being installed to permit the rapid remote retargeting of MINUTEMAN III missiles. These improvements are designed to increase further the survivability, flexibility, and responsiveness of our MINUTEMAN force.

Chairman McClellan. How much will the Command Data Buffer system shorten the time required to retarget the MINUTEMAN III force? Is it adaptable to MINUTEMAN II?

Admiral Moorer. The effectiveness of the Command Data Buffer (CDB) is dependent on many variables in target selection and relationship. In the worst situation the entire MINUTEMAN III force without CDB would take 45 days to retarget. The CDB will reduce this time to 9.7 hours.

The CDB is adaptable to the MINUTEMAN II.

Chairman McClellan. Explain the Airborne Launch Control System for MINUTEMAN.

Admiral Moorer. The Airborne Launch Control System (ALCS) is designed to provide an alternate means of launching MINUTEMAN missiles in the event that the ground Launch Control Centers (LCCs) are unable to perform this function.

The system consists of selected EC–135 aircraft in the SAC Post Attack Command Control System (PACCS) outfitted with MINUTEMAN launch equipment and manned by airborne missile crews which comprise an Airborne Launch Control Center (ALCC). Two ALCC equipped aircraft are on ground alert [deleted]. The SAC airborne command post from Offutt AFB, Nebraska is continuously airborne and is also ALCC equipped. These ALCC aircraft are capable of generating the necessary UHF commands to launch all MINUTEMAN missiles.

Chairman McClellan. Proceed.

Admiral Moorer. As was noted last year, the last of the POLARIS A–2 SLBMs will be phased out of the US force by mid-1974. By mid-1977, the planned POLARIS-to-POSEIDON conversion program will have been completed. At that time, we will have 31 POSEIDON submarines and 10 POLARIS A–3 submarines. The first TRIDENT submarine, with the new 4000 nm C–4 missile, is expected to enter the force in FY 1979.

The B–1, which is being developed as a replacement for a portion of the B–52 force in the 1980s, will begin flight testing this fall. The results of the flight testing will be examined carefully prior to a production decision being made next year. In the meantime, funds are included in the FY 1975 budget request for modification of 80 B–52D bombers to insure their availability until the B–1 is capable of entering the force in adequate numbers to allow for retirement of the B–52D.

United States and USSR ICBM Forces

Shown on Chart 2 are the principal US and USSR ICBMs currently deployed. Before discussing the individual characteristics of these ICBM systems, a brief review of the Interim Agreement on Strategic Offensive Arms is appropriate so that the operating international legal constraints applicable to the US and USSR may be recalled.

At the bottom of Chart 2 are the numbers of ICBM launchers that we associate with the Interim Agreement. The numbers in parentheses indicate the US estimate of new USSR silos under construction on the date the Agreement was signed.

[The chart follows:]

COMPARISON OF US AND USSR ICBMs

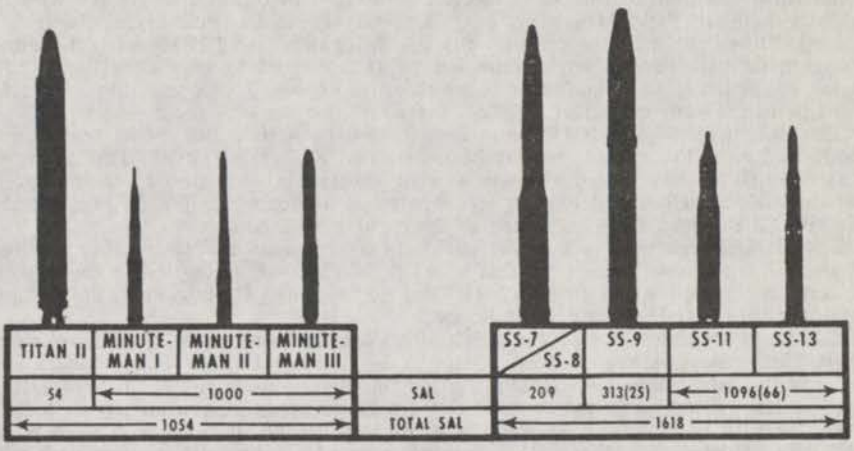


CHART 2

Admiral MOORER. The Interim Agreement establishes limitations on the deployment of strategic forces by both the US and USSR. Both parties are limited to a relatively large, but unequal, number of fixed land-based and submarine-launched strategic offensive ballistic missile launchers. With but one important exception (i.e., the size of ICBM silos), the Interim Agreement places no significant constraints on the qualitative characteristics of the missiles or the launchers. Moreover, it is also important to recall that the agreement places no limitation on other types of strategic offensive weapons (e.g., long-range bombers, cruise missiles, and air- and sea-based mobile launchers—other than on submarines).

Under the Interim Agreement, ICBM launchers are classified by age and by size. The year 1964 divides launchers for modern ICBMs from "older" types deployed prior to that date (e.g., SS–7, SS–8, and TITAN II). There is no agreement on a general definition of "heavy," but a unilateral US statement provides that a "heavy" ICBM is an ICBM having a volume significantly greater than that of the largest "light" ICBM operational on either side at the time the Interim Agreement was signed. Therefore, under this definition the SS–11, SS–13, and MINUTEMAN are "light" ICBMs. No additional fixed, land-based ICBM launchers may be constructed by either party after the freeze date of July 1, 1972; but modernization and replacement may be undertaken.

The Agreement prohibits converting any of the "older" or "light" launchers into launchers for modern "heavy" ICBMs, but SLBM launchers may be substituted for the "older" launchers, if desired. Under the terms of the Agreement, therefore, the US could "modernize" all of its 1000 MINUTEMAN and its 54 TITAN II launchers to MINUTEMAN III or any other modern "light" ICBM; but it could not replace any of the TITAN II or MINUTEMAN launchers with modern "heavy" ICBMs. Similarly, the USSR could "modernize" all its ICBMs, but only the 313 SS–9 associated launchers (288 operational SS–9s and 25 new silos under construction in SS–9 complexes at the time the Agreement was signed) can be converted to new "heavy" ICBMs.

All of the 1030 SS–11 and SS–13 launchers, operational at the time the Agreement was signed, may be modernized for new "light" ICBMs. New "light" ICBMs also may be installed in the 66 new silos, under construction at the time of the Agreement, provided the dimensions of the launcher are not increased by more than 10–15 percent. As I already have mentioned, the 209 "older" SS–7 and SS–8 launchers (and 54 US TITAN II launchers) may be replaced by SLBM launchers.

These "older" SS–7s and SS–8s, deployed in both hard and soft sites, are the first Soviet ICBMs shown on Chart 2. We believe that the Soviet Union will sub-

stitute SLBM launchers, under the terms of the Interim Agreement, for some or all of these launchers. Before this is done, we consider that we should receive timely notification through the Standing Consultative Commission.

The SS–9 is a very large ICBM with four different versions. The SS–9 MOD 2 has a single reentry vehicle (RV) with the largest yield of any known ICBM and constitutes the bulk of the SS–9 force. The MOD 1 also has a single RV with a slightly smaller yield; however, only a relatively small number has been deployed. These two missiles are the only operational Soviet ICBMs with the combination of yield and accuracy needed to attack hard targets effectively, but there are insufficient numbers of these missiles deployed to constitute a significant threat to our total MINUTEMAN force.

The enigmatic SS–9 MOD 3 has been tested both in a depressed trajectory mode and as a Fractional Orbital Bombardment System (FOBS). The last test was over two years ago, and there is still substantial question as to its exact capabilities, mission, and extent of operational deployment. We do not believe the MOD 3 has been deployed at any of the regular SS–9 complexes.

The MOD 4 has received more attention in recent years than any other version of the SS–9 because it has provided us with the clearest indication of the Soviet Union's determination to develop MIRVs. Two years ago I reported on the abrupt termination of MOD 4 testing as follows:

"No further flight-tests of the SS–9 MOD 4 have been noted since November 1970. If the Soviets were indeed trying to develop a MIRV system, which I believe is the most plausible explanation for the MOD 4 development program, the project has either been sent back to the drawing boards or abandoned as such."

In January of last year, 26 months after testing had stopped, a new MOD 4 test was detected. The three RV's carried were of a much different design and were equipped with parachutes to insure a soft landing and recovery. More R&D tests of the MOD 4 were carried out in 1973, and some improvement in targeting flexibilty has been noted. But in view of the progress made on the improved "heavy" ICBM, the SS–X–18, it remains questionable whether the USSR will develop the MOD 4 into a MIRV system. It could be deployed, of course, on a very limited basis as an MRV rather than a MIRV.

Soviet military planners probably view the SS-11 as their counterpart to our MINUTEMAN. The SS–11 has a slightly higher yield, but is considerably less accurate, than the MINUTEMAN. Comparable numbers of SS-11s also have been deployed.

Three versions of the SS–11 have been tested, but only the MOD 1 and MOD 3 have been deployed. Our evidence indicates that the MOD 2 program probably has been terminated. Neither the single RV MOD 1 or the MRV MOD 3 has the proper combination of yield and accuracy to threaten MINUTEMAN or to be effective against other hard targets.

The SS–11 MOD 1 has been operationa] since 1966. In addition to its intercontinental mission, the MOD 1 also has been tested at a reduced range. This supports the belief that the SS-11 also could be used for peripheral attack missions against China and Europe.

Extensive testing of the MRV version of the SS–11 has been conducted since 1969. This test program has been very successful for the USSR. We believe that probably the MOD 3 initially was developed to facilitate penetration of ABM defenses by multiplying the number of warheads to be dealt with by a defender. Despite the severe restrictions on ABM defenses imposed by the ABM Treaty, the USSR is deploying rapidly the SS–11 MOD 3. Therefore, it must see advantages in utilizing the MOD 3 against undefended targets, as well as defended ones—probably because of greater targeting flexibility and accuracy.

The last Soviet missile shown on Chart 2 is the SS–13—the only solid fuel ICBM in the operational inventory. Only 60 SS–13 launchers have been deployed.

Chairman McCLELLAN. What magnitude of yield and accuracy will be required to defeat a hardness which can withstand 2000 psi?

Admiral MOORER. The effect of a weapon on a target of any given hardness is a function of the relationship between accuracy and yield, with accuracy being the more dominant. For example, a [deleted] weapon with perfect accuracy will provide virtual assurance of severe damage to a target designed to withstand over pressures of 2000 psi. [deleted] The following table illustrates the yield/CEP relationship with regard to a 2000 psi target:

Yield	CEP required for 50 percent probability of severe damage	CEP required for 90 percent probability of severe damage
[Deleted.]		

Chairman McCLELLAN. Proceed.

Admiral MOORER. As I have already indicated, all of our MINUTEMAN I's will have been phased out my mid-1975. At that time, our ICBM force will consist of 550 MINUTEMAN III's, 450 MINUTEMAN II's, and 54 TITAN II's.

We do not have sufficient information, as yet, on the four new USSR CBMs being tested to provide physical comparisons of them, similar to those shown on Chart 2 for currently deployed ICBMs. We do have estimates of some of the important chacteristics, as you will note from Chart 3.

NEW USSR ICBMs

	SS-X-16	SS-X-17	SS-X-18	SS-X-19
FOLLOW-ON	SS-13	SS-11	SS-9	SS-11
RANGE (NM)	OVER 5000	OVER 5500	OVER 5500	OVER 5500
MIRV WARHEAD	PROBABLE	YES	YES	YES
ESTIMATED NUMBER OF MIRVs	?	4	5-8	4-6
DIGITAL COMPUTER	YES	YES	YES	YES
IOC	1975	1975	1975	1975

CHART 3

Admiral MOORER. The SS–X–18 now being tested at Tyuratam is a large, two-stage, liquid propellant ICBM. It probably is intended as a follow-on to the SS–9. The most significant new characteristic of the SS–X–18 is the addition of a bus-type MIRV system with an on-board digital computer. This new post-boost vehicle (PBV) is similar to the one employed in our MINUTEMAN III and POSEIDON. We believe the SS–X–18s probably will have the capability of dispensing five to eight independently targeted warheads. Increased accuracy is a definite goal of the new test program. Finally, we cannot rule out a single RV option for the SS–X–18. Recent tests have employed a single RV, thus indicating a continuing interest in a large warhead with greater accuracy.

As you can see from Chart 3, the SS–X–17 and SS–X–19 are both considered follow-on missiles to the SS–11. Since these are very extensive test programs for expensive systems, they may be competing designs, with only one to be chosen for ultimate deployment as a follow-on to the SS–11. We believe that a similar competitive design and flight test program was employed prior to the decision to deploy the SS–9. It would be premature at this time, however, to rule out the possibility that both may become operational. Both systems have on-board computers and have been tested with MIRV warheads. We estimate that one or both of these systems could be deployed in 1975.

The SS–X–16 is the only new solid propellant ICBM being tested by the USSR and is a logical successor to replace the 60 SS–13s in silos. The SS–X–16 is about

the same size as the SS–13, but has greater range and payload capability. We have no direct evidence that the SS–X–16 will be deployed in a mobile mode; however, indications suggest that the Soviet Union is developing the SS–X–16 with the option of deploying it as a land-based mobile ICBM.

As you know, the United States unilaterally has stated that it would consider the *deployment of operational* land-mobile ICBM launchers during the period of the Interim Agreement as inconsistent with the Strategic Arms Limitation objectives, even though the USSR would not agree to restricting deployment of mobile ICBMs. Development and testing, however, of a land-mobile ICBM system are not prohibited.

So far, the SS–X–16 has been tested only with a single RV. Nonetheless, there are indications that the USSR plans to develop a MIRV payload for the SS–X–16 similar to the other three new ICBMs. Either version could be ready for deployment in 1975, but if a MIRV version is planned for this time frame, a high priority testing program would have to be instituted soon.

Shown on Chart 4 are the latest projections of US and USSR ICBM forces, assuming the limitations incorporated in the Interim Agreement remain in effect. This is the first of the quantitative charts that I initially developed for this presentation four years ago.

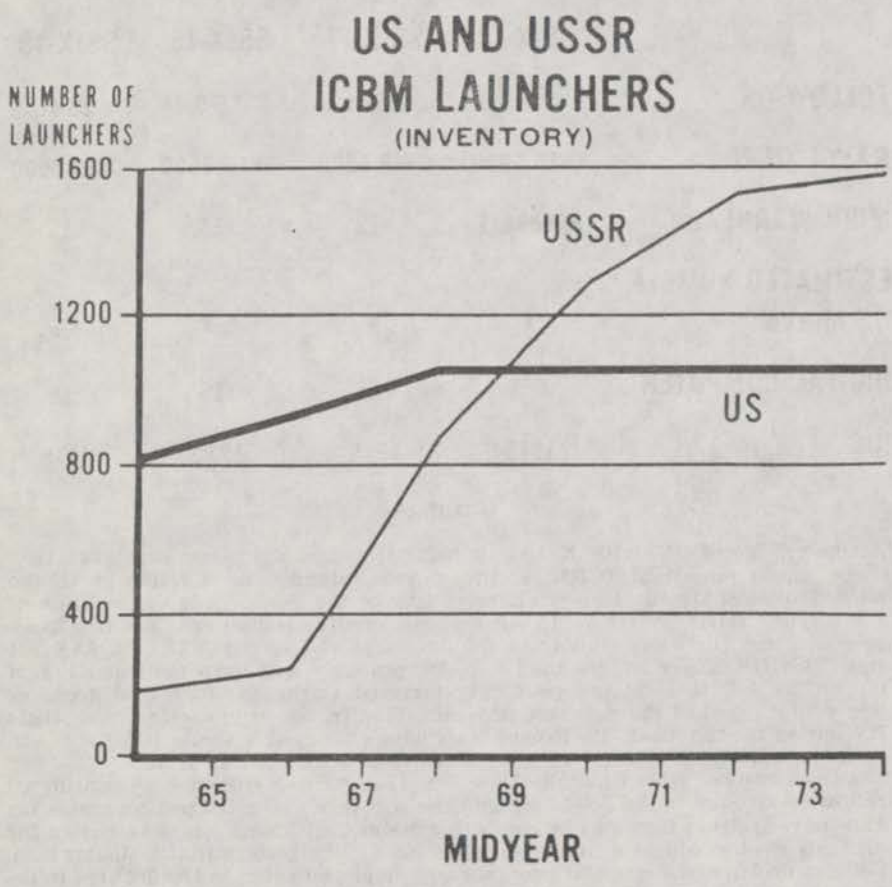


CHART 4.

Admiral MOORER. As I repeatedly have noted, there is a degree of personal professional judgment included in these assessments; however, in an effort to provide you with all the information available, it would seem appropriate to note that our estimates of Soviet strategic growth over the past four years have been on the conservative side.

We estimate that the USSR, at mid-1973, had a total of 1547 operational ICBM launchers—1527 at the time of the Interim Agreement in 1972, plus 20 SS–11 MOD 3s now operational in new small silos. The remaining new silos probably will be operational by mid-1974, giving the USSR, at that time, a total of 1587—only 31 short of the estimated SAL ceiling. By mid-1975, the new large silos are estimated to become operational with the SS–X–18 missile system.

Considering all available evidence, it is our best estimate that the Soviet ICBM force over the next five years will be closer to the lower Interim Agreement limit of 1409 ICBMs than to the upper maximum limit of 1618. (1409 ICBMs is the limit if all of the "older" ICBMs are replaced by SLBMs.) This is based on our belief that the USSR will exercise its option to replace the older, less effective ICBMs with modern SLBMs. We also believe the remaining ICBMs will be modernized by replacing them with the new systems already described.

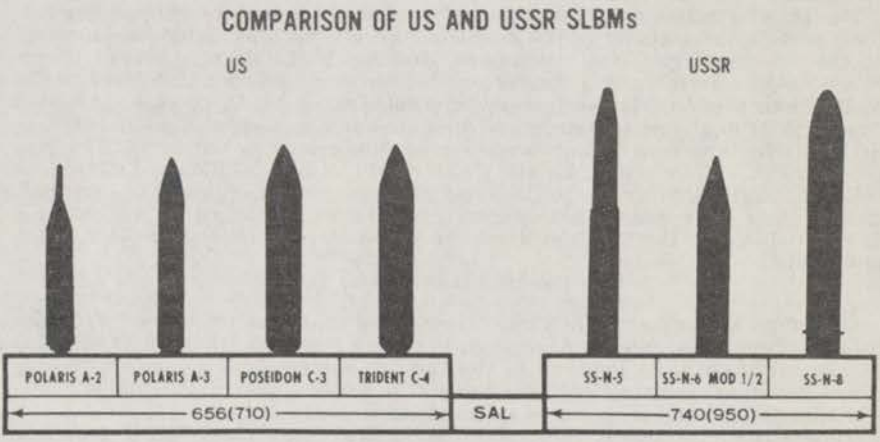


CHART 5

US AND USSR SLBM FORCES

Admiral MOORER. Chart 5 provides a comparison of US and USSR SLBMs, all of which are operational except the TRIDENT C–4. The C–4 SLBM is included because of its major importance to the military balance in the years ahead.

The C–4 will have a range capability approximately double that of the POSEIDON. The final design characteristics, of course, cannot be confirmed until the development process is completed and the missile is tested. Nevertheless, it will reflect significant technical and operational advances over the POSEIDON. The initial operational capability (IOC) of the new missile will coincide with the completion of the first TRIDENT submarine in late 1978.

The TRIDENT C–4 missile also will be compatible with the POSEIDON submarine. Backfit of this advanced SLBM can be accomplished during little more than a normal tender (repair ship) availability period for the POSEIDON submarine. Plans are made to backfit TRIDENT C–4 missiles in POSEIDON submarines with an IOC for the first backfit in FY 1979.

It already has been noted that the current POLARIS/POSEIDON conversion program of 31 submarines will be completed in FY 1977. This will leave 10 POLARIS A–3 submarines with 160 SLBMs and 31 POSEIDON submarines with 496 SLBMs, for a total of 41 SSBNs with 656 SLBMs in the force. We cannot exceed this number of SLBMs under the Interim Agreement without exercising the option to replace our TITAN II with "modern" SLBMs. Under this option, we could have as many as 710 "modern" SLBM launchers on 44 "modern ballistic missile submarines."

Full funding for the first TRIDENT submarine and advanced procurement funding for the second TRIDENT submarine were appropriated last year. Completed funding for the second and third, plus advance funding for four more TRIDENT submarines, in a 10-ship program, is being requested for FY 1975. Since this new system will be discussed, in detail, by other Defense witnesses, I will not pursue the matter further, except to say that the TRIDENT submarine,

like the C–4 SLBM, will represent major technological and operational advances over our POSEIDON submarine. I urge your continued support for this essential program.

Turning to the SLBMs of the Soviet Union, the SS–N–8, which I indicated last year was soon to become operational, now has been deployed on at least three DELTA-class submarines. It has the longest range (4200 nm) of any operational SLBM. This extra range is significant when compared to the range of the SS–N–6 (1300 nm), because it greatly enlarges the ocean space available for patrol while remaining within range of the United States. As a result, both our SLBM launch detection and antisubmarine warfare (ASW) search problems are magnified. In addition, there is tenuous evidence indicating that some DELTA submarines now under construction are being lengthened. Should this extra length be used to accommodate additional SLBMs, a slightly modified DELTA, equipped with more than the standard 12 SLBMs, may be in production.

The Interim Agreement limits the number of SLBM launchers and "modern ballistic missile submarines" to the numbers "operational and under construction" at the time the Agreement was signed. Additional SLBMs may become operational only as replacements for "older" ICBMs (e.g., SS–7s and SS–8s) or for SLBM launchers on older nuclear-powered submarines. By Protocol, a negotiated "operational and under construction" baseline for the Soviet Union of 740 "ballistic missile launchers on nuclear-powered" submarines was accepted. The Protocol also provides a ceiling for the USSR of 950 modern SLBMs and 62 modern ballistic missile submarines in the event the replacement options are exercised. In any event, we estimate that modern ballistic missile submarines will continue to be produced by the USSR at a rate of five to seven units a year for the next few years.

Soviet Replacement of Old ICBM's

Chairman McClellan. When must the Soviets announce a decision to exercise its option under the Interim Agreement to replace the older ICBMs with SLBMs?

Admiral Moorer. By Protocol to the Interim Agreement a negotiated "operational and under construction" baseline for the Soviet Union of 740 "ballistic missile launchers on nuclear-powered submarines" was established.

Agreed Interpretation K to the Interim Agreement provides that dismantling or destruction of older ICBMs replaced by SLBMs above the 740 base "will be initiated at the time of the beginning of sea trials of a replacement submarine" and will "be completed in the shortest possible agreed period of time." It also provides that such dismantling or destruction, and "timely notification thereof, will be accomplished under procedures to be agreed in the Standing Consultative Commission" (SCC).

An understanding as to what constitutes "timely notification thereof" is being discussed in SCC deliberations. The next session of the SCC will convene in Geneva, Switzerland, on 2 April 1974.

Chairman McClellan. Proceed.

Admiral Moorer. There are indications that the Soviet Union already has embarked on a program to modernize the YANKEE-class submarines—first deployed in 1968. In addition, as already indicated, a new longer-range MRV variant of the SS–N–6 is nearing operational status and may be deployed aboard YANKEE-class submarines.

Chairman McClellan. Has the USSR a program to provide multiple reentry vehicles for its SLBMs?

Admiral Moorer. As I indicated, the Soviets are developing variants of the SS–N–6 SLBM which have increased range and both single and Multiple Reentry Vehicle (MRV) payloads. [Deleted.]

Chairman McClellan. Proceed.

Admiral Moorer. The latest projections of US and USSR SLBM launchers are shown on Chart 6. We estimate that the USSR, by mid-1974, will have a total of 666 SLBM launchers, excluding the 60 on 20 GOLF-class submarines. These 60 launchers have been excluded from the USSR strategic forces projections after mid-1972 since they are not considered "strategic missile forces" under the terms of the Interim Agreement. Instead, they are included in the Soviet "theater nuclear forces" after that date.

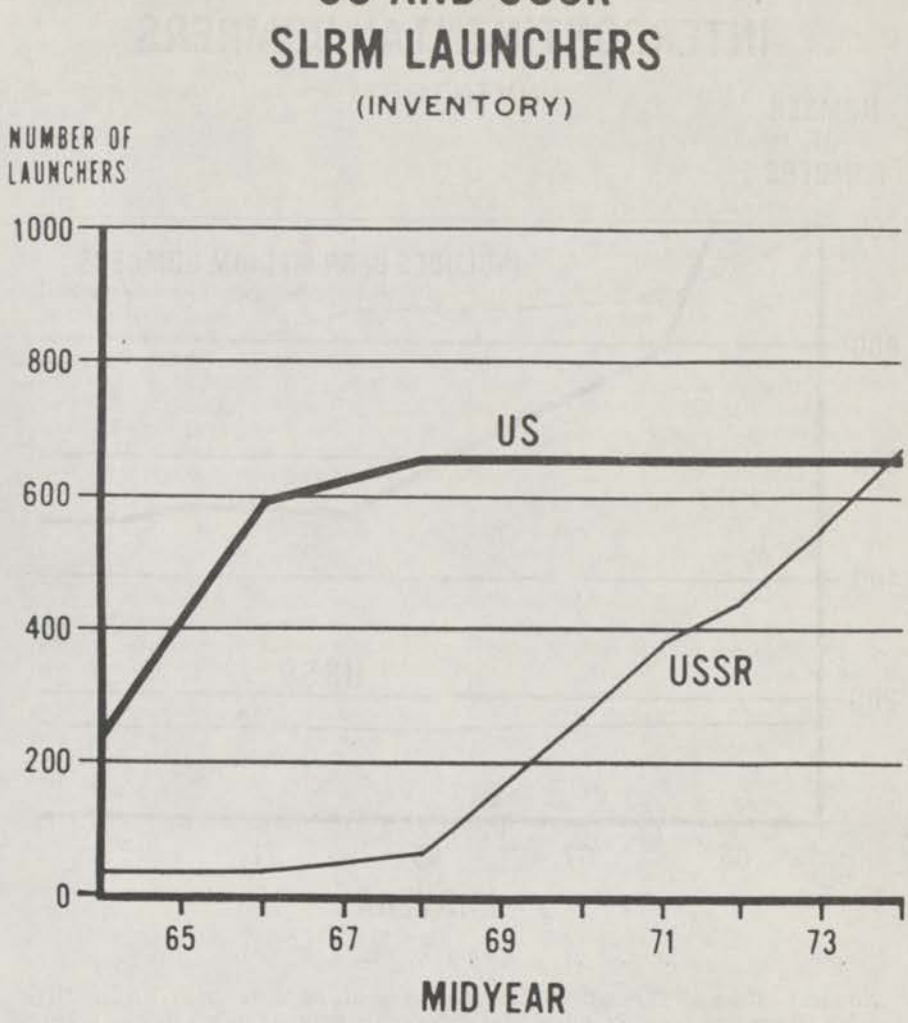


CHART 6

U.S. AND U.S.S.R. STRATEGIC BOMBER FORCES

Admiral MOORER. Shown on Chart 7 are the US and USSR strategic bomber forces projected through mid-1974. In each of my past three Military Posture statements, I have reported to you on the progressive development of a new variable-geometry wing, supersonic bomber by the Soviet Union.

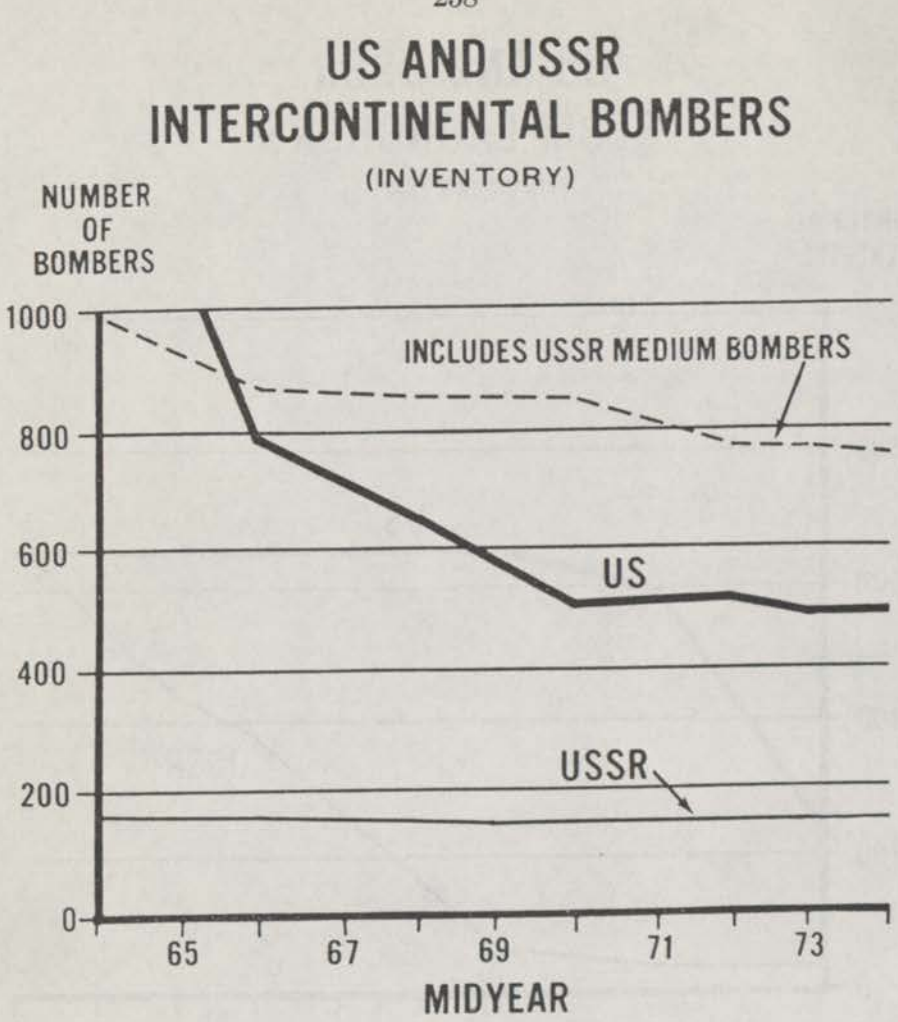


CHART 7

Admiral MOORER. Throughout the development of this new BACKFIRE bomber, there has been some uncertainty over its primary mission. The reason for this uncertainty stems form its design and flight characteristics, which place it in between our FB–111 and B–1. In comparison with US intercontinental bombers, it weighs two and one-half times as much as an FB–111 and is about four-fifths as large as the B–1. Its nonrefueled maximum combat radius is about 3100 nm.

We estimate that the BACKFIRE will be deployed operationally in 1974. Unrefueled, BACKFIRE probably is best suited for a peripheral role. Nevertheless, when deployed with a compatible tanker force, BACKFIRE constitutes a potential threat to the Continental United States. It is expected to replace some of both the current medium and heavy bombers, and to be employed on both peripheral and intercontinental missions.

[Deleted.]

Senator YOUNG. Can the BACKFIRE bomber attack the U.S. with air-to-air refueling on missions similar to our B–52/B–1 low level penetration missions?

Admiral MOORER. Yes. Our analyses indicate that if the BACKFIRE were operated from forward bases, refueled while airborne, and flown in a nominal high enroute/low penetration profile, it would have a range of about [deleted] sufficient to pose a substantial threat to the entire Continental United States.

Chairman MCCLELLAN. Proceed.

Admiral MOORER. Although the older medium bombers of the USSR probably do not figure prominently in Soviet plans for an attack on North America, some could be used on two-way missions against targets in Canada and Alaska and on one-way missions against other parts of the United States. For this reason, I have projected the total bomber force of the USSR on Chart 7.

In terms of just *intercontinental* bombers, the US now has, and most likely will continue to have, at least into the 1980s, a substantial quantitative lead over the USSR, even after considering the deployment of a portion of the BACKFIREs in an intercontinental role. As I already have noted, funds are included in this year's budget for additional modification of 80 B–52D bombers to insure their continued availability until the B–1 could be capable of entering the force in adequate numbers to allow for B–52D retirement—probably the early 1980s.

Chairman MCCLELLAN. Has the USSR modified its bomber force, similar to our current B–52 program?

Admiral MOORER. The USSR has produced new variants of the original BEAR and BISON aircraft for reconnaissance or ASW. [Deleted.] US B–52's were extensively employed in SEA and structural modification is required to extend their lives.

Chairman MCCLELLAN. Proceed.

Admiral MOORER. The B–1 will begin flight tests late this year. A production decision will be made, after detailed evaluation of the four RDT&E aircraft—probably in late 1976. Under the current planning, the B–1 force could be operational in the early 1980s. The B–1 is the first bomber designed to have both a high pre-launch survivability and a high penetrating capability in a high-threat environment. It also will have a significant stand-off capability for attacking heavily defended targets with the SRAM. On a comparable mission, it is expected to be able to carry significantly more payload than the B–52 and have a much greater penetration capability. We also believe that it will have important qualitative advantages over the BACKFIRE in range, payload, and penetration capabilities. The B–1 represents a major technological advance over the B–52 and the FB–111, and I strongly recommend your continued support for this extremely important program.

Since the B–1 is not expected to enter the US force until the 1980s, the US intercontinental bomber force will continue to be composed of B–52s and FB–111s through the rest of this decade.

US and USSR Strategic Offensive Balance

Four general measures have been used to summarize quantitatively the overall strategic offensive balance between the United States and the Soviet Union. These are: numbers of delivery vehicles, megatons, warheads, and throw-weight/payload. It should be understood, of course, that these measures, either singly or collectively, do not provide a complete comparison. There are a number of other factors, primarily qualitative in nature—such as warning, readiness, command and control, pre-launch survivability, reliability, accuracy, range, and penetration capability—which also must be borne in mind in assessing the strategic balance. These other factors cannot be reduced to a memorable common denominator suitable for graphic presentation. Some of the more significant factors in regard to individual weapons systems already have been discussed in the Report of the Secretary of Defense and in this statement. Other factors will be addressed later in this analysis.

US AND USSR OPERATIONAL STRATEGIC OFFENSIVE DELIVERY VEHICLES

(ICBM LAUNCHERS, SLBM LAUNCHERS, AND INTERCONTINENTAL BOMBERS)

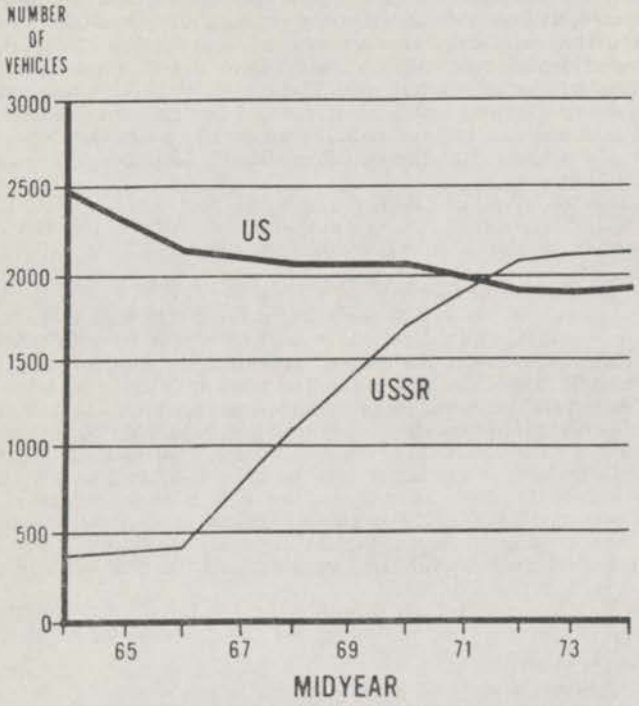


CHART 8

Admiral MOORER. The total numbers of operational US and USSR strategic offensive delivery vehicles, projected through mid-1974, are shown on Chart 8. It should be noted that in this chart, only intercontinental bombers are included and only the operational ICBM launchers and the "operational" ballistic missile submarines are counted.

As can be seen on this chart, the USSR has totally eliminated our overwhelming lead in delivery vehicles and now has surpassed us by over 100 operational delivery vehicles. This USSR quantitative advantage over the US is not expected to widen much further over the next five years primarily as a result of SAL constraints. Moreover, the extensive modernization program of the Soviet Union will keep the exact number of operational ICBM launchers and deployable SLBMs in constant flux, but relatively level, as new construction is completed, old launchers are converted, and submarines are overhauled.

Ten years ago, the US had five times the available megatonnage as the USSR. The USSR has taken over the lead in strategic offensive megatons, and now far surpasses us in this measure of the strategic balance. The sharp drop in US megatons from 1966 to 1970 reflects the reduction in heavy bombers and the substitution of smaller-yield for higher-yield weapons during that period. The decline, thereafter, reflects the substitution of lower-yield MIRVs for higher-yield single RVs in our strategic missiles.

The U.S. is expected to maintain its substantial and significant lead over the USSR in numbers of strategic offensive warheads and bombs. If the USSR pursues a rapid modernization effort, this U.S. advantage could be greatly diminished, but not eliminated, over the next five or six years. On the other hand, if a slow modernization effort is pursued by the USSR, the U.S. lead probably will remain relatively constant and will continue to be very large at least during the next five years.

The USSR has a distinct and demonstrable advantage in missile throw-weight, but the U.S. has a major advantage in bomber payload. The throw-weight advantage of the Soviet Union has been reflected in its large megatonnage lead. As the USSR develops its new family of ICBMs with their larger throw-weight and MIRVs, this increased throw-weight advantage also will be reflected in the number of warheads as well as in large total megatonnage. Thus, the gross advantage in throw-weight gives the USSR the potential eventually to overcome the only remaining quantitative missile lead under these criteria. The U.S., however, should continue to retain a substantial edge in bomber payload.

SIGNIFICANT U.S. AND USSR INITIATIVES—STRATEGIC DEFENSIVE SYSTEMS

The U.S. and USSR strategic defensive initiatives are displayed on Chart 9. These ongoing efforts will have far less impact on the strategic balance in the immediate years ahead than the strategic offensive initiatives. In fact, the significance of this chart is more related to what it doesn't show than to what it does. There are several reasons for this apparent restraint on both sides, but the primary limitation is the constraining influence of the ABM Treaty between the U.S. and USSR.

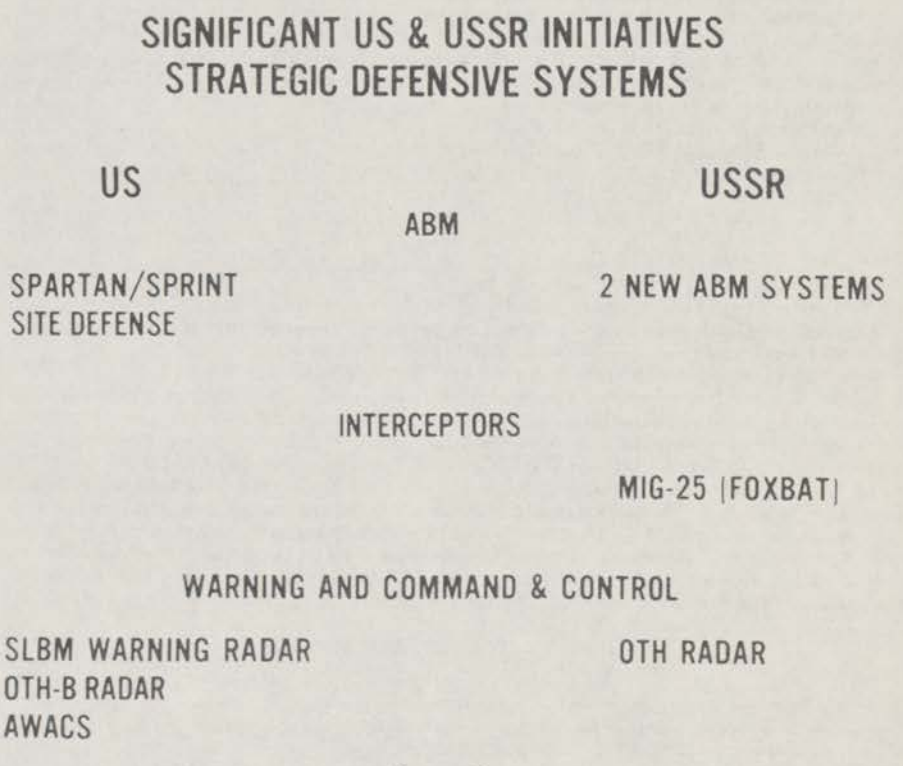


CHART 9

Admiral MOORER. The ABM Treaty prohibits a nationwide ABM defense and places strict and substantially equivalent controls on ABM launchers, missiles, and associated radars. Under these limitations, the U.S. currently is proceeding with the deployment of SPARTAN and SPRINT ABM missiles at only one location—Grand Forks, North Dakota—and is continuing research and prototype development of the advanced SITE DEFENSE System. The USSR has an operational GALOSH ABM system around Moscow, with limited capabilities, and is doing research and development work on two new ABM systems.

Turning to air defense, the Soviet Union already has in being an extensive nationwide system employing surveillance, warning, and control systems, a variety of surface-to-air missiles, and a very large interceptor force. The FOX-

BAT, now designated the MIG–25, adds a major capability to the Soviet air defense force. It is a MACH–3, all-weather interceptor and carries a new air-to-air missile. Since the optimum performance of the FOXBAT seems to be at high altitudes, we believe that at least one of its primary roles will be against high-altitude, high-speed attackers, such as air-to-surface missiles.

Although the U.S. has no new strategic interceptors, the introduction of the F–14—being developed for fleet air defense—and the F–15—being developed as an advanced air superiority tactical fighter—will improve significantly the overall air superiority capabilities of U.S. general purpose forces. Either or both of these aircraft also could be employed by strategic air defense units. Similarly, the U.S. austere SAM–D program, which is being developed primarily to provide air defense for the Army in the field in the 1980s, could be effective in a strategic defense role, if so assigned.

Chairman McClellan. What do you mean when you refer to the SAM–D program as being "austere"?

Admiral Moorer. The term "austere" is used to apply to both the SAM–D system and the SAM–D program.

The system is to be designed to provide an air defense capability for the field army at minimum cost.

The program is "austere" to insure adequate testing of the guidance system and phased array radar before we proceed to engineering developments. This is a complex system, and in order to insure the proper performance of key components before proceeding with full-scale developments, concurrency has been almost totally eliminated. Almost $111 million is included in the FY 75 budget to continue R&D on the system.

Chairman McClellan. Proceed.

Admiral Moorer. The US air defense system, even at its peak, was never comparable in size to the one deployed in the Soviet Union. Based on our overall priorities within a constrained budget, primary emphasis in US air defense is now being placed on surveillance, control of air space, and providing warning of a bomber attack. There are clear risks involved in reducing our capability to limit a potential adversary's ability to employ manned bombers and cruise missiles against the US. However, improvement of US air defense surveillance and control capabilities should, in the future, reduce those risks somewhat, since the limited air defense force assets and available general purpose augmentation forces then could be employed with greater effectiveness.

In the meantime, US initiatives in strategic defense are limited to new technology in early warning and command and control. In addition, we are retaining the options, as mentioned, to convert new general purpose force interceptors and the SAM–D to strategic defense at a later date. Funds for procurement of the first US initiative listed—SLBM Warning Radar—were rejected last year by the Congress because of a belief that "our present warning systems are adequate." A study of these systems has been initiated by the House Appropriations Committee "in order to adequately evaluate future requests of this nature from all the Services." I welcome this study because I have been convinced by several JCS/DOD studies and reviews that our SLBM warning systems are not adequate, particularly in light of the deployment of the Soviet 4200 nm SS–N–8 SLBM.

Over-the-Horizon Backscatter

The Over-the-Horizon Backscatter (OTH–B) radar system is being developed by the US to provide long-range surveillance, detection, and warning of aircraft from the surface to the ionosphere. Although a production decision has not as yet been made, it could be operational by the early 1980s.

AWACS, the last US initiative listed, stands for Airborne Warning and Control System. This system consists of a new all-altitude surveillance radar with associated data processing and command and control equipment installed in a Boeing 707 airframe. By mid–1977, it should provide significantly improved surveillance capabilities with respect to radar detection, active and passive tracking of air-borne objects, identification of aircraft, and interceptor control for our tactical and strategic defense air forces.

The USSR is continuing its research and development of over-the-horizon (OTH) radar. Finally, the USSR has a modified transport aircraft, called the MOSS, which has been utilized in airborne warning and control since 1968. No new USSR AWACS-type development has been noted.

The GALOSH ABM system deployed around Moscow consists of four complexes; each with two TRY ADD engagement radar sites (one large target tracking radar, and two smaller interceptor tracking and guidance radars, per site), plus 16 GALOSH missile launchers—for a total of eight TRY ADD radar sites and 64 operational launchers. (The ABM Treaty authorizes the US and the USSR to deploy up to 100 ABM missiles on launchers for the defense of the national capital and 100 more for the defense of an ICBM area.)

Target acquisition and tracking are provided by two large, phased-array DOG HOUSE regional radars near Moscow. In addition, there are large, high-powered, phased-array HEN HOUSE early warning radars deployed around the periphery of the Soviet Union. The deployment of additional early warning radars is not prohibited by the ABM Treaty, provided the radars are deployed along the periphery of the national territory and are oriented outward.

Early in 1971, following a three-year lapse, new construction activity was begun at three previously abandoned ABM complexes near Moscow. Although the ultimate mission for these new facilities is not clear, we still believe the Soviet Union will complete the deployment of the Moscow ABM defenses up to the Treaty limit—six ABM radar complexes and 36 additional ABM launchers. Such deployment is expected to take place during the latter part of this decade. In this regard, Soviet ABM test firings continued during 1973. As already noted, it is postulated that two new systems are under development.

Chairman MCCLELLAN. Compare the GALOSH ABM system to the U.S. system.

Admiral MOORER. The currently authorized 1-site SAFEGUARD deployment differs from the presently deployed Soviet ABM system in two major respects.

First, the SAFEGUARD system, which is being deployed at Grand Forks, North Dakota, is based on more modern technology than is the Soviet ABM system which was deployed in the mid–1960's. The SAFEGUARD system employs both an area defense interceptor (SPARTAN) and a terminal defense interceptor (SPRINT), whereas the Soviet system relies on a single interceptor (GALOSH) which is essentially a SPARTAN-like area defense interceptor.

Second, the two deployments differ as to the types of installation that they are intended primarily to defend. The currently authorized SAFEGUARD site is located in a MINUTEMAN field where its primary purpose is to increase the survivability of our MINUTEMAN deterrent force against Soviet ballistic missile attack. The Soviet ABM, currently deployed around Moscow, provides principally a light defense of the population and the major command and control centers in the Moscow area; i.e., the Soviet National Command Authorities (NCA).

Comparative data follow:

UNITED STATES/SOVIET ABM SYSTEMS

Location system: IOC	Moscow, ABM–1,[1] 1968	Grand Forks, N. Dak., Safegua, 1975
	Galosh	Spartan (long range)/Sprint (short range)
Missile(s):		
Number authorized	100, total	100, total.
Number deployed	64	[Deleted] planned.
Maximum intercept range (NM)	[Deleted.]	[Deleted.]
Maximum intercept altitude (NM)		
Warhead	Nuclear [deleted]	Both nuclear [deleted].
Radars:		
Early warning radar range (NM)	Hen House [deleted]	[Deleted.]
Regional radar range (NM)	Doghouse [deleted]	PAR (perimeter acquisition radar) [deleted].
Engagement radar range (NM)	Try Add [deleted]	MSR (missile site radar) [deleted].

[1] Soviet ABM system performance and characteristics are based on intelligence estimates.

Chairman MCCLELLAN. Proceed.

Admiral MOORER. With regard to the US ABM program, we now plan to complete the Grand Forks site with 100 missiles on launchers, a Missile Site Radar, and a Perimeter Acquisition Radar. This site is expected to be operationally ready by mid-1975.

As a hedge against the emergence of new threats which could gravely jeopardize our national safety, we plan to continue the development of the prototype of

the SITE DEFENSE system through FY 1975, towards the demonstration in 1977 of an improved capability to defend our MINUTEMAN force in the 1980s. Research also will be continued on new technological approaches to even more advanced ABM systems.

The strategic situation is still fraught with many uncertainties, particularly in light of the ICBM MIRV development of the Soviet Union. It is only prudent, therefore, that we continue our efforts to advance our ABM technology to the full extent permitted by the Treaty and retain the option to deploy a more advanced ABM system for the defense of the National Command Authorities or to deploy a more extensive system should the ABM Treaty be abrogated for any reason.

As previously mentioned, the deployment of the long-range SS–N–8 SLBM has enlarged greatly the ocean areas from which an SLBM attack against the United States can be launched. Some of these areas are beyond the coverage of all of our existing SLBM detection systems. The highly reliable phased-array radar system being requested will provide the long-range detection and tracking capability required to insure adequate warning of an SLBM attack from these remote areas. It also will complement our satellite coverage in other areas. This is required because the satellite is blanked out under certain predictable solar conditions, thus allowing an SLBM to be launched without warning. Additionally, it is essential that the National Command Authorities be provided the highly credible warning data that can be obtained only with detection by more than a single physical phenomenon.

Senator YOUNG. If the Soviets deploy 6,000 mile Submarine Launched Ballistic missiles, what problem will this present to our forces in detecting and tracking them?

Admiral MOORER. The problems associated with detecting and tracking a 6,000 mile SLBM after it is launched are not unlike the problems associated with the current SS–N–8 threat. The range, however, greatly increases the problems associated with detecting and tracking the submarine prior to launch. The additional range would provide increased flexibility in Soviet submarine deployment [deleted].

ANTICIPATED WARNING TIME

Senator YOUNG. As Chairman of the Joint Chiefs, how much warning time do you anticipate this country will have against: a. Manned bombers; b. ICBMs; c. SLBMs?

Admiral MOORER. a. We can expect approximately [deleted] warning against Manned Bombers using high altitude tactics, penetrating the Dew Line. For Manned Bombers which are able to avoid Dew Line coverage and are detected only by coast line radars, warning will be approximately [deleted].

b. As you are aware, missile warning times are dependent upon complex factors including such variants as weather, earth orbit, trajectory, launch point detection phenomenology and missile flight times. Without reference to the above, or specific areas of coverage and system detection limitations, we expect [deleted] reporting time before impact for ICBMs.

c. SLBM reporting times are expected to be [deleted] considering the above criteria.

[Deleted.]

Chairman MCCLELLAN. Proceed.

Admiral MOORER. Our current projections of the US air defense force have declined while the USSR air defense forces are essentially the same as those I presented here last year. As a result of budget decisions, primary emphasis is being placed on airspace surveillance and peacetime control and warning of a bomber attack. AWACS development funding has been transferred to General Purpose Forces, although the AWACS still will be required to fulfill strategic, as well as tactical, missions. All existing CONUS strategic air defense surface-to-air missiles (SAMs) will be phased out of operation by the end of FY 1974, although deactivation will not be completed until FY 1975.

All F–102 interceptors will be phased out by mid-1976, but 242 F-106s and 124 F-101s will be retained at least through mid-1976. Pending a review on the retention of the F-101s, this force could be maintained at about that level through the 1970s. As I indicated earlier, in crisis situations general purpose fighters and SAMs could augment CONUS defenses; but, of course, these are the same forces that frequently are deployed elsewhere in a crisis. Thus, the Soviet Union's commanding lead over the United States in numbers of air defense radar sites,

command and control facilities, surface-to-air missile launchers, and interceptor aircraft is expected to increase.

Senator YOUNG. Admiral, the fiscal year 1975 program, as I understand it, reduces as a first step our air defense capabilities against the manned bomber. What is your military judgment concerning the Russian bomber threat?

Admiral MOORER. The Russian-bomber force provides a potent capability in both peripheral and intercontinental roles that will continue to improve with the introduction of the new variable-geometry wing supersonic BACKFIRE bomber into their operational inventory in 1974. We anticipate that the BACKFIRE could be employed in either role.

The current long-range bomber force (LRA) consists of about 140 long-range bombers (BEAR and BISON) and about 600 medium bombers (BADGERs and BLINDERs). Although the older medium bombers of the USSR probably do not figure prominently in Soviet plans for attack on North America, with Arctic staging and refueling some could be used on two-way missions against targets in Canada, Alaska and the northern United States and on one-way missions against other parts of the United States.

Chairman MCCLELLAN. Proceed.

Admiral MOORER. The first element of the modernized US air defense warning and control system—the Airborne Warning and Control System (AWACS) aircraft—will become operational in FY 1977. The second element—the Over-the-Horizon Backscatter (OTH–B) radars—could become operational in FY 1980. As I have already noted, the US is retaining the option of utilizing new general purpose force developments, such as the F–14, F–15, and SAM–D, in strategic defense roles, should this become desirable at a later date.

Shown on the right side of Chart 10 are the US and USSR home defense interceptor forces projected through mid-1974. The reductions planned in US interceptor forces already have been noted. The Soviet force, although declining slowly in numbers, is being steadily modernized. By mid-1974, the four newest interceptors—FIREBAR (YAK–28), FIDDLER, FLAGON–A (SU–15), and FOXBAT (MIG–25)—will account for about 50 percent of the force, while the two oldest interceptors—FRESCO (MIG–17) and FARMER (MIG–19)—will account for only 25 percent. The FISHPOT (SU–9/SU–11), introduced in 1959, accounts for the remaining 25 percent. The FLASHLIGHT (YAK–25) was phased out during the past year.

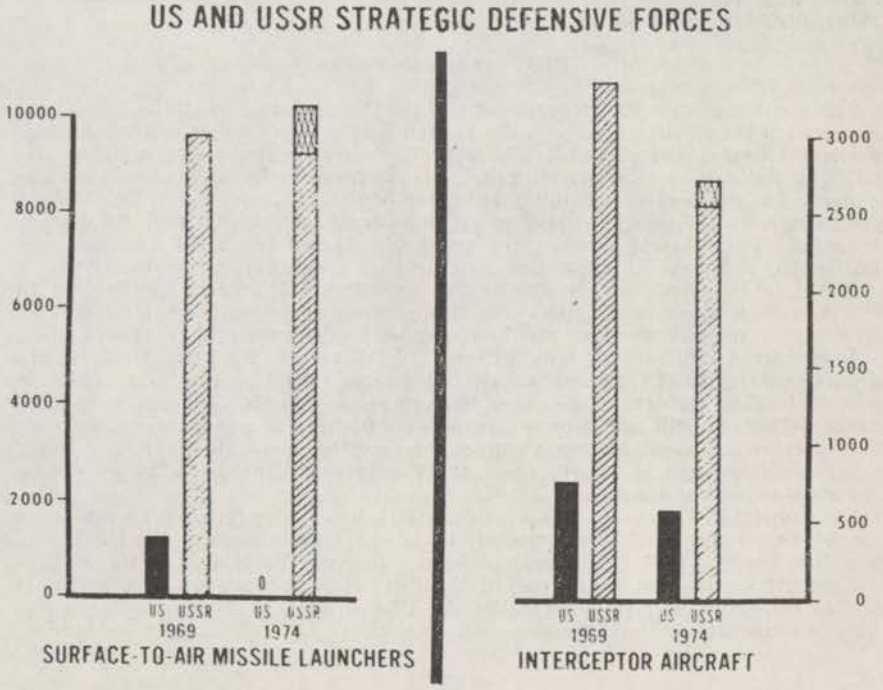


CHART 10

By the late 1970's, the Soviet Union may have interceptors with a look-down/shoot-down/radar/missile system, and may deploy a new AWACS with a look-down capability over land, as well as water. Such an interceptor/AWACS force could pose a formidable threat to our bombers. While we have no direct evidence of the existence of either system, we are hedging against this contingency with the development of a strategic cruise missile and electronic countermeasures, should these threats to our retaliatory forces materialize.

Chairman McCLELLAN. Just what do you mean by a "look-down/shoot-down/radar/missile system?" Do we have such a system?

Admiral MOORER. With regard to the first question—A look-down radar system is one which has the capability to detect and track aircraft targets below the flight altitude of the interceptor aircraft in a region in which the target would normally be obscured by ground clutter. This ability to eliminate the masking effect of ground radar returns is attributed to the application of coherent, pulse doppler radar technology.

A shoot-down missile system is one which has the capability to discriminate and "home" on targets in the normal radar ground clutter region. The mechanism providing this capability can be a coherent radar seeker, or a CW illuminator homing device. A look-down/shoot-down/radar/missile system would thus be the integration of the two capabilities.

With regard to your question on our possession of such a system, the Navy has had a partial capability in the F–4J aircraft for some time. Much improved look-down/shoot-down capabilities are being brought into the operational inventory in the Navy F–14 and the Air Force F–15 fire control and missile systems.

In addition to these interceptor systems, the development of the Airborne Warning and Control System (AWACS), which has a coherent, pulse doppler mode, will provide us with a long range, look-down surveillance and control radar system. This added capability will enhance the intercept control of our air superiority assets.

Chairman McCLELLAN. Proceed.

Admiral MOORER. Shown on the left side of Chart 10 are the US and USSR defense Surface-to-Air Missile (SAM) forces. The number of operational US strategic SAM launchers will decline to zero at the end of FY 1974.

There was a slight decrease in the Soviet strategic SAM force during the past year; continued deactivation of a SA–2 sites exceeded newly activated SA–3 and SA–5 sites. The SA–3 is a low-altitude system while the SA–5 provides long-range, high-altitude defense.

PRC Strategic Forces

The strategic offensive programs of the Peoples Republic of China, when compared with the Soviet Union and the United States, represent a relatively small-scale, but well-conceived, effort. The overall strategic offensive capability of the PRC, however, is steadily growing and must be taken seriously even by the super powers. The deliberate, but unhurried, pace of the PRC strategic offensive programs reflects the comparatively small number of technically qualified personnel working on these programs, the relatively limited resources available, and finally, the influence of long-range goals, rather than short-term objectives.

As indicated last year, a substantial expansion of nuclear production facilities is underway in the PRC. For this reason, we estimate that the Chinese stockpile of nuclear weapons will be expanded more rapidly in the years ahead.

Last year, I outlined the four different PRC strategic land-based missile programs and indicated that both an MRBM and an IRBM system may have been deployed. This deployment can now be confirmed. The third system, a limited-range ICBM, is still not believed to be operational; however, it could be deployed later this year. Although capable of reaching deep into the Soviet Union, this missile will not be able to reach the Continental United States (except for the western part of Alaska).

The fourth PRC system, a full-range ICBM, has not progressed as rapidly as we estimated last year. This large missile is in the same class as the US TITAN and the Soviet SS–9. It probably will not be operational until 1976 or 1977.

Forecasting the rate of progress of the PRC SLBM program has proven to be a very difficult task. We believe that the PRC is determined to develop a submarine-launched ballistic missile and a modern ballistic missile submarine;

however, estimates of the operational dates for an SLBM and a new submarine have been, in the past, overly optimistic.

The PRC has one Soviet-type GOLF-class diesel-powered missile-launching submarine, which it built during the early 1960s; but to our knowledge, it has never been equipped with missiles. If the PRC is indeed developing an SLBM, it is reasonable to assume that this submarine will be used as the test platform. No other operational PRC ballistic missile submarines are known to us; however, we cannot preclude the possibility that one or more may be under construction. In any event, we believe that it will be at least 1977 before such a system could become operational.

Turning to the strategic defensive forces, we expect the PRC to develop a modern all-weather interceptor during the next few years. As to the PRC surface-to-air defensive system, we believe it is capable of providing only a limited point defense of key urban and industrial areas, military installations, and advanced weapons complexes. Although this system has undergone significant upgrading in the past four years, it still has major weaknesses. The PRC has only one operational SAM system, basically a copy of the USSR SA–2 system. We estimate that the PRC, by mid-1973, had deployed several hundred SAM launchers and that this deployment will continue to increase during the next few years.

Chairman McClellan. Can you compare the US, USSR, and People's Republic of China defense efforts with respect to percent of total GNP, total budget, or otherwise?

Admiral Moorer. The USSR and US defense efforts can be compared on the basis of defense spending as a percent of GNP as shown in this table:

DEFENSE AS A PERCENT OF GNP [1]

	1970	1971	1972	1973 [2]
U.S.S.R.	6–10	6–10	6–10	
United States	8	7	6	

[1] The nature of published Soviet national budget figures makes it very difficult to estimate the size of their defense budget. Thus its proportion of Soviet GNP is uncertain. The range shown includes published spending as the lower limit, and a rough consensus of U.S. economists as an upper limit. Some U.S. economists would argue the proportion is higher still. Further, proportions of GNP are not reliable and unambiguous measures of economic burden. This is especially true where differences in the economic structure and price system are as pronounced as between the U.S. and the U.S.S.R. This results in a comparison which tends to understate the burden on the U.S.S.R.

[2] Preliminary estimates indicate that 1973 Soviet Defense programs would cost more to reproduce in the United States than our outlays for our own defense programs. This does not say anything about the military utility of the programs, or the efficiency of either country in producing military forces.

With regard to China, the PRC has not published a defense budget since 1959, when six percent of the estimated GNP was said to be allocated for defense. [Deleted.]

Chairman McClellan. Proceed.

Overall U.S. and U.S.S.R. Strategic Balance

Admiral Moorer. The overall strategic balance between the United States and the Soviet Union is in a state of dynamic equilibrium or in more familiar terms—relative strategic parity. The Soviet Union has, however, generated a momentum in new strategic offensive programs which, in the absence of successful negotiations or increased stategic offensive programs of our own, could easily upset this balance in the future. The USSR holds a significant numerical and throw-weight advantage in missiles, but the US today enjoys an equally significant counterbalance in areas of key qualitative importance—e.g., missile accuracy, MIRVs, submarine quietness, and underwater technology. Deployment of the 4200 nm SS–N–8 has given the USSR a temporary qualitative advantage.

The Soviet Union has developed a new supersonic bomber with intercontinental capabilities, but the United States will continue to retain, for a number of years, a significant advantage in the number of intercontinental bombers and in bomber payload. The US maintains a significant advantage in ABM technology, but the USSR has an operational ABM system and is continuing its research and development on new systems. The Soviet Union has an enormous advantage in air defense, but the US currently maintains the technological and operational capability to penetrate these defenses, should it become necessary to do so.

The advantages in the strategic balance which the United States holds over the Soviet Union are primarily qualitative in nature and are in areas of high technology. For example, our radar technology is still superior to that of the Soviet Union. There are several other areas that could be mentioned, but these technological advantages are transitory at best and are partially offset by the larger warhead yields and missile throw-weight of the USSR. This Soviet throw-weight advantage is a key element because it facilitates the large-scale MIRV development, already underway at a rapid rate.

These examples are illustrative of the US qualitative technological lead over the Soviet Union in areas impacting on the strategic balance. The Interim Agreement does not constrain either the Soviet Union or the United States from pursuing new technology nor does it limit modernization of strategic systems as long as the quantitative restraints are observed and the sizes of the ICBM silo launchers are not increased significantly. The relative military strategic balance is currently in equilibrium, but dynamic and fragile. The essential equivalency necessary to the preservation of peace is, therefore, neither self-perpetuating nor permanent.

It was for this reason that prior to the consideration of the ABM Treaty and Interim Agreement by the Congress, the Joint Chiefs of Staff enumerated the following three assurances which we regard as essential if the United States is to guard against degradation of its national security posture:

Assurance I—"A Broad Range of Intelligence Capabilities and Operations to Verify Soviet Compliance in a Strategic Arms Limitation Environment."

Assurance II—"Aggressive Improvements and Modernization Programs."

Assurance III—"Vigorous Research and Development Programs."

The Joint Chiefs of Staff remain firmly committed to these three Assurances which are supported in the FY 1975 Defense Budget and the supplemental request for FY 1974. Assurances II and III are particularly pertinent to this discussion. If we fail to maintain weapons systems technological superiority or if we fail to maximize our strategic offensive capabilities within the constraints of our international obligations, we will find that the qualitative advantages we now hold will have evaporated and that the United States will be placed in a position of strategic inferiority, thereby risking both peace and freedom.

GENERAL PURPOSE FORCES

The dynamic equilibrium now existing between the United States strategic forces and those of the Soviet Union increases significantly the importance of US general purpose forces (including theater nuclear forces) in the deterrence of conflict below the level of strategic nuclear war. Neither the US nor the USSR will be capable in the foreseeable future of executing a disarming first strike. Under these circumstances, as vital as they are in maintaining an overall deterrent to major conflicts, strategic nuclear forces are less likely today to deter the lesser forms of conflict than in the days of our overwhelming nuclear superiority. Therefore, ready, mobile, and versatile general purpose forces, sufficient to provide a deterrent of their own, must continue to be one of our prime objectives and concerns.

Detente as we have seen this past year, does not mean the total absence of tension between the US and USSR, nor does the positive improvement in our relations with the Peoples Republic of China mean that the possibility for conflict in Asia has been removed. Economic imbalance, political ambition, social upheaval, resource demands, and military adventurism remain among the potential causes of war. Hopefully, continued diplomatic efforts ultimately will be able to establish a world order capable of settling all disputes through political and legal mechanisms without the use of force or the threat of force. Until that time, the United States and its allies must remain fully prepared to protect and defend our vital interests wherever and whenever threatened by those who would be our adversaries. Our ability to protect these vital interests in military situations, short of strategic nuclear war and particularly at the lower end of the violence spectrum, depends to a great extent on our general purpose forces.

Each of the Service Chiefs will discuss with you in detail those areas of particular concern to his Service. I will provide an overall comparison of United States general purpose forces with those of the Soviet Union and the Peoples Republic of China, with some emphasis on deployments; a brief analysis of the US, USSR, and PRC land, sea, and air general purpose forces; and a brief discussion of the recent Middle East war with emphasis on important conclusions.

Overview

The Soviet Union maintains an impressive active duty force strength of about four million men, backed up by a trained reserve force of at least another four million men who have served with the active forces in the last five years. There are about twenty million men registered in the ground force reserve alone. Large, as it is, the active force of the Soviet Union is not as large as the PRC's active establishment, which has a strength of over four million men and an armed militia of over five million men. By way of comparison, the United States maintains a much smaller active force of about two million, supplemented by about one million individuals in selected reserve units plus others who are individually available for immediate mobilization. There are about three million total US reservists, standby, and retired members. Of course, each of the three nations mentioned could, over time, field a much larger force. These figures simply display the force levels that would be available in the initial stages of a major conflict.

The United States, of course, does not plan to emulate the USSR or PRC in acquiring, training, equipping, and maintaining a peacetime general purpose force of such great size. In gross terms, it costs the United States many times more in one-time investment and in annual incremental costs to recruit, train, and maintain a general purpose force soldier than it costs the USSR. Thus, if the United States were to attempt to compete in terms of numbers with the Soviet Union, it would require far more than the current DOD budget just to maintain equivalent general purpose force levels. Conscription and rigidly controlled economies, of course, are burdens borne by the USSR that appreciabaly reduce the costs to maintain such large general purpose forces.

Chairman McClellan. Describe the USSR conscription program.

Admiral Moorer. Universal military service is the law, and all male citizens are obligated to perform active service in the armed forces. The term of service is 2 years, except for naval personnel afloat including naval units of border troops, who serve 3 years, and personnel with a higher education who serve 1 year. Deferments are granted on three grounds: health; family hardship; and for continuation of education.

Annual registration is conducted in February and March for all male citizens who reach age 17 during the year of registration. Registrants selected for service are 18 years old and are conscripted in May-June or November-December.

The Soviet Law on Universal Military Service makes mandatory a system of preconscription training in fundamental military knowledge and basic military-technical skills for all students in the 9th and 10th grades and all working youth between the ages of 16 and 18. This is a 140-hour program which includes instruction in drill, tactics, the use of firearms and civil defense techniques.

The law also authorizes the preconscription training of specialists for the armed forces in educational institutions of DOSAAF (The All-Union Voluntary Society for Assistance to the Army, Air Force, and Navy) and in Technical-vocational schools. The specialists produced include truck drivers, radio operators, electricians, parachutists, and so forth.

Chairman McClellan. Proceed.

Admiral Moorer. These fiscal realities alone, however, do not determine the relative size of the forces. Geopolitical realities also play a major role in determining force requirements. The Soviet Union is a massive heartland astride two continents, at once a European and an Asian nation, contiguous to most of the world's major powers—Western Europe, Japan, China, and the Middle East. The United States, on the other hand, is an insular nation, continental in size, unthreatened by hostile neighbors, and separated from important interests and allies by two oceans. Our general purpose forces reflect this position and perspective.

US and USSR General Purpose Forces Dispositions

The geopolitical factors discussed above also play a major role in the pattern of deployments of the US and the USSR. Because of its geography and political goals, the USSR deploys forces, not only for greater internal security, but also as a direct adjunct to its externally deployed forces. Thus, considering location and disposition, the forces along its borders are, in reality, forward-deployed forces projecting global Soviet power. Soviet forces are deployed forward on a massive scale, are offensively designed, and are concerned with controlling buffer states as well as projecting power.

In contrast, our Armed Forces are not located within the United States for internal security reasons, nor are they deployed overseas with any intent to coerce our allies. We seek only to deter potential adversaries across the entire spectrum of conflict as well as to assure our most important allies. If our deterrence and assurances are to be credible, they must be based on clearly evident warfighting capabilities. Basic to this capability is the concept of forward defense. Under this concept, the United States maintains forward-deployed forces and reinforcement capabilities in defense of US and allied interests. Accordingly, certain locations require a US force presence primarily to assure allies of our resolve to honor our commitment or to otherwise support US peacetime political interests. These deployments are small and essentially defensive in nature.

The nine divisions located in the Continental United States include a mix of forces composed of every type US division, including two Marine divisions. Fifty-eight percent of our TACAIR squadrons are maintained in the United States. These are highly mobile forces capable of responding to worldwide contingencies. The concentration of naval forces adjacent to European waters reflects the high priority assigned to the security of this region.

Should deterrence fail in Europe, US forces in conjunction with our NATO allies must be capable of halting the aggression firmly and swiftly. We have a capability to accomplish this mission today, and it is the recognition of this capability that underpins the initiatives toward detente in Europe. The adverse trend in relative strength between NATO and the Warsaw Pact has been discussed in past statements. We must continue to improve the combat potential of US forces and to urge our allies to modernize and improve the combat readiness of their forces.

The Secretary of Defense has concentrated on the NATO/Warsaw Pact balance. Repetition here of what he has described already would serve no useful purpose. Suffice it to say, deployment of substantial US forces in Europe and the Mediterranean is still required to supplement the forces of our allies more directly in contact with potential adversaries. Significant unilateral reduction of American military presence from the European area would affect adversely the military balance between NATO and the Warsaw Pact, and would effect adversely ongoing attempts to reduce our force levels through MBFR negotiations. A unilateral change of this nature would damage simultaneously the security interests of the United States because, as I indicated last year, I firmly believe that the fate of Western Europe is of vital importance to our own security.

US Asian deployments, which are heavy in naval and air assets, reflect both our commitment to the area and our insistence that our allies continue to provide the manpower necessary for their own defense. It remains a US goal to avoid involvement in any war, but particularly a land war of attrition in Asia.

US general purpose forces are deployed to the Western Pacific to deter aggression and to reassure our allies, particularly Korea and Japan, of our continuing interest and ability to play a major stabilizing role in the area. These forward-deployed forces would be crucial in a major conflict, serve as a deterrent to regional escalation of local confrontations, and demonstrate our resolve to remain a Pacific power and to continue to fulfill our treaty commitments.

Our forces in Asia have been significantly reduced over the past few years as a result of the lower level of conflict in Southeast Asia and the signing, in Paris on January 27, 1973, of the Agreement on Ending the War and Restoring Peace in Vietnam. If we are to avoid a significant impact on our national security, in my opinion, these forces can be reduced substantially only in response to a significant lessening of tensions and conflict in the area. Without such changes in the political and military situation, US military presence in Asia, at approximately current levels, probably will be required for some time to come.

Two factors remain to be examined on the issue of deployments—the special problems associated with the Indian Ocean and sealift and airlift capabilities.

Soviet military and political activities in the Indian Ocean area clearly demonstrate the USSR's continuing pursuit of long-range regional objectives. Before 1968, there was *no* regular Soviet naval presence in the Indian Ocean. The USSR reached an average of 4300 naval ship days per year for 1969–70. By 1973, it had more than doubled that presence; but, in large part, this resulted from the salvage and harbor-clearing operation at Bangladesh. The Soviet Union now operates about nine combatants/submarines and 21 naval auxiliaries in the area and has, during periods of tension, clearly demonstrated a capability to surge and reinforce.

Currently the PRC has little or no capability to project military force into the Indian Ocean area.

The United States has important interests in the area, even beyond the self-evident need for access to oil and mineral resources. We must demonstrate to both allies and would-be adversaries US resolve to deter threats to the vital sea lines of communication in the area and to prevent closure of these lines of communication if deterrence fails. Access to the resources of the region is indispensable to the survival of both NATO and Japan. Therefore, we must be in a position to deter activities that are directed against the interests of the United States or its allies.

Chairman McClellan. What military presence do our allies have in the Indian Ocean area?

Admiral Moorer. The United Kingdom deploys the following forces:

	British	Gurkhas
Ground forces:		
Oman (advisers)	[Deleted.]	
Brunei (Gurkha Bn)		
India/Nepal		
ANZUK forces Singapore		
Thailand		
Gan Island (RAF Support)		
Total		
Air Force (RAF):		
Oman (staging base)		
Gan Island		
Navy: Naval ships in area are: 1 guided missile frigate; 6 helicopter destroyer escorts; and 1 oceanographic research ship.		

Additionally, there are five Royal Fleet Auxiliaries in the area, maintained for logistic support of the fleet, manned by merchant marine personnel under the operational control of the Admiralty Board.

French Forces in the area are under a joint command, the French Forces Indian Ocean Zone. This command headquartered on La Reunion Island has a strength of [deleted] shore based personnel.

[Deleted.]

Naval Forces: The naval element of the French Forces Indian Ocean Zone has been an afloat command since 1 September 1973 when the French Naval Base at Diego Suarez passed under control of the Malagasy Republic; however, approximately [deleted] personnel remain on shore to train Malagasy personnel and provide support for French vessels.

Naval units currently present in the area include three destroyers, two mine-warfare ships, one amphibious, and one auxiliary under the flagship La Chareute, a former oiler.

[Deleted.]

Chairman McClellan. Proceed.

Admiral Moorer. If we are to accomplish these objectives, and, at the same time, counter politically the growing Soviet presence in the area, we will be required to expand on a more permanent basis our limited force presence. Some expansion of the communications facility on Diego Garcia is important to our interests in the Near East, South Asia, and the Indian Ocean. We have requested funds to expand the present facility to support the additional ships, aircraft, and attached and embarked personnel needed to implement this moderate increase in US force presence.

No discussion of deployment would be complete without some mention of capabilities to resupply and reinforce.

The Soviets obviously have not placed the same emphasis on the development of heavy military transport as the US. The US C–5A fleet consists of 70 aircraft capable of lifting M–60 tanks, and 234 of the smaller C–141s. We plan to increase the effectiveness of the C–141 aircraft by elongating the fuselage by 30 percent to increase its capability for carrying oversized cargo and additional combat troops.

In regard to sealift, the USSR operates 1500 merchant ships totalling about 12.5 million deadweight tons. Of this total, there are some 370 cargo ships and 112 tankers which appear to be equipped and suitable for long-range military sealift. All are less than 20 years old, are capable of speeds in excess of 14 knots,

and have the required heavy lift booms and hatch size. As noted last year, Soviet shipbuilding facilities have been expanded so significantly that they retain the option to double their current capability by 1980.

The United States operates only 239 comparable ships of 3.4 million deadweight tons and 162 tankers which meet similar military supply requirements. The US Navy provides amphibious lift for the assault elements of more than one Marine Corps Division/Wing team (MAF) and plans to operate, by 1978, sufficient lift for one and one-third MAFs. I believe that with sufficient overflight privileges and base rights, the US has the capability to project the necessary military power to control the early critical stage of a confrontation in those areas of the world where our interests come in conflict with those of the USSR. We plan to expand our sealift and airlift forces so as to maintain a credible strategic mobility capability. If we fail to provide this capability, then our potential adversaries will know that they can always pick the point of confrontation and concentrate their forces with impunity.

US General Purpose Forces Readiness

There are two factors affecting future US readiness that are particularly worthy of attention at this time.

Chairman McClellan. What do the four different categories of readiness mean?

Admiral Moorer. The four categories of overall combat readiness (C-rating) are:

(1) Fully Ready (C–1). A unit fully capable of performing the mission for which it is organized or designed.

(2) Substantially Ready (C–2). A unit has minor deficiencies which limit its capability to accomplish the mission for which it is organized or designed.

(3) Marginally Ready (C–3). A unit has major deficiencies of such magnitude as to limit severely its capability to accomplish the mission for which it is organized or designed.

(4) Not Ready (C–4). A unit not capable of performing the mission for which it is organized or designed.

Chairman McClellan. Proceed.

Admiral Moorer. First, the all-volunteer force environment will have an increasing impact on our ability to attract and retain that level of expertise required to maintain a satisfactory level of readiness. This impact will be felt most in the technical skill positions. Another facet of this problem is leadership. Unless dedicated young men of good character continue to be attracted to a military career, we soon can expect to possess an Armed Force led by second-raters. The military strength of our Nation rests not on weapons systems alone, but, rather, is embodied in the character, ability, and morale of those entrusted to use them. First-class leaders will be attracted only if the Nation as a whole recognizes the need for such leadership and also actively seeks to create pride in military service.

The second factor adversely impacting on future readiness is the energy problem. We have implemented maximum POL conservation measures and drastically curtailed training missions and exercises. These restraints only now are beginning to be reflected in our readiness posture. We can maintain minimum acceptable readiness under present conditions only for the short term. Continued reductions in route training and major exercises will result in gradual, but serious cumulative degradation in the long term. Returning to optimum training levels will be difficult as a result of price increases, even if the fuel becomes available.

Chairman McClellan. Is the USSR self-sufficient in petroleum or will price increases affect their defense budget?

Admiral Moorer. The USSR is self-sufficient in petroleum with a production of 421 million tons of crude oil in 1973; domestic consumption was about 315 million tons. The surplus production is exported to Eastern Europe and the Free World. These conditions are expected to continue into the 1980s but the amount of oil available for export will decline as Soviet production stabilizes and domestic consumption increases. World price increases for petroleum are not expected to affect the Soviet defense budget.

Chairman McClellan. Proceed.

Significant U.S. and U.S.S.R. Initiatives—General Purpose Forces Systems

Admiral Moorer. The principal US and USSR general purpose force initiatives are shown on Chart 11. There are other important ongoing programs, of course,

which could be listed for both the US and USSR, but these are believed to be the most significant. You should note that nine of the Soviet systems listed have progressed to the point of deployment, while only two of the US systems are in that category. Recognizing that legitimate disagreements may exist over which general purpose systems should be included on this chart, the emphasis displayed by these newly developed Soviet systems clearly illustrates the broad scope of USSR general purpose force modernization. The list also reflects our limited ability to detect research and development on Soviet general purpose force systems.

The Soviet Union, despite the clear commitment it is making to the major modernization of its strategic offensive forces, has not neglected general purpose force modernization. New tanks, aircraft, and ships are being developed and deployed, apparently as a long-range, sustained, and deliberate "across the board" modernization.

SIGNIFICANT US & USSR INITIATIVES GENERAL PURPOSE FORCES SYSTEMS

US		USSR
	GROUND FORCES	
ARMY "BIG FIVE": AAH & UTTAS		• NEW MEDIUM TANK
XM-1 TANK & MICV		• NEW FIGHTING VEHICLE
SAM-D		• BRDM- MISSILE SYSTEM
• DRAGON & TOW ANTITANK WEAPONS		• HIND A HELO
CH-53E HVY ASSAULT HELO		
	TACTICAL AIR FORCES	
A-10 CLOSE AIR SUPPORT A C		FENCER A VGW FIGHTER BOMBER
F-15 (EAGLE) FIGHTER		• MIG-23 (FLOGGER) FIGHTER
EF-111A		• SU-20 GROUND SUPPORT A C
• F-14 (TOMCAT) FIGHTER		V STOL FIGHTER
	NAVAL FORCES	
688 CLASS ATTACK SUB		KURIL CLASS CARRIER
LHA AMPHIB ASSAULT SHIP		• KARA CLASS CRUISER
SEA CONTROL SHIP		• KRIVAK CLASS DESTROYER
PATROL FRIGATE (HARPOON EQUIPPED)		• AMGA CLASS MISSILE SUPPORT SHIP

• CURRENTLY BEING DEPLOYED: STILL IN PRODUCTION

CHART 11

Admiral MOORER. A new tank, a new armored fighting vehicle, a new missile system mounted on an existing armored vehicle, and a new assault helicopter currently are being deployed with Soviet ground forces. The deployment of a new medium tank, a new fighting vehicle (which is air-droppable, amphibious, and equivalent to a light tank), and an armored missile system is consistent with the reliance placed by the USSR on armored and mechanized equipment. These new weapon systems will provide evolutionary improvements over similar existing equipment, but they should not change materially the overall effectiveness of the ground forces.

There are numerous indicators that the Soviet Union has begun to increase its emphasis on improving the capabilities of its tactical air forces to engage in ground attack missions, particularly in regard to non-nuclear conflict. Convincing evidence of this trend is supplied by the development of the four Soviet aircraft listed on Chart 11.

The FENCER A, for example, is the first modern Soviet fighter to be developed specifically as a fighter-bomber for the ground attack mission. Although the MIG–23 (FLOGGER) is capable of serving as an interceptor, it also has an important ground attack capability. The SU–20 is an improved version of the FITTER B, also with an improved ground attack capability. The V/STOL fighter is expected to serve as the fixed-wing tactical aircraft for deployment in the new Soviet aircraft carrier. In contrast to the evolutionary improvements of the

ground forces, these ongoing tactical air initiatives, when fully implemented, will add significant new capabilities to the Soviet Frontal and Naval Aviation forces.

The deployment of the first KURIL-class V/STOL carrier will add a completely new dimension to Soviet naval capabilities. Although not comparable to the multi-purpose US carriers with their varied complement of sophisticated aircraft, this class of ships will free USSR naval forces from their total dependence on shore-based aircraft. With complementary Soviet programs underway in replenishment ships, command and control cruisers, and amphibious ships, this class of ships will further strengthen the increasing capability of Soviet forces to operate worldwide.

Chairman McCLELLAN. Is the U.S. Sea Control Ship comparable to the U.S.S.R. KURIL-Class V/STOL carrier?

Admiral MOORER. The Sea Control Ship (SCS) and KURIL-Class V/STOL carrier are comparable only to the extent that both ships will utilize VTOL/VSTOL type aircraft. Conceptually the KURIL-Class carrier is a sophisticated highly capable ship, designed to survive in a high threat environment. The SCS is an austerely designed ship expected to operate in areas where it will encounter a relatively lower level air and surface threat. Within the context of the U.S. Navy's "hi-lo" classification, the KURIL-Class carrier would place within one of the more prominent systems in the "hi-mix", while the SCS is a key element within the Navy's "lo-mix" force.

Chairman McCLELLAN. Proceed.

Admiral MOORER. The other three naval initiatives listed for the USSR also will strengthen this same capability. The KARA-class cruiser and the KRIVAK-class destroyers are heavily armed ships with impressive arrays of antiship and antiair missiles, as well as antisubmarine sensors and weapons. The AMGA-class ships will provide missile support for all classes of ballistic missile submarines, thus potentially improving the sustained effectiveness of these submarines when deployed away from the Soviet Union. It is obvious that ships of this size and sophistication are not needed by a navy structured merely for coastal defenses.

Turning to the ongoing US initiatives, the emphasis has been placed on major new programs designed to influence our military capabilities in the late 1970s and 1980s. In regard to the US Ground Forces initiatives, the Army "Big Five" weapons systems have been designed to provide major qualitative improvements in combat equipment for use by ground forces that may be on a battlefield in the 1980s. Superior equipment is indispensable for our ground forces because we plan for them to exploit technology rather than depend upon abundant manpower. The DRAGON and TOW constitute a significantly improved family of antitank weapons to provide protection to ground force units. TOW currently is being deployed and DRAGON will be deployed in the near future with our Army ground forces. A request for funds to provide this same capability to Marine Corps ground forces is contained in the FY 1975 Defense Budget. The last item, the CH–53E, is an improved prototype version of the CH–53D helicopter currently deployed in Marine Corps units. It is expected to have the capability to lift over 90 percent of Marine division combat equipment and Marine tactical aircraft without disassembly. No production decisions have been made on any of these initiatives except for the DRAGON and TOW antitank weapons.

The first three initiatives listed under Tactical Air Forces are ongoing Air Force programs. The A–10 is an attack aircraft specifically designed and optimized for the close air support mission—particularly in the role of defeating enemy armor and providing accurate delivery of ordnance in proximity to friendly ground forces. A production decision on this aircraft is being withheld until a fly-off has been completed between the A–10 and the in-service A–7 aircraft. The F–15 (EAGLE) is an advanced tactical fighter being developed for the Air Superiority mission; but it also is expected to have an air-to-ground capability, with accuracies at least as good as those of the A–7D attack aircraft. As an air superiority fighter, it should out-perform any known Soviet fighter aircraft now in service or projected for service in the 1980s. The EF–111A is being developed as a prototype by installing the latest jamming subsystem in the sophisticated F–111A fighter, to provide an important qualitative improvement in the Air Force's manned tactical ECM capability.

The Navy's F–14 (TOMCAT) is the only Tactical Air Forces initiative listed which is currently operational. Designed for both fleet air and fleet area defense, the F–14 should—like the F–15—be superior to any Soviet fighter aircraft through the 1980s. The F–14 also has an excellent air-to-ground attack capability.

None of the US ships listed under the Naval Forces initiatives is currently operational; however, the first 688-class nuclear-powered attack submarine (SSN) and the first LHA amphibious assault ship should be delivered to the fleet in FY 1975. The 688-class SSNs are expected to be generally qualitatively superior to the best Soviet nuclear-powered attack submarines. With the completion of the five ships in the LHA program in FY 1977, the amphibious forces of the Navy should attain the capability of lifting the helicopter and surface assault elements of one and one-third Marine Amphibious Forces and achieve this in modern 20-knot ships.

The last two ships listed, the sea control ship and the HARPOON missile-equipped patrol frigate, are to be key elements in providing sea-based air, antiair, and antisubmarine capabilities to small task groups, underway replenishment groups, amphibious assault groups, and convoys that do not have aircraft carriers in company. Both of these new ships will be austerely, but adequately, designed to fulfill this important mission of protecting our sea lines of communication in lesser-air-threat areas, freeing our carriers to employ their capabilities in protecting our sea lines of communication in high-air-threat areas.

Ground Forces

Chart 12 provides a comparison of US, USSR, and PRC inventories of selected major ground force weapons and equipment. Accurate comparisons in this area are difficult because our estimates of Soviet and PRC ground force weapons inventories, of necessity, are based to a large extent on evaluations of their force requirements, division structure, and tables of organization and equipment. Also, there are always numerous problems of definition and classification involved in the categorization of weapons and equipment.

GROUND FORCES
MAJOR WEAPONS AND EQUIPMENT
(RATIOS)

	USSR/US	US/PRC
MED TANKS	4:1	1:1
APC & FIGHTING VEH.	3:2	6:1
ARTILLERY	3:1	1:3
HEAVY MORTARS	2:1	1:2
ANTITANK WEAPONS	*	*
HELICOPTERS	1:5	20:1

*SEE TEXT

Chart 12

Admiral Moorer. Soviet doctrine places great emphasis on the massive use of tanks, armored vehicles, and heavy firepower to win the land battle. Associated with this doctrine, the USSR tends to arm its ground units with large quantities of weapons and equipment, which we have always considered reliable and serviceable, but generally of slight lower quality than comparable US materiel.

The US has never attempted to match the USSR in quantities of ground force personnel or materiel, but we have taken pride in our superior weapons systems and equipment. The Soviet Union, learning lessons from Vietnam, has continued a very deliberate and effective program, both to modernize its ground force

equipment and to place large numbers of sophisticated weapons in its ground force units. The US, because of its involvement in Vietnam, has been required, in recent years, to expend most of its resources maintaining and procuring current models of weapons and equipment.

US technology is still, by and large, superior; but this new Soviet modernization trend, combined with its already massive quantitative superiority, makes it imperative that we continue to modernize our ground forces equipment and continue to pursue those potentially rewarding new areas of technology that might become most useful in the years ahead.

A substantial portion of the Soviet tank force consists of the effective T–62 medium tank, recently employed in combat by Syrian and Egyptian forces in the Middle East. Series production has begun on a new medium tank, the M–1970. The remainder of the Soviet tank force consists of older T–54/55 medium tanks. The PRC is continuing to produce the type 59 tank—a copy of the Soviet T–54.

The U.S. medium tank inventory is less than one-quarter of our estimate of the total USSR inventory, but about the same as the inventory of the PRC. Our main battle tank, the M–60, is comparable to the Soviet T–62. The M–60 series (M–60/A1/A2) now constitutes slightly over half of the U.S. Army inventory. M–60A1s will be delivered to the Marine Corps in June of this year. Over the next three years, M–60A1s will replace all of the old M–48s in both active and reserve Marine Corps units.

An improved version of the M–60A1, to be designated the M–60A3, will have a laser range finder and other improvements over the M–60A1. Also, the 152 mm gun/SHILLELAGH missile launcher version of the M–60, the M–60A2, will be fielded in Europe in the near future. For the 1980s, the Army is developing a completely new tank, the XM–1. Prototypes to be developed by two competing contractors will be tested (beginning in 1976) before a production decision is made.

The newest Soviet fighting vehicle is the new light, amphibious vehicle, already noted. This relatively small (less than 10 tons) armored vehicle is probably air-droppable, and we believe that production is continuing.

The PRC inventory of APCs and fighting vehicles is still small in comparison with the U.S. and USSR. The Chinese have been producing their own APCs and light tanks for several years. The design of this equipment, however, while similar to older Soviet tanks and APCs, does reflect some improvements. These vehicles, like the medium tanks, continue to be distributed to operational units at a moderate rate.

The principal U.S. APC, the M–113, was first introduced into the Army in 1959. While this vehicle provides adequate transportation and protection to the infantry squad, unlike the Soviet BMP, it cannot be classified as a fighting vehicle. We, therefore, believe that the BMP is superior to the M–113. Initial testing has begun, however, on a new and improved Mechanized Infantry Combat Vehicle (MICV). This new vehicle is programmed to be a partial replacement for the M–113s in Europe-oriented mechanized battalions. It will have greatly improved fire power, mobility, and troop protection characteristics, as compared with the M–113 series.

The principal amphibious landing vehicle in the U.S. Marine Corps is now the LVTP–7. This vehicle is lighter, faster, and more maneuverable than the LVTP–5, which it has replaced recently in all combat units.

Both the USSR and the PRC, with their much larger ground forces, have about three times the number of U.S. artillery pieces and heavy mortars. Although the PRC has increased its production of artillery in recent years, most of its current

inventory still consists of USSR World War II types. Most of the USSR and PRC tube atrillery pieces have a greater range capability than their U.S. counterparts, but new U.S. ammunition developments are underway which should close this range gap in the 1970s. Also, our extensive use of self-propelled artillery gives us the advantage in mobility.

Because of the wide variety of antitank weapons—ranging from the U.S. one-shot, throw-away 66 mm Light Antitank Weapon (LAW) and the USSR shoulder-fired reloadable 85 mm grenade launcher (RPG–7), through recoilless rifles and guns, field guns, and guided missiles—I have been unable to find a simple quantitative measure with which to compare the U.S., USSR, and PRC inventories of these weapons. By and large, I would judge that the U.S. has an overall qualitative advantage over the USSR in antitank weapons, due in large part to our new ground forces family of antitank guided missiles—TOW, DRAGON, and SHILLELAGH. We believe that these weapons are clearly superior to the Soviet SNAPPER, SAGGER, and SWATTER antitank guided missiles.

Chairman McCLELLAN. Do you have an anti-tank missile similar to the Soviet SAGGER?

Admiral MOORER. The Soviet SAGGER is a first generation wire guided anti-tank missile with performance characteristics very similar to the SS–11 anti-tank missile formerly in the U.S. Army inventory. Current U.S. Army anti-tank weapons are the most advanced heavy TOW and lightweight DRAGON missiles which use both infra red and wire link for missile guidance.

TOW was accepted for service in September 1970. It can be employed from the ground or on vehicles and also from an aerial platform.

DRAGON is a man-portable weapon and the Army plans to begin equipping units in the very near future.

Chairman McCLELLAN. Proceed.

Admiral MOORER. TOW is both ground/vehicle-mounted and helicopter-mounted; DRAGON is man-portable; and SHILLELAGH is tube-fired from the M–60A2 tank and the M–551 reconnaissance vehicle. The Soviet antitank missiles are generally ground/vehicle-mounted. Both the U.S. and the USSR have large numbers of the smaller man-portable antitank weapons. The PRC has thousands of older antitank weapons, mostly of World War II types. In this area, the PRC is distinctly inferior to both the U.S. and the USSR.

Turning to the final item on Chart 12, the U.S. still has far more helicopters dedicated to the ground combat role than the USSR and the PRC combined. Although we believe U.S. helicopters also are superior in design, the USSR is producing a new assault helicopter, the HIND–A. Deployment of this versatile helicopter will increase significantly the heliborne-assault capability of Soviet ground forces. Other Soviet helicopters are also in production, and we can expect a steady increase in this force over the years.

There are two major new US Army programs, already mentioned, which should improve substantially the US heliborne and helicopter assault capabilities in the 1980s. There are the UTTAS squad assault helicopter and the Advanced Attack Helicopter (AAH). The UTTAS, which is now in the engineering development stage, will be able to carry, even under adverse climatic conditions, an entire Army squad in addition to the crew. It will replace eventually the "Huey" as the mainstay of the Army assault helicopter force. The AAH helicopter will have greatly improved performance and survivability characteristics over the AH–1 COBRA. It will have also an operational capability at night and in adverse weather. In addition, both the Army and the Marine Corps are developing improved versions of the AH–1 COBRA gunship, which will be capable of firing the TOW missile.

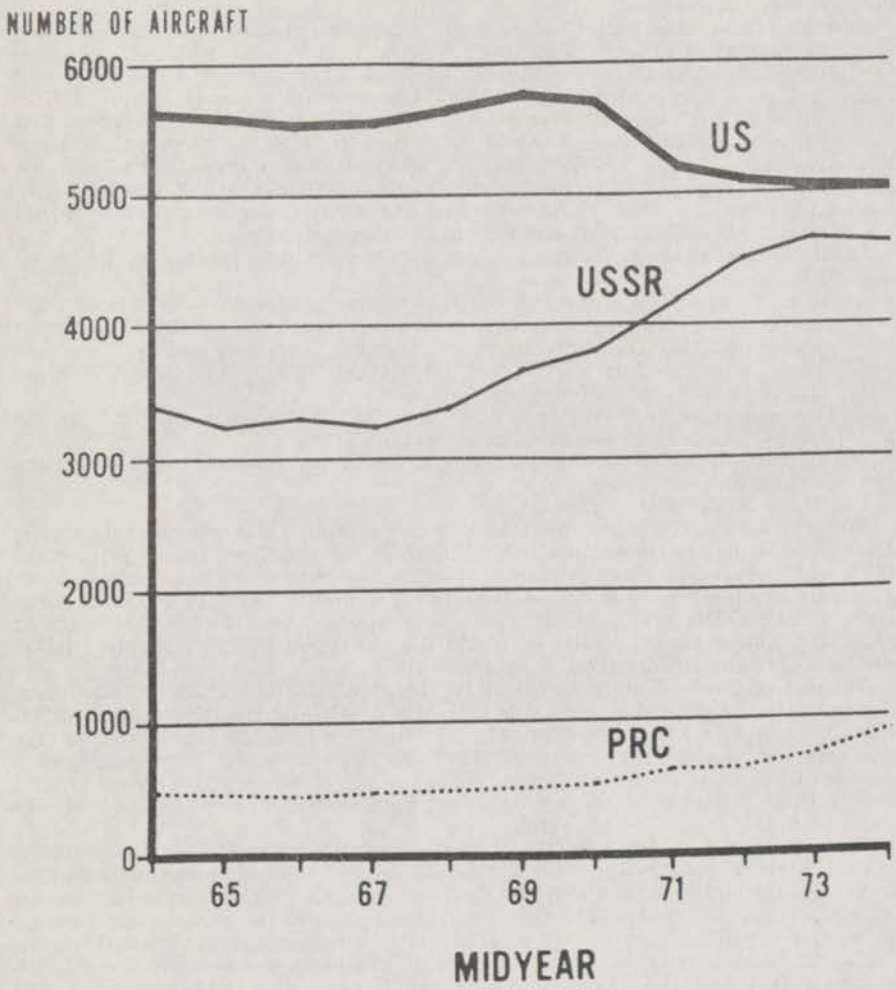


CHART 13

TACTICAL AIR FORCES

Admiral MOORER. Shown on Chart 13 are the US, USSR, and PRC tactical aircraft inventories, including fighter, attack, light bomber and reconnaissance aircraft.

The US figures include all such aircraft, both active and reserve, in the Air Force, Navy, and Marine Corps, but exclude those used for training (about 850 in 1974) and those assigned to and discussed previously under Continental Air Defense (about 500 in 1974).

The Soviet figures similarly exclude tactical-type aircraft used for training (about 2000 in 1974) and fighter aircraft assigned to the PVO Strany (Air Defense of the Nation) forces (about 2500 in 1974). Some of these aircraft could be diverted to the tactical role.

In the PRC, most fighter aircraft are assigned a *strategic* home defense mission (over 3000 in 1974). The PRC figures, therefore, include only the *tactical* aircraft (fighters and light bombers) in the active inventory of the Air Force and Naval Air Force. On the other hand, home defense interceptor units participate in

ground support training exercises; and it is believed that many of these strategic home defense aircraft would be utilized, whenever necessary, in a tactical role. No reserve aircraft figures are available for the PRC.

VIABILITY OF WARSAW PACT FORCES

Chairman McClellan. Do you feel the Warsaw Pact forces could achieve air superiority during the initial stages of an attack on NATO Forces?

Admiral Moorer. We have several on-going studies examining this question and, as with most simulations, the results are highly sensitive to the assumptions used in structuring the study. However, these studies have shown [deleted] and the relative weight which should be attached to this qualitative factor is difficult to determine.

Another variable of critical importance is the manner in which Warsaw Pact commanders allocate their forces to the various roles and missions. [Deleted.] Other significant factors which have an impact on the air battle include:

(1) Airfield protection, particularly the use of hardened shelters,

(2) Dispersal of air resources,

(3) The number of aircraft immediately available at D-day which is dependent upon warning time and deployment schedules of US air reinforcements.

The deployment of the F–14 and F–15, which have been designed as air superiority fighters, will further enhance our capability to achieve air superiority in a NATO/Warsaw Pact conventional confrontation.

Chairman McClellan. Proceed.

Admiral Moorer. The US tactical aircraft inventory will decline slightly over the next few years. The substantial modernization taking place during the next five-year period will partially offset the effect of this decline in total inventory, but the rate of deployment of the new aircraft, e.g., F–14, F–15, and A–10, will not quite equal the attrition and replacement of the older aircraft. As the Secretary of Defense has indicated, the increasing costs associated with sophisticated high-performance aircraft are such that programmed modernization is not as rapid as desired.

In the Air Force, the major changes in the tactical aircraft programmed inventory will result from the introduction of the F–15 (EAGLE) air superiority fighter and the A–10 close air support aircraft. (The A–10 aircraft is an important part of the Air Force program; however, no production decision will be made until after it completes a fly-off with the A–7 and other tests.)

The F–15 (EAGLE) slowly will replace the F–4E as the primary air superiority fighter for the Air Force; and the A–10, under the current program, will phase into the active force beginning FY 1977. The first squadron of F–15s is programmed to be operational in early FY 1976. Some A–7s and F–4s now in the active forces will be transferred to the Reserve Forces to continue this essential part of our total force modernization program.

The criteria for selecting the F–15 (EAGLE) design features were based on providing an air-to-air combat capability superior to that of threat aircraft projected for the 1980s; however, the high thrust-to-weight ratio and low wing loading also provide a capability to carry large external loads. The "hard points" built into the wings and fuselage to carry fuel tanks are compatible with multiple ejector racks for conventional weapons. This aircraft has the sensor, computational, and display systems required for various manual and semi-automatic all-weather ground attack missions. Therefore, the F–15 (EAGLE) also should have an excellent ground attack capability.

The A–10, in contrast to the F–15, has been designed primarily for the close support mission. It is a much less sophisticated and less expensive aircraft than the F–15. The short take-off and landing (STOL) capability of the A–10 will permit it to use short battlefield area airstrips; and its large fuel capacity will provide long loiter time, both of which are important characteristics for a close air support aircraft. In addition to its internal 30 mm Gatling gun, the A–10 has 11 external pylons to carry a large mixed ordinance payload. Its survivability under high intensity battlefield conditions is greatly enhanced by armor installed around the cockpit and other critical components, including redundant structural components, backup flight controls, and self-sealing foam-filled fuel tanks. The simplicity designed into the A–10 should allow it to be serviced and operated from bases with limited facilities close to the forward edge of the battlefield area.

In the active Navy, the new F–14A (TOMCAT) is scheduled to replace about

half the F–4s. It also will replace four squadrons of F–4s in the active Marine Corps. A–7Es will replace the older versions of the A–7 and A–4 in the active Navy in a primary light attack role; while in the active Marine Corps, this role will continue to be assigned to the A–4 (the improved version, A–4M) and the new AV–8A (HARRIER). The V/STOL capable HARRIER has exceeded expectations in its initial operational service.

The F–14A (TOMCAT) is designed to operate from MIDWAY and larger class carriers, as well as from Marine Corps fields ashore. Initial carrier suitability trials were conducted successfully in June 1972. The first two active Navy squadrons are now operational, and the first active Marine Corps F–14A (TOMCAT) squadron will be operational prior to the end of FY 1975.

Chairman McCLELLAN. Why does the Marine Corps have a requirement for the F–14 aircraft?

Admiral MOORER. Within the Naval Aviation assets there is a general shortage of fighter type aircraft. The Marine Corps has twelve F–4 squadrons, five of which are currently equipped with the older type F–4B/N aircraft. Four of these F–4B/N equipped squadrons will be modernized with the F–14 aircraft while eight squadrons will continue to operate the older F–4s. It is important for Marine Corps forces to maintain the capability to defend themselves in a high air threat environment since it is not always possible to assure the presence of sufficient carrier aircraft or Air Force interceptors for this pupose.

Chaiman McCLELLAN. Proceed.

Admiral MOORER. One of the most important features of the F–14A (TOMCAT) is its AWG–9 fire control system and the long-range, all-weather, air-to-air PHOENIX missile. This weapons system is capable of simultaneously engaging multiple supersonic targets at ranges out to 60 nm and at altitudes up to 80,000 feet. Intensive testing of this newly operational missile has confirmed its outstanding effectiveness.

The attack capabilities of the Navy A–6 and A–7E and the Marine Corps A–4M aircraft should be improved by new systems under development. The target acquisition and attack multisensor system (TRAMS) will be installed in the A–6 and the A–7E, and the angle rate bombing system (ARBS) will be retrofitted into the A–4M.

The experience gained from Vietnam and again in the recent Middle East conflict has reemphasized the importance of effective electronic warfare systems operating in the modern SAM environment. Continued modernization of our electronic countermeasures (ECM) and electronic support measures (ESM) is essential to our general purpose program. All Military Services are engaged in this effort. Under tactical air forces programs for FY 1975, for example, the Air Force is developing the EF–111A to improve its manned ECM capability. Funds also are being requested to initiate prototype efforts to expand the ECM capabilities of the Navy EA–6B. Other Service ECM programs, both in R&D and in new procurement, also are being pursued.

In the area of command and control, the AWACS, already discussed under its strategic defensive role, also will have a major tactical mission and should greatly increase the effectiveness of all tactical aircraft under its control.

The primary additions to the Soviet tactical air forces inventory over the next five years are expected to be the MIG–23 (FLOGGER), FENCER A (a new VGW fighter-bomber), SU–20 (improved FITTER B), and MIG–25 (FOXBAT). All of these aircraft except the FOXBAT, a high-altitude interceptor, have an important ground attack capability. This increased Soviet emphasis on new tactical aircraft has required an upward reevaluation of our total future inventory projections for the next few years.

In contrast to our under-estimation of the future aircraft inventory of the Soviet tactical air forces, our last year's estimate for the growth rate of the PRC tactical air forces was too high. The PRC tactical aircraft inventory still is expected to continue its growth, but not as rapidly as projected last year.

As already indicated, the Soviet Union appears to be making a determined effort to erase the long-held advantage in the ground attack role held by US tactical air forces. On the other hand, the USSR traditionally has emphasized the air superiority capabilities in its tactical aircraft and has gained thereby a clear quantitative advantage and some qualitative advantages in this role. With the deployment of new US and USSR aircraft, these differences will tend to narrow; however, I believe US tactical air forces will be superior in both roles in the 1980s if we actively pursue the tactical aircraft modernization programs already underway—particularly the F–14A (TOMCAT) and the F–15 (EAGLE).

NAVAL FORCES

Shown on Chart 14 is a comparison of the numbers of US, USSR, and PRC major operational combat surface ships. The Soviet force at mid-1974 is expected to consist of approximately two guided missile helicopter ships, 17 missile cruisers, 13 gun cruisers, 43 missile destroyers, 36 gun destroyers, and 104 escorts, for a total of about 215 ships. It is very likely that this force will decrease slightly as the retirement and transfer of older surface ships exceed the deliveries of the more sophisticated and generally heavier new ships.

A substantial Soviet naval modernization program is underway. As already indicated, several new classes of combat surface ships are being constructed in the Soviet Union. Other older classes are undergoing major conversions involving the addition of new missiles, antisubmarine systems, and communications equipment.

The largest Soviet surface combatant ever constructed is the recently launched KURIL-class aircraft carrier. The ship is over 900 feet in length and should displace 30–40,000 tons, when its fitting-out period is completed. The deck configuration and the lack of catapults or arresting gear indicate that this ship apparently is designed to operate V/STOL aircraft and helicopters, rather than more conventional fighter and attack aircraft. It should be capable of carrying 25 V/STOL aircraft or 36 helicopters. It is believed, however, that a mixture of new V/STOL aircraft, mentioned under New Initiatives, and HORMONE helicopters is the most likely complement. The first ship of this class, with its complement of V/STOL aircraft and helicopters, could join the fleet in late 1975. A second carrier is under construction.

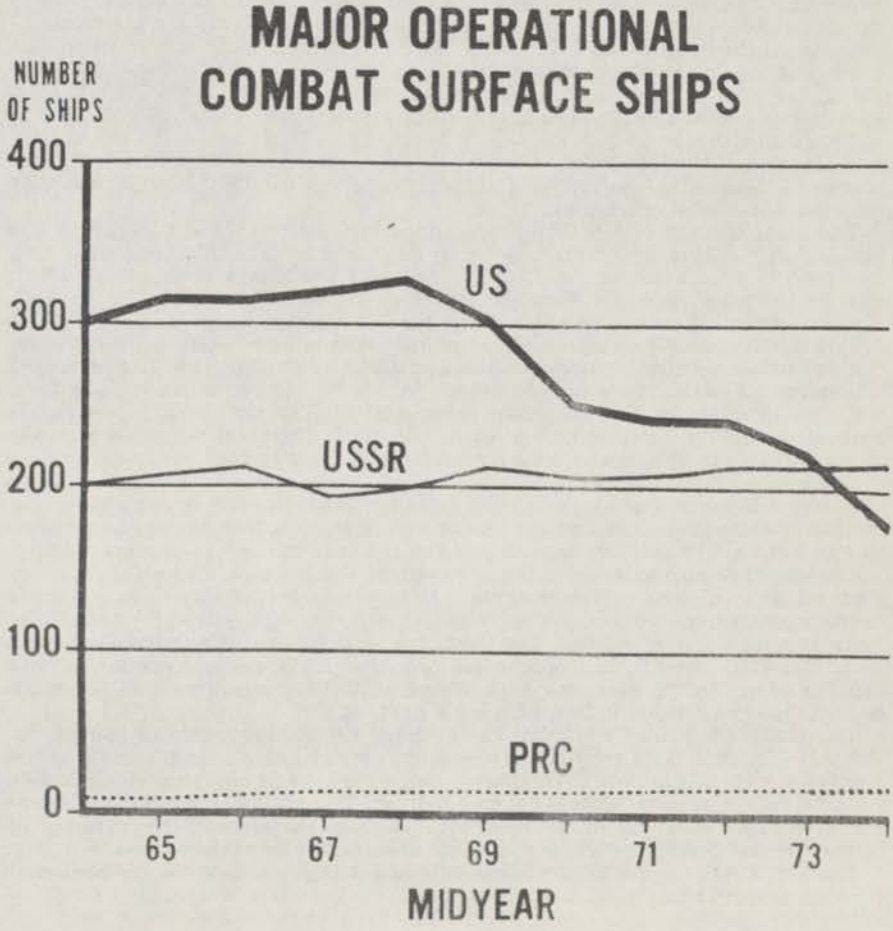


CHART 14

Admiral MOORER. Probably the most heavily armed class of ships in the world for its displacement (about 9000 tons) also is being constructed by the Soviet Union. Two of these KARA-class guided missile light cruisers are already operational and more are expected to join the fleet in the next few years. The KARA-class is the first ship in any navy to be armed with three separate missile systems.

As a result of the high ship construction rates during the 1950s' the Soviet Union—like the United States—faces a growing problem in the 1970s of obsolescence among its gun destroyers and escorts. A substantial portion of these old ships, however, has been, is, or will be modernized to prolong its effective life. The best candidiate to replace the older destroyers still is believed to be the KRIVAK-class.

Chairman MCCLELLAN. How much of the Soviet Navy has nuclear propulsion?

Admiral MOORER. [Deleted.] The Soviet Navy has no nuclear powered surface ships operational or under construction. There is, however, an operational civilian nuclear-powered icebreaker, the Lenin. A second civilian nuclear-powered icebreaker, the Arktika, is presently fitting out.

Chairman MCCLELLAN. Proceed.

Admiral MOORER. As shown on Chart 14, the PRC major combat surface ship force is quiet small, but is growing slowly. A substantial portion of the force is composed of Soviet-designed destroyers and destroyer escorts about 20 years old. Several Chinese-designed missile-equipped surface combatants have been built in the past 10 years and more are under construction.

The largest ships in the PRC fleet are the new guided missile destroyers, the first of which became operational in late 1971. Each ship carriers STYX-type missiles, antiaircraft guns, and antisubmarine weapons. More of these ships are expected to be operational by mid-1974, and others are under construction, or fitting out. It appears, however, that major surface combatants are not receiving the same priorities in the PRC Navy that was evident only a few years ago.

In contrast to the slow progress in the construction of major combat surface ships, the PRC is expanding rapidly its guided missile boat force. By mid-1974, it will have over 100 of these small surface combatants; and this number is expected to increase over the next few years. All of these boats are armed with a Chinese version of the highly effective Soviet-designed STYX surface-to-surface missile. This missile boat force significantly enhances the PRC Navy's capability to engage in coastal operations.

The total number of US major combat surface ships (174 for FY 1974) has dropped to the lowest level since prior to the Korean War. This declining trend, however, is being reversed; and for the next few years, new ships are programmed to be delivered faster than the old ships are retired from the active fleet.

Chairman MCCLELLAN. The U.S. Navy has 174 major combat surface ships for FY 1974. By mid-1979, there are 193 ships programmed. What will be the increased personnel requirements, ashore and afloat, to support this 11% increase?

Admiral MOORER. The total change of our major combat surface ships from FY 1974 to mid-1979 does show an increase of 19. The new level, however, results in a slightly different mix of ships [deleted]. The total personnel increase to support this total increase in major combat ships is only 1683.

Chairman MCCLELLAN. Proceed.

Admiral MOORER. During an extended conflict involving the Soviet Union, protection of our sea lines of communication would be a matter of vital importance to our Nation. The last two new ships—the patrol frigate and sea control ship—are essential components of our plan to improve the US capabilities for this complex mission in areas of lesser threat. More sophisticated ships (e.g., aircraft carriers, destroyers, guided missile frigates) still will be required for potentially more intense areas of conflict, but these two new classes of austere ships with their V/STOL aircraft, helicopters, missiles, and ASW systems should be fully capable of providing adequate antiair and antisubmarine protection for small task groups and convoys in less intense areas of conflict.

The HARPOON missile will be the primary surface-to-surface armament for the patrol frigate. This versatile cruise missile weighs about 1,400 pounds (1,100 pounds for the air-launched versions) and is capable of carrying either a 500-pound nuclear or conventional warhead about 60 nm. The HARPOON already has been flight tested about 30 times with considerable success. It is expected to be operational, both in a surface-to-surface and an air-to-surface version.

The US, USSR, and PRC cruise missile and attack submarines are projected through mid-1974 on Chart 15.

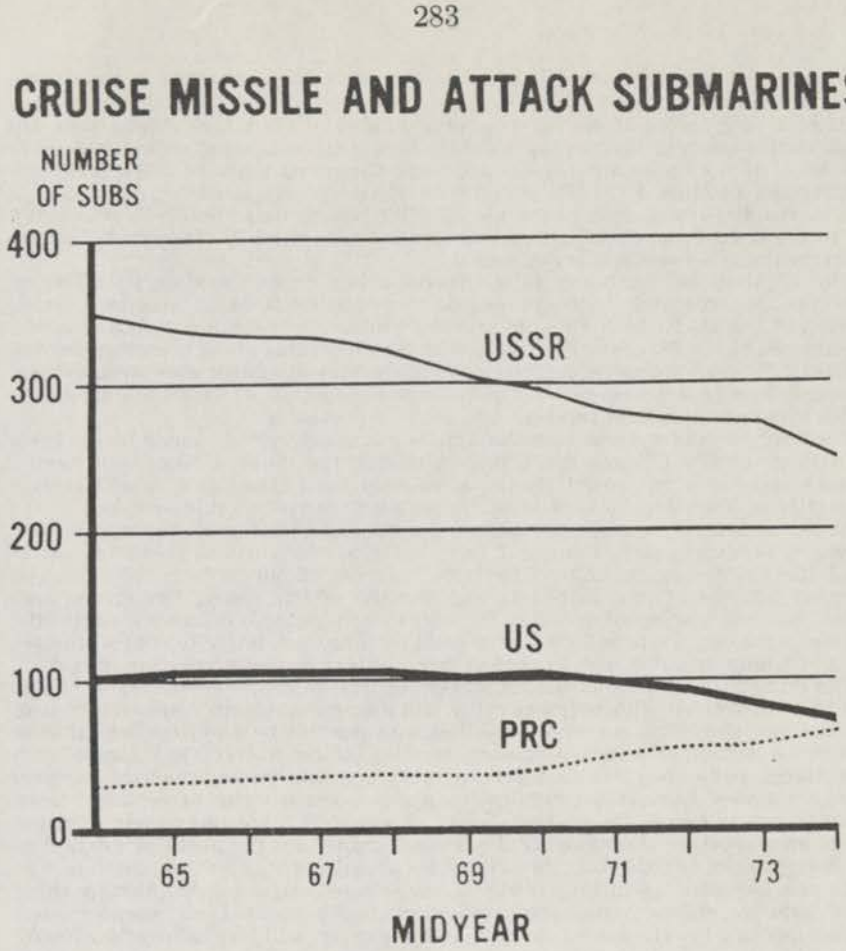


CHART 15

Admiral MOORER. The Soviet Union has the largest submarine force in the world. This will continue to be true throughout the next five years. The total number of submarines, however, is expected to decline throughout this period, as the older diesel submarines are phased out faster than the new, more sophisticated submarines are delivered to the fleet. The primary uncertainty relates to the rate of new construction.

Soviet cruise missile submarines have a primary mission against naval surface ships, and a secondary mission (using torpedoes and mines) against other submarines. The CHARLIE-class, which has been operational since 1968, is the only operational submarine in any navy capable of launching cruise missiles while submerged.

Over one-half of Soviet submarines are still diesel-powered. No new diesel-powered ballistic or cruise missile submarines have been constructed in recent years, but a new diesel-powered attack submarine is now entering the submarine force. It is believed to satisfy Soviet requirements for a relatively inexpensive non-nuclear replacement for the workhorse submarine, FOXTROT.

Except for one single modern-design, long-range submarine, the PRC submarine force consists primarily of Soviet-designed, but Chinese-built, medium-range WHISKEY- and ROMEO-class submarines. Both of these Soviet classes were considered to be excellent submarines at one time, but they incorporate features which now are considered obsolescent by US and USSR standards. The PRC may have produced a new version of the ROMEO-class. If so, series

production of this submarine or possibly even a further improved version could begin in the near future.

After a long period of decline, the total number of US attack submarines will begin to rise again in 1975, as the first 688-class nuclear-powered submarine enters the fleet. The Congress already has approved the construction of 23 of these new submarines through FY 1974, and production is programmed to continue at a rate of two to three per year through 1979. We believe that the 688-class is superior to the best of the USSR attack submarines (i.e., the VICTOR-class) because of its greater quietness and better sonars.

The US does not have any submarine-launched cruise missiles (SLCMs) at this time, but research and development has been initiated on an encapsulated version of the HARPOON antiship missile, which will be deployed aboard future submarines of the 688-class. Serious consideration is being given to retrofitting the HARPOON weapon system in 688-class submarines already under construction. Research also is being carried out on a long-range SLCM (1200–2000 nm range), which may have a tactical version.

The PRC naval forces will continue to be much smaller and much less capable than those of the US and the USSR. Although the Chinese Navy will have a greater capability to project its power beyond the China Seas, it will remain primarily a defensive force at least throughout the rest of this decade.

In evaluating the relative strength of the US and USSR general purpose Navy forces, it is always important, as I have indicated in previous years, to bear in mind their differing primary objectives. Because of our great dependence on overseas sources of raw materials and because of our strong ties to overseas allies, we must insure our access to the seas in both peace and war. Consequently, US Navy general purpose forces have been designed primarily to control the sea lines of communication and to project our military power across the oceans.

The Soviet Union, in contrast, is less dependent on overseas sources of supply and is less involved with overseas allies. Its long-term objective apparently is to weaken our ties with our overseas allies and prevent us from coming to their assistance in time of war. Accordingly, in the past, the Soviet Navy general purpose forces have been designed primarily as a defensive and spoiling force to disrupt our sea lines of communication and to obstruct the projection of our military power across the oceans. Today, a new and more offensively oriented Soviet naval posture is developing. I have pointed out for the past few years that the Soviet Navy is continuing to expand its global reach. The new carriers will add a new capability, which will help to free selected major combat surface ships from total dependence on shore-based aircraft for tactical air support; new and modernized heavily armed carriers and destroyers will strengthen the already formidable combat capabilities of the surface fleets; and new underway replenishment ships will allow the fleets much more freedom of movement in distant ocean areas.

Increased attention to the naval infantry, and modernization of the amphibious lift capability—particularly with the new potential for sea-based tactical air support—also indicate new Soviet interest in projecting its offensive power from the sea.

I do not believe that even with these new ships and added capabilities, the Soviet Union can match US capabilities to project military power from the sea. As I have reported to you for the past few years, however, the increasing Soviet threat to our sea lines of communication from the large and increasingly sophisticated submarine force is of considerable concern. In short, the Soviet naval capabilities are becoming more formidable every year, and we must take note of the increasing readiness with which Soviet naval forces are being deployed to areas of serious international tension. An increase in the size of the fleet, together with vigorous modernization, is necessary in order to insure both the success of our forward deployment strategy and our control of the seas along essential sea lines of communication.

Theater Nuclear Forces

Our theater nuclear capability is one of the military tools indispensable to successful deterrence and defense. Before discussing specific theater nuclear forces, however, a brief note as to the objectives underlying their deployment seems appropriate. The European theater will be used as an example of the capabilities throughout our general purpose forces.

NATO's doctrine of flexible response, to which the United States subscribes, requires a capability to confront aggression at any level of action across the

spectrum of warfare. Should it appear that the aggression cannot be contained and the situation restored by direct conventional defense, the strategy calls for a carefully controlled, deliberate raising of the scope and intensity of combat. As the threat of a NATO nuclear response becomes progressively more imminent, the costs and risks become disproportionate to the aggressor's objectives.

One escalatory step envisioned by the Alliance is the selective use of tactical nuclear weapons. These weapons have certain inherent advantages in the process of deterrence and control of escalation. First, because of their limited range and yield, they are not a direct threat to the survival of the USSR as a nation. Second, their accuracy allows targeting of military forces with limited collateral damage. Third, many of these weapons are primarily defensive in nature. Barrier plans, demolitions, and SAMS are tools of a defender, not an aggressor. Fourth, the inherent mobility and dispersal capability of these weapons enhance their survivability and reduce the temptation to attempt to destroy them by preemption. A potential adversary is confronted with possible nuclear capability in every artillery position across the entire front. This spread of common delivery means presents the enemy with an extremely difficult targeting problem. Finally, these weapons give the allied command an ability to strike a significant blow to massed enemy forces.

Chairman McCLELLAN. What tactical nuclear weapons delivery systems do we have in Europe?

Admiral MOORER. The tactical nuclear delivery systems of US Army Forces in Europe are:

a. Field Artillery Cannons: 155mm and 8-inch howitzers.
b. Atomic Demolition Delivery teams for ADM.
c. Surface-to-Air Missiles: NIKE HERCULES.
d. Surface-to-Surface Missiles: HONEST JOHN and SERGEANT (both being replaced by LANCE), LANCE and PERSHING. The tactical nuclear systems of US Air Forces in Europe include bombs delivered by the F–4 and F–111 [deleted]. The tactical nuclear delivery systems of US Naval Forces in the European area are:

a. Surface delivered Anti-Air-Warfare Missile: TERRIER and TALOS.
b. Tactical Aircraft [deleted]: A–6 and A–7.
c. Antisubmarine Warfare Aircraft: P–3 and S–2 (S–2 to be replaced by S–3).
d. Submarine-delivered ASW systems: ASTOR and SUBROC.
e. Surface-delivered ASW systems: ASROC.

Chairman McCLELLAN. Proceed.

Admiral MOORER. The conventional balance in Europe is such that in the event Warsaw Pact forces are able to mass and apply armored pressure to any given point in the defense line, NATO ability to defend with conventional forces is greatly weakened. The ability to apply limited nuclear firepower under all-weather conditions to the armored point of the thrust greatly contributes to theater deterrence and is an intermediate option between conventional warfare and general nuclear war. These theater nuclear weapons are a quick response to counter the difficult-to-acquire, fleeting, regenerative battlefield targets, the destruction of which is believed essential to a successful defense of Western Europe or any other area of the world where our vital interests are at stake.

In addition to the strategic nuclear forces discussed earlier, both the US and the USSR have large theater nuclear-capable forces. In this regard, the PRC is still far behind the US and the USSR, both qualitatively and quantitatively. While the US and USSR theater nuclear weapons inventories number in the several thousands, the PRC total nuclear weapons inventory (strategic and theater) probably numbers in the few hundreds. As noted earlier, however, the PRC nuclear weapons stockpile is expected to increase rapidly over the next few years, as fissionable material production facilities are expanded.

The US theater nuclear-capable land-based forces include units with tactical aircraft, tactical surface-to-surface missile and rocket launchers, artillery, SAMs, and atomic demolition munitions (ADMs), but no MR/IRBMs or medium bombers. The Soviet theater nuclear-capable land-based forces include MR/IRBM launchers, medium bombers in Long-Range Aviation, light bombers and fighters in tactical air units, and tactical surface-to-surface missile and rocket launchers (and possibly artillery and ADMs) in ground units.

The US theater nuclear-capable naval forces include carrier-based aircraft, SAM launchers on surface ships, and a wide variety of anti-submarine warfare (ASW) weapons, but no cruise missile launchers. The Soviet theater nuclear-capable naval forces include cruise missile launchers on surface ships and sub-

marines, medium bombers in naval aviation units, and possibly ASW weapons, but as yet no carrier-based aircraft.

The PRC theater nuclear-capable forces include MRBM and IRBM launchers, medium and light bombers, and other tactical aircraft. We do not believe the PRC has nuclear-capable weapons for its naval forces at this time.

As I pointed out over the past few years, it is difficult to draw precise conclusions as to the relative balance between the US and the USSR in theater nuclear weapons. This is so because of the uncertainties inherent in estimating Soviet nuclear weapons inventories, as well at the problems involved in evaluating Soviet nuclear weapons technology, now that all testing is conducted underground. Nevertheless, I continue to believe that the US is at least the equal of the USSR in overall capability, and probably still the superior in nuclear weapons technology. The PRC, while still far behind the US and the USSR, is now a significant nuclear power in its region.

I believe a final word is in order concerning the need for modernization of our tactical nuclear stockpile. Since, in many situations, a favorable military balance depends on the qualitative advantages we possess in our weapons systems, technical obsolescence can serve only to degrade the credibility of the US nuclear deterrence in the eyes of both US allies and potential enemies. Today's technology in warheads and delivery systems can provide an improved theater nuclear stockpile with greater accuracy, modern security devices, and a wider variety of yields. Exploitation of this technology would provide major improvements in response time, flexibility of employment, and a substantial reduction in the unintended collateral damage effects of theater nuclear weapons. This can be done while maintaining or improving the capability to destroy military targets, especially enemy maneuver units in proximity to friendly troops.

The only new theater nuclear warhead or bomb in production now is the warhead for LANCE, which currently is being deployed to Europe, and as I mentioned earlier, will replace HONEST JOHN and SERGEANT for all US units. We also have Congressional approval to build additional B–61 bombs with improved security features. This modern bomb provides our airmen with a versatile weapon compatible with improved aircraft design.

The most important progress in our modernization efforts for tactical nuclear weapons has been realized in the form of advance technology concepts on the part of the AEC laboratories. The Services, working in close concert with the AEC, are insuring that only the more flexible weapon concepts, which provide for efficient use of nuclear materials, shorter response time, lower collateral damage, and enhanced security, are recommended for modernization candidates.

Middle East

No discussion of the relative military posture between the US and USSR would be complete without an analysis of the recent conflict in the Middle East; its genesis, lessons, and consequences in terms of US interests in the area.

Strategically, the Middle East is important because of two major factors—one geographical and the other geological. Geographically, the Middle East is the corridor connecting the Eastern Hemisphere's three major continents. It is the avenue through which a Soviet strategic line of communication to the Far East may be established. The advent of supertankers and intercontinental aircraft may have lessened the area's geographical importance, but certainly has not eliminated it. In addition, the eastern Mediterranean is vital to the defense of NATO's southern flank. Geologically, the primary resource of the Middle East is oil. Middle East oil supplied 13 percent of pre-boycott US demand, 75 percent of Western Europe's and 85 percent of Japan's. Within the next decade, there is not likely to be significant diminution in the dependence of the industrialized West and Japan on the Middle East. Prior to initiation of the President's Energy Program, projections indicated that the US could require Middle East oil to fulfill over 30 percent of our needs in the 1980s. One-third of the non-Communist world's supply of oil is projected to come from Saudi Arabia and Iran alone.

Superimposed on these strategic considerations is the longstanding political commitment made by both the Congress and the President to the survival of Israel. The credibility of this commitment, like all other US international obligations, depends on the proven past record of performance by the United States, including the performance of our Armed Forces. Further complicating the situation is the fact that the area is the birthplace of three of the world's great religions.

It is against this background that the varied, compound, and interdependent objectives of the United States must be viewed. Peace and stability are our principal national objectives, and defusing the Middle East crisis is central to global security. This point, where the interests of major powers converge, has all the necessary ingredients for being the cockpit for great power confrontation; and yet, there are political and military forces at work well outside the scope of the usual "Communist" and "Free World" interface. The area threatens to be the "Balkans" of the late 20th Century.

Second only to peace is the crucial need to insure access for both the US and her allies to the energy resources of the area. Until substitute energy sources are established, we will remain dependent, in part, upon oil from the Middle East. Also present here is the potential for divisiveness which could damage severely the cohesion of the Atlantic community and US-Japanese relations. The fragmentation of US alliances which could result from the issue is a matter of grave concern. Serious diplomatic efforts to reduce this potential divisiveness continue.

A further US goal remains the denial of hegemony over this strategic area by the Soviet Union or any other power with interests inimical to the United States—ambitions not unknown to Russian history. Domination of the area by such a power would endanger NATO's southern flank, reduce US mobility, and endanger our lines of communication. It also would sever the economic and military relationships we have so carefully nurtured in the interest of the region's stability, progress, and independence.

On October 6, 1973, the diversity, turmoil, mutual fear, and mistrust, rampant in the region, again passed over the threshold of semi-controlled tension—neither war nor peace—into conflict for the fourth time since Israel's founding. A combined Arab force of over 2000 tanks and 100,000 infantry, engaged an as yet not fully mobilized Israeli force of about 400 tanks and 5000 infantry, simultaneously, in the Sinai and on the Golan Heights. The conflict was violent and costly. The supply and re-equipping of the Arab states by the Soviet Union is estimated to have cost in excess of $2.6 billion. Efforts to insure an uninterrupted flow of supplies to Israel during the conflict in order to maintain a balance of forces in the area resulted in US expenditures of about $1 billion, including airlift operating costs of $42 million. Congress promptly enacted an Emergency Security Assistance Act providing $2.2 billion for Israel. When the ceasefire became effective on October 24, 1973, the Israelis held the dominant terrain in the Golan Heights and a sizable new segment of Syrian territory. On the Sinai front, Israel had established a bridgehead across the Suez Canal and nearly surrounded the Egyptian 3d Army of about 25,000 men. The Soviet Union had a naval force of 96 ships, including 29 modern surface combatants and 23 submarines, in the Mediterranean—at their peak strength—a force equal to the total number of such ships operated out of home waters by the USSR worldwide in 1969.

There has been much commentary and repeated analysis of this conflict, a great deal of which would give the impression that a new era of warfare has been entered and that the "lessons learned" are of such significance that new military texts are required. In my view, this impression is unjustified. Time-honored strategic and tactical concepts have been underlined, reinforced, and footnoted—not repealed or replaced. These footnotes to military history are, however, important and worthy of consideration.

First, ready, in-being, deployed forces are essential to maintaining the territorial integrity of any area whose defenses is required. The October War presented striking illustrations of two considerations which traditionally have supported this concept. The Israeli Defense Force (IDF) intelligence organization possesses a well-deserved reputation for excellence; yet, the attackers were able to achieve almost complete strategic surprise. They masked their preparations behind a facade of routine exercises, a carefully executed political deception plan, a cloak of secrecy, and good communications security, including extensive secure landline communications.

Military capability has been described as being the product of men, material, and morale, with the result that as any one factor approaches zero—capability approaches zero. This war, like most, was decided primarily by the impact of leadership, ability, and training.

The IDF faced a force with qualitative and quantitative advantages in equipment, quantitative advantages in personnel, and the benefit of tactical surprise. The attacking force executed a thoroughly rehearsed simple plan and gained their initial objectives. However, the IDF ultimately achieved dominant positions on both fronts.

Adaptability and flexibility of leadership were characteristics very apparent in the IDF. The initiative displayed by officers of all ranks was often the key to success. IDF doctrine requires commanders to stay forward to "read the battle." Although the price was high, the advantages gained through decisive leadership at the critical moment made the losses worthwhile. On the other hand, the Egyptians and Syrians were well trained in manning Soviet equipment and executing Soviet tactics.

This conflict reaffirmed that in the last analysis, the success or failure of an investment in national security depends upon the ability to attract to the service of the country (both active and reserve) outstanding young men and women who will rise to positions of military leadership responsibility. There is a difference between leadership and management. Leadership is of the spirit, compounded of personality, vision, and training. Its practice is an art. Management is a science and of the mind. Managers are necessary; leaders are indispensable. We, too, must continue to create and inspire military leaders—junior and senior.

Additionally, the classic doctrine that the priority of employment of air assets must be given to gaining and maintaining air superiority over the battlefield has been proven once again. Today, gaining air superiority includes defeating enemy SAMs in detail. Until enemy air defenses are degraded, any application of aerial firepower will be costly, but the losses will go down as air defenses are taken out. This was made clear during the LINEBACKER II operation in North Vietnam and again during the Middle East War. In the interim, ground forces must be capable of fighting with reduced reliance upon close air support. This can be accomplished by continuing to equip and maintain a balanced, mutually supporting, combined arms team of infantry, artillery, and armor.

The Soviet Union has devoted considerable effort toward development of a SAM and AAA capability, and in both Vietnam and the Middle East, has demonstrated a willingness to deploy SAMs and AAA extensively outside the Soviet Union and Warsaw Pact countries. The surface-to-air arsenal provided to the Arabs includes SA–2, SA–3, SA–6, and SA–7 missile systems; 57 mm, 85 mm, and 100 mm guns with FIRE CAN fire control radar; and ZSU–23–4, ZPU–4, ZPU–1, and 37 mm plus smaller crew-served weapons and individual weapons.

Chairman McCLELLAN. Why was the Soviet SAM–6 so effective in the recent Middle East conflict?

Admiral MOORER. Insufficient data was available on the SA–6 system to plan for effective countermeasures. [Deleted.] The mobility of the system and its capability to set up and fire quickly from field positions made it difficult to locate and destroy. It was employed in conjunction with other missile and gun systems in a thick interlocking network.

[Deleted.]

Chairman McCLELLAN. Proceed.

Admiral MOORER. In both Egypt and Syria, SAM systems were well forward, with many firing units located within about 50 km of the line of contact. Additionally, massive numbers of SA–7 missiles (both hand-held and possibly mounted on BRDMs) and AAA guns were in the same area. Supporting these weapon systems was a surveillance radar system providing complete overlapping coverage at all altitudes. This defensive belt was both dense and thick. In order to achieve air superiority in the face of such defenses, it is necessary to avoid suppress, or destroy such systems. ECM and the ability to locate and destroy mobile SAMs must be modern and sophisticated. Standoff weapons can play a major role in this effort. The Air Force is applying special management emphasis to the accelerated development and procurement of systems to suppress air defenses.

On the other side of the coin, we know that a land army can provide initial defense against a modern tactical air attack by extensive employment of mobile, integrated surface-to-air missile systems; but for defense in depth, these ground force weapons must be complemented by air superiority fighters. We are developing, therefore, a program to provide a more mobile, capable, and responsive family of battlefield air defense weapons and are reexamining deployment tactics and the basis for determining surface-to-air launcher levels.

Finally, the lessons and impact of the war with regard to direct US operations should be addressed. Three facets are of particular concern; supply levels and production base, mobility, and operating bases.

The enormous expenditure of missiles, artillery shells, and anti-tank munitions, together with the level of equipment attrition, demonstrates once again the necessity of maintaining ample stocks of conventional munitions and equipment.

Chairman McCLELLAN. To what do you attribute the extraordinarily high attri-

tion and consumption rate of materiel and equipment in the recent Middle East conflict?

Admiral MOORER. The high attrition and consumption rate can be attributed to a number of factors. chief among these are:

(1) Intensity and duration of combat

(2) Size of the forces involved

(3) Density and effectiveness of sophisticated antitank and SAM weapon systems

(4) Necessity to expend large quantities of ammunition and materiel to overcome the advantage of surprise and to gain time for mobilization and deployment.

As to the revision of logistic planning data, we are reviewing the validity of our consumption factors used in determining materiel requirements. We are also reexamining our stockage levels which we know are too low and must be fully capable of supplying emergency contingency requirements, as required by our national interests.

Chairman MCCLELLAN. Proceed.

Admiral MOORER. Difficulties experienced as a result of providing moderate quantities of equipment and munitions to Israel have emphasized the magnitude of worldwide deficiencies in the level of arms, munitions, and war material maintained by the United States. These serious shortages of specific types of munitions are compounded by distribution problems and inadequate storage facilities overseas. Critical shortages of equipment and secondary items exist. New requirements from future crises in Southeast Asia, the Middle East, or elsewhere for similar support would further complicate the problem and could degrade significantly our conventional deterrent.

The conflict once again demonstrated that an efficient logistic system is the backbone of any sustained combat capability. If we are to provide our forces with that degree of material readiness sufficient to conduct a conventional defense in NATO or elsewhere and to provide our allies with the ability to defend themselves, we must quickly build up inventory levels for all items of supply and equipment in conjunction with establishing warm production bases for selected high consumption items. We anticipate establishing a CONUS-based stock of munitions and equipment which can be used to support allies under emergency conditions, and improving and enlarging storage facilities for prepositioned war reserve stocks overseas in order to improve short-term response capability and to relieve the immediacy of the demand for airlift/sealift in the event of hostilities.

The Soviet Union again demonstrated its increasing capability to project its influence and military power strategically beyond its contiguous borders. For the first time, this was accomplished by a rapid, continuous airlift coordinated with an impressive sealift. The threat to the peace of the world has been increased by this newly portrayed capability to introduce and maintain some of the most sophisticated Soviet weapons far outside the land mass of the USSR.

Chairman MCCLELLAN. Is there any indication that the Soviets are becoming more "sophisticated" in detriment to their advantage of having simple, rugged, easy to maintain equipment?

Admiral MOORER. Past Soviet emphasis on fielding ground force equipment of simple design has been modified in response to the demands of a modern battlefield. If disadvantages accrue in this change to weapon systems of more complex technology, they are more than offset by the increased firepower and mobility achieved. Moreover, the Soviets still employ a method of systems development based on product improvement. Thus, new technology is absorbed at what they consider a reasonable rate and this is beneficial to troop training, maintenance and logistical support requirements.

Chairman MCCLELLAN. Proceed.

Admiral MOORER. Effective strategic movement of war materials depends upon the complementing capabilities of airlift and sealift. We must retain the capability to respond rapidly with airlift to move personnel and essential supplies and equipment, and to provide sealift capability for the non air-transportable equipment and heavy tonnages required for sustained operations.

US resupply of Israel demonstrated the excellent capabilities of the C–5A and C–141. Over 500 total sorties insured an uninterrupted flow of essential supplies while the conflict continued. Increased numbers of outsized and oversized aircraft are essential if we are to achieve the airlift capabilities necessary to support our NATO commitment and to support the national policy of providing the

material necessary for our partners to repel aggression, using their own manpower in their own defense.

Sealift and protection of sea lines of communication are also essential to both contingency and follow-on support operations. The airlift mounted in the Middle East conflict received well-deserved praise. Not so well publicized is the fact that from October 6, 1973, to date, sealift accounted for over 70 percent of the total tonnage moved. In order to reestablish and maintain an effective strategic movement capability, sealift forces must be augmented and modernized as a necessary complement to strategic airlift. This must include maintaining and modernizing sufficient naval escorts and carrier task forces to protect these sealift forces enroute. We also must continue to insure that our naval forces are capable of responding as fully and rapidly as they responded to this crisis.

Finally, the issue of operating bases must be faced. The United States was disappointed, but not surprised, when some of our allies did not perceive their national interests as being identical to ours. Without the cooperation of Portugal, which consented to the use of Lajes, the resupply operation which made Israel's survival possible could not have been conducted without great hazard and almost prohibitive cost. The world has shrunk in political terms, but it is still just as many miles from a US depot in Arkansas to the Middle East as ever. If we are to be able in the future to respond to a call for help of the nature and magnitude of the Israeli operation, we must continue to develop and invest in secure bases, where we can operate as free of foreign political constraints as possible, while still maintaining our alliance system. The best runway, storage facilities, geopolitical location, or deep water port is of little utility if political constraints preclude its use.

Utimately, the issue is whether the United States can afford to rely solely upon the good faith of others when it is believed that the vital interests of the United States or of one of its allies are in imminent peril. If we are to rely on our ability to respond to conflict as a deterrent, then we must face the consequences of forward-basing US air, ground and sea forces in areas where our important interests may be altered by military or political compulsions beyond our control. In the long run, assuming we mtaintain the proper mix of ready, mobile, and versatile general purpose forces, these consequences of forward-basing will pose far fewer dangers for the US than would the withdrawal of these forward-deployed forces.

CONCLUSION

Mr. Chairman, I believe the concerns I have expressed over the aggressive modernization effort being undertaken by the Soviet Union in both strategic and general purpose programs have been fully substantiated. The new capabilities which these programs will provide to the USSR must weigh heavily in any determination of the future plans for our Nation.

The Joint Chiefs of Staff recognize and appreciate the solemn Constitutional obligation placed upon the Members of Congress to personally consider and collectively enact, during the next few months, appropriate legislation to "raise," "support," "provide," and "maintain" Armed Forces for the "common Defence." As your uniformed military advisers, we strongly recommend that you support in full the President's Defense Program and Budget for Fiscal Year 1975 and the supplemental request for Fiscal Year 1974.

UNITED STATES-SOVIET RUSSIA: STRATEGIC BALANCE

Chairman MCCLELLAN. Now as I understand, you wish to proceed to highlight the statement.

Admiral MOORER. Yes, sir.

Chairman MCCLELLAN. Very well. You may proceed. If you need comment, indicate the pages, please, so we can follow you.

Admiral MOORER. Mr. Chairman, I will not read from it. I will brief you with slides, if I may, because I think I have some interesting information.

Chairman MCCLELLAN. Proceed in your way.

Admiral MOORER. First, I would say that so far as the strategic balance as it exists today between the United States and the Soviet

Union is concerned, I will describe it as being in dynamic equilibrium.

Chairman McClellan. You are talking about the combined forces, all the armed forces of both countries?

Admiral Moorer. Yes, sir.

Chairman McClellan. Warmaking capabilities and defense capabilities?

Admiral Moorer. Yes. I will speak, first, in terms of nuclear weapon capabilities, and second, in terms of conventional weapon capabilities.

Chairman McClellan. Proceed.

Admiral Moorer. First, just to refresh your memory, sir, here we have the ICBM's that are currently deployed by both sides. The United States has 54 of the large Titans.

The Minuteman I is phasing out. We will have an inventory of 1,000 Minuteman missiles, 450 Minuteman II and 550 Minuteman III. This last ICBM is the weapon that has the MIRVs. [Deleted.]

Chairman McClellan. You are phasing out Minuteman I?

Admiral Moorer. Yes, sir.

Chairman McClellan. Is that because it is obsolete?

Admiral Moorer. Yes, sir. It is being replaced by these newer models.

Chairman McClellan. Very well.

Admiral Moorer. You can see, for instance, sir, the big difference in the accuracy here [deleted]. So it is being phased out in order to modernize the ICBM force. Here is the difference in the warhead yield [deleted].

Chairman McClellan. [Deleted.]

Admiral Moorer. [Deleted.]

Senator Young. Admiral, do you get into site defense?

Admiral Moorer. Yes, sir, I will speak to that.

SOVIET MISSILE DEPLOYMENT

Now here, sir, are the current missiles that are deployed by the Soviet Union under terms of SALT I. The Soviet Union is permitted 1,618 land-based missiles, whereas the United States is permitted 1,054. The Soviet Union was allowed by the terms of the SALT I agreement to convert 209 of this type launcher to submarine launched missiles if it chose to do so. Now the biggest missile that it currently has deployed is the SS–9. This missile comes in four versions, the two most important ones are shown here; the MOD 2 with one warhead and MOD 4 with three warheads. This is not a MIRVed warhead, however; it is simply an MRV (a Multiple Re-entry Vehicle).

Note the very high yield in this particular version with the single warhead. With the three warheads, each unit is now estimated to be from [deleted].

Senator Case. Are those three warheads aimed at the same target?

Admiral Moorer. Yes, sir. That is the difference between a MRV and a MIRV. Each separate MIRV can be aimed at a different target.

Here is the SS–11 which combined with the 13 currently give the Soviet Union 1,096 under the SALT Interim Agreement. This includes new silos. This is more or less the work force in the inventory, and as you can see, the SS–11 also has been modified to install three warheads versus one. So you have today an inventory of 1,054 land-based missiles for the United States and an estimated 1,618 land-

based missiles for the Soviet Union. (The 1,618 includes the new silos some of which are not operational.)

Chairman McCLELLAN. How do they compare in capability?

Admiral MOORER. Well, sir, our missiles, we feel, are more accurate. If you are just comparing the ICBM's alone, I will show you in just a minute the Soviet Union is moving forward with new missiles.

Chairman McCLELLAN. I don't understand. In round numbers, they have 600 more land-based missiles than we have?

Admiral MOORER. No, sir, it is closer to 500 more at the present time. The most significant difference in terms of quality so far as our missiles are concerned is in the accuracy.

Chairman McCLELLAN. How does that accuracy compare with land-based missiles?

Admiral MOORER. You have it right here, sir; [deleted.]

Chairman McCLELLAN. Well, they are much more accurate than ours according to that.

Admiral MOORER. No, sir. [Deleted.]

Chairman McCLELLAN. That is [deleted] difference in the accuracy, is that right?

Admiral MOORER. Yes, sir.

Chairman McCLELLAN. Do you think that is a great difference when you compare the numbers? Do you think that little variation in accuracy offsets the capability of the Russian strength?

Admiral MOORER. Not that alone, sir. I am going to show you on additional charts the answer to your question, Mr. Chairman, which will relate to the throw weight, the total number of reentry vehicles, the total number of delivery vehicles, and the megatonnage of both sides which all together would make up the comparison of the total capability.

Chairman McCLELLAN. Would you say we are balanced now?

Admiral MOORER. Yes, sir.

Chairman McCLELLAN. You are going to use those charts to convince us of that?

Admiral MOORER. Yes, sir, as of today.

Chairman McCLELLAN. As of today.

DYNAMIC EQUILIBRIUM

Admiral MOORER. Yes, sir, I made the statement that we would enter what I call a dynamic equilibrium and I am going to show you what the Soviet Union is doing to unbalance this equilibrium.

Senator SYMINGTON. Admiral Moorer, when the United States agreed to 1,054 for us and 1,618 for the Soviets and 710 SLBM's for us and 950 for the Soviets——

Admiral MOORER. Excuse me, they can only have 950 if they reduce this by 209.

Senator SYMINGTON. I am talking about the Moscow deal.

Admiral MOORER. Yes, sir.

Senator SYMINGTON. Dr. Kissinger was asked in the press conference, "How do you accept this differential against the United States?" and his reply was—this was in an open press conference on the record—"You forget about our strategic bombers and our forward based aircraft."

The question I would ask, Admiral, is: Was that deal in Moscow made by Dr. Kissinger with the approval of the Joint Chiefs or against the advice of the Joint Chiefs?

Admiral MOORER. The final agreement, sir, was made with the approval of the Joint Chiefs; and then we submitted our three assurances which, we stated, would be necessary in order to have an equitable agreement. These three assurances were (1) improved verification techniques, (2) a very extensive research and development program, and (3) aggressive improvement and modernization programs to include the B–1 and the TRIDENT.

Chairman MCCLELLAN. That seems to me like a rather reluctant approval.

Admiral MOORER. Well, sir, we approved it on the basis that it was an interim agreement rather than a treaty and that no matter what we did during this 5-year period, there was no way we could add to our force levels; so, we looked at it in terms of what it prevented rather than what it permitted. We had made the decision to level off our force levels, as I will show you, and there was nothing we could do about it during that 5-year period. So what we wanted to make certain of was that if we were unsuccessful in SALT II we would be in such a position that we could move out with our offensive systems.

Chairman MCCLELLAN. You did it reluctantly.

Admiral MOORER. No, sir, I don't think we described it as reluctantly. We did have some discussion about specific numbers, but, on balance, if we were given these three assurances then we agreed to the details of this particular arrangement.

Senator BROOKE. It was a conditional acceptance?

Admiral MOORER. Yes, sir.

Senator BROOKE. It didn't stop you from doing anything you would have done without that, isn't that a fact? You had no plans to.

SALT I, QUANTITATIVE AGREEMENT

Admiral MOORER. Well, this particular SALT I agreement, sir, was a quantitative agreement; it only dealt with numbers, it did not deal with bombers. We felt that we had a big quantitative advantage so far as intercontinental bombers were concerned. In particular, as I will show you, we had a big advantage in the number of reentry vehicles. In other words, with the MIRV in Minuteman and the Poseidon, we had far more reentry vehicles during this 5-year period. Now we never would have accepted this agreement as a treaty; we accepted it as an interim agreement for that 5-year period because we felt we knew that we could not add to our forces during that time.

Senator CASE. That is the point I was trying to make.

Admiral MOORER. Yes, sir.

Senator SYMINGTON. Mr. Chairman, may I ask one more question?

Chairman MCCLELLAN. Yes.

Senator SYMINGTON. I have followed this whole nuclear missile development picture to the best of my ability for a good many years. We felt that the number of warheads was more important than the weight of the warhead.

In fact, this Administration in August 1972 put out a sheet that showed that one 16 megaton bomb in lethal capacity was equivalent to four 1 megaton bombs. What worries me a bit from the standpoint of the taxpayer—and I know you know I am as much for what we need as you are—is that now that we have gone the numbers route and we are heavily increasing the cost to the taxpayer by stressing the throw weight and yet we were the ones that originally felt that a lot of 1 megatoners, et cetera, was more important than the relatively heavy

throw weight. Now, however, you are going back to the throw weight.

I am interested in this because of my respect for the forward based aircraft and what they could drop as well as the strategic bombers. [Deleted.]

Why is it so unfortunate for us to have bombs that are many times greater than the Hiroshima bomb but not as great as some of the Soviet bombs or missiles?

Admiral MOORER. Senator Symington, I understand your question. I will show you during my briefing some of these figures, as to specifically what the United States had. During the Cuban crisis we had a superior position. Prior to that time we had a policy of instant retaliation. Then we went into a posture or a doctrine of assured destruction. At that time in the sixties we leveled off our force levels; namely, 41 submarines and 1,000 or so missiles.

MIRV PROGRAM

As you will see on the next charts, we then went into a MIRV'ing program, which introduced large numbers of relatively small yield reentry vehicles. At that time, we still had this qualitative superiority over the Soviet Union, which did not have the MIRV capability. Today we have a situation, which I am going to describe to you, wherein the Soviet Union is moving forward with a new program, which will enhance significantly its overall capability in terms of yield and the number of reentry vehicles. So we have a problem here of not only our actual military capability, but our capability as it is perceived by other nations. We think that is an important thing.

I think that we all want to reduce the numbers of weapons, assuming we can maintain this essential equivalency. This is the road we are trying to take, but at the same time, we must look, I think, with some apprehension at this rather significant momentum that the Soviet Union is pressing ahead with, and which I am going to describe to you.

Senator BROOKE. Mr. Chairman, one question if I may.

In response to the Chairman's question did I understand you to say that we are now in parity with the Soviet Union and have taken into consideration the quantitative and the qualitative?

Admiral MOORER. In my opinion, Senator Brooke, we have sufficient nuclear capability to provide adequate deterrence against nuclear attack.

Senator BROOKE. Aren't you saying, in other words, that we have a superior force to the Soviet Union? Isn't that the fact. Even though quantitatively the Soviet Union is ahead of us, when you take into consideration its quantitative and qualitative considerations do we not have the edge?

Admiral MOORER. I would say as of today, sir, as I said at the very outset, we are in what I would call a state of dynamic equilibrium. As I am going to show you, the Soviet Union is doing its best to deploy forces which could reverse this situation in 2, or 3, or 5 years.

Senator BROOKE. I wondered if the Chairman's questions were answered accurately on the record because he asked specifically are we equal at the present time and you said yes. You did say dynamic equilibrium, I believe was the term, but your dynamic equilibrium means that we have an edge, isn't that true, Admiral?

Admiral MOORER. Sir, I think if you put everything in your——

Senator BROOKE. Nothing wrong with having an edge but I just think we ought to know it. We are not behind them nor are we equal with them at this time.

Admiral MOORER. Senator Brooke, the only point I am trying to make is it is very difficult to measure it in that quantitative sense. I am confident that we have adequate deterrence and I am satisfied with the posture as of today. In that sense, I guess you could say we have an edge in that I don't think we are going to get attacked. What is concerning me is how long we can retain this posture of adequate deterrence.

Senator BROOKE. As a military man you would rather have our force than their force, would you not?

Admiral MOORER. Yes, sir; in looking at the entire package of command and control, response, geography, and so on, I would not trade them today, but I am not sure that I will be in a position to say that 5 years from now. That is my problem.

Senator BROOKE. That was my question. The rate they are moving today, would you say you would trade with them in 5 years?

Admiral MOORER. If they continue at their present rate and we do nothing, or we do not succeed in stopping this momentum, then, I think that in the late seventies our deterrent posture will become questionable.

Senator CASE. Would the Chairman permit a question?

Chairman MCCLELLAN. Senator Case.

Senator CASE. This question is a pretty general one and yet it is perhaps something that some members of this committee like me can understand when it is expressed in general terms.

COMPUTER CAPACITY

Is this advantage that the United States has going to be knocked in the head by our providing Russia with a great deal of computer capacity as a part of this whole business of exchange and deterrence?

Admiral MOORER. Senator Case, as far as I am concerned I think we should be extremely careful about transferring to the Soviet Union certain of these technological advances that we have developed.

Senator CASE. Thank you.

Admiral MOORER. There is no question about that. In the computer field there is always the risk of making its development move faster.

Senator CASE. Right.

Chairman MCCLELLAN. Do I understand that you are not concerned, that you are generally satisfied with the SALT interim agreement and the respective postures of the two countries? We are not at any great disadvantage as of now?

Admiral MOORER. As of now, sir.

Chairman MCCLELLAN. But you are going to show us that from the chart that you are concerned about what can be the situation 5 years from now.

Admiral MOORER. Exactly.

Chairman MCCLELLAN. If we are not alert and if we don't——

Admiral MOORER. I will not be satisfied with SALT I in perpetuity, in the context of the treaty, nor in terms of an interim agreement.

Chairman MCCLELLAN. Go ahead with your charts and we shall see if we can follow you.

Admiral MOORER. Sir, I want to give the same description of the missile. Here you have the Polaris, and the Poseidon, and the Trident. I think you gentlemen are familiar with that. We have 656 launchers on 41 submarines and we have authority under terms of the SALT I

agreement to take the old Titan missiles, 54 of them, and convert them into a submarine type missile. So we could go as high as 710 under that particular arrangement.

So far as the Soviet Union is concerned, it apparently was at a base line of 740 and it was allowed to convert 209 of its old land-based missiles to submarine missiles if it chose to do so, which would then give it a total of 950.

Let me talk briefly about the Soviet Union's missiles. This is the oldest missile shown on the chart, the SS–N–5. Here is the SS–N–6 which currently is deployed in the first Yankee class submarine. The SS–N–6 MOD 2 is the latest version with an MRV warhead. Here is what gives us concern. This is the SS–N–8 which already is deployed. The concern revolves around the range of this missile, which is already at sea. It can be fired at the United States from just outside of Murmansk. This is the range we are going to try to get later on in the Trident. The Soviet Union has it at sea; we will not have a missile with this range at sea until about 1978.

Senator YOUNG. Mr. Chairman, could I ask a question?

Chairman MCCLELLAN. Senator Young.

Senator YOUNG. In our concern about the Russians being stronger than we are in nuclear warfare 5 years from now, would it not be a better approach to develop the Trident rather than expand the land based ICBM?

Admiral MOORER. Yes, sir, I think so. We are not, however, adding to the force levels of the land based ICBM systems. All we are doing is making some modification to the hardness of the silos, to the electronics, and to their facility for retargeting but we are not adding to the numbers of them at all. The Secretary of Defense has summarized the strategic system requests on page 53 of his statement.

Senator YOUNG. You did express concern that 5 years from now they would probably be superior to us in nuclear warfare. How does the Defense Department plan to equalize that or remain as strong as they are?

Admiral MOORER. In terms of these modifications to the Minuteman, a better warning system, adding the Trident and the B–1 bomber, sir. Again, all of this will be determined by the conditions of SALT II. In other words, the Soviet response to SALT II will, in effect, dictate the details of our programs.

AIRCRAFT IN FUTURE WARS

Senator YOUNG. I was a little disturbed with Secretary Schlesinger's views on aircraft in future wars. He didn't seem to place a very high priority on aircraft didn't think we had much need for interceptors or fighter aircraft in the future. I gather from that he didn't think that bombers in the future would play a very important role.

Admiral MOORER. Well, what he was referring to, sir, was that the Soviet Union has emphasized land-based missiles. Although I am going to show you in just a minute that it is building a new swing wing supersonic bomber, it has not yet gone forward, for instance, with a large tanker fleet; consequently, it has not developed the capability for penetration and for long-range attack that we have in the United States. It clearly can develop these capabilities and we are watching the situation closely. What Secretary Schlesinger said, I believe, was that it was impossible, in particular with the advent of MIRVing, to

protect U.S. cities and that, therefore, the air defense system that we would maintain would be one which could (a) provide warning and (b) protect the air space of the United States from violation in peace time, rather than maintain a full-fledged air defense system to defend the cities against bomber attack.

Senator YOUNG. Well, I don't quite understand the thinking for the future 5 years from now. If we are not concerned about bomber aircraft, why should the Russians be concerned about the bombers that we may launch?

Admiral MOORER. Because, in the first place, we have a very large tanker fleet, we have a very large bomber force, which I will just show you, and we have our bombers being equipped with the SRAM type missile for penetration purposes, and so on. Our bomber capability is far superior to the Soviet bomber capability as of now. On the other hand, their land-based missile capability, particularly in quantitative terms, is much larger than ours, but the current Soviet bomber threat to the United States is comparatively small.

Senator YOUNG. As of now but the Rusisans might well do as much by way of air power as we will.

Admiral MOORER. If they do that, sir, then we would have to take action accordingly. We would have to respond, in my view, by building the air defense backup. If they are going for a large tanker fleet and a large bomber fleet, we would have to react but there is no indication of that at the moment other than the development of the BACKFIRE which I will discuss later on.

Senator YOUNG. If they did that, would we need the interceptor squadrons?

Admiral MOORER. Yes, sir. Of course we could, bring in the F–15, the F–14, and the AWACS for that purpose, and we are thinking in those terms if we are faced with that kind of threat in the future.

Senator CASE. You would not go back to reactivate the ZEUS or anything like that?

Admiral MOORER. No, sir.

Senator YOUNG. I am a bit puzzled by that but I guess I will understand it better later. I don't know about Dr. Schlesinger. I know more about Mr. McNamara.

STRATEGIC OFFENSIVE SYSTEMS INITIATIVES

Admiral MOORER. Here, I have listed for your reference, the strategic offensive systems initiatives that both sides are putting forward. I mention the silo hardening and the improvement of the targeting capability of the Minuteman III and the Poseidon conversion. We plan to equip 10 of the Poseidon submarines with the C–4 missile—other initiatives listed are the Trident submarine, the B–1 bomber and the modifications of the B–52—which will give them longer life. The Soviet Union at the same time, in the bomber category is building a new swing wing bomber. If it had adequate refueling support it would have the capability of reaching the United States.

I mention this missile, which is our prime concern, because it can be fired just out of a Soviet harbor at the United States and we will not have a submarine missile with that range until [deleted]. The Delta-class submarine is a stretched version of the Yankee class which I will describe in just a minute.

Here you have the modification to their silos to increase their hardness. The SS–11 mod 3. SS–11 is their workhorse missile, so to speak,

and here are the four new missiles that have been tested; as a matter of fact, three of them just as late as last week. These missiles are the 16, 17, 18, and 19, all of which are designed to replace the missiles I just showed you.

So what I am saying is that they have right today in an advanced stage of testing four new missiles. This one, the SS–X–17, we think has about four MIRVed warheads; the SS–X-18, five and the SS–X–19, six. They are prepared and already beginning to alter their silos so they can replace their older missiles [deleted].

So this is what I mean by their momentum. They are preparing to replace all of their existing land-based missile systems with MIRVed missiles which have more advanced characteristics and have more throw weight than the missiles that they are replacing. Therein lies our primary concern. [Deleted.]

[Deleted.] These are the new missiles we are concerned about.

SS–18

Chairman McClellan. What is that one, the SS–18?

Admiral Moorer. This is the one that replaces the 9 and this is the one with a very large throw weight and could carry very large warheads.

Senator Young. How big a warhead?

Admiral Moorer. I think probably equipped with something in the neighborhood [deleted] for MIRV warheads, sir. If they chose to leave some with a single warhead it could go up to [deleted].

Last year, if you recall, I reported to the committee on some new silos and some work being done in the missile fields. [Deleted.]

We would expect them to go ahead and alter the remainder of these silos as these new missiles become available to put into these complexes. [Deleted.]

Senator Young. These names you gave them, the various missile weapons, are these the names they gave them or the names we gave them?

Admiral Moorer. No, the names we gave them.

Senator Young. They have different names?

Admiral Moorer. Yes, sir. [Deleted.]

Consequently, what they are really doing is slowly modernizing all of these fields so that they can bring in their new missiles and put them in the same holes that the old missiles were in. [Deleted.]

Here I am going to compare and I think this will help answer some of the chairman's questions, or part of them at least. This shows what the inventory will be in the years out through 1979 assuming that the terms of SALT I are remaining in effect.

First, so far as the United States is concerned, I think it is the point that Senator Symington made here. Back in the sixties we were more or less fixed on our force level. You see that is essentially a straight line out of that time and we do not plan to add to our land based systems at the moment unless for some reason developments in the future require it.

Here you see the very rapid buildup since 1965 or 1966. Really the decision was made at the time of the Cuban crisis, but you see how rapidly the numbers increased. Now they could have anywhere in between these lines in the out years with their present building program if they were using again the SALT I quantitative guidelines. Depending on whether they trade 209 land-based launchers for sub-

marine launchers, they could either have 1618 or 1409 land-based launchers. I am talking about the inventory of ICBM launchers.

Next I want to talk about the inventory of SLBM launchers. Here you see the U.S. force levels are absolutely fixed because of the decisions made in the sixties. These are the 41 submarines, each with the 16 missiles. This indicates that if we choose on the terms of the SALT I agreement to inactivate the Titan missile, we can convert those 54 missiles to submarine missiles.

Here is the same thing that happened to the Soviets. They had a choice of maintaining 740 or going to 950 under the terms of the agreement, but this shows what we think the building rate would be, again assuming that SALT I remains in effect during that length of time.

[Deleted.]

Senator Symington, you asked me last year why didn't they put 16 missiles in their submarines. They are now stretching the 12-missile version to accommodate [deleted] launchers as I will show you in just a second.

Senator SYMINGTON. At the time I asked, as long as you brought it up, I questioned that not only because of the price of the Trident submarine which is a half billion dollars more than the most expensive carrier but also because we were putting 24 missiles into the submarine. The question was, would it not be better to have more submarines with less missiles than more missiles with less submarines?

Admiral MOORER. Yes, sir. I think I told you that it depends on whether you look at the cost of the submarine or the cost of the missile. You put more missiles in your submarine, and the cost of the deployed missile is less per missile.

Senator SYMINGTON. Yes, but on the other hand, you limited the number of submarines that you could have.

Admiral MOORER. Yes.

Senator SYMINGTON. I beg your pardon. You have not limited the number of submarines, you have limited the number of missiles on submarines, and therefore I was hoping that you would not tremendously increase the price of the submarines, stick with the Poseidon especially, as you can throw a missile 4,000 miles to be retrofitted to it.

Admiral MOORER. [Deleted.]

Chairman MCCLELLAN. Our submarines will do the same thing, won't they?

Admiral MOORER. Yes, sir, but three of these submarines are at sea already. We will not have our submarine with that capability until 1978. That is the difference.

Chairman MCCLELLAN. How many will we have then?

Admiral MOORER. Well, sir, it depends on how many older land-based missiles they choose to deactivate. We will first have the Trident submarine, and we propose to backfit 10 of the Poseidons with what we call the C–4 missile.

INTERCONTINENTAL BOMBER

Now, here we were discussing the intercontinental bomber, Senator Young, and here, of course, are the medium bombers that the U.S.S.R. has. They cannot reach the United States except on more or less a one-way trip, ending perhaps in Cuba, unless they would be equipped with a large number of tankers. Here you see what has happened in the U.S. bomber inventory starting in 1955. Starting in the thousand

category, this is when we had a pronounced superiority, and it has come down to here and will level off [deleted] unless SALT II dictates otherwise.

The Soviets have maintained a rather small inventory of intercontinental bombers for several years. I have indicated here the addition of the Backfire bomber [deleted].

Senator YOUNG. Is that capable of flying low?

Admiral MOORER. Yes, sir, that is capable of flying low, but, of course, when you fly low, you sacrifice range. So the minute you fly low, you must then either compensate with tankers or you must restrict your strike.

[Deleted.]

STRATEGIC OFFENSIVE DELIVERY VEHICLES

Here you see the strategic offensive delivery vehicles. This, then, is a combination of the bombers, the submarines, and the land-based missiles. Note that I used the word "operational." This is not total inventory. These are missiles that we would expect to be operational at any given time because some of the submarines are being overhauled, some of the bombers will be out of commission.

This is essentially the number of all three types of operational delivery vehicles. [Deleted.]

Now I want to show you the operational—again the word "operational" as opposed to "inventory" megatonnage standing in the silos and submarines and on the airfields ready to go. You can see here there is a reduction in U.S. megatonnage that was brought about primarily by the reduction in the number of bombers because the bombers carried the larger weapons. This was then further reduced by the introduction of the MIRV, because when you MIRV a missile, you reduce the yield when you MIRV several small weapons as opposed to one larger one.

This shows what will happen when the Soviet Union chooses to MIRV the new missiles that I showed you. The megatonnage will come down in order to build up a number of reentry vehicles.

Now, this buildup of the number of reentry vehicles you see here, is a part of the reason, Mr. Chairman, why I told you that I thought that we have a sound, solid deterrent force, and that we do have superiority in this one category; that is, in this one category of reentry vehicles. If the Soviet Union moves ahead with the new missiles that I showed you along this line, you can see that in short order it can in the early eighties move this right on up into this area if they choose to do so, because they already have superiority in throw weight.

Chairman MCCLELLAN. That is the only area in which we have superiority?

Admiral MOORER. Yes, sir; at this time other than qualitative superiority. We believe we have qualitative superiority plus this is the quantitative superiority that we have at the moment.

Now here is the comparison of the throw weight, and it emphasizes the fact that the Soviet Union has concentrated on large land-based missiles and we have concentrated on smaller ICBM's and on bombers because you can see, so far as in the mid 1974 period—that is right now—is concerned, the throw weight of the Soviet missiles, of course, exceeds the throw weight of the United States, whereas the U.S. bomber payload is much larger than the Soviet Union's.

This general relationship will remain; however, the introduction of the new missiles that I showed you will run the Soviet throw weight up quite a bit higher in 1979 than it is in 1974. Our bomber payload will remain about the same and we have some increase here in our missile throw weight, and that is because of the introduction of the Trident.

Senator SYMINGTON. Do you include your submarine-launched missiles in that chart?

Admiral MOORER. Yes, sir. All of our strategic offensive systems are included.

DEFENSIVE FORCES

That more or less wraps up the offensive portion. I am just going to briefly treat the defensive forces because Senator Young has asked about this. Of course this includes the ABM category which is controlled under the terms of the SALT I treaty. We had a treaty, rather than an agreement, on the defensive system. We had a treaty which was equal in every sense. There were two sites authorized for each side; same number of launchers, same number of radars, each side could have a defense of the capital and another site out in a missile field and so on.

As you know, Senator Young, we have built one Safeguard site and it is becoming operational. We still have the right under the terms of the treaty to build a system around the Nation's Capital. We have not gone forward with that as of now.

The site defense that you asked about is simply a research and development project which would be to keep our hand in, so to speak, and to maintain the option of employing a defensive force.

The SLBM warning radar is an item in the current budget, which, as I will show you in just a minute, I think, is very important, particularly with the advent of the 4,200-mile submarine missile.

Senator YOUNG. I don't believe that you quite answered the question I had in mind. I had in mind that the missiles that you were going to place around for the Minuteman would protect them against attack.

Admiral MOORER. Yes, sir. If the site defense is deployed, just a little different concept from the Safeguard here, you use a large number of the short-range missiles and a large number of radars [deleted].

Senator YOUNG. Do we have the money?

Admiral MOORER. No; we are just asking for research and development funds to test out the procedure to employ it. There is nothing at all in the budget that relates in any way to the adding to our force level or to actual deployment of the system.

Senator YOUNG. Supposing we decide to go ahead with that kind of defense. How long would it take you to defend missiles that way?

Admiral MOORER. I think it would take several years to install a full-scale system. We have not even reached the point where we have the system developed and available for the deployment. The site-defense prototype demonstration is scheduled for 1977.

Senator YOUNG. You do have another program that we are going ahead with, or do we, to protect the Minuteman?

Admiral MOORER. Yes, we have a hardening program going forward both in terms of electronic hardening and actual physical hardening of the silos.

Senator YOUNG. What did we do on that this year? Do you have to have authorization?

Admiral MOORER. Yes, sir. There is some continuous program related to retargeting and hardening for the improving of the Minuteman III; yes, sir.

Senator YOUNG. Have we improved any of the Minuteman that way yet?

Admiral MOORER. Yes, sir; some of them have been improved. We have the transition from the Minuteman I to the Minuteman II to the Minuteman III. We have the improvement of the silos, we have the improvement of the target capabilities. That is currently going forward.

Senator BROOKE. Do you have any evidence to the extent of the Russian hardening?

Admiral MOORER. Yes, sir, Senator Brooke. [Deleted].

Senator BROOKE. Will this not be a stabilizer?

Admiral MOORER. No, sir.

Senator BROOKE. You are not able to affect the knockout there?

Admiral MOORER. It will make their missiles more survivable; yes, sir. Improvements in our Minuteman missiles also make them more survivable.

Senator BROOKE. Take the balancing out?

Admiral MOORER. Yes, sir. I would not class that as being a destablizing factor, sir. I think it is the kind of improvement that one would expect as time went on. In other words, I don't think you could expect that they or we would just have a missile and leave it there. without improvement indefinitely for decade after decade.

SLBM WARNING RADAR

I would like to talk just a minute about this SLBM warning radar. This shows the situation with the radars we have currently on both coasts. In this red section a submarine could operate and fire at the United States without our having warning of the fact that the missile was in the air. As you know, we have a satellite warning system, which in general covers this area. I have shaded this pink area to show you that sometimes the satellite warning system is affected by the sun so you don't have 100-percent coverage.

This is more or less a predictable thing. The radars that we have in this budget to place here and here are in response to the Soviet Union's increased capabilities with the new Delta submarine. If these new phased-array radars are approved we will have complete coverage. In other words, we will be able to detect from the United States missiles fired by submarines. This is why it is so important to have funds for these radars in this budget.

Chairman MCCLELLAN. How many will you require?

Admiral MOORER. Initially I think we will require two, sir; one for each coast.

Chairman MCCLELLAN. What is the cost of each?

Admiral MOORER. I will get it in the record. I believe $50 million in the fiscal year 1975 budget or thereabouts.

Chairman MCCLELLAN. Will they cost about $50 million each?

Admiral MOORER. After 2 years $100 million.

Chairman MCCLELLAN. That would be $100 million complete?

Admiral MOORER. I believe that is correct. We will look it up.

[The information follows:]

The cost of the two-site phased-array SLBM detection radar system will be $100.1 million dollars. $49.7 million of that is in the FY 75 budget request.

Chairman McCLELLAN. The Senate gave you that last year, didn't it?

Admiral MOORER. Yes, sir.

Chairman McCLELLAN. Is the urgency still there?

Admiral MOORER. Yes, sir. I think this diagram emphasizes the urgency. We are going to make this point as clear as possible, but they were the ones that took it out last year.

Senator BROOKE. What can't you do now with your present radar that you will be able to do if you get this new appropriation?

Admiral MOORER. Well, now, sir, with the present radar system submarines have to come close enough to the coast to be within this light area here. If it stays out in this area, [deleted], we cannot pick the missile up by the radar.

Senator BROOKE. What is the distance in the light area?

Admiral MOORER. I would say that is about——

Senator BROOKE. So in addition to [deleted] is that right?

Admiral MOORER. We want to use the satellites and the radar to give us the coverage any place that this 4,200-mile missile can be operated. That is what we are really asking.

Senator BROOKE. And it can be done?

Admiral MOORER. Yes, sir; it can be done.

Chairman McCLELLAN. Gentlemen, we will have to suspend for a few minutes. We have a rollcall. We will come right back.

[A brief recess was taken.]

Chairman McCLELLAN. All right, Admiral, you may proceed.

CHINESE CAPABILITY

Admiral MOORER. I will now touch on the Chinese capability. Although it is very small at the moment it has the potential for having a significant impact in the eighties.

Here we have the four land-based missiles and the one submarine-based missile that the Chinese are currently working on. As you will note, as they have gone forward with this development they have progressively increased the range [deleted]. When they get that range, of course they could reach the United States with these missiles.

Chairman McCLELLAN. Are they going to have any trouble getting that range?

Admiral MOORER. Well sir, they have tested the missile inside China. [Deleted.] You can see here that the estimates as to the numbers of these missiles that they will have in the end of the seventies are not very large, but I think they are making small but steady progress in developing the strategic capability.

[Deleted.]

We have had no indication that they are working on MIRV at all. They are, however, working on a submarine-launched system.

Chairman McCLELLAN. The threat then is for some dozen years or more away?

Admiral MOORER. Yes, sir. I would say in the late seventies.

Chairman McCLELLAN. Well, I am talking about our side.

Admiral MOORER. Yes. They will have, as I noted on the chart, just a few missiles which would reach the United States in the seventies.

Chairman McCLELLAN. But they don't have the delivery of the system as yet, do they? How can they deliver unless they are of intercontinental range?

Admiral MOORER. Yes, sir; we expect them to have an intercontinental missile which has sufficient range to reach the United States by that time.

Chairman McClellan. They are working on that. They don't have it now, do they?

Admiral Moorer. We don't think it will be operating until 1976 and we don't think that even at the end of the seventies they will have over somewhere between [deleted] missiles.

Chairman McClellan. It would require far more than that before they would risk making an attack on us.

Admiral Moorer. I would think so; yes, sir.

Chairman McClellan. The variation would not be so great that they could not take that?

Admiral Moorer. Yes, sir; you are quite right. I agree.

Senator Symington. If the chairman would yield.

The back of that chart, if they have a missile in 1974—that is this year—that missile could reach Moscow.

Admiral Moorer. Yes, sir.

Senator Symington. Therefore, I would think that the Soviets, inasmuch as they have so much of their setup located in a relatively few towns, including many that are in the eastern part of the Soviet Union, I would think that they would be worrying about an attack right now, especially if they feel that they would have to move first to preempt a strike or the PRC will become a major nuclear power. Unquestionably the Soviets in their planning must be apprehensive about the relatively rapid development in the PRC.

Admiral Moorer. I think you are quite right, sir. I am sure they are. I will show you a chart in just a minute.

[Deleted.]

Senator Case. [Deleted].

IMPACT OF CHINESE WEAPON ADVANCEMENT

Chairman McClellan. In regard to the progress or advancing technology and development of weapons in the nuclear weapon field that China may make, will this at some time in the future have an impact on the relationship between Russia and the United States with respect to SALT agreements and so forth? In other words, Russia could not afford to make a treaty limitation with us, if the Chinese missile threat becomes very real to her.

Admiral Moorer. I think you are quite right, sir.

Chairman McClellan. At some time in the future, a quarter of a century, say?

Admiral Moorer. I think that is a very valid point, sir. They must take that into consideration.

Chairman McClellan. But at that time won't they have enough nuclear power so that they can destroy each other?

Admiral Moorer. By that time if they choose——

Chairman McClellan. Offset.

Admiral Moorer. If they choose to deploy it, they certainly will, yes, sir. I think that this is a matter of concern so far as the Soviets are concerned, it is bound to be.

Chairman McClellan. I can understand. We make these agreements with Russia and level off our respective capabilities between our two countries so that each has an adequate strength. Then we enter into treaties not to increase our forces. But if China is not a party to this agreement, and continues to build weapons, at some point the Russians are going to think about China and not think about us.

Admiral MOORER. Yes, sir.

Chairman MCCLELLAN. They would hope that China would then enter into limitation agreements, too, if she built up comparable strength.

Admiral MOORER. Yes, sir.

Chairman MCCLELLAN. We may not have to worry about it.

Admiral MOORER. Yes, sir.

Chairman MCCLELLAN. All right.

CONVENTIONAL FORCES

Admiral MOORER. I would like to turn quickly to conventional forces and just show you in general where the U.S. forces are and where the Soviet forces are. Of course the major part of our forces are stationed in the United States, but moving into the European theater as you know we have four and one-third divisions in Europe and 33 tactical squadrons. We have one squadron and some ships and submarines around Iceland. Generally two ships in the South Atlantic. With the 6th Fleet in the Mediterranean we generally have around 13 tactical air squadrons and 23 combatants [deleted].

The Soviet Union on the other hand, also has a big fleet. Its largest fleet is the North Fleet with [deleted] and then in the Baltic it has about [deleted] a fleet of about the same size in the Black Sea, [deleted], and in terms of land based forces forward in the Warsaw Pact it has 31 divisions and [deleted] tactical air squadrons backed up by [deleted] divisions. Finally, in the interior of the U.S.S.R. it has reserves which could go either way, either to the Chinese border or back down into Europe [deleted].

That is about the way the United States and the Soviet Union are today.

Chairman MCCLELLAN. It seems as though her thrust is in the direction of China more than toward Europe or toward us.

Admiral MOORER. The U.S.S.R.'s thrust progressively has been increasing toward China, but it has not decreased its forces aligned toward Europe. I will show you that in just a second. [Deleted.] You can see here that it has [deleted] divisions and [deleted] tactical air squadrons deployed along the Chinese border and it progressively is improving and modernizing this particular force here in the Pacific fleet operating primarily out of here and some from here. It has [deleted] ships and submarines.

We have, of course, these squadrons in Thailand. We have one and two-thirds divisions out here made up of the forces in Korea and the Marines in Okinawa; and about [deleted] tactical air squadrons in Japan, Okinawa, Korea, and the Philippines; and [deleted] ships and subs. Some of these squadrons, of course, are sea based at Hawaii. We have one-third of our Marine brigades and an army division, three squadrons and about 25 ships. We have one air defense squadron up here in Alaska.

Senator CASE. What about the Indian Ocean?

Admiral MOORER. Yes, sir. I am sorry I overlooked that; I did want to discuss the Indian Ocean.

The Soviet Union maintains, as a rule, Senator Case, about four combat ships, but it will have 5 or 20 other types of ships, some of which are in the space surveillance business. It will have, in addition to that, some mine sweepers, oil tankers, repair ships, and ships of that kind.

The Soviet Union has access to Berbera which is a port in Somalia right here which has very up-to-date communications systems in constant communication with Moscow. It is building a new air field near there. It has improved the airport. Its ships have access to Aden which was the old British area in South Yemen. They go right up and dock quite often, and on occasion, they visit India and ports along the east coast of Africa.

Since October 6, when we had the Israeli-Arab war, we have deployed intermittently some forces from the Pacific Fleet into the Indian Ocean. Normally the United States maintains three ships—we call it the Middle East Force—that has up until now been based in Bahrain. As you know, sir, the agreement with respect to Bahrain was terminated. The terms of the agreement are that we have 1 year to respond to the termination. We hope that they will remove that termination as these things tend to cool down in that particular area.

Senator SYMINGTON. What kinds of ships are those ships?

Admiral MOORER. One LPD type amphibious ship configured as the force flagship and two destroyer type ships.

DIEGO GARCIA

Of course, as of now we have no facility where we can fuel or land aircraft in this entire area that does not require a case by case arrangement. We are asking the Congress to permit us to establish a facility at Diego Garcia.

Senator CASE. At Diego Garcia?

Admiral MOORER. Yes, sir, Diego Garcia. It is just about as dead center of the Indian Ocean as one can get.

Senator YOUNG. What do you want to put on the island?

Admiral MOORER. We already have an austere communications facility and a harbor has been dredged, sir. We want to add to the runway. We want to improve the harbor. We want to increase the aircraft parking area, and in particular we want to increase the fuel storage capacity there in Diego Garcia at the moment.

Chairman MCCLELLAN. That would be about a $35-million project?

Admiral MOORER. Well, $29 million for military construction initially, sir. The current facility has cost us about $70 million. We would expect the total costs for the current facilities and the new requested ones to be less than $200 million. For instance, from the Atlantic Ocean through the Indian Ocean to the Pacific Ocean the only place we could fuel would be at this particular island. If we wanted to fly in this particular area, the only place we could land an aircraft without problem would be there.

Chairman MCCLELLAN. That might be a provocation to Russia or at least prompt Russia to increase her influence in this area and provide military strength in this area. That would be an irritation to her and cause her to expand in that area, would it not?

Admiral MOORER. No, sir, because they have already made movements in this direction with their agreements with India and with their presence in other areas. I am confident that when the Suez Canal is open that you will see deployments from the Black Sea Fleet down through the canal into this general area. The flexibility of the Soviet Union's deployments will be greatly increased. This is not really what we are concerned about although that is part of it.

I think that the recent focus on the energy problem, and so on, certainly highlights the fact that the lines of communication through

the Indian Ocean are becoming of increasing importance because the facts are that, in my view, if war were to start in Europe, you would have to have access to the Middle East area. Of course, the canal would be vulnerable in wartime; it would not stay open very long in wartime. So if you are going to have access to this area, you would have sea lines of communication coming around this way instead of trying to get through the canal. So I think it is important that at least we have a facility to refuel and to operate a minimum number of aircraft in this general area without having to arrange on a case-by-case basis.

We selected Diego Garcia and as you recall, Senator Symington, you assisted me on that. It is an island which has no industry, it has no population, and so far as the Secretary of Defense is concerned, they have no rare birds on there, either.

Chairman McClellan. No what?

Admiral Moorer. Rare birds.

Senator Symington. I wanted to go there but you told me it would take 3 days and you could not land by air.

Admiral Moorer. You can now, sir.

Senator Symington. If the Soviets and the People's Republic of China get into a war, using the word that came up quite often, which side do you think we would tilt toward?

Admiral Moorer. [Deleted.]

Senator Symington. In other words, in your opinion—and this is not facetious, I am being very serious about it[deleted].

Admiral Moorer. [Deleted.]

Senator Symington. Thank you.

Chairman McClellan. We are going to have to suspend again for a few moments.

[A brief recess was taken.]

Chairman McClellan. Admiral, I will let you proceed. We will move along.

NEW PROGRAMS

Admiral Moorer. Here, sir, I just wanted to highlight some of the new programs that are in this particular budget.

Chairman McClellan. They are all new?

Admiral Moorer. No, sir, they are not all new. I marked the ones that currently are being deployed but these are new systems which I lifted in order to compare to the new Soviet system. Note that most of their systems have been deployed already whereas we only have two deployed but these are either under development or new production in this current budget.

First, so far as the ground forces are concerned, here are the new programs for the Army which include the new tank and the SAM–D missile, the antitank weapons, and the heavy Helo. These are the aircraft that currently are being deployed for purposes of enhancing the conventional capability. So far as the Navy is concerned, we have here the attack submarine, the amphibious assault ships, the sea control ship, and the 688-class submarine. The Harpoon missile also has air-to-ground capability, surface-to-surface capability, and a submarine-to-surface capability.

Here you see what the Soviet Union is doing in terms of its ground forces and new aircraft. Of interest is the fact that, so far as the aircraft are concerned, it is concentrating now on ground attack which it has not paid too much attention to in years gone by. However, now

they seem to be concentrating on developing aircraft in order to have that particular capability. Finally, here you notice that they are coming forward with several new ships. When one takes an inventory of all these forces, you can see a comparison between the U.S.S.R., the United States, and the People's Republic of China.

Note the very large number of tanks that the Soviet Union has—40,000—as well as [deleted] armored personnel carriers and fighting vehicles, and a very large amount of artillery, which is almost equalled in numbers but not quality by the People's Republic of China. It emphasizes also the heavy mortar category. In all of these categories the Soviet Union is superior to the United States, quantitatively speaking. The only area in which the U.S. conventional forces are superior is in helicopters where we have about 5 to 1 superiority over the U.S.S.R. and 20 to 1 over the People's Republic of China.

SOVIET STRENGTH DIRECTED AT OTHER NATIONS

Chairman McCLELLAN. I think this is a fair observation. A lot of the strength of Russia is not directed against us. All these land forces—you never expected them to use them against us. Those are for use against her neighbors over there—China, Europe, and so forth.

Admiral MOORER. Yes, sir, you are absolutely right. This is just a total inventory. I didn't mean to imply——

Chairman McCLELLAN. In other words, we don't need to match them in those areas.

Admiral MOORER. No.

Chairman McCLELLAN. But we do need to match them in nuclear power, in submarines, and naval power.

Admiral MOORER. You are absolutely right, sir. I was just giving you a feel for the total, showing you how they think and what they emphasize in terms of conventional weapons.

Chairman McCLELLAN. That is why I feel that our Allies, NATO, ought to be able to provide sufficient forces there so that we would not have to maintain an army over there. They have both the manpower to do it and they also have the other resources to do it, in my judgment. We would have to provide the airpower and the nuclear power for them as well as some of the naval power. I just don't think the NATO countries are doing enough for their own protection.

Admiral MOORER. Yes, sir. They can do more certainly in my opinion.

Chairman McCLELLAN. Let's see that they do more. I think it is just a continued type of blackmail by our friends. It is a kind of implied threat: "Well, if you don't take care of this and if you don't do that, we can't do it and therefore we will be subjected to the influence of other powers." I just don't agree with that argument. I think we are being used, and quite often, at that.

Admiral Moorer. Well, they have made some additional new contributions in the last 2 or 3 years.

Chairman McCLELLAN. They have done it under pressure.

Admiral MOORER. Yes.

Chairman McCLELLAN. We must apply more pressure.

Admiral MOORER. Yes, sir, I understand.

[Deleted] the Soviet carrier which is being fitted out [deleted] is about the size of our World War II *Essex* carrier. It does not have arresting gear or catapults. Obviously it is designed for the vertical takeoff or short takeoff and landing aircraft. The aircraft that will go aboard this carrier [deleted].

[Deleted.] They are already building a second carrier. [Deleted.] We don't know how many of those they are going to build but they are moving ahead with a carrier program now.

Here you see a comparison of the submarines between the United States, the Soviet Union, and the People's Republic of China. Our level will be somewhere in the vicinity of 85. We expect all but six of these to be nuclear-powered. The People's Republic of China, as I pointed out, is trying to build some nuclear submarines, but I would imagine it would have a large percentage of nonnuclear submarines.

The Soviet Union is modernizing its submarines by replacing diesel-powered submarines with nuclear-powered submarines at the same time they are building new diesel-powered submarines. The estimate is it could have somewhere within the ball park right here. [Deleted.]

Here is the fastest submarine. [Deleted.]

THEATER NUCLEAR WEAPONS

I might turn quickly to the theater nuclear weapons. As you know, the Soviet Union has the intermediate range ballistic missiles and MRBMs which are aimed at Europe and China. We, at one time, had the Jupiter and Thor. All these were inactivated, but the Soviet Union maintains this capability in addition to the intercontinental ballistic missile capability I showed you earlier in the afternoon. [Deleted.]

So far as the surface-to-surface missiles are concerned, the Soviet Union has built the inventory up quite a bit; that is, for missiles which would be used primarily in the battlefield area. [Deleted.] This will give you a feel for the theater nuclear weapons for land forces.

Now for the naval forces; you can see that the U.S.S.R. has the [deleted] for its fleet and a limited number of bombs and possibly some ASW weapons. In this particular category, you can see the inventory of the United States so far as the naval forces are concerned.

Here quickly, Mr. Chairman, before I stop I would like to briefly discuss some of the things that came out of the war that was fought in the Middle East last October which I think you will be interested in. In the first place, of course as you recall, the Arabs—that is, the Syrians and the Egyptians—attacked the Israelis before they were mobilized. Although there were indications that they were maneuvering and that the attack was possible, they had gone through these maneuvers over and over again and there had been many false alarms. Since it was on the day of Yom Kippur, and the Israelis had been heavily criticized in 1967 for being the aggressor, this time they waited too long to mobilize. That was one aspect of it.

The second aspect, which I think is interesting, is that there were very high attrition rates at the beginning.

Chairman McClellan. Very high what?

Admiral Moorer. Attrition rates, very high losses. Within 18 days, the Arabs and the Israelis had [deleted] percent of their tanks damaged; and the Israelis had lost [deleted] percent of their aircraft and the Arabs had lost about [deleted]. In the desert terrain, the total visibility there permitted this type of very violent action out in the open. In other words, there was no place to hide—no trees, no nothing—and so it was rather intense combat. [Deleted.]

At the outset the Israelis had [deleted] aircraft and the Syrians and the Egyptians combined had [deleted]. The Israelis planned to fly [deleted] times as many sorties although they had less than half as many aircraft.

Chairman McClellan. Why is that? Why could they fly [deleted] times as many?

Admiral Moorer. [Deleted.]

Now of interest overall is the fact that the Israelis lost [deleted] aircraft and the Syrians and Egyptians lost [deleted].

Chairman McClellan. That is fantastic.

Admiral Moorer. Yes, sir.

Now to give you a feel for what destroyed these aircraft we think that so far as the [deleted].

Chairman McClellan. I thought you said [deleted] a minute ago.

Admiral Moorer. I mean only in dogfights, sir.

Chairman McClellan. Dogfights?

Admiral Moorer. Yes; in air combat.

Chairman McClellan. That is very surprising [deleted].

Admiral Moorer. Yes; it shows the skill and courage and experience of the Israeli pilots, and I think that the Phantom aircraft also did a very fine job for them.

The main point that comes out of this is that I think when modern weapons are employed in any kind of environment that the attrition is very high at the outset. We were very pleased with the performance of the Maverick and these optically guided weapons because they performed exceptionally well in that particular environment in the desert there.

Overall I think that the airlift that the United States put forward was an outstanding performance. The equipment that we supplied the Israelis performed well. Generally speaking, there was no major lesson learned really in terms that would dictate a major change in tactics or a major change in equipment but it did indicate that as weapons become more accurate and as the range increases we just must expect a higher rate of attrition. This means that you must have adequate stockpiles at the outset for staying power.

This is what the Secretary was talking about this morning when he was talking about readiness. We need to increase our stockpiles so that we do have this same power and so we can withstand the high attrition that one would encounter in modern warfare.

FRENCH NUCLEAR POWER

Senator Fong. How much nuclear power do the French have?

Admiral Moorer. The French, sir, have three kinds of nuclear weapons.

You mean nuclear weapons now, Senator?

Senator Fong. Yes.

Admiral Moorer. They have nuclear submarines that fire missiles armed with nuclear weapons, they have land-based missiles: and they have aircraft armed with nuclear weapons. Just before Christmas I visited France and was shown in detail their total capability. They, of course, have developed that on their own and they maintain it in a very high state of readiness.

Senator Fong. Do the British have something like that?

Admiral Moorer. Yes, sir. The British have nuclear powered submarines that fire missiles. As a matter of fact, they have the Polaris. They also have aircraft delivery systems. The British have used our technology whereas the French have developed it on their own and are still as a matter of fact testing as you well know south of Hawaii as

they continue to improve their systems. The French did not, as you know, join in on the test ban, [deleted].

Chairman McClellan. What about the quality of their system?

Admiral Moorer. [Deleted.] Their people are highly trained, they are very smart in the operation of their equipment, they know their stuff, and they are confident it will work, and they are very proud of having this capability as a deterrent against the Soviet Union. One would say they developed this themselves. I would say the state of training is very, very high.

Chairman McClellan. Quantitatively they don't have many.

Admiral Moorer. No; not quantitatively. I think they have about three submarines [deleted]. They have two squadrons of land-based missiles and they have, I think, four or five squadrons of land-based aircraft. Of course, they are not too far from their targets, either. [Deleted.]

Senator Fong. Didn't the Labor Party in England campaign on the ground that one of the issues was diminishing their military capability?

Admiral Moorer. Yes. [Deleted.]

Chairman McClellan. We spend 6 percent. Britain spends more than that, does she not?

Admiral Moorer. I believe a little more than we do. Portugal is the highest and then all of the NATO nations are somewhat less than the highest.

Chairman McClellan. Any more questions?

We have a prepared statement from the Assistant Secretary of Defense Terrence E. McClary that will be inserted in the record at this point.

[The statement follows:]

STATEMENT OF TERRENCE E. McCLARY

Mr. Chairman and Members of the Committee:

I welcome this opportunity to appear before this Committee to discuss the revised FY 1974 and FY 1975 budget estimates of the Department of Defense. I have a prepared statement, including a number of tables, which I offer for the record. With your permission, Mr. Chairman, I would like to begin today with a summary of that statement.

I think it is especially important this year that we have a clear overall perspective on our FY 1974 and FY 1975 programs -- the trend of our program in real terms and money terms, and how our current estimates relate to the many developments which have occurred since our FY 1974 program was first presented in January 1973. I want to address these matters at some length.

Next, I believe we must consider the matter of contingencies. Our FY 1975 estimates include $2.2 billion for items not yet transmitted to the Congress. I want to be sure that the record is clear on this point, to avoid, if possible, some of the confusion and misunderstanding that arose in connection with the FY 1974 estimates. In addition -- still under the general heading of contingencies -- I want to spell out some of the major areas of uncertainty we are confronting. I want to outline some of the possible developments which could have a serious impact, especially on our FY 1975 program.

With the end of U.S. combat involvement in Southeast Asia, we need to consider the trend in incremental war costs and baseline costs, and the related matter of the peace dividend.

Manpower costs account for over half the Defense budget, and have been growing rapidly. I believe it is important that we compare our experience in Defense with that of other sectors.

The matter of inflation -- pay raises and price increases -- is of immense importance in assessing the Defense budget trend. As a

matter of fact, it has had a huge impact upon all budgets, public and private. I want to address this matter in general, and to touch upon some particular areas which need emphasis.

Finally, we should consider the impact of the Defense budget on the economy. In particular, I want to assess our present estimates in terms of economic stimulus, or lack of it.

With your permission, then, Mr. Chairman, I will summarize my statement, beginning with a discussion of our budget totals.

SUMMARY

Budget Totals

This chart shows our budget totals for key years. It shows FY 1964 -- the last peacetime year; FY 1968, the war peak; FY 1973, the last complete year; and our requests for FY 1974 and FY 1975. The chart shows the amounts in current prices, that is, the amounts as we actually request and record them at the time, and in constant prices -- expressing the real value of these programs in terms of FY 1975 pay rates and price levels.

Observing the TOA line, note that -- in current prices -- our program rose from $50.6 billion in FY 1964 to $75.6 billion in FY 1968. It was $80.5 billion in FY 1973 and rises to $87.1 billion in FY 1974, and $92.6 billion in FY 1975. Thus, our TOA is sharply up, in current prices. It rises $12.1 billion in just two years, FY 1973 to FY 1975.

In constant prices, however -- taking account of pay and price increases -- we see a much different trend. The FY 1964 program, at FY 1975 budget prices, was equivalent to $95.4 billion. This rose to $124.3 billion in FY 1968, the peak, then falls sharply to FY 1973, and continues to fall through FY 1974 and FY 1975. Outlays, you will notice, have fallen by an even greater amount, compared to FY 1964 or FY 1968.

Our FY 1975 request in total, Mr. Chairman, is thus below the FY 1974 amount in terms of real buying power. In fact, this FY 1975

request represents the lowest Defense program, in terms of real buying power, since FY 1951.

Manpower Totals

Before proceeding with a discussion of the financial data in more detail, I would like to present highlights on manpower. As you know, over half of our budget goes for manpower costs -- the pay and allowances of military and civil service personnel. This manpower share of the budget is much higher than it was in the 1960's. Manpower figures, then provide a good indicator of where the Defense program is going.

This chart shows manpower data for the same years as the preceding chart -- 1964, 1968, and 1973-74-75. It shows both end-strength and average strength. There are figures for direct employment -- military and civil service -- and our estimates of Defense-related employment in industry.

In terms of average strength (or man-years), note that direct employment was 3,736 thousand in FY 1964, rose to 4,712 thousand in 1968, and then falls sharply to 3,196 thousand in FY 1975. Note that there is a decline from FY 1973 to FY 1974, and a further decline to FY 1975.

Defense-related employment in industry rose from 2,360 thousand in FY 1964 to 3,217 thousand in FY 1968, then falls nearly in half to 1,665 thousand in FY 1975. Again, there is a decline from FY 1973 to FY 1974, and from FY 1974 to FY 1975.

Total manpower is estimated at 4.9 million in FY 1975. That's 3 million (40%) below the FY 1968 level and 1.2 million, or 20%, below the prewar FY 1964 level.

The manpower levels which we project for FY 1975 are the lowest since the fall of 1950. I want to emphasize this manpower trend, Mr. Chairman, because a great many allegations are being made to the effect that there are large real increases in this Defense budget. I believe it's obvious that this isn't true in the manpower area.

FY 1974 Estimates

Next, Mr. Chairman, I would like to take up our FY 1974 estimates in somewhat more detail. This chart provides a basis for discussion, in terms of TOA. We begin with TOA available to us for FY 1974, based on actions by the Congress in the last session -- $80,773 million. Next, we add amounts for pay and rate changes and similar items. This includes:

- The $3,415 million FY 1974 supplemental request for pay and rate changes. These amounts have been a part of the FY 1974 budget picture from the beginning. The largest items here are for the costs of the January 1973 and October 1973 pay increases.
- $99 million still carried as a contingent estimate for FY 1974, under proposed legislation. This amount has not yet been formally requested.
- $480 million for POL price increases, included as part of the readiness supplemental.
- $231 million for the Middle East payback, also included as part of the readiness supplemental.

These items, adding to $4,225 million, are necessary to cover pay and price increases, or for payback of unforeseen added costs in connection with the war in the Middle East. These items do not involve any program changes, then, from congressional approvals to date. They are necessary to pay for, or to make good, the program the Congress has approved. To this point, then, our FY 1974 program total is $84,998 million. Adding the remainder of the readiness supplemental request, $2,107 million, brings us to the total estimate for FY 1974: $87,105 million.

At this point, Mr. Chairman, it is of great importance to put these figures in perspective: to consider what they mean in terms of our original FY 1974 requests; in terms of the programs approved by the Congress; and as a base for our FY 1975 request.

First, let us consider where we stand -- in real program terms -- in comparison to the estimates submitted last year. This overlay provides the data. The Congress reduced our amended requests, in terms of TOA, by $3,608 million. In addition to this, we had submitted, by budget amendment, net program reductions of $886 million to offset increased costs for currency revaluation and higher POL and subsistence prices. And, third, purchase price increases — aside from POL and subsistence -- have cut the real value of our FY 1974 program, as enacted, by about $3,920 million.

This last point is of great importance, Mr. Chairman, and it has been overlooked almost entirely in discussions of the Defense budget. It is necessary to bear in mind that our original FY 1974 estimates -- the estimates which we are tracking here today, and for which we are requesting supplementals -- were priced originally in the fall of 1972. Since that time, we have requested additional funds to cover higher prices for POL and subsistence. We have neither requested nor received additional funds to cover the sharp increases in the price of other purchases. And, since the fall of 1972, prices have gone through the roof.

This chart provides a few examples of what has happened to purchase prices since the fall of 1972. The wholesale price index has risen by 25%; excluding food, the growth is 21.6%. The deflator maintained by the Department of Commerce for Federal Government purchases from industry (excluding the Commodity Credit Corporation) has risen 15.1%. Excluding POL, the growth is 11.4%.

Here are some examples of price increases for specific line items, all applicable to the FY 1974 program. The first column shows the price at which we budgeted the items when we submitted the estimates in January 1973. The second column shows the prices we are actually paying, or expect to pay, for the FY 1974 quantities. We have deliberately chosen rather simple items -- we have avoided comprehensive estimates for major systems, such as the F-14 and F-15. For the items illustrated, price

increases range from 5.3% to 76.4%. For these items, available funds will buy far less than the quantities approved by the Congress. Inflation has, in effect, levied a further budget cut -- a far deeper one than was imposed by the Congress.

Mr. Chairman, the price increases that have taken place -- from the time that we priced and submitted our FY 1974 estimates to the present time, when we are trying to carry out that program -- are the greatest since the late 1940's. We obviously cannot ignore them. We estimate that, on the average, the prices we are paying for purchases from industry -- setting aside POL and subsistence -- are at least 10% higher than those reflected in the FY 1974 program approved by the Congress in the last session.

Setting aside POL and subsistence, and also setting aside the $2.2 billion provided for Israel, the Congress approved $39.2 billion in TOA for purchases. And we estimate that price increases have eaten up 10% of that, or $3,920 million.

As the chart shows, then, our FY 1974 program to this point -- not counting the readiness supplemental -- is $8,414 million below the amounts requested last year, in terms of buying power.

Even if the readiness supplemental is approved in full, we will be, in terms of real buying power, some $6.3 billion below the amounts requested last year. We will have taken a much deeper cut in our program than the Congress intended.

This matter of inflation eroding our materiel position, while it has been particularly acute recently, is not a new problem. To an extent, inflation and other factors such as greater lead-times have been eating into our materiel readiness for the past few years. These factors contributed to the shortcomings that were highlighted during our response to the war in the Middle East. Combat experience indicated that our weapons planning had been off the mark in some instances, we faced sharp additional requirements, and, to close the circle, we found

that our ability to meet these requirements within available funds had been eliminated by the same inflation which contributed to the shortages in the first place.

In normal times, Mr. Chairman -- that is, had calendar year 1973 been a different kind of year than it was -- we probably wouldn't be asking for a program supplemental. There would have been some changes in our requirements as we took another look at the FY 1974 program, including some needs for increases. That's inevitable, given the dynamic nature of Defense programs. In a normal situation, we would have met such additional requirements by reprogramming, by transfer, or, at the very most, by a zero supplemental. But these haven't been normal times, or so I devoutly hope. We faced the triple impact of an eroded materiel position, the experience of the Middle East, and record levels of inflation. We are left with no recourse but to request the additional funds necessary to provide the required level of readiness.

That, Mr. Chairman, is the perspective in which the FY 1974 readiness supplemental must be viewed. In much that has been said and written on this matter, I find that critics of the Defense program seem to have an entirely different recollection of calendar year 1973 than I do. They seem to feel that nothing happened between the fall of 1972 and February 1974 that could have given us any reason to reassess our Defense financial needs. And, feeling as they apparently do about a totally uneventful CY 1973, they conclude that we are using the FY 1974 request to get a leg up on our FY 1975 requirement. This simply isn't so. Even if our FY 1974 supplemental requests are approved in full, we will have $6.3 billion less -- in terms of buying power — than we requested originally for FY 1974. And we will have a net of $1.8 billion less, in real terms, than the program approved by the Congress.

FY 1974-75 Comparisons

Next, Mr. Chairman, I would like to compare our FY 1974 estimates in total with those of FY 1975. This chart presents a picture in some detail The first column shows our FY 1974 current estimate, including all supplementals -- $87,105 million. The second column shows the same program expressed at FY 1975 prices -- $94,621 million. The third column shows our FY 1975 request in total -- $92,579 million.

We have broken the figures down to some extent, to facilitate comparisons. Moving up from the total line, we show retired pay separately. Note that retired pay grows from $5,164 million in FY 1974 to $6,014 million in FY 1975 -- a growth of $850 million.

Moving up, we see the totals excluding retired pay: $81,941 million for FY 1974, equivalent to $88,959 million at FY 1975 prices, dropping to $86,565 million in FY 1975 -- a drop, in real terms, of $2,394 million. In this comparison, the inflation from FY 1974 to FY 1975 is obviously of great importance. Note that the program which costs $81,941 million in FY 1974 would cost $88,959 at FY 1975 prices. Thus, pay raises and price increases add $7,018 million to our costs in just one year.

This chart presents details on that $7,018 million.

- Pay raises, $2,234 million, include the cost of annualizing the October 1, 1973 pay raise, in effect for 9 months of FY 1974 but 12 months of FY 1975; the costs of an additional pay raise on October 1, 1974; the cost of annualizing the FY 1974 wage board raises; and the cost in FY 1975 of wage board increases in FY 1975.
- Increases in military allowances (existing legislation) $283 million, includes the cost of annualizing the subsistence rate of $2.28 per day which took effect on January 1, 1974, plus estimated increases in PCS and clothing prices.

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- Military personnel legislation, covered in the contingency estimate, will add $101 million to our FY 1975 costs if enacted.
- POL price increases are estimated at $597 million. Our FY 1975 estimates are based on the rates which took effect on February 1, 1974. Our FY 1974 estimates reflected these rates for only part of the year. (Later POL price increases are reflected neither here nor in our estimates.)
- Other purchase price increases are estimated at $3,620 million, or 8.7%, from FY 1974 to FY 1975. This is a much higher estimate than the 4.6% used heretofore. That 4.6% was developed last fall, when the economic forecasts were much rosier. We have revised the figure to take account of the bad news for the quarters ending December 31, 1973, and March 1974, and in line with the gloomier economic forecasts.
- In FY 1975, we will be required to pay rent to GSA under recent legislation, adding $183 million to our budget needs.

In short, Mr. Chairman, that represents a total of $7,018 million that we would have to pay in FY 1975, over and above what we are paying in FY 1974, without adding a man to the force, without providing one additional bullet.

Returning, then, to the earlier chart, to complete the FY 1974-75 comparison.

Setting aside retired pay, our FY 1974 estimates are $81,941 million. That program would cost $88,959 million at FY 1975 prices — the difference is $7,018 million, which I just detailed. And, compared to that, our FY 1975 request is $86,565 million -- a decline, then, of $2,394 million in terms of real buying power.

Incremental Southeast Asia costs rise from FY 1974 to FY 1975, the net of an increase in funds for support of the South Vietnamese less a drop for U.S. forces and the shift of funding for Laos to Military Assistance.

The Military Assistance Program drops sharply from FY 1974 to FY 1975, largely because the FY 1974 figures include the $2.2 billion item for aid to Israel, which does not recur in FY 1975.

This brings us, Mr. Chairman, to the totals for baseline U.S. forces -- in constant prices, $83,620 million in FY 1974 and $83,372 million in FY 1975, a decline of $248 million.

We have broken this figure down to facilitate comparisons. We show separately in the FY 1974 columns the readiness add-on and all other amounts. These latter amounts include amounts actually appropriated to date plus fact-of-life requirements for pay raises, POL and other price increases, and the Midlle East payback.

In these terms, including the fact-of-life items, the FY 1974 program approved by the Congress to date is equivalent to $81,331 million at FY 1975 prices. The pending readiness supplemental is equivalent to $2,289 million. We can compare these amounts with the FY 1975 estimates for baseline U.S. forces.

Critics of Defense programs have had a field day at this point in the estimates, Mr. Chairman. The approach used is essentially this: begin with the $83,372 million shown for baseline U.S. forces in FY 1975. Add to it the $2,289 million for the FY 1974 readiness supplemental, and note that the total -- $85,661 million -- is the "real" FY 1975 request for baseline U.S. forces, since the readiness item is not a legitimate FY 1974 need. Compare this $85,661 million to the $81,331 million -- the equivalent availability for FY 1974 -- and you have a $4.3 billion real increase in the Defense budget from FY 1974 to FY 1975. Applying this approach to our earlier figures -- when we grossly underestimated inflation, an oversight on our part for which the critics never ventured to correct us -- one can create a $6-billion "real" increase in this fashion.

This kind of approach is completely erroneous. Juggling funds from one year to another to prove a point is unacceptable. Once that kind of

game is begun, we are in a contest with no rules and no finish line. It could be observed, for example, that some funds requested for FY 1975 are necessary to fund shortages which materialized in FY 1974 -- or, for that matter, in FY 1973 or earlier years -- and thus could shift billions backward, conjuring up a massive decrease. The budget must be analyzed in terms of when funds are requested and provided -- not in terms of someone's idea of when they ought to be applied.

Moreover, the entire basis for this approach is the notion that calendar year 1973 was kind of a nonyear. Nothing happened, the critics appear to assume, which would warrant a reassessment of Defense financial needs for FY 1974. In fact, though, a great deal happened. Since the FY 1974 estimates were originally prepared in the fall of 1972, we have experienced the highest rates of inflation for a quarter century. The need to respond to the crises in the Middle East exposed, in a jolting way, the fact that our readiness capabilities had been eroded. Concerning the FY 1974 program itself, as approved by the Congress, we find inflation taking a huge bite. The same inflation has erased our capability to react to unforeseen needs within available resources.

That, Mr. Chairman, is what one must be willing to overlook to conclude that this readiness item has no legitimacy as a FY 1974 requirement, and that it must be shifted to FY 1975. And only by such a juggling of requirements between years can one show a real increase in the program for baseline U.S. forces from FY 1974 to FY 1975.

To summarize, then, Mr. Chairman, our current FY 1974 estimates -- everything included -- are some $6.3 billion below the requests submitted last year, in terms of buying power. Even if our FY 1974 supplemental requests are approved in full, we will have -- in the net -- some $1.8 billion less in buying power than the program approved by the Congress in the last session. And our FY 1975 request for baseline U.S. forces, in terms of buying power, is $248 million below our current

FY 1974 request. Considering the estimates in total, our FY 1975 request is about $2 billion below our FY 1974 request, in terms of buying power.

Status of Estimates and Contingencies

Next, Mr. Chairman, I would like to take up the matter of FY 1975 contingencies, beginning with the amounts included in the President's budget estimate for FY 1975. This chart details those contingent items, which amount to $2,242 million.

The President's budget totals, Mr. Chairman, and all the material we have issued on the FY 1975 budget -- including the figures we have been presenting today -- include $92,579 million for FY 1975 TOA, as reflected in the chart.

Of that amount, $90,337 million has been formally requested of the Congress, and is reflected in the justification books now before you. The remaining $2,242 million has not yet been transmitted.

We present the estimates in this way so as to show, as well as we can, the complete amounts estimated to be required for Defense in the upcoming year. Obviously, we cannot request funds now for future pay raises, the amount and date of which are not certain. Nor can we request funds for legislation not yet enacted. We have no intent, though, to conceal these amounts -- to make the Defense budget look smaller. On the contrary, we have emphasized them, as I am doing here today. Our best judgment was that some $2.2 billion would be required for FY 1974, over and above the specific requests made of the Congress to date. These amounts have been included in all presentations of FY 1974 budget totals.

I believe, Mr. Chairman, that practically all of these amounts will be presented as supplementals in the next session -- not as amendments in this session.

In addition to these items, for which we have tagged specific amounts in the contingent estimate, there are three other areas which should be mentioned. We have not included specific estimates for them.

First, subsistence rates: our FY 1975 estimates are at the rate of $2.28 per day, which went into effect on January 1, 1974. Food costs will, of course, rise sharply. Under existing law, we would need significant amounts of additional funds. However, legislation is under consideration which would modify the statutory formula for increasing military basic pay. If this is enacted, our net additional funding requirements would be relatively slight.

Second, POL prices; our FY 1975 estimates reflect the rates which took effect on February 1, 1974. Higher rates which will take effect on April 1, 1974, will add from $700 million to $1 billion to our FY 1975 costs. Our best guess at this time is that prices will stabilize at the April 1974 levels, but this leaves us at least $700 million short for FY 1975.

Third, general purchase inflation, aside from subsistence and POL: as I mentioned earlier, this has bitten deeply into our FY 1974 materiel program. It is doing the same thing to our FY 1975 program. We will be moving to contract early in 1975, for example, on items that we priced last fall. The cumulative impact of two years of this on our end-1975 inventory position will be severe; this will impact as well upon our ability to sustain readiness in the months ahead. It has been the practice to absorb these kinds of increases. That wasn't too bad when inflation was well under 1% per year, as it was in the last peace-time period -- say, 1958 to 1964. During the 1964-68 war buildup period, inflation was 2.3% per year; it was twice as high from 1968 to 1973, averaging 4.6% per year. These amounts of inflation tended to be lost in the shuffle of the large program buildups and cutbacks that were taking place. We are now confronted with double-digit inflation while we are trying to maintain, and in some instances to augment, our readiness levels. In budgeting, we anticipate future price increases only for major systems -- about 1/3 of our purchases. Even here, we have serious problems, because the economic forecasts in the fall of 1972 and the

fall of 1973 (when our FY 1974 and FY 1975 estimates were prepared) were far off the mark.

For all these reasons, Mr. Chairman, this matter of general purchase inflation cannot be handled as it was in the past. I don't know the solution, but I must flag this as a major possible problem area.

I can't put a price tag on the last item, general purchase inflation. Concerning the others -- pay raises, legislation, and subsistence and POL prices -- my best estimate as of now is that we will need $3.2 billion, over and above the amounts transmitted to the Congress. We have a contingent amount of $2.2 billion, as noted, so the net increase from our estimates is $1 billion. General purchase inflation adds some large additional amount. I'm neither able to give you a good figure, nor to suggest how we might handle it.

War Costs and the Peace Dividend

Next, Mr. Chairman, I would like to discuss the matter of war costs and the peace dividend. I will be addressing, throughout, the obvious questions: Why is the FY 1975 Defense budget higher than the budgets at the peak of the war? Why didn't the budget fall after the cease-fire? Where did the peace dividend go?

The questions are obvious, Mr. Chairman, and the answers are almost equally obvious. For example, this chart shows the picture for prewar FY 1964, the FY 1968 war peak, and FY 1975. The top section of the table begs the question. War outlays drop from $20 billion in FY 1968 to $1.8 billion in FY 1975, but total Defense spending rises nonetheless. Baseline spending rises from $50.8 billion in FY 1964 to $58 billion in FY 1968 and $84 billion in FY 1975.

The entire Defense budget goes to one of two places:

- For pay and allowances of personnel -- civil service and military, active, reserve and retired.
- For purchases of goods and services from industry.

As to pay, note our manpower totals at the bottom of the chart. Our FY 1975 manpower is 3,180,000 which is:

. 1,654,000 (34%) below the 1968 wartime peak.

. 540,000 (15%) below the prewar (FY 1964) level.

. At the lowest level since the fall of 1950.

Thus, all of the manpower added for the war -- all that and 540,000 more, in fact -- has been removed from the Defense program.

That leaves purchases. Note, in the top portion of the chart, that purchase spending rose from $28.8 billion in FY 1964 to $45.4 billion in FY 1968, then falls to $38.3 billion in FY 1975. In constant FY 1975 prices, shown toward the bottom of the chart, FY 1975 purchases are $38.3 billion which is:

. $31.1 billion (45%) below the FY 1968 wartime peak.

. $9.7 billion (20%) below the prewar FY 1964 level.

. The lowest level of purchasing power since FY 1951.

Thus, all of the purchasing power added for the war -- all that and $9.7 billion more -- has been removed from the Defense program. So has all the manpower, as we noted. And that's all there is. The peace dividend, then, has been paid in full.

Another question: Why didn't the Defense budget fall sharply after the cease-fire, as it did following previous wars? Answer: because it fell sharply before the cease-fire, as it never did before. This chart shows the trend in terms of military manpower. Note that we were at a very high manpower peak on Armistice Day in 1918; on V-J Day; and when the cease-fire came in Korea -- far above the prewar level in all three instances. Note the contrast with 1973, when the cease-fire came in Southeast Asia. We were not only far below the wartime peak, but below the prewar level as well. Both of these points are without precedent. It's not surprising, then, that our manpower failed to follow the earlier trends after the cease-fire.

This chart shows the same pattern. It depicts National Defense spending in constant (CY 1958) prices. Note that spending was at a peak at V-J Day, and at the Korea cease-fire. Spending had dropped below the peak -- and was, indeed, below the prewar level -- by 1973. Once again, we see that the cutback came before the cease-fire in Southeast Asia, unlike earlier wars.

The fact remains that war spending was $20 billion in FY 1968, and less than $2 billion in FY 1975. Where did the money go? Here's one approach to an answer. As the chart shows, we spent $78 billion in FY 1968, or $75.9 billion including retired pay.

From FY 1968 to FY 1975, military manpower (average strength) has been cut 1.3 million, or 37%. Considering the grades involved, and the war-related items, that's equivalent to $3.6 billion in basic pay $2.4 billion in allowances, at FY 1968 rates.

Civil service manpower is reduced by 257,000, or 20% Much of the reduction involves foreign nationals. It's equivalent to $901 million.

Purchases, in real terms, have been reduced by 44%, or $20.4 billion.

At FY 1968 prices, then, excluding retired pay, the cutbacks are worth $27.3 billion. Our current FY 1975 program, at these prices, would cost $48.7 billion. There would thus have been a highly visible peace dividend.

But we can't pay FY 1968 prices. Neither can anyone else. All of us have to pay FY 1975 prices. And the fourth column shows the consequences of this. Military basic pay rates have more than doubled since FY 1968, adding $9.9 billion. Military allowances are up 41%, adding $1.9 billion. Civil service pay rates are up 59%, or $5.5 billion. Purchase prices have increased 54%, or $13.7 billion.

Excluding retired pay, then, pay and price increases add $31.1 billion to our costs from FY 1968 to FY 1975. The program that would cost $48.7 billion at FY 1968 prices will cost $79.8 billion at FY 1975 prices.

Adding for retired pay, we reach the FY 1975 total of $85.8 billion.

In brief, pay and price increases more than offset the sharp program cutbacks. Defense spending failed to fall, in fact it rose, for this simple reason.

Defense is not alone when it comes to inflation, Mr. Chairman. We have plenty of company: the whole nation and, indeed, most of the world. The experience since FY 1968 has been such that one would have had to increase spending by about 60% just to stay even. National Defense spending rose just 9% so -- in real terms -- we fell sharply. Let's compare that 9% growth in National Defense spending, FY 1968-75, with spending increases in other areas. This chart does the job. In those 7 years, National Defense rose 9%. The remainder of the Federal budget rose 121%. Those obviously weren't real increases, Mr. Chairman. In fact, according to the Office of Management and Budget, that 121% increase in current spending is a 42% increase in real terms. Inflation eats up the rest.

Note the increase for legislative functions -- 161%. Judicial functions, not shown on the chart, are up 231%. Executive direction and management is up 433%. There's obviously a heavy inflation component in such increases.

State and local government spending rises 131% over this period -- which is equivalent to 52% in real terms.

With increases of this sort in the record, Mr. Chairman, I don't see why it should be hard to accept the fact that a 34% cutback in Defense programs was more than offset by inflation.

Since inflation has obviously had a huge impact upon all areas of public spending, it's necessary to consider the matter in terms of real resources -- manpower and purchasing power. Thus, some 8 million people (military, civil service, and industry) were engaged in the Defense effort in FY 1968. The FY 1975 figure is 4.8 million -- a cut of 3.2 million people, or 40%. The cutback in National Defense programs since

FY 1968 is worth about $46 billion at FY 1975 prices. This manpower, and this purchasing power, has been made available for other purposes, public and private.

This chart shows what became of the peace dividend, in terms of public spending. This shows changes from FY 1968 to FY 1975 and, for comparison, changes in the preceding 7 years -- FY 1961 to FY 1968. All figures are in constant FY 1969 prices, the base year used by the Office of Management and Budget.

On the first four lines, we show changes in the Federal budget for these periods -- all in constant prices, per OMB. We show the figures for National Defense; we lump veterans, debt interest, and international programs; all other Federal programs are on the third line, called social and economic programs.

Then we deduct the changes in Federal grants, to get direct Federal programs -- the activities the Federal Government is carrying on directly, setting aside the money that is passed to state and local governments.

Finally, we add state and local spending, to get the net change in U.S. public spending.

In the next section, we show an abbreviated breakdown of the U.S. public spending picture. We merge all social and economic programs -- Federal, state and local -- on one line. National Defense is shown separately, and so are the other Federal activities -- veterans, debt interest, space and international programs.

We can use this chart, then, to see what has been happening to public spending in terms of real buying power. This is what emerges when we eliminate the effects of inflation from the huge spending increases noted a moment ago.

What this chart shows, in essence, is that three major reallocations have been occurring at once. The first is a shift from Defense spending to domestic spending. Thus, National Defense grew by $26.5

billion from FY 1961 to FY 1968. It dropped by $27.6 billion from FY 1968 to FY 1975. Meanwhile, social and economic programs have been growing much more rapidly. They grew by $88.2 billion from FY 1968 to FY 1975, while they grew by $53.5 billion from FY 1961 to FY 1968.

Second, there is a shift from direct Federal programs to state and local government programs. From FY 1961 to FY 1968, direct Federal programs -- excluding grants-in-aid -- grew by $54.8 billion, or 47.5%. From FY 1968 to FY 1975, direct Federal activities don't grow at all -- in fact, they drop by $.5 billion. I believe that is an especially significant point, Mr. Chairman. That there has been no real growth in direct Federal activities at all since FY 1968. There has been a huge increase in Federal spending at current prices -- $126 billion. Almost all of that increase has been consumed by inflation. What real growth there is has, in effect, been used for stepped-up grants-in-aid.

Meanwhile, state and local government spending has been increasing much faster: by $56.3 billion from FY 1968 to FY 1975, versus $31 billion from FY 1961 to FY 1968. In percentage terms, a rise of 51.7% versus 39.8%.

And, third, there is a shift from the public sector to the private sector. All public spending rose $85.8 billion from FY 1961 to FY 1968, and by $55.8 billion from FY 1968 to FY 1975. The rate of growth from FY 1961 to FY 1968 was 44.5%. From FY 1968 to FY 1975, it's 20% — it's fallen by more than half. Governments took 33.9% of real GNP growth FY 1961-68, compared to 25.5% from FY 1968 to FY 1975. This, in turn, translates into measures of real tax burden -- how much of the nation's real income goes for support of government programs of all types. There is a sharp decline, in relative terms, from the earlier period.

Three major reallocations, then, Mr. Chairman: from Defense to domestic programs; from Federal to state and local programs; and from the public sector to the private sector. It is obvious, I believe,

that the real cutback in Defense programs -- especially the sharp cutback since FY 1968 -- underlies all three of these developments. Where has the peace dividend gone, then? It has gone to support much higher real spending for domestic programs, and into higher after-tax income.

Another way of viewing the matter, Mr. Chairman, is in terms of the labor force. The real cost of Defense, in the last analysis, relates back to manpower. The real cost to the American people stems from the fact that we have 4.8 million people in the Defense effort -- military, civil service, and industry. If these people were not engaged in the Defense program, they could be producing other goods and services. It is the fact of giving up these goods and services -- what economists call the opportunity cost -- that constitutes the real burden, or cost, of Defense.

This chart presents data in terms of manpower, the labor force. For comparison, we have used the same periods as before -- 1961-68 and 1968-75. As the table shows, the labor force grew 9.3 million from 1961 to 1968. Defense manpower grew by 2,176,000 leaving an additional 7,170,000 people for non-Defense employment.

From 1968 to 1975, the labor force grows somewhat more -- by 11.3 million. But there is a sharp Defense cutback (3,181,000), so an additional 14,453,000 people become available for non-Defense pursuits.

Thus, in the 1968-75 period, there are 14.5 million additional people available for non-Defense work -- twice as many as the 7.2 million growth from 1961 to 1968. This is the peace dividend and, in these terms, it's as real as anything can be.

This chart also shows the shifts from the public sector to the private sector that I noted earlier in terms of real spending. From FY 1961 to FY 1968, the public sector took nearly half of the labor force growth -- 4,458,000 more jobs in the public sector, leaving 4,888,000 for the private sector. From 1968 to 1975, the public

sector grows by 1,225,000 -- 11% of the labor force growth -- leaving 10,047,000 of the private sector. Thus, private sector manpower grows twice as fast 1968-75 as it did 1961-68 (10,047,000 versus 4,888,000).

By any measure, then, Mr. Chairman, the peace dividend has been paid in full, and more than that. The manpower and the purchasing power are gone from the Defense program. They have shifted, in effect, to state and local government programs and to the private sector of the economy.

Impact on the Economy

We might also consider these data in terms of the Defense impact on the economy -- specifically, the matter of whether the Defense budget is being used to stimulate the economy. Over the 1968-75 period, you will notice, Defense manpower drops 3.2 million. There's certainly no stimulus there. Notice the long-term trend as well. From 1961 to 1975, the total U.S. labor force grows by 20.6 million. Defense manpower drops by 1 million. All of the labor force growth over that span, then -- all of it and a million more, a total of 21.6 million additional workers -- are available for domestic pursuits.

This shows, for the long-term, that the United States has not been using military programs as a way of stimulating the economy or making jobs. That 3.2-million cutback from 1968 to 1975 is anything but a stimulus.

In the shorter term, this chart shows that Defense manpower falls from FY 1973 to FY 1974, and again from FY 1974 to FY 1975 -- a drop in average strength of 239,000 for the two years. And, as this chart shows, our budget -- in terms of real buying power -- drops some $2 billion from FY 1973 to FY 1975.

In short, Mr. Chairman, we are in no sense increasing the Defense budget, in real terms, or adding manpower. The reverse, in fact: our budget and manpower levels are falling. That's not what would ordinarily be meant by stimulating the economy.

It is true that we are not cutting back as rapidly as we did in the re- c past. From FY 1968 to FY 1973, Defense manpower cuts averaged 566,000 per year; for FY 1974 and FY 1975, they will average 120,000 per year -- a much smaller cutback.

It's also true that, had the economy not softened when it did, our budget might have been lower than it is. How much lower neither I nor anyone else can say.

Thus, it is true that the pace of the reduction has slackened, and that our budget has not been reduced as much, in real terms, as it might have been. The fact remains that there's no stimulus here. Our budget in real terms and, more importantly, our manpower levels, are still falling. Not as fast as in the past, not as fast as they might have -- but still falling. Moreover, everything in our budget must be reviewed and justified on the basis of military requirements. Anything that fails that test should be eliminated.

Manpower Costs

Mr. Chairman, we have emphasized repeatedly the impact of manpower costs upon the Defense budget. Our payroll has been soaring. But we're not unique in this respect.

For example, here are payments under retirement systems. Military retirement rises from $386 million in FY 1954 to $1.2 billion in FY 1964 to $6 billion in FY 1975. We're spending 5 times as much as in 1964, and 15.6 times as much as in 1954.

But outlays for civil service retirement are larger, and growing even faster.

And outlays for social security were $3.4 billion in 1954 versus $65.4 billion in 1975 -- 19.2 times as much.

In short, retirement payments in general are rising rapidly.

Here's the picture for the total U.S. public payroll -- Federal, state, and local. This includes only amounts for people currently employed, it excludes retirement payments of all types. The total

public payroll was $31 billion in 1952, and is estimated at $174 billion in FY 1975. Defense accounted for just over half the payroll in 1952, but 23% of it in 1975.

Since 1964, the Defense payroll is up $20 billion; other public payrolls are up $91 billion.

Payroll as a percent of total costs -- again, excluding retired pay: the payroll share of the Defense budget has been rising, and now accounts for just about 50% of the budget. As the chart shows, it's been 53% for other units of government for many years.

This chart shows total U.S. payroll costs, public and private, through 1973. The total was $195 billion in 1952, rising to $785 billion in 1973. From prewar 1964 to 1973, the Defense payroll rose $16 billion -- other payrolls grew $404 billion.

From 1968 to 1973, the Defense payroll rises $6 billion, other payrolls by $265 billion.

In short, Mr. Chairman, the Defense payroll growth -- large as it is in the context of the Defense budget -- is dwarfed by these other increases in the public sector and private sector.

Incidentally, Mr. Chairman, with respect to stimulating the economy: total U.S. payrolls were $785 billion in 1973. They will probably be $900 billion or more in 1975. When one speaks of using the Defense budget to stimulate the economy, he should have these magnitudes in mind. $2 billion or $3 billion more or less in Defense spending isn't going to have much of an impact on payrolls of that size, growing as they are at some $60 billion per year.

Next, rates of pay: this chart shows the trend in Defense civil service pay rates and regular military compensation since 1950. Regular military compensation (RMC) includes basic pay, quarters, subsistence, and tax advantage. This is the present statutory basis for determining the amounts of military pay raises.

We've shown a breakdown of RMC, to show separately the pay trend for personnel in the lower grades. These personnel got an increase in basic pay on May 1, 1952, and then didn't get another one until October 1, 1965. That's 13 years plus with no pay raise. They participated in general pay increases starting in October 1965 and then, in November 1971, they received very large increases -- 100% in some instances -- putting them back on the regular military payline. That huge November 1971 increase -- the volunteer force package -- therefore made up for that 13-year hiatus.

Pay raises for higher grade military personnel lagged behind civil service raises through the mid-1960's, but the gap has narrowed since then.

Measured from any point in the 1960's, then, RMC has grown faster than civil service salaries. Measured from FY 1950, RMC has grown less than civil service pay.

This chart compares the Defense pay trend with the most common indices of private-sector compensations, and with state and local government pay. This, again, is on a basis of 1950=100, with data available for the other indices only through FY 1973. For the period as a whole, the increases in Defense pay rates are not as great as others. The growth rate for RMC is steeper than the others from the late 1960's to 1973.

Overall, then, I believe it's fair to conclude that trends in Defense pay rates are well in line with those for the economy as a whole.

The Impact of Inflation

Before closing, Mr. Chairman, I want to touch upon the impact of inflation on the Defense budget, and the methods we use for stating Defense programs in constant prices.

The impact of inflation upon Defense programs, as I have emphasized, has been immense. But, as I've said so many times this morning, it's not

unique. The Department of Commerce maintains data -- deflators -- for the Federal government, and for state and local governments. They have no separate breakout for Defense. We calculate our own.

This chart relates the Commerce deflators to those we have calculated for Defense. Note that our figures are well in line with -- in fact, below -- the Commerce figures for state and local governments, and for the Federal Government as a whole.

In other words, the methods we are using to express the Defense budget in constant prices are the standard, well-accepted approaches.

In this connection, Mr. Chairman, I want also to mention the matter of productivity. Some have observed that we don't adjust our figures to take account of rising productivity, and have implied that we are leaving something out. We aren't leaving anything out. The practice we follow is the standard one for deflating inputs for all sectors of the economy, public and private. There is no point at which such figures are adjusted to take account of productivity, nor would it be proper to make such an adjustment. This matter is covered at some length in my statement, Mr. Chairman, but I wanted to mention it here.

Mr. Chairman, the Defense budget we have submitted provides for a decline in real terms -- manpower and purchasing power. In FY 1975, National Defense will receive the lowest share of the Federal budget, and of total public spending, since FY 1940 -- which closed a year and a half before Pearl Harbor. We are projecting the lowest manpower levels since 1950, and the lowest levels of real purchasing power since FY 1951. The last time we considered budgets smaller than this, in real terms, was before the Communist attack on Korea; before we knew that the Soviets possessed a nuclear weapon; and before we had returned forces to the continent under NATO. Not since that point in our history, Mr. Chairman, have we provided less for Defense than we are proposing now.

DOD/MAP BUDGET SUMMARY

($ BILLIONS)

	FY 1964	FY 1968	FY 1973	FY 1974	FY 1975
CURRENT PRICES					
TOTAL OBLIGATIONAL AUTHORITY (TOA)	$50.6	$75.6	$80.5	$87.1	$92.6
BUDGET AUTHORITY	50.7	76.7	80.4	86.9	92.9
OUTLAYS	50.8	78.0	73.8	79.5	85.8
CONSTANT (FY 1975) PRICES					
TOTAL OBLIGATIONAL AUTHORITY (TOA)	95.4	124.3	95.5	94.6	92.6
BUDGET AUTHORITY	95.4	125.9	95.4	94.4	92.9
OUTLAYS	95.7	127.6	87.6	86.3	85.8

DOD/MAP MANPOWER/SUMMARY

(THOUSANDS)

	1964	1968	1973	1974	1975
END-STRENGTH (JUNE 30):					
MILITARY	2,685	3,547	2,252	2,174	2,152
CIVIL SERVICE	1,035	1,287	998	1,029	1,028
TOTAL DIRECT	3,720	4,834	3,250	3,203	3,180
INDUSTRY	2,280	3,173	1,712	1,708	1,646
TOTAL JUNE 30	6,000	8,007	4,962	4,911	4,826
FISCAL YEAR AVERAGE STRENGTH:					
MILITARY	2,691	3,436	2,324	2,218	2,177
CIVIL SERVICE	1,045	1,276	1,033	1,014	1,019
TOTAL DIRECT	3,736	4,712	3,357	3,232	3,196
INDUSTRY	2,360	3,217	1,743	1,711	1,665
TOTAL AVERAGE EMPLOYMENT	6,096	7,929	5,100	4,943	4,861

FY 1974 ESTIMATES

(TOA, $ MILLIONS)

AVAILABLE FROM APPROPRIATIONS ENACTED TO DATE		$80,773
PAY, RATES AND PAYBACK:		
PAY AND RATE SUPPLEMENTAL	3,415	
PROPOSED LEGISLATION (LATER TRANSMITTAL)	99	
PETROLEUM PRICES	480	
MIDDLE EAST PAYBACK	231	
TOTAL PAY, RATES AND PAYBACK		4,225
SUBTOTAL		84,998
READINESS ADD-ON		2,107
TOTAL FY 1974 ESTIMATES		87,105

REFLECTS THE FOLLOWING REDUCTIONS FROM AMENDED FY 1974 ESTIMATES:	
CONGRESSIONAL REDUCTIONS	3,608
PROGRAM REDUCTIONS TO OFFSET CURRENCY REVALUATION, SUBSISTENCE AND POL PRICE INCREASES	886
PRICE INCREASES ON OTHER ITEMS	3,920
TOTAL REDUCTION IN BUYING POWER	8,414

PRICE INCREASES

	OCTOBER – DECEMBER 1972	JANUARY – MARCH 1974	% INCREASE
WHOLESALE PRICE INDEX (CY 1967=100):			
TOTAL WPI	121.7	152.2	25.0
WPI LESS FOOD	120.1	146.1	21.6
FEDERAL GOVERNMENT PURCHASES OF GOODS AND SERVICES FROM INDUSTRY (EXCLUDES COMMODITY CREDIT CORPORATION) (FY 1964-100):			
TOTAL	135.4	155.9	15.1
EXCLUDING PETROLEUM	135.9	151.4	11.4

EXAMPLES OF UNIT COST INCREASES FOR FY 1974 PROGRAM

ITEM	UNIT COST IN FY 1974 BUDGET	CURRENT UNIT COST	% INCREASE
M60 MACHINE GUN	$ 750	$ 925	23.3
LASER RANGE FINDER FOR M551	30,706	43,970	43.1
ROCKET, 66MM, HEAT	49	56	13.4
CARTRIDGE, 105MM, SMOKE, WP, F/HOW	37	48	29.4
CARTRIDGE, 105MM, HEAT, W/FUZE, F/TANK	73	85	17.4
PROJECTILE, 155MM HE	38	43	12.8
CHARGE, PROPELLING, 155MM, GREEN BAG	13	14	5.9
CARTRIDGE, 152MM, PRACTICE, TP-T	93	98	5.3
TRUCK, CARRYALL	3,456	3,827	10.7
TRUCK, DUMP	7,843	12,941	65.0
TRUCK, STAKE, 2000 GVW	2,857	3,809	33.3
TRUCK, TRACTOR, 6X4	2,857	3,809	33.3
TRUCK, UTILITY	2,424	3,636	50.0
TRUCK, VAN	5,329	9,404	76.4

EXAMPLES OF UNIT COST INCREASES FOR FY 1974 PROGRAM

(CONTINUED)

ITEM	UNIT COST IN FY 1974 BUDGET	CURRENT UNIT COST	% INCREASE
SHELTER, EXPANDABLE	$33,962	$35,849	5.5
TANK & PUMP UNIT	4,222	4,888	15.7
TRUCK, CONCRETE, 8 CU YD	36,666	53,333	45.4
TRUCK, FORK LIFT, DE, PT, RT, 6000 LB	33,809	38,571	14.0
TRACTOR, CRAWLER	65,517	82,608	26.0
BUS, 37 PASSENGER	9,545	10,701	12.1
BUS, INTEGRAL	50,000	67,746	35.5
TRUCK, 1/2 TON PICKUP	2,704	3,730	37.9
TRUCK, 1/2 TON PICKUP 6M	3,912	4,942	26.3
COMPRESSOR, AIR, 600-750 CFM	14,555	17,359	19.3
SANDER, STREET	1,500	2,395	59.7

FY 1974-75 COMPARISONS
(TOA, $ MILLIONS)

	FY 1974 REQUEST		
	AT FY 1974 PRICES	AT FY 1975 PRICES	FY 1975 REQUEST
BASELINE U.S. FORCES:			
READINESS ITEMS	$ 2,107	$ 2,289	
ALL OTHER	74,940	81,331	
TOTAL, BASELINE U.S. FORCES	$77,047	$83,620	$83,372
MILITARY ASSISTANCE (INCLUDES ISRAEL)	3,295	3,571	1,279
INCREMENTAL SOUTHEAST ASIA COSTS	1,599	1,768	1,914
TOTAL, EXCLUDING RETIRED PAY	$81,941	$88,959	$86,565
RETIRED PAY	5,164	5,662	6,014
TOTAL	$87,105	$94,621	$92,579

PAY AND PRICE INCREASES FROM FY 1974 TO FY 1975
($ MILLIONS; EXCLUDES RETIRED PAY)

PAY RAISES	2,234
MILITARY ALLOWANCES (EXISTING LEGISLATION)	283
MILITARY ALLOWANCES (PROPOSED LEGISLATION)	101
PETROLEUM (POL) PRICE INCREASES	597
OTHER PURCHASE INFLATION	3,620
GSA SPACE RENTAL	183
TOTAL	7,018

FY 1975 DEPARTMENT OF DEFENSE BUDGET

SCHEDULING OF FY 1975 APPROPRIATIONS REQUESTS

($ MILLIONS)

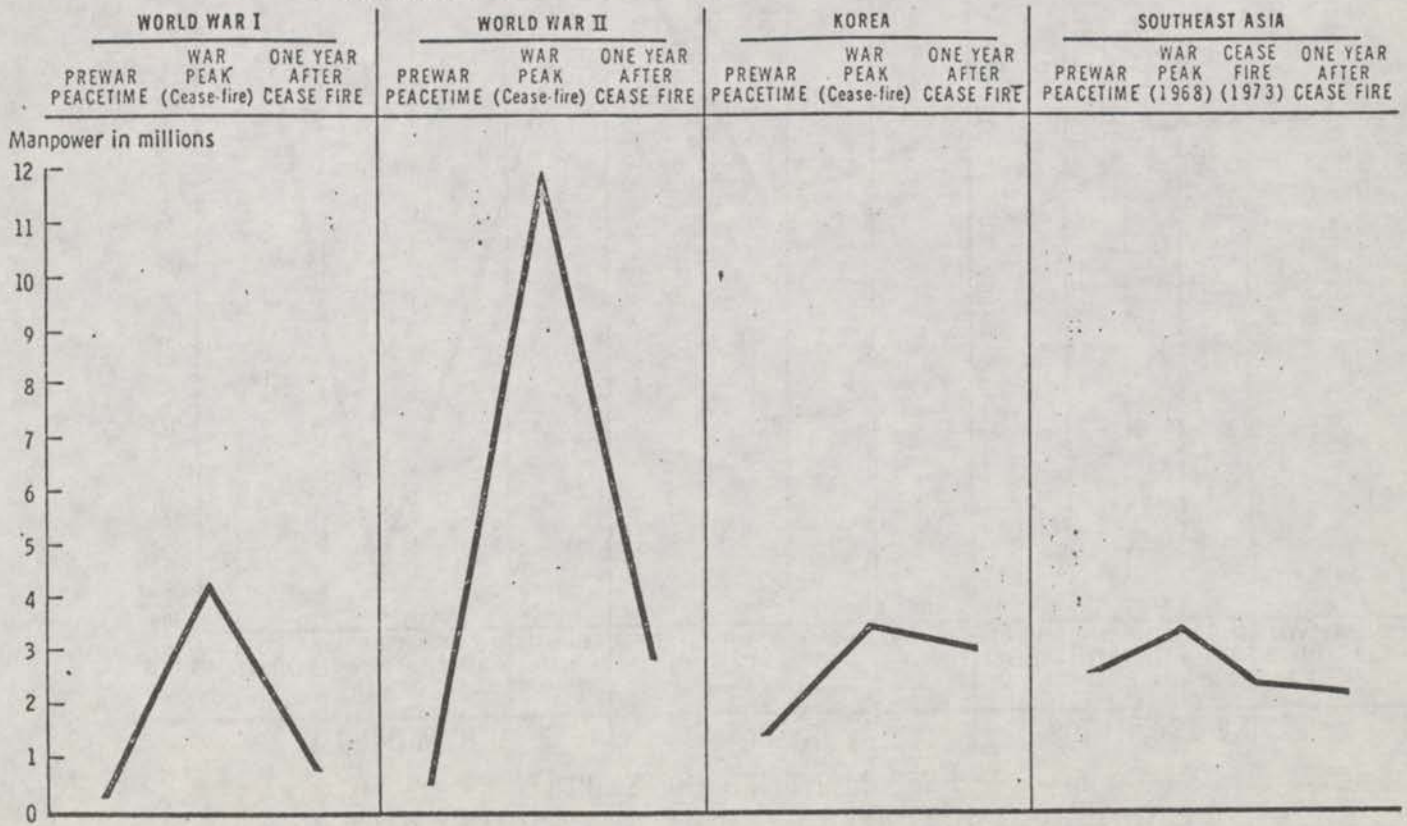
Appropriations (TOA) Requested with Budget Transmittal on January 28 1974		90,337
Appropriations to be Requested at a later date, but included in a Defense Budget, as detailed below		2,242
TO FINANCE FUTURE PAY RAISES:		
1 October 1974 Military and Civilian Pay Raises	(1,525)	
FY 1975 Wage Board Pay Raises	(215)	
Retired Pay CPI Increase	(260)	
Subtotal	(2,000)	
TO FINANCE PROPOSED LEGISLATION NOT YET ENACTED:		
Retired Pay Reform	(55)	
Volunteer Forces	(153)	
Flight Pay	(25)	
Selective Continuation of Officers	(9)	
Subtotal	(242)	
TOTAL BUDGET REQUEST - FY 1975		92,579

SEA WAR COSTS, BASELINE COSTS, AND MANPOWER

(OUTLAYS, $ MILLIONS, MANPOWER IN THOUSANDS)

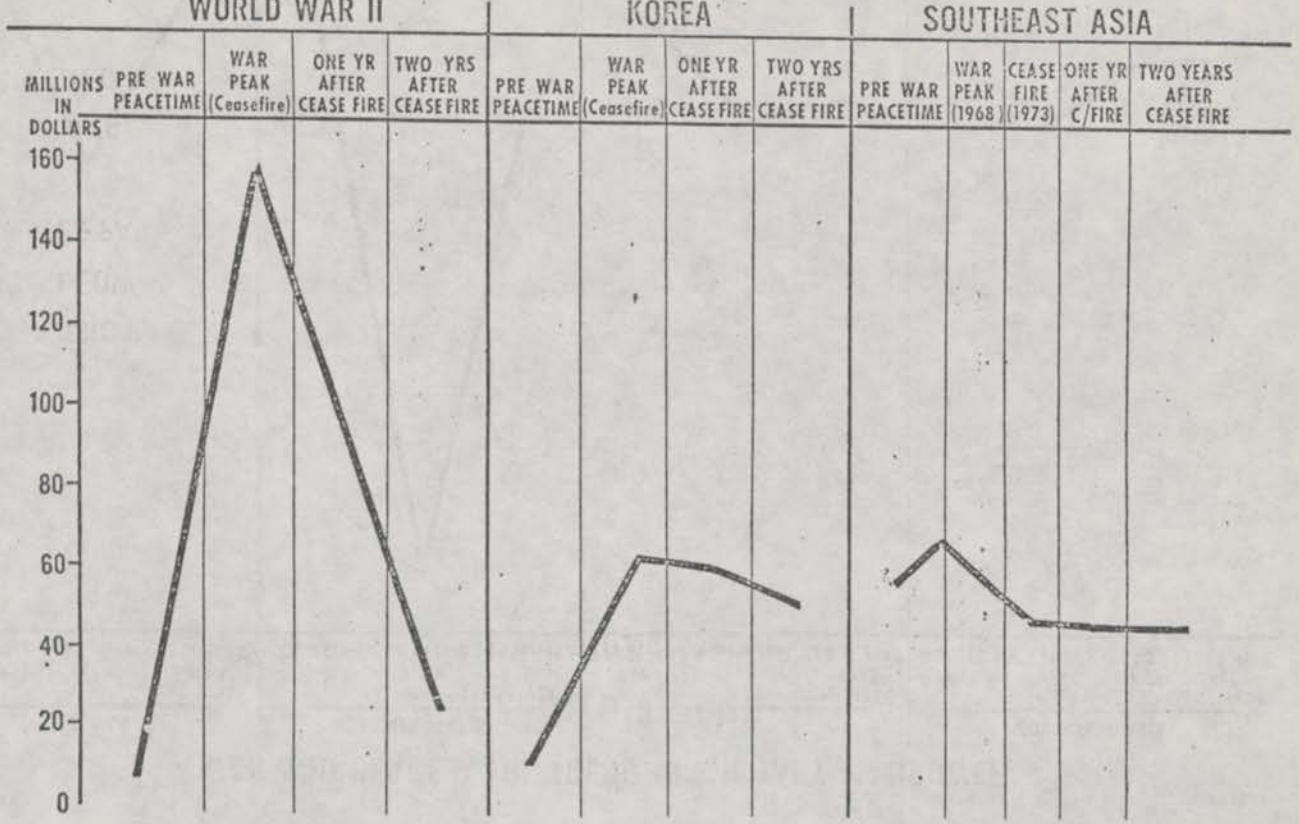
CURRENT PRICES	FY 1964	FY 1968	FY 1975
SEA INCREMENTAL	–	$ 20,012	$ 1,795
BASELINE	$50,786	58,015	84,005
TOTAL, CURRENT PRICES	$50,786	$ 78,027	$85,800
RETIRED PAY	$ 1,209	$ 2,095	$ 6,011
OTHER PAY	20,794	30,536	41,492
PURCHASES	28,782	45,397	38,296
TOTAL, CURRENT PRICES	$50,786	$ 78,027	$85,800
CONSTANT (FY 1975) PRICES			
SEA INCREMENTAL	–	$ 32,459	$ 1,795
BASELINE	$95,667	$ 95,130	$84,005
TOTAL, CONSTANT PRICES	$95,667	$127,589	$85,800
RETIRED PAY	$ 2,362	$ 3,592	$ 6,011
OTHER PAY	45,283	54,650	41,492
PURCHASES	48,021	69,347	38,296
TOTAL, CONSTANT PRICES	$95,667	$127,589	$85,800
MANPOWER (JUNE 30)			
MILITARY	2,685	3,547	2,152
CIVIL SERVICE	1,035	1,287	1,028
TOTAL	3,720	4,834	3,180

WAR AND PEACE -- THE TREND IN MILITARY MANPOWER



WAR AND PEACE- THE TREND IN MILITARY SPENDING

[CONSTANT CY 1958 PRICES]



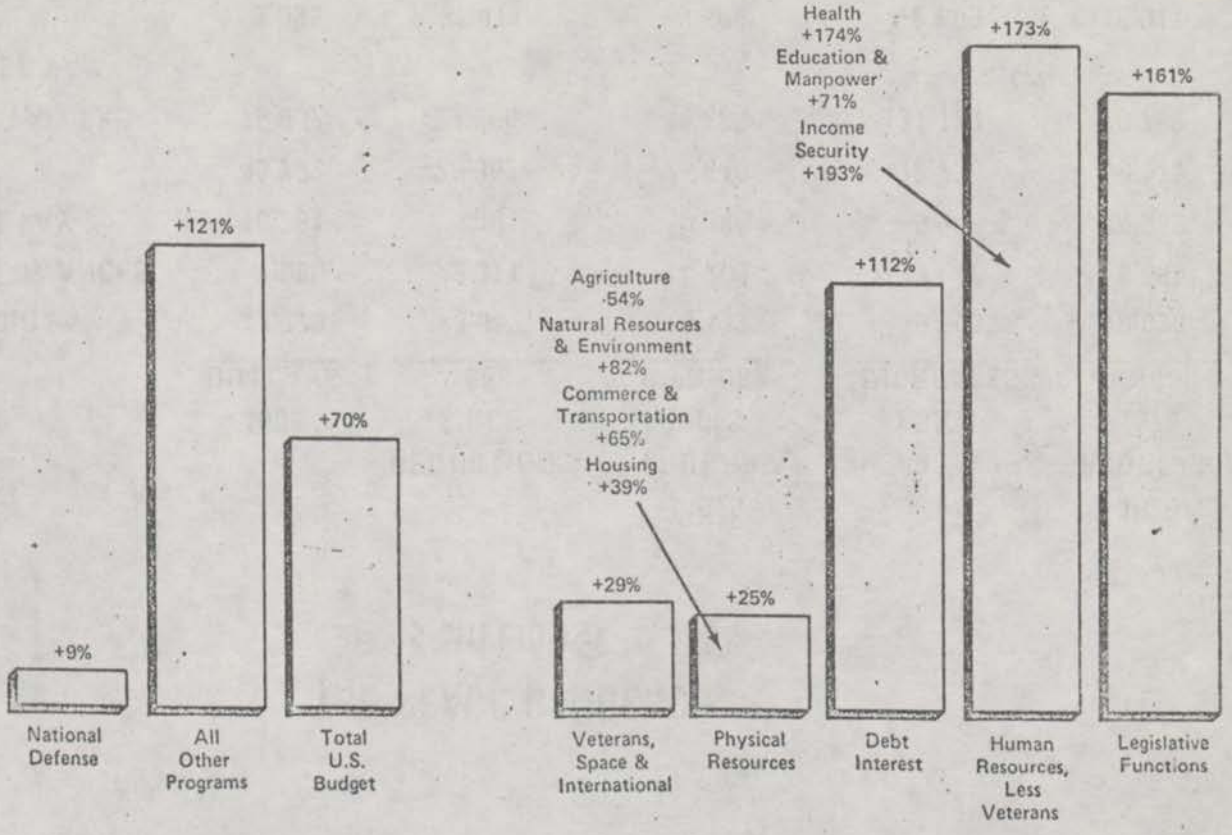
THE PEACE DIVIDEND

($ MILLIONS)

	1968 OUTLAYS	REDUCTIONS SINCE 1968	1975 PROGRAM, 1968 PRICES	PAY & PRICE INCREASES	1975 PROGRAM, 1975 PRICES
MILITARY BASIC PAY	12,779	-3,642	9,137	+9,893	19,030
MILITARY ALLOWANCES	7,080	-2,371	4,709	+1,946	6,655
CIVIL SERVICE PAY	10,281	-901	9,380	+5,549	14,929
PURCHASES	45,792	-20,352	25,440	+13,735	39,175
SUBTOTAL, EX RETIRED PAY	75,932	-27,266	48,666	+31,123	79,789
RETIRED PAY	2,095	+1,411	3,506	+2,505	6,011
TOTAL	78,027	-25,855	52,172	+33,628	85,800

INCREASES IN FEDERAL BUDGET OUTLAYS

FY 1968-75



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CHANGES IN U.S. PUBLIC SPENDING

(IN CONSTANT FY 1969 PRICES)

	FY 1961 TO FY 1968	FY 1968 TO FY 1975
NATIONAL DEFENSE	$+26.5	$-27.6
VETERANS, INTEREST, SPACE, INTERNATIONAL	+5.8	-4.8
SOCIAL & ECONOMIC PROGRAMS	+32.8	+49.4
TOTAL FEDERAL BUDGET	+65.1	+17.0
DEDUCT INCREASE IN GRANTS-IN-AID	-10.3	-17.5
DIRECT FEDERAL PROGRAMS	+54.8	-.5
STATE AND LOCAL GOVERNMENTS	+31.0	+56.3
NET U.S. PUBLIC SPENDING	+85.8	+55.8
NATIONAL DEFENSE	$+26.5	$-27.6
SOCIAL & ECONOMIC PROGRAMS	+53.5	+88.2
VETERANS, INTEREST, SPACE, INTERNATIONAL	+5.8	-4.8
NET U.S. PUBLIC SPENDING	+85.8	+55.8

REALLOCATION OF RESOURCES

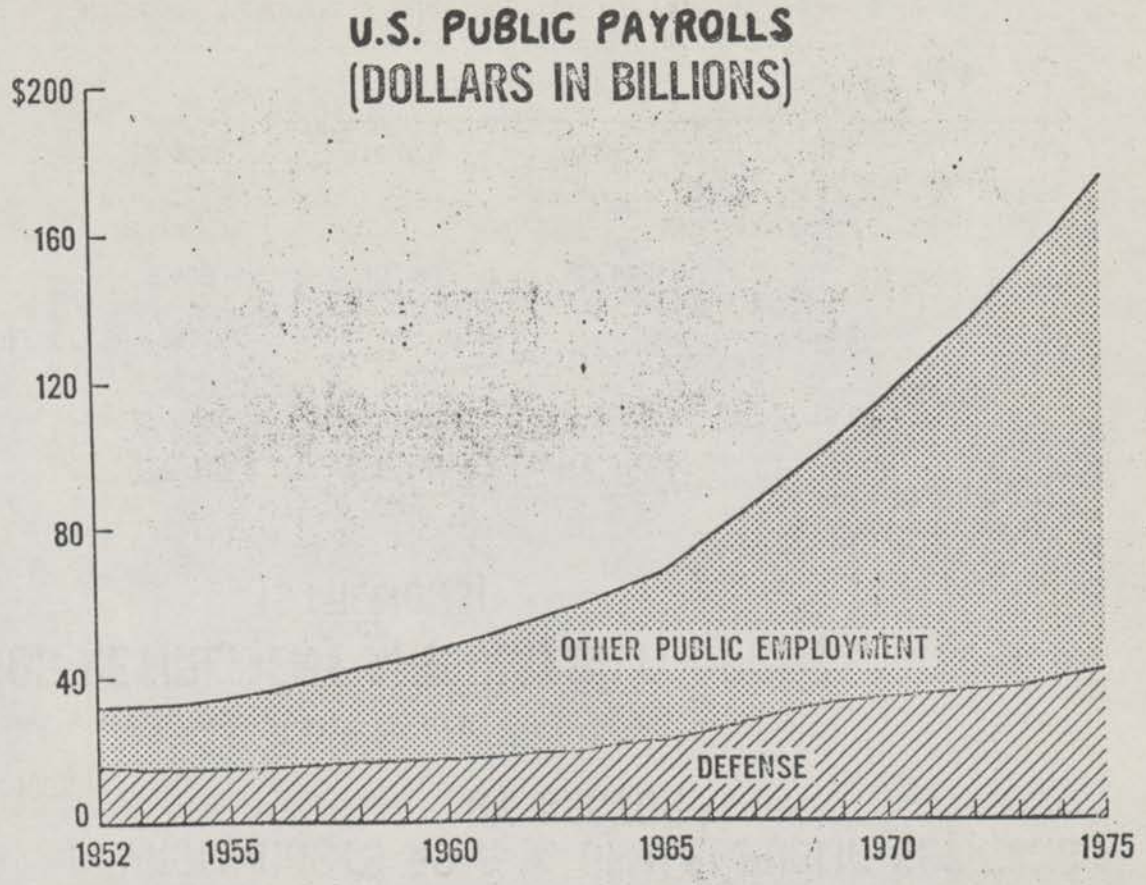
(THOUSANDS OF PERSONNEL, JUNE 30)

	CHANGES		
	1961 TO 1968	1968 TO 1975	1961 TO 1975
U.S. LABOR FORCE CHANGES			
DEFENSE (INCLUDING INDUSTRY)	+2,176	-3,181	-1,005
ALL OTHER	+7,170	+14,453	+21,623
TOTAL U.S. LABOR FORCE	+9,346	+11,272	+20,618
DIRECT PUBLIC EMPLOYMENT			
DEFENSE (MILITARY & CIVIL SERVICE)	+1,302	-1,654	-352
OTHER GOVERNMENTAL (FEDERAL, STATE & LOCAL)	+3,156	+2,879	+6,035
TOTAL, PUBLIC EMPLOYMENT	+4,458	+1,225	+5,683
AVAILABLE FOR PRIVATE SECTOR	+4,888	+10,047	+14,935
TOTAL U.S. LABOR FORCE	+9,346	+11,272	+20,618

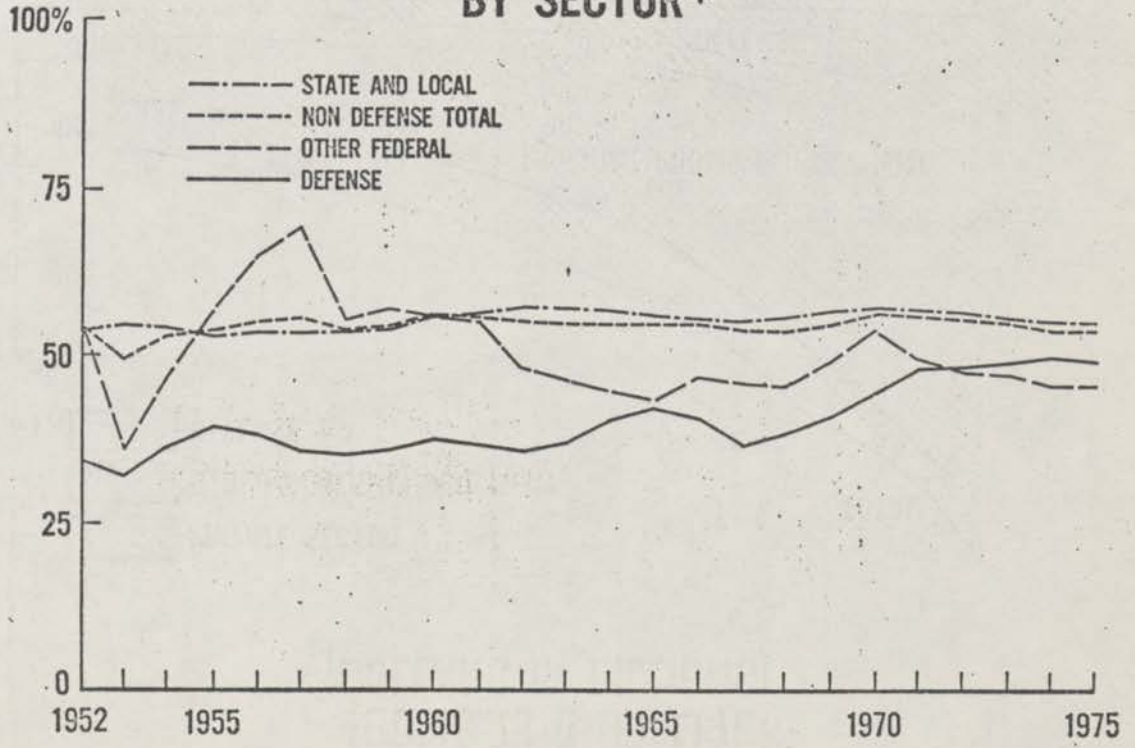
OUTLAYS FOR RETIREMENT AND DISABILITY PROGRAMS

($ MILLIONS)

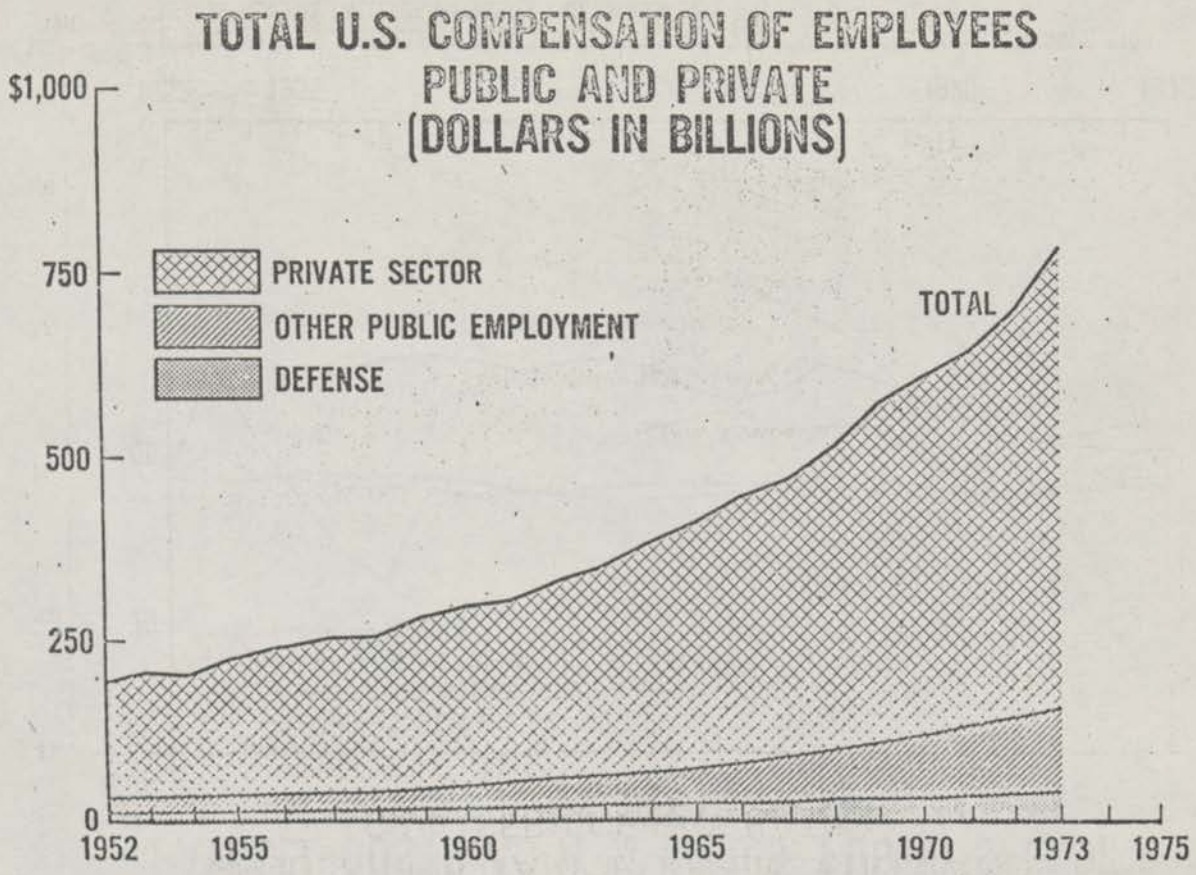
	FY 1954	FY 1964	FY 1975	FY 1975 outlays as a multiple of: FY 1954	FY 1964
Military retirement	$ 386	$ 1,209	$ 6,011	15.6	5.0
Federal Civil Service Retirement	411	1,318	7,245	17.6	5.5
Old age & survivors insurance	3,405	15,285	57,633	–	–
Disability insurance	–	1,341	7,801	–	–
Total, OASI/DI	3,405	16,626	65,434	19.2	3.9


U.S. PUBLIC PAYROLLS
(DOLLARS IN BILLIONS)
$200
160
120
80
40
0
1952
1955
1960
1965
1970
1975
OTHER PUBLIC EMPLOYMENT
DEFENSE

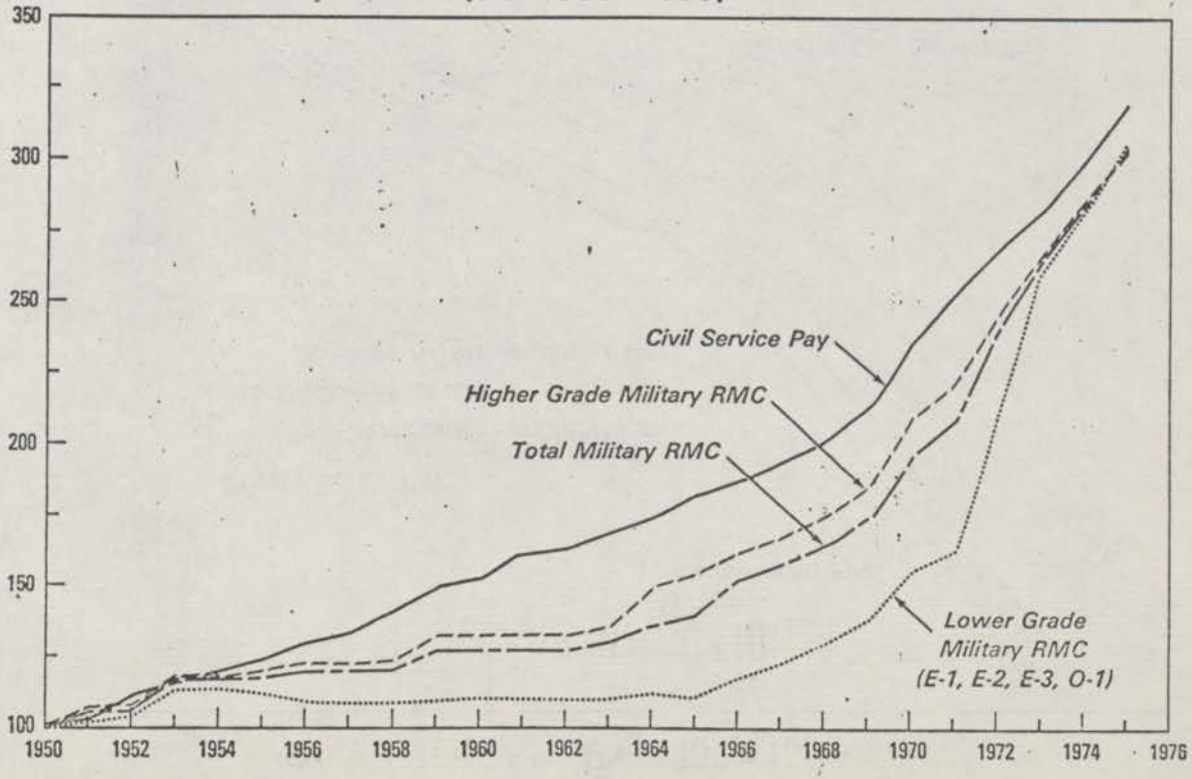
PAYROLL COSTS AS A % OF U.S. PUBLIC SPENDING BY SECTOR*

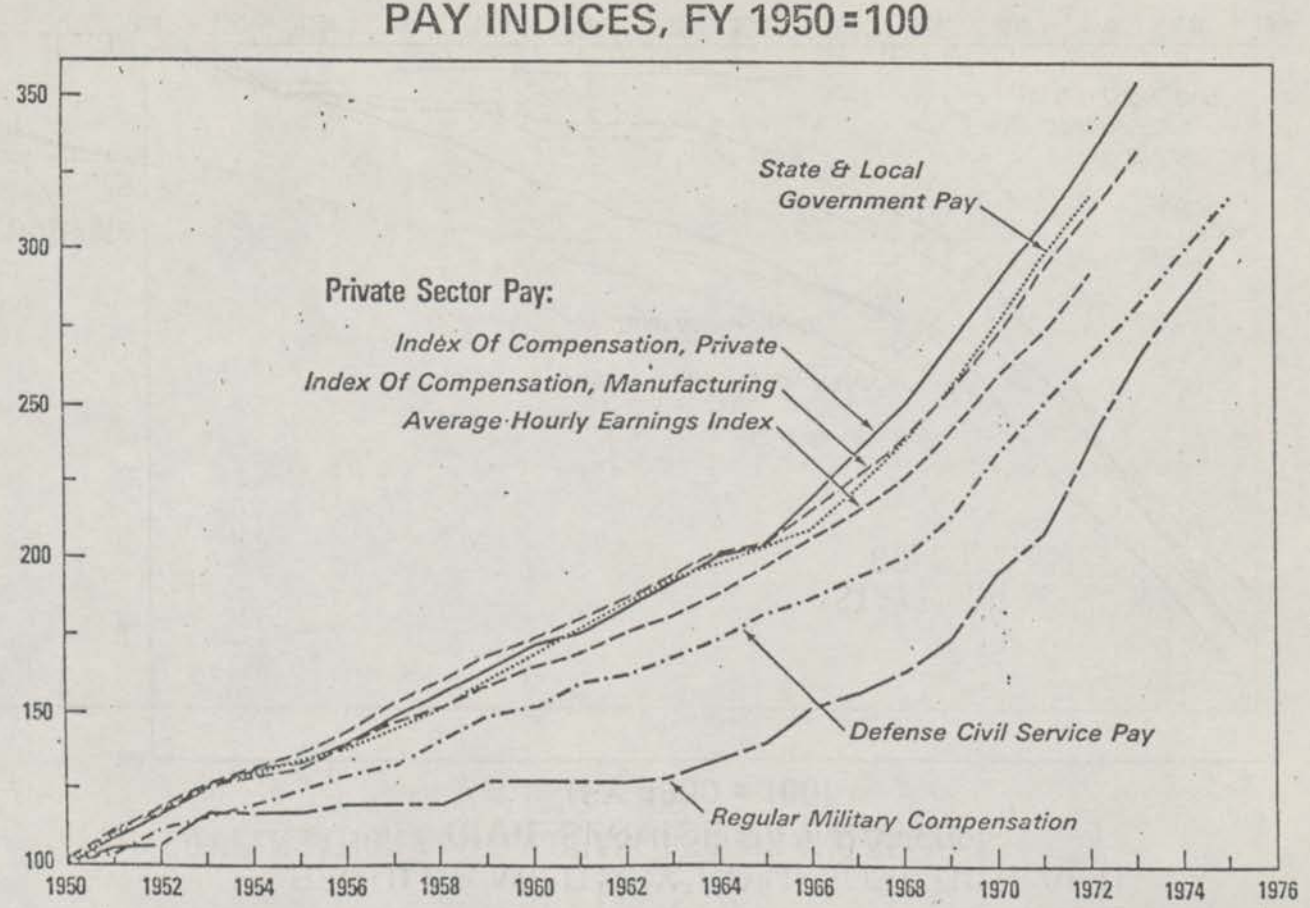


* PUBLIC SPENDING EXCLUDES PAYMENTS TO RETIREES (MILITARY, CIVIL SERVICE, SOCIAL SECURITY, ETC.) HEALTH BENEFITS, WELFARE PAYMENTS AND SIMILAR TYPE PAYMENTS


TOTAL U.S. COMPENSATION OF EMPLOYEES
PUBLIC AND PRIVATE
(DOLLARS IN BILLIONS)
$1,000
750
500
250
0
PRIVATE SECTOR
OTHER PUBLIC EMPLOYMENT
DEFENSE
TOTAL
1952
1955
1960
1965
1970
1973
1975

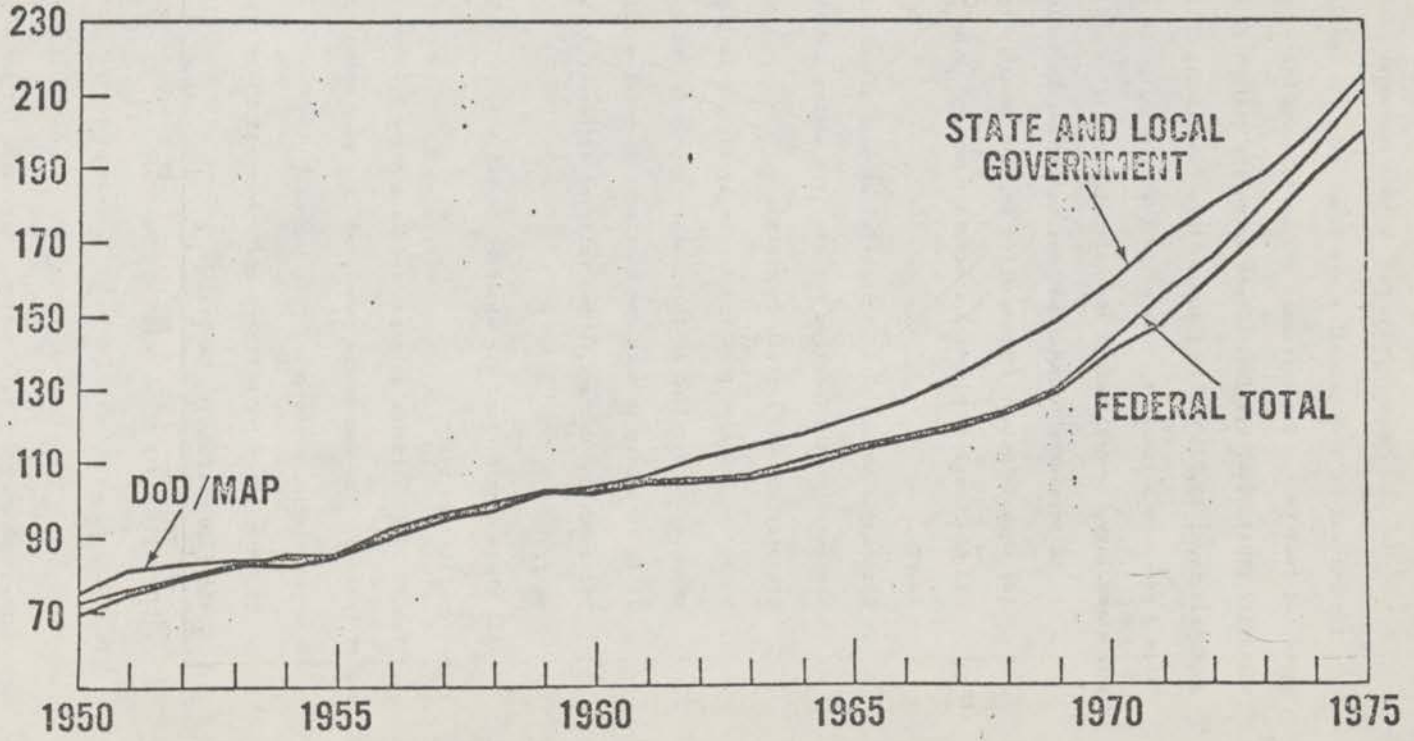
REGULAR MILITARY COMPENSATION AND CIVIL SERVICE PAY RATES (FY 1950 = 100)




PAY INDICES, FY 1950 = 100
350
300
250
200
150
100
1950
1952
1954
1956
1958
1960
1962
1964
1966
1968
1970
1972
1974
1976
State & Local Government Pay
Private Sector Pay:
Index Of Compensation, Private
Index Of Compensation, Manufacturing
Average Hourly Earnings Index
Defense Civil Service Pay
Regular Military Compensation

DEFLATORS

COMPENSATION AND PURCHASED GOODS AND SERVICES
(CY 1958 = 100)



CHRONOLOGY OF THE FY 1974 ESTIMATES

The current FY 1974 estimates are lower than the amended estimates presented last year. The decreases are as follows: Total obligational authority (TOA), $447 million; budget authority (BA), $727 million; appropriations, $1,273 million; and outlays (spending), $555 million. Table 3 presents a track of these estimates in detail. In considering this chronology, several points are quite important:

- It is necessary to note that our budget totals include (a) amounts actually transmitted to, and formally requested of, the Congress plus (b) contingent amounts to be transmitted later.
- Our budget totals also include (a) amounts presented or to be presented to the Congress for specific action and (b) trust fund transactions and certain receipts.
- While the DoD Appropriation Act is by far the largest, substantial amounts are provided in three other appropriation costs.
- It is necessary to note the distinctions between TOA, BA, appropriations and outlays, which followed different paths through the year.

All these distinctions are observed in Table 3, which makes it a rather complicated table.

The FY 1974 estimates as presented in January 1973 are shown at the top of Table 3. The amendments submitted last year added $2,472 million to our appropriation estimates. This included:

- $2,400 million for military assistance ($2,200 million for Israel and $200 million for Cambodia).
- $72 million for Naval petroleum reserves.

In addition, we submitted a budget amendment to redistribute funds among the military functions' appropriations to cover higher POL costs, subsistence, and currency revaluation. Increases for these purposes were offset by cutbacks in other areas, including the falloff in Southeast Asia

costs and by application of $168.9 million of the contingency estimate.

This brought our total FY 1974 estimates in CY 1973 to the amounts shown in the third section of Table 3: $87,553 million in TOA; $87,655 million in budget authority; $87,358 million in appropriations; and $80,055 million in outlays.

The Congress made reductions as shown in the table -- $3,608 million in TOA; $4,159 million in BA; and $4,349 million in appropriations. The FY 1974 outlay effect of these reductions, we estimate, is $1,550 million.

Following Congressional action, further changes took place in the Executive Branch. These include:

- For appropriations covered by the DoD Appropriation Act:
  - A net increase of $94.5 million in TOA, including $53.4 million financed by free assets (shelf sales) and $44.2 million by Section 735 transfers, less $3.1 million transferred to GSA for space rental.
  - A decrease of $3.1 million in BA, transferred to GSA for space rental.
- For appropriations covered by Military Construction and Family Housing Appropriation Act, reductions of $10 million in BA largely due to cutback in the homeowners' assistance program.
- For trust funds and receipts, a net increase of $374 million in budget authority, due largely to a re-estimate of transactions through the Military Assistance Sales Fund.
- For all accounts, outlays were re-estimated, in line with the changes outlined above and to incorporate the latest available information. This produced a net reduction of $448 million in estimated outlays.

That brings us to the FY 1974 supplemental appropriation request of $6,233 million, of which more than half relates to amounts previously included in the contingent estimate. And that, in turn, brings us to the current estimates for FY 1974, shown at the bottom of Table 3.

That is a long and involved explanation of the FY 1974 budget chronology. A simplified explanation, in terms of TOA, is as follows:

- We estimated total requirements at $87.5 billion last year.
- Congress cut $3.6 billion, leaving $83.9 billion.
- We now propose to add $2.8 billion for readiness and $.4 billion to cover pay raise costs above those forecast last year -- a total of $3.2 billion.
- $83.9 billion plus $3.2 billion equals our total current request of $87.1 billion.

FY 1974-75 PROGRAM COMPARISONS

As indicated in Table 3 and the preceding discussion, the FY 1974 estimates themselves have been subject to many changes since they were first presented in January 1973. There has been a considerable amount of misunderstanding on this score, which in turn has led to confusion in making FY 1974-75 comparisons. For the record, I would like to address these matters in some detail.

These comparisons can be made in three ways. First, it is necessary to compare the current FY 1974 estimates with those submitted last year. As I will demonstrate, several developments occurred in FY 1973 which added greatly to our requirements. In terms of buying power, our current FY 1974 request is far below the level of a year ago.

Second, we can compare the FY 1974 amounts actually appropriated in CY 1973 with the request for FY 1975. In terms of TOA, $80.8 billion was made available for FY 1974 in the last session (that is, in CY 1973), and $92.6 billion is requested for FY 1975. This difference of $11.8 billion, however, can be accounted for by pay and price increases. It is necessary to recall, for example, that the FY 1974 appropriations to date reflect January 1, 1972 pay rates. The FY 1975 estimates reflect the January 1 and October 1, 1973 pay raises for the full year, plus 9 months of an anticipated October 1, 1974 pay increase.

Third, we should compare the FY 1974 totals with the FY 1975 totals.

Before we can make any of these comparisons, it is necessary to consider the impact of inflation from the fall of 1972 to the fall of 1973, or, roughly, during calendar year 1973.

Inflation During Calendar Year (CY) 1973

General Price Increases. Many critical analyses of the FY 1974-75 Defense estimates have ignored completely the impact of purchase inflation on Defense programs over the course of CY 1973. This oversight is a serious one. The FY 1974 estimates were presented originally in January 1973, and actually finalized late in 1972. For the bulk of DoD purchases -- we will get more specific in a moment — the FY 1974 estimates were presented in terms of fall 1972 prices; the Congress acted upon the estimates in these terms; and additional amounts have neither been requested nor provided to cover inflation since the fall of 1972. For these purchases, the original FY 1974 estimates reflect fall 1972 prices; the revised (current) FY 1974 estimates reflect fall 1973 prices. The difference in prices over this 12-month period is therefore of considerable importance in appraising the overall Defense budget level. And inflation over this period was very sharp. During the course of CY 1973, the wholesale price index rose 14.8% (excluding farm products, which rose even more). That kind of an increase, applied to Defense purchases as a whole (about $40 billion) would amount to some $6 billion in a single year.

The inflation applicable to Defense purchases is different (somewhat lower) than that. It is necessary to consider briefly how DoD budget estimates are priced. For goods and services purchased from industry, DoD budget estimates are priced as follows:

- Estimates for major weapons, military construction, and family housing construction include anticipated future price inflation.
- Estimates for other purchases (about two-thirds of total purchases) are based on prices in effect when the estimates are prepared.

The original FY 1974 estimates were prepared in the fall of 1972. The revised estimates now before the Congress were prepared in the fall of 1973. In October-December 1972, the noncompensation component of the Department of Commerce deflator for Federal purchases of goods and services (excluding POL) was 135.9 (with FY 1964=100). In October-December 1973, it had risen to 148.1. Thus prices rose 9% from the time the original FY 1974 estimates were prepared until their revision. This 9% increase would apply to about two-thirds of DoD purchases.

For major weapons, the estimates involved estimates of inflation from the fall of 1972 until FY 1974, and from there out to FY 1976-78, depending upon the length of production time. When the FY 1974 budget was originally prepared, DoD expected the purchase index to be at 139.0 for FY 1974, with FY 1964=100. The FY 1974 index (excluding POL) was estimated at 149.6 for the FY 1975 budget. Thus, the FY 1974 index is 7.6% greater (139 versus 149.6) now than it was when the FY 1974 estimates were originally prepared. For FY 1975, the index is now 12.7% above last year's forecasts. Beyond 1975, DoD was projecting annual inflation rates at 3% last year, and at 5% now. Cost estimates would thus be 7.6% higher to start with, and would grow faster, under the current set of conditions. Over the production cycle, total costs would be 13-16% greater.

Thus, about two-thirds of DoD purchase prices were up 9% from fall 1972 to fall 1973. For the remaining one-third, estimates would be up 13-16%. On a weighted basis, this would be a 10% increase for all DoD purchases, excluding POL.

The Congress, as noted in Table 3, approved $80.7 billion in FY 1974 TOA during FY 1973. Setting aside pay, statutory allowances, subsistence, POL, and the $2.2 billion for Israel, the remainder is $39.2 billion. This $39.2 billion was submitted to the Congress and approved by the Congress based on fall 1972 pricing, in the manner described above.

And this amount was subject to a 10% inflation rate (described above) over the course of calendar year 1973, or an increase of $3.9 billion.

Specific Price Increases. The foregoing figures suggest a 10% increase (setting aside POL and subsistence) in purchase prices over the course of FY 1973. This can be demonstrated in more specific terms. Average stock fund prices rose 10.7% from FY 1972 to FY 1973, excluding POL and subsistence. This would approximately measure the difference in the pricing base between the original FY 1974 estimates (prepared in the fall of 1972) and the revised estimates (prepared in the fall of 1973).

Moreover, a recent analysis of the Navy stock fund, based on actual experience through December 31, 1973, shows that prices for ships parts and electronics items are running 14.1% higher than the FY 1973 standard prices. At the moment, we cannot say that this experience is representative of results for all stock funds. If it were, though, then we are actually paying 26.3% (10.7% plus 14.1%, compounded) more for stock fund items than was included in the original FY 1974 estimates.

Table 4 presents a listing of certain procurement items as presented in the FY 1974 column of the FY 1974 budget (January 1973) compared to the prices actually being paid. These examples, covering relatively simple items are illustrative of the kinds of price increases we have been experiencing. They show this price impact in more specific terms than the overall inflation indices. As noted, these indices show a 10% price increase overall for the FY 1974 program approved by the Congress in the last session, which amounts to $3.9 billion.

Present FY 1974 Estimates Compared with Earlier Estimates

Recognizing the impact of inflation over the course of CY 1973, let us trace our FY 1974 estimates in terms of TOA, beginning with the estimate of $85,025 million as presented in January 1973.

	(FY 1974 TOA, $ Millions)
. Beginning, then, with the January 1973 estimate	$85,025
. Amendments were submitted for Israel ($2,200 million), Cambodia ($200 million), and Naval Petroleum Reserves ($72 million)	+2,472
. A further amendment was submitted covering added POL costs ($459 million), currency revaluation ($376 million) and subsistence ($107 million)	+942
. The preceding increases were largely offset by decreases, submitted in the same amendment	-886
. The Congress reduced the amended estimates by	-3,608
. Pay and price increases, net, cost more than planned last year	+257
. Added amounts are required for POL prices ($480 million) and the Middle East payback ($231 million) covered in the current supplemental request	+711
. The remainder of the readiness supplemental amounts to	+2,107
. Free assets, Section 735 transfers, etc., amount to	+85
The current FY 1974 request is	$87,105

In addition, FY 1974 buying power has been reduced by $3,920 million due to inflation, as set forth in the preceding section.

The revised FY 1974 estimates, everything included, are thus $6,222 million below the estimates submitted last year, in terms of buying power. This reduction is the net of:

	(TOA, $ Millions)
. Program reductions to offset currency revaluation and price increases, per budget amendment	$ -886
. Congressional reductions	-3,608
. Free assets, Section 735 transfers, etc.	+85
. Buying power cutbacks due to inflation	-3,920
Subtotal	-8,329
. Balance of readiness supplemental	+2,107
Net reduction	$-6,222

The current FY 1974 request, in terms of buying power, is $1,813 million below the program approved by the Congress in the last session: the net of a $3,920-million program reduction due to inflation and the $2,107-million readiness item.

FY 1974 Appropriations to Date Compared with FY 1975 Estimates.

As noted earlier, DoD has $80,773 million in FY 1974 TOA available through action of the Congress in CY 1973. The FY 1975 TOA request is $92,579 million. The FY 1975 request is thus some $11.8 billion greater than Congress has so far provided for FY 1974. This is accounted for by differences in pay rates and price levels between the two sets of figures, as shown in Table 5. This table shows amounts which are not covered by FY 1974 appropriations to date, and which are reflected in the FY 1975 estimates.

The first group of items involve the pay raises and rate increases covered by the FY 1974 supplemental requested for these programs, $3,415 million. Some of these items are in effect for only six months of FY 1974. All of these items are reflected in the FY 1975 estimates for a full 12 months, and the FY 1975 cost is $4,341 million.

The FY 1974 supplemental includes $480 million to cover a January 1, 1974, increase in POL prices. These rates will be in effect for a full 12 months in FY 1975, for an increase of $960 million from the amount appropriated for FY 1974.

As noted earlier, the FY 1974 appropriations to date provide $39.2 billion in purchase TOA (this excludes all pay, subsistence, and statutory allowances, POL, and aid to Israel). Purchase inflation, with these exclusions, added 10% to our prices for the FY 1974 program, as noted. The factor for the FY 1975 program would be 11%, due to the effect of lead times on major systems. 11% of $39.2 billion is $4,312 million.

The FY 1975 estimates include $2,242 million in contingent items, detailed in Table 5.

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All told, then, there is $11,855 million for pay and price increases reflected in the FY 1975 estimates which are not covered by amounts appropriated to date for FY 1974.

In terms of buying power, the FY 1975 request is almost identical to the FY 1974 program approved by the Congress in CY 1973.

Comparing FY 1974 and FY 1975 Totals.

In comparing the estimates for FY 1974 as a whole with those for FY 1975 as a whole, it is necessary to note three points.

- The $2.2 billion provided for FY 1974 for aid to Israel was a one-time item, and should be set aside.
- The FY 1974 readiness supplemental ($2.1 billion), which excludes POL and the Israeli payback) should be shown separately.
- With respect to pay and price increases, the relevant comparison involves increases from FY 1974 as a whole to FY 1975 as a whole. To this point, we have been discussing inflation over the course of CY 1973. We must now shift the focus to a comparison of FY 1974 pay and price levels with those estimated for FY 1975.

The first two points are clear enough. We need to present the specifics, though, on pay and price assumptions. Here is what was assumed in the FY 1975 estimates:

- A 10/1/74 pay raise for military personnel (8.06% basic pay) and the classified civil service (6.2%).
- Wage board increases of 6.2% from FY 1974 to FY 1975.
- $260 million for a retired pay cost-of-living increase (CPI). This would cover a CPI of from 5% to 6%, effective sometime between August 1 and October 1, 1974.
- $242 million for proposed personnel legislation (included in the FY 1975 contingency estimate).
- No other changes in statutory military allowances.
- Subsistence at the January 1, 1974 rates ($2.28 per day).
- POL prices at the February 1, 1974 rates.

. For all other purchases, an increase of 4.6% from FY 1974 to FY 1975.

The last item — the 4.6% increase -- is the important one for purposes of our discussion at this point. The other items may be too high or too low. In any event, we will request additional funds after pay raise and CPI amounts are known, as legislation is enacted, and as we gain experience in POL and subsistence pricing. These items, in practice, have been priced and financed separately.

For all other purchases, however, we will have to cover, within the FY 1975 estimates as submitted, whatever inflation occurs from FY 1974 to FY 1975. For purposes of presenting our budget in constant prices, we had estimated this inflation at 4.6%. This was consistent with the general economic forecasts in the fall of 1973. We now have information for two additional quarters -- those ending December 31, 1973 and March 31, 1974. It is plain that our earlier forecasts were far too low. We now have data for 9 months of FY 1974 and merely annualizing the most recent prices would produce a large increase from FY 1974 to FY 1975 as a whole. Assuming that the rate of inflation will slacken a bit, we now project price increases at 9.2% from FY 1974 to FY 1975.

With this as background, then, here is a table comparing FY 1974 and FY 1975 estimates:

	(TOA, $ Millions)			
	FY 1974	FY 74 in FY 75 Prices		
	in Current Prices	At 4.6% Inflation[a/]	At 9.2% Inflation[a/]	FY 1975 Estimates
Baseline US Forces:				
Readiness Supp., ex POL & Payback	2,107	2,204	2,289	
All other	74,940	79,917	81,331	83,372
Total, Baseline US Forces	77,047	82,121	83,620	83,372
Military Assistance (incl. Israel)	3,295	3,449	3,571	1,279
Incremental SEA Costs	1,599	1,720	1,768	1,914
Total, ex Retired Pay	81,941	87,290	88,959	86,565
Retired Pay	5,164	5,662	5,662	6,014
Total	87,105	92,952	94,621	92,579

a/ Except for POL and subsistence.

The FY 1974 column in current prices shows the full FY 1974 request, including $6.2 billion in supplementals. The $2.1 billion readiness item is shown separately. The remainder ($3.4 billion for pay and rate changes, $.7 billion for POL prices and payback) is merged in the other figures. The two middle columns show the FY 1974 request in FY 1975 prices under two purchase price assumptions: 4.6%, as used earlier by DoD, and 9.2% as discussed above. This is the only variable. Assumptions as to pay and allowances are the same in these two columns.

Looking at the totals first, the Defense budget drops in real terms from FY 1974 to FY 1975 even under the 4.6% pricing assumptions. Setting aside retired pay, there is a drop of from $725 million (at 4.6%) to $2.4 billion (at 11%).

Some have observed that the FY 1974 aid to Israel should be treated as a separate item in such comparison. This can be done by using the line for "total baseline US forces." On this basis there is:

- A $1,251-million increase on a 4.6% inflation assumption ($82,121 million to $83,372 million). This, as set forth in the DoD Posture statement, is where DoD thought it was coming out.
- A $248-million decrease on a 9.2% inflation assumption ($83,620 million to $83,372 million).

Finally, some have observed that the FY 1973 readiness item should be handled separately. This can be done by using the "all other" line near the top of the table. There is then an increase either way: $3.5 billion at 4.6% inflation or $2 billion at 9.2% inflation. DoD does not accept this as a proper basis of comparison, nor does it accept the further step that some critics have taken: adding the readiness item to the FY 1975 request. For reasons set forth earlier, DoD believes this item is amply justified for financing in FY 1974. While these needs were not foreseen when the original FY 1974 estimates were developed in the fall of 1972, neither were the large price increases that were to come in the next 12

months. These funds are needed in FY 1974, can be justified in FY 1974, and have been formally requested for FY 1974. If such amounts are to be shifted between fiscal years to prove a point, a game would begin which would have no rules and no end. For example, it could be argued -- with some merit -- that funds included in the FY 1975 request should have been requested in FY 1974 -- or FY 1973, FY 1972, and so on, in that the funds are necessary to meet shortages dating from those years. On this basis, one could shift billions back and forth, and prove almost anything he wanted to prove.

Using the 9.2% column, one could make these observations:

- Should the Congress approve the readiness supplemental for FY 1974, then FY 1974 funding for baseline US forces would be $83,620 million in constant prices. The FY 1975 request ($83,372 million) would be $248-million below the FY 1974 program.
- Should the Congress deny the readiness supplemental, then FY 1974 funding for baseline US forces would be $81,331 million in constant prices. The FY 1975 request ($83,372 million) would be $2 billion above the FY 1974 program.

If one uses a realistic inflation rate, and resists the urge to juggle funds between years, the latter is about the largest increase that could be ascribed to the DoD budget from FY 1974 to FY 1975. And this, it should be emphasized, is a result obtained after considerable netting and setting aside. Measuring the totals from one year to another, the Defense budget is down in real terms from FY 1974 to FY 1975.

Summary. Our current FY 1974 estimates, setting aside the item for aid to Israel, are $6.2 billion below the original estimates for FY 1974 in terms of buying power. This is the net of $3.6 billion in Congressional reductions and $4.7 in reductions necessary to absorb price increases, offset in part by $2.1 billion requested for readiness.

Recognizing the impact of inflation over the course of CY 1973, our current FY 1974 program -- all supplementals included — is a net of $1.7 billion lower, in real terms, than the program approved by the Congress.

In constant prices, the funding for baseline U.S. forces (that is, excluding military assistance) declines by $248 million from FY 1974 to FY 1975. Setting aside the FY 1974 readiness item in toto, the FY 1975 request for baseline U.S. forces is $2 billion above the FY 1974 amount.

FY 1974 SUPPLEMENTALS

Next, Mr. Chairman, I would like to take up the matter of our supplemental request for FY 1974. The total request is for $6,233 million, including the following:

	(TOA & Budget Authority, $ Millions)	
Pay and rate changes		$3,415
Force readiness:		
POL price increases	$ 480	
Middle East payback	231	
Other force readiness	2,107	
Total force readiness		2,818
Total supplemental requests		$6,233

Details are presented in Table 6.

The amounts for pay and rate changes are nearly the same as the amounts included in the contingency estimates when the FY 1974 budget was presented originally in January 1973. A detailed reconciliation is presented in Table 7.

The force readiness package includes $480 million for POL price increases and $231 million for the Middle East payback -- the latter the result of increased operating costs during the crises, plus the costs of material furnished for which full compensation at replacement cost was not included in the military assistance appropriation.

Setting aside these pricing and payback items, the remainder of the readiness supplemental is $2,107 million. This includes the following items:

- $1,397.5 million to improve the capability of our forces to respond to a crisis, in terms of material, support and operations. These funds are needed to increase inventory levels, upgrade support capabilities and improve operational flexibility. This includes increases in ammunition stocks, purchases of readiness-related short-supply items, and reductions in maintenance backlogs for ships, aircraft, vehicles and other equipment.
- $168.7 million to increase the airlift capability of our C-5 and C-141 forces. The conflict in the Middle East highlighted the need for greater capability in these areas.
- $516 million to accelerate the modernization of weapons and forces whose capabilities are less than desired, in view of the performance of the Soviet-supplied forces during the Middle East conflict. The bulk of these funds are needed for efforts in missile, radar, surveillance and electronic countermeasure systems. It is necessary to accelerate introduction of improved weapons, improve systems in inventory through quick-fixes, and to develop new capabilities. These funds would be used to accelerate procurement of TOW antitank missiles, M60 tanks, armored personnel carriers, KC-130 tanker aircraft, P-3C antisubmarine warfare aircraft, and improved air munitions. Also, modifications will be made to tactical aircraft to enable them to cope offensively and defensively with new developments in the Soviet air defense potential. We shall also pursue the development, or accelerate development, of infrared and laser technologies.
- $24.8 million for long lead-time items to maintain the two-boat option in the TRIDENT program. Without maintaining the option for delivering two submarines in FY 1979, we might find ourselves seriously lagging in this sensitive program area.

In short, then, our supplemental requests include $4.1 billion for clear-cut, fact-of-life pay and rate changes, and $2.1 billion for the

badly-needed readiness items just summarized. It is especially important that we place this latter item in proper perspective.

It is necessary to recognize, first of all, that change is a fact of life in Defense programs. These changes result from an almost-infinite variety of causes: flareups somewhere in the world; storms, fires, or acts of God; strikes; production problems; unanticipated technological difficulties, or technological breakthroughs; actions by the Congress, or other governments; new intelligence data; unforeseen operational problems; price changes; emergent safety hazards; and so on. The list is virtually endless. The Department began work on the FY 1974 budget early in calendar year 1972. The last ship contracts for that budget will be let by June 30, 1978; for aircraft and other weapons, the date is June 30, 1976. A similar span applies to any budget.

Over such a span of years, there are normally many changes -- both increases and decreases. The Department normally handles increases by falloffs or cutbacks elsewhere. If one were to look at any single Defense budget over a period of years, he would find many increases -- offset by decreases.

In the present situation, the necessary increases are much greater than normally occur in a short span of time. This is due in part to the fact that our materiel position has eroded badly, because of inflation, longer lead-times, and other factors. The war in the Middle East highlighted the fact that our readiness had slipped, in addition to the fact that developments in combat showed a need to reorient and accelerate certain of our efforts.

What resulted, then, was $2.1 billion in additional requirements -- far above what would normally occur over the span of a single year. At the same time, our ability to meet these requirements within available funds (by transfers or reprogramming) has been wiped out by inflation. As noted earlier, purchase inflation amounted to 10% from the time the original FY 1974 estimates were developed to the revised estimates now

before the Congress. Setting aside POL and subsistence, this is a $3.9-billion drop in buying power. (We also reduced programs by $886 million through a budget amendment, to offset earlier POL and subsistence price increases and currency revaluations; these reductions, however, were possible because of a falloff in Southeast Asia war costs.) The inflation over this period, Mr. Chairman, is the highest for the past quarter century. It obviously has bitten deeply into the amount of material we can buy with a given number of dollars. In normal times, we might have been able to cut back on quantities in some areas to meet newly-arising high-priority needs. Under today's circumstances, we are having to cut back on quantities simply to stay within available dollars.

We were faced, then, with additional requirements far above what we would have experienced in a normal year, and, at the same time, a sharp reduction in our ability to meet such requirements within available funds. Under normal circumstances -- speculating for a moment about "what might have been" -- our new requirements would have been much less, and our ability to finance them within available resources much greater. We probably could have financed such requirements by a combination of reprogrammings, transfers, and -- if it were needed -- a "zero supplemental." This was, unfortunately, impossible under the conditions we actually faced.

I want to emphasize these points, Mr. Chairman, not only in connection with our current requests but for the future as well. A large part of the FY 1975 requests now before you are priced at fall 1973 prices. That's the guideline, and we have followed it. We will be paying July 1974 to June 1975 prices, though, for annual accounts, and prices through 1977 or 1979 for procurement accounts. With inflation as it has been, it's inevitable that those dollars requested for FY 1975 will buy far less, in real terms, than shown in our detailed presentations. This may, in itself, cause additional requirements for funds. At the

very least, it will make it difficult for us to finance new requirements within available funds.

Mr. Chairman, there has been a great deal of critical comment regarding our FY 1974 supplemental requests, the readiness portion in particular. In such comments, the impact of inflation rates -- which, as I noted, are at a quarter-century high -- have simply been ignored. In addition, these critics overlooked what was learned during the war in the Middle East, which was considerable. But we cannot slam the door on reality in that fashion. We must recognize, I believe, that a great deal has happened in the past year and a half that requires increases in Defense programs for FY 1974.

FY 1975 PROGRAM

NEXT, Mr. Chairman, I would like to summarize our FY 1975 program and the FY 1973-75 program trend. This table presents a summary:

(Fiscal Years, TOA $ Millions)

Current Prices	1973	1974	1975	Changes 1973 to 1975
Baseline U.S. forces	69,769	77,047	83,372	+13,603
Military assistance	1,120	3,295	1,279	+159
Incremental Southeast Asia costs	5,171	1,599	1,914	-3,257
Subtotal, excluding retired pay	76,060	81,941	86,565	+10,505
Military retired pay	4,392	5,164	6,014	+1,622
Total TOA, current prices	80,452	87,105	92,579	+12,127
Constant FY 1975 Prices				
Baseline U.S. forces	82,514	83,620	83,372	+858
Military assistance	1,314	3,571	1,279	-35
Incremental Southeast Asia costs	6,363	1,768	1,914	-4,449
Subtotal, excluding retired pay	90,191	88,959	86,565	-3,626
Military retired pay	5,311	5,662	6,014	+703
Total TOA, constant FY 1975 prices	95,502	94,621	92,579	-2,923

As the table shows, TOA rises in current prices from $80.5 billion in FY 1973 to $87.1 billion in FY 1974 and $92.6 billion in FY 1975 -- a growth of $12.1 billion in two years. There is a $1.6-billion increase in military retired pay. Setting that aside, the increase is $10.5 billion.

The lower portion of the table shows the picture in constant prices: a decrease of $3.6 billion from FY 1973 to FY 1975, excluding retired pay. Thus pay raises and price increases from FY 1973 to FY 1975 are enough to convert a $10.5-billion increase in current prices into a $3.6-billion decrease in real terms, a net impact of $14.1 billion. Put another way, the FY 1973 program, excluding retired pay, was $76.1 billion. As shown in the table, that program would have cost $90.2 billion at FY 1975 pay rates and price levels. This $14.7 billion in pay and price increases from FY 1973 to FY 1975 includes the following:

	(TOA, $ Millions)
Pay increases: January 1973 pay increases (in effect for six months of FY 1973 and all 12 months of FY 1975); October 1973 pay increase; October 1974 pay increase; wage board (blue collar) pay increase	4,598
Increased subsistence costs and other military allowances (existing legislation)	743
Petroleum price increases	1,698
Inflation on other purchases (8.6%) from FY 1973 to FY 1974 and 9.2% estimated from FY 1974 to FY 1975)	6,722
Space rental to GSA (required starting in FY 1975)	183
Proposed legislation (military allowances)	187
Total	14,131

In constant prices, then -- in terms of real buying power -- the Defense budget declines from $90.2 billion in FY 1973 to $89 billion in FY 1974 and to $86.6 billion in FY 1975, setting aside retired pay.

Within these totals, you will note that there are several significant shifts. Incremental war costs drop sharply from FY 1973 to FY 1975. The FY 1975 program here includes $1,450 million for support of South Vietnamese forces and $463 million for U.S. forces -- largely the air units based in Thailand. The rise in Southeast Asia costs from FY 1974 to FY 1975 results from a sharp increase in support of the South Vietnamese, more than offsetting a drop in U.S. force costs and the

transfer of Laos to the regular MAP program. The reason for this increase in support for South Vietnam is threefold: first, the cease fire has not worked as well as we had hoped and, therefore, South Vietnamese military consumption is well above what was anticipated; second, unlike FY 1974, there are far fewer prior year funds available to meet FY 1975 requirements; and finally, in FY 1974 we fell behind in replacing South Vietnamese equipment losses and greater efforts are required in FY 1975.

The Military Assistance Program (MAP) rises sharply in FY 1974 because of the program for assistance to Israel. The FY 1975 program in constant prices returns to about the FY 1973 level.

While baseline U.S. force costs decline from FY 1974 to FY 1975 in constant prices, both years are above the FY 1973 level. As shown, there is a net $858-million increase for baseline U.S. forces from FY 1973 to FY 1975. Since there is a cutback in baseline manpower, amounting to $450 million from FY 1973 to FY 1975, there is a $1.3-billion increase for baseline materiel. This involves increased emphasis in these three areas:

- Augmented force readiness and accelerated modernization — more adequate levels of munitions, combat and support equipment, and supplies; improved maintenance of equipment and facilities; construction and upgrading of key facilities; and moving more rapidly to equip our forces with the most modern equipment. We have sharply increased Navy operating funds, to bring the fleet up to an adequate level of readiness. In addition, we propose to build the patrol frigate, sea control ship, and DLGN-38. There are significant increases for ground munitions; M-60 tanks, personnel carriers, and other tactical vehicles; and for TOW, Dragon, and other anti-tank weapons. In the aircraft area the F-14 and F-15 programs are advancing, as well as the A-4, A-10, and P-3C.

. Expanded airlift capability -- work on a stretched C-141; design of modifications and tooling for a wide-body cargo-convertible aircraft for the Civil Reserve Air Fleet (CRAF); and better crew ratios and spares support.

. Strategic program initiatives, including production funds for TRIDENT and AWACS and a greatly-enhanced R&E effort to provide more flexibility and future force options. We are proposing:

.. Improvements to Minuteman guidance to increase accuracy.

.. Improvements to the Minuteman III re-entry vehicle (MK-12A) to double its yield.

.. Development of a capability for doubling the number of re-entry vehicles on Minuteman III.

.. Improvements in the Minuteman communications system to increase flexibility of retargeting.

.. Initiation of development of a very accurate maneuvering re-entry vehicle for ICBM's and SLBM's.

.. Acceleration of development efforts to permit choosing of a new ICBM.

.. Initiation of a cruise missile development program providing for both air-launched and submarine-launched versions. (The submarine launched missile will also have a tactical variant.)

.. Initiation of a development program for subsystems for the TRIDENT missile having a capability of providing significantly improved accuracy.

.. Initiation of a conceptual design for a new submarine, slightly larger than the present 640 class, capable of carrying the TRIDENT I missile. This will cost considerably less than the present TRIDENT submarine and will be suitable for Atlantic deployment.

.. Initiation of development of a new strategic tanker.

STATUS OF ESTIMATES AND CONTINGENCIES

Contingent Items in FY 1975 Budget

The contingent items for FY 1974 and FY 1975 are detailed in Table 2. These items amount to $98.6 million and $2,242 million respectively. Except for these contingent items, our entire FY 1974 and FY 1975 estimates have been formally transmitted to, and requested of, the Congress. With that exception, the justification books now before you are complete.

I want to emphasize the FY 1975 contingent amount in particular, Mr. Chairman -- $2,242 million. The largest part of this is for a pay raise for military personnel and the civil service general schedule which we anticipate will take effect on October 1, 1973. The contingent amount covers other developments, as noted, which have not yet taken place. We include this full contingent amount -- $2.2 billion -- in the Defense totals in the President's budget, and in all summary presentations to the Congress, the press, and public. The purpose is to show, as best we can, the complete amounts to be required for Defense for the upcoming year. We cannot, as of now, formally request these appropriations of the Congress. They include estimates for pay raises which have not yet occurred -- the effective dates and percentage amounts have not been finally determined. Part of the contingency is for legislation not yet enacted; it may be enacted at a later date than anticipated, in revised form, or not at all.

Our best estimate, though, was that $2.2 billion would be required for FY 1974, over and above the amounts formally transmitted to the Congress to date, to cover these contingencies. And this is included in the budget totals we have been discussing here today. My reason for emphasizing this particular point is that there has been considerable confusion regarding similar items in conjunction with the FY 1974 estimates submitted a year ago. I would like the record to be clear, then, that our FY 1975 estimates -- the $92.6 billion in TOA, for

example -- include $2.2 billion for contingent items not yet transmitted to the Congress. Our best judgment is that funds in this approximate amount will be needed for the purposes shown. They will be requested, in my judgment, primarily by means of supplemental estimates submitted in the next session.

We have no intention to hide these amounts. We have emphasized them, in fact. I hope that the public record is clear on this point, so that no one can express surprise if supplemental requests of some $2.2 billion are presented in the next session for these purposes.

The pay increases shown in Table 2 would take effect under existing legislation. The $1,525 million for the October 1, 1974, pay raise assumes a 6.2% increase for the classified civil service and an 8.06% increase in military basic pay. This estimate assumes no change in the statutory basis for military pay raises.

The President has proposed legislation, and it has been introduced, which would modify the statutory formula in this area. If this legislation is enacted, the cost of the military pay raise would be lower than we have projected.

The $215 million for FY 1975 wage board (blue collar) increases assumes increases of 6.2% from FY 1974 to FY 1975.

The $260 million for the military retired pay cost-of-living increase would cover a raise of from 5% to 6% effective between August 1 and October 1, 1974. We now know that there will be an increase effective July 1, 1974. We estimate an increase of 6.3%, which would cost $340 million in FY 1975. Unless the rate of inflation slackens drastically, there will probably later be another cost-of-living increase in FY 1975. It now appears that our estimate in this area is low by some $250 million for FY 1975 as a whole.

The legislative items include $63.6 million in FY 1974 and $153 million in FY 1975 for the volunteer force. These items are:

- Enlistment bonus ($9 million in FY 1974 and$75.1 million in FY 1975) -- this would provide for a bonus not to exceed $3000 to a person who enlists for a period of at least four years in a skill designated as critical, or who extends his initial period of active duty to a total of at least four years in a skill designated critical.
- Selective re-enlistment bonus ($3.9 million in FY 1974 and $2.7 million in FY 1975) -- this would provide for a bonus not to exceed $12,000, determined by multiplying the number of years of additional obligated service (not to exceed six years) times six months of basic pay to which the individual was entitled at the time of his discharge or release. Four conditions must be met before the individual becomes eligible for the bonus.
- Medical officer special pay ($4.8 million in FY 1974 and $11.3 million in FY 1975) -- this would provide 4-step special pay for medical and dental officers, ranging from $100 to $350 monthly and tied to years of active service of less than two years to over ten years.
- Medical officer variable incentive pay ($45.9 million in FY 1974 and $63.9 million in FY 1975) — this would provide for up to $15,000 each year for a medical officer who has no further military obligation. Would replace continuation pay currently authorized.

These items have passed both houses of Congress. The conferees have met and reported.

The item for flight pay ($22 million in FY 1974 and $25 million in FY 1975) would provide for adjustment of existing monthly rates of incentive pay for hazardous duty as a crew member, to increase the rates of pay for junior personnel and decrease the rates of pay for senior personnel. It is intended as a retention incentive to junior personnel. This item has passed the House.

Continuation pay ($9 million in FY 1975) would provide for selective continuation (or involuntary retirement) of regular commissioned officers (1) in grade of O-5 who have twice failed selection for promotion to O-6; or (2) have served more than four years in the temporary/permanent grade of O-6. It would provide for lump-sum transition payment of $4,000 to those officers who are not continued from a grade in which they are serving, or to which they have been selected at the time this proposal is enacted into law. This item has not passed either chamber.

Military retirement system reform ($13 million in FY 1974 and $55 million in FY 1975) would make changes in the methodology by which non-disability retirement is computed, and also provide for payment to those members who must be separated prior to qualifying for an immediate retirement annuity or short of completing a full military career. This item has not passed either chamber.

Other Contingencies

In addition to the foregoing items, for which we have tagged specific amounts in the contingent estimate, I should mention four other areas that would fall under the general heading of pricing. We have not included specific estimates for these items.

Subsistence Rates. Our revised FY 1974 estimates incorporate the rate of $2.28 per man per day which went into effect on January 1, 1974, and this rate is reflected in our FY 1975 estimates. Under existing law, and with price trends as they obviously are, the rate in FY 1975 would be much higher than $2.28. However, as I noted earlier, legislation is under active consideration which would modify the statutory formula for increasing military basic pay. If such legislation is enacted, then our estimate for increases in basic pay (described above) would be too high, and this overage would offset a good part of any rise in subsistence costs. While subsistence costs will probably rise sharply, then, there is a good possibility that the impact upon our overall estimates will be relatively slight.

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POL Prices. We developed the FY 1975 estimates on the basis of the prices which took effect on February 1, 1974 (we had planned for them to be in effect on January 1, 1974). Under the budget guidelines, we had to show these rates -- that is, the rates actually scheduled at the time our estimates were prepared -- in our detailed budget submissions. Higher rates will take effect on April 1, 1974. These rates will add at least $700 million to our costs for FY 1975. Considering what has happened to POL prices over the past several months, no one can project prices for the next year or more with a great deal of confidence. Our best estimate, as of now, is that product prices will stabilize at the April 1974 levels. If this occurs, the POL increases will add at least $700 million to the amounts included in our FY 1975 estimates, and we will have to cover them by budget amendments and/or supplementals.

Currency Revaluation. This caused a serious problem last year, because the dollar devaluations beginning in February 1973 had not been foreseen in our FY 1974 estimates. After reaching a low point last summer, the dollar has strengthened considerably. This, again, is an area where one cannot speak with certainty. Our best guess, though, is that currency revaluation will not result in any additional costs for us in FY 1975 and, in fact, there might be some savings. We propose to assess this matter in a few months.

General Purchase Inflation, Aside from POL and Subsistence. This, too, is an area of high uncertainty. If the rate of inflation slackens somewhat in the near future, then prices paid for the FY 1975 program will be about 9% higher than the budget estimates. If inflation continues as it has for another few quarters, the impact would be 12%. If the rate of inflation increases, the impact would be greater still. The impact, in terms of buying power, is in the range of $3 billion to $6 billion. This degree of purchase inflation is far beyond the bounds of our previous experience, Mr. Chairman. For example:

- In the last peacetime period -- say, FY 1958 to FY 1964 -- our purchase prices increased, on the average, about 7/10 of 1% (.7%) per year.
- During the war buildup period, FY 1964-68, the rate of inflation was 2.3% per year.
- From FY 1968 to FY 1973, the inflation rate averaged 4.6% per year.

The foregoing figures cover all purchases, including POL and subsistence. We have set these aside here. Even excluding these items for which the rate of inflation is exceptionally high, we are considering inflation rates two to three times as great as in the FY 1968-73 period — which itself was far above earlier levels. Moreover, the FY 1968-73 inflation was cushioned somewhat by the fact that our programs were falling sharply through that period. The problem is considerably different today, when we are trying to maintain a stable program and, in some instances, to enhance our materiel position.

We can't be as specific as we would like to be about the impact of this inflation upon our programs. In part, this results from the timing of the recent inflationary surge, the sequence of events which led up to it. The rate of inflation on Defense purchases was relatively mild through calendar year 1972 (3.4%), and we did not anticipate any sharp rise as we were preparing the original FY 1974 estimates. The rate of inflation tripled in calendar year 1973, but the prognosis last fall (as we were preparing the FY 1975 estimates) was for a slackening, to a 4-5% rate. Instead, it has worsened. We have not had time, then, to comprehend fully what the so-called double-digit inflation will do to our program.

Further complicating the picture is the fact that the impact is widespread, cutting across huge numbers of line items and transactions. It is relatively easy to measure the impact for certain high-volume commodity areas, such as POL and subsistence. It is much more difficult

to measure the Defense-wide impact in areas such as spare parts, supplies, travel and transportation, contractual maintenance, and utility services. Even for major items (aircraft, ships, missiles, and construction projects, for example), we have not yet been able to measure the impact as precisely as we would like. This results in part from the fact that cost changes may reflect a mixture of program changes (quantity, design, schedule, etc.) and inflation, and in part from the fact that we do a great deal of contracting in the latter part of the fiscal year. We have only recently been proceeding to contract on many items in the FY 1974 program.

However, the impact of this inflation -- unanticipated and unfinanced -- has begun to be felt. We are finding, as we proceed to contract in the procurement items in our FY 1974 program -- that the dollars in the budget are insufficient for the quantities contemplated. We can foresee problems on stock fund cash. The stock fund standard prices are insufficient to cover the rising purchase prices. As we raise stock fund prices to cover this, the customer appropriations will experience a drop in buying power. Further, our operating rates have slipped. We believe that these factors will intensify in the months ahead. Without additional financing, our inventory positions will slip below planned levels, and we will not be able to sustain operating tempos.

Mr. Chairman, I emphasize this last area -- purchase inflation, aside from POL and subsistence -- because it poses a very large potential problem in considering our FY 1975 estimates, and possibly for the future as well. In the past, we have operated on the basis that inflation in this area could be absorbed. That was not entirely unreasonable when inflation was low -- for example, less than 1% a year in the late 1950's and early 1960's. It is an entirely different matter today. For FY 1974, we had to absorb this inflation. If we are required to absorb it in FY 1975 as well, I am deeply concerned about the cumulative effect upon

our materiel position. At the moment, I cannot propose any remedies, but I want to flag this as a major problem area.

Let me summarize, then, Mr. Chairman, regarding the contingency situation. We included an estimate of $2,242 million to cover pay raises and legislative contingencies. If we include added subsistence costs in this part of the package, a good estimate -- based on what is known now, and guessing that some of the legislation may not be enacted or may be enacted late -- would be a total added requirement of some $2.5 billion. To this, we must add about $700 million for POL price increases, bringing the total to about $3.2 billion. Considering these elements, then, our total FY 1975 requirements are about $1 billion above the estimates presented in February 1974.

Over and above this, there is the matter of inflation on purchases generally. This could have an impact of $3 billion to $6 billion on our FY 1975 program, depending on the course of inflation in the months ahead.

WAR COSTS AND THE PEACE DIVIDEND

Next, Mr. Chairman, I would like to take up the matter of Southeast Asia (SEA) war costs, the impact of the cease-fire in our estimates, and the peace dividend. With the end of American combat involvement in Southeast Asia, it is important that this matter be covered fully for the record. For this purpose, we have included 11 tables -- numbered 8 through 18 -- to which I will refer in this part of my statement.

I must emphasize that all war-cost figures, on any basis for any year, are estimates. There are no accounting records covering the cost of the war, nor could there be.

I will be using FY 1964 as the prewar peacetime benchmark, Mr. Chairman. This is the last year for which our budget included nothing for incremental war costs. FY 1964 is also near the FY 1962-65 program average.

	FY 1962-65* Average	FY 1964
TOA in constant FY 1975 prices, $ millions	$95,634	$95,382
BA in constant FY 1975 prices, $ millions	95,210	95,420
Outlays in constant FY 1975 prices, $ millions	93,255	95,667
Military manpower (000)	2,696	2,691
Civil service manpower (000)	1,047	1,045
Total manpower (000)	3,743	3,736

*FY 1965 figures are baseline only.

Thus, FY 1964 is reasonably representative of the Defense programs we were maintaining for the years before American combat involvement in Southeast Asia.

War Cost and Baseline Summary

SEA war costs and baseline costs for all years are presented in Table 8. This table shows full and incremental costs in terms of TOA, budget authority (BA) and outlays, in current prices and in constant (FY 1975) prices. Note that incremental war costs (in FY 1975 prices) were over $30 billion in FY 1968 and FY 1969. By FY 1973, when the cease-fire came, they had fallen to $6 billion. For FY 1975, they are

Note that the FY 1975 baseline program, in constant prices, is below the prewar (FY 1964) level.

Overall Budget Trend

Table 9 shows outlays by category and manpower for selected years. This covers the entire Defense budget, war costs and all. In this connection, Mr. Chairman, it is important to emphasize that every dollar in the Defense budget goes to one of two places:

- For pay and allowances of personnel -- civil service and military, active, reserve and retired.
- For purchase of goods and services from industry.

As to pay, we had 3,720,000 personnel, military and civil service, before the war, as shown in Table 9. This rose to 4,834,000 in

June 1968 -- the wartime peak -- and is estimated at 3,180,000 for June 1975. Thus manpower at June 1975 will be:

- 1,654,000 (34%) below the 1968 wartime peak.
- 540,000 (15%) below the prewar (1964) level.
- At the lowest level since the fall of 1950 (see Table 11).

Thus, Mr. Chairman, all of the manpower added for the war -- all that and 540,000 more, in fact -- has been removed from the Defense program.

That leaves purchases. As shown in Table 9, purchase outlays in constant prices were $48 billion in FY 1964, $69.3 billion at the FY 1968 war peak, and are estimated at $38.3 billion in FY 1975. Thus purchases in FY 1975 will be:

- $31 billion (45%) below the 1968 wartime peak.
- $9.7 billion (20%) below the prewar (1964) level.
- At the lowest level since FY 1951, before the Korea buildup took hold.

In brief, then, Mr. Chairman, all the manpower and all the purchasing power added for the war -- all that and a good bit more -- has been removed from the Defense budget. The peace dividend has been paid in full.

Putting it together -- manpower and purchasing power together -- the Defense budget is at the lowest level since FY 1951, as shown in Table 10. Our general purpose forces have been reduced not only below the prewar level but to the lowest levels since 1950, as shown in Table 12. While our strategic forces are up over the past decade, Mr. Chairman, I believe it is important to note that -- in constant prices -- TOA for strategic forces in FY 1975 is only about one-third of the level of the late 1950's and early 1960's, and is about half the prewar (1964) level. This is shown in Table 13.

The Cease-Fire

At this point, I would like to answer some specific questions regarding war costs, the cease-fire and the peace dividend. First, why didn't the Defense budget fall sharply after the cease-fire? Answer: because it fell sharply before the cease-fire. Tables 14 and 15 present a large part of the story.

In World War I, World War II, and Korea, the cease-fires came with war production and military manpower at peak levels. Note in Table 14, for example, that:

- In World War I, military manpower rose from a prewar level of 179,000 to 4.3 million on Armistice Day -- then fell by 3.6 million (84%) in the next year.
- In World War II, military manpower was 334,000 in 1939, and 1.8 million in June 1941. It was 11.9 million on V-J day, and fell by 8.9 million (85%) in the next year.
- During Korea, military manpower rose from 1,460,000 in 1950 to 3.6 million at the cease-fire, then fell by 253,000 (7%) in the next year.
- For Southeast Asia, military manpower rose from 2,685,000 prewar to 3,547,000 at the war peak, then fell to 2.3 million at the time of the cease-fire and -- in the next year -- fell 150,000 or 7%.

Quite obviously, our experience in Southeast Asia was unique. When the cease-fire came, manpower was not only far below the wartime peak -- it was far below the prewar level and, indeed, at the lowest point for 22 years. Moreover, the 1968 military manpower peak was the lowest peak for any of the wars in this century, as Table 14 shows. When the cease-fire came, we had far less men under arms than at any comparable period in the past -- about half the 1918 level, for example, or one-fifth of the manpower of V-J day.

We find a similar pattern in Table 15, which shows National Defense spending in constant (CY 1958) prices. Note that spending was at a peak when the cease-fire came in earlier wars. It had dropped one-third below the peak -- and was indeed below the prewar level -- by 1973.

I believe these points make it clear, Mr. Chairman, why the Defense budget did not decline sharply after the cease-fire in Southeast Asia, as it had following previous wars.

Program Reductions and Pay/Price Increases FY 1968-75

Other obvious questions are: where did the peace dividend go? If we were spending $20 billion in the war in FY 1968, and less than $2 billion in FY 1975, why didn't Defense spending fall? Why is Defense spending actually higher in FY 1975 than it was in war-peak FY 1968? One answer to these questions is presented in Table 16.

Outlays were $78 billion in FY 1968 -- $75.9 billion if we exclude retired pay, as shown. We have made sharp program reductions since FY 1968. For example, military manpower (average strength) has been reduced by 1,259,000, or 37%. Considering the grades involved, and the war-related items, this reduction is equivalent to $3,642 million in basic pay and $2,371 million in allowances, at FY 1968 rates.

Similarly, civil service manpower is reduced by 257,000 (20%). Much of this reduction involved foreign nationals. This cut is equivalent to $901 million, at FY 1968 rates.

Purchases, in real terms, have been reduced by 44%, or $20.4 billion at FY 1968 prices.

At FY 1968 prices, then -- excluding retired pay -- the cutbacks made are worth $27.3 billion. At FY 1968 prices, our FY 1975 program would cost $48.7 billion. There would thus have been a highly-visible peace dividend.

We can't, of course, pay FY 1968 prices. We have to pay FY 1975 prices. The fourth column of Table 16 shows the consequences of this.

Military basic pay rates have more than doubled since FY 1968, adding $9.9 billion. Military allowances are up 41%, or $1.9 billion; civil service pay is up 59%, or $5.5 billion; and purchase prices have increased 54%, or $13.7 billion. Retired pay increases (aside from population changes) amount to $2.5 billion. All told, then, pay and price increases add $33.6 billion to our costs from FY 1968 to FY 1975.

These pay and price increases, then, more than offset our sharp program cutbacks. Defense spending failed to fall for this simple reason.

Other Spending Increases

This sharp inflationary impact is by no means peculiar to Defense. It is an economy-wide phenomenon. Inflation has been so acute over this period that one considering current spending figures alone, in any sector, will find anomalous results. Thus, National Defense spending (this includes AEC, stockpiling, and other activities, in addition to DoD/MAP) was $80.5 billion in FY 1968 and is estimated at $87.7 billion for FY 1975. The latter figure will buy far less, in real terms, than the former. There's nothing extraordinary about that. Any housewife who spent $80.50 for food in 1968 will tell you that $87.70 will buy far less in 1975. Considering government spending trends from FY 1968 to FY 1975:

	Change in Spending:	
	In Current Prices	In Constant Prices (Real Buying Power)
National Defense	+9%	-34%
Remainder of Federal Budget	+121%	+42%
Total Federal Budget	+70%	+9%
State and Local Governments	+131%	+52%

The significant fact, then, is not that Defense spending has grown since FY 1968. It is that it has grown so much less than other spending sectors. Very large spending increases -- much larger than the Defense

increase — are the norm for this period. For example, Federal spending for legislative functions rises 161%, FY 1968-75; for Judicial functions, 231%; for Executive direction and management, 433%.

With increases of this sort in the record, the 9% increase in Defense spending is indeed remarkable — but not in the way that is alleged by critics of Defense programs. The remarkable fact is that the Defense increase is so much smaller than others. The underlying fact is that inflation over this period has been so acute that it has been necessary to spend a great deal more just to stay even. This is true of all economic sectors, public and private.

The Peace Dividend: Shifts in Real Spending

That being the case, it is necessary to consider the peace dividend in terms of real resources -- manpower and purchasing power. Thus, some 8 million people (military, civil service and industry) were engaged in the Defense effort in FY 1968. The FY 1975 figure is 4.8 million, a cut of 3.2 million or 40%. The cutback in National Defense programs since FY 1968 is worth about $44 billion at FY 1975 prices. This manpower, and this purchasing power, has been made available for other purposes -- public and private.

Table 17 shows what became of the peace dividend, in terms of public spending. This shows the changes from FY 1968, the war peak, to FY 1975. For comparison, changes over the previous seven years are shown, FY 1961 to FY 1968. The Federal figures here (including Defense) are as presented by the Office of Management and Budget. Figures are shown in FY 1969 prices, the base year used by OMB.

As this table shows, three major reallocations are occurring simultaneously over the 1968-75 period.

First, there is a marked shift from Defense spending to domestic spending. Thus, National Defense grew by $26.5 billion (45.7%) from FY 1961 to FY 1968. It dropped by $27.6 billion (32.7%) from FY 1968

to FY 1975. Meanwhile, social and economic programs grew much more rapidly in the latter period than in the former. They increase by $88.2 billion (53.8%) from FY 1968 to FY 1975, versus an increase of $53.5 billion (48.6%) FY 1961-68.

Second, there is a shift from direct Federal programs to state and local government programs. Direct Federal programs (excluding grants-in-aid) grew by $54.8 billion (47.5%) from FY 1961 to FY 1968. They drop by $.5 billion from FY 1968 to FY 1975. Meanwhile, state and local government spending increases much more in the FY 1968-75 period than in the earlier period: a growth of $56.3 billion versus $31 billion, and, in percentage terms, a rise of 51.7% versus 39.8%.

Third, there is a shift from the public sector to the private sector. All public spending rose by $85.8 billion from FY 1961 to FY 1968, and by $55.8 billion from FY 1968 to FY 1975. The rate of growth in the latter period (20%) was less than half that of the former (44.5%). Governments took 33.9% of real GNP growth FY 1961-68 and 25.5% FY 1968 to FY 1975. This in turn translates into measures of real tax burden -- how much of real income goes for support of government programs of all types. There was a sharp decline, in relative terms, from the FY 1961-68 period to FY 1968-75.

Federal tax rates fell during the FY 1968-75 period. In spite of this, spending on Federal domestic programs increased much more — absolutely and relatively-- than in the FY 1961-68 period. Overall, we allocated 21.1% of our real GNP growth to social and economic programs from FY 1961 to FY 1968. We allocated about twice as much -- 40.3% — from FY 1968 to FY 1975.

It is obvious, I believe, that the change in Defense programs -- especially the sharp cutback since FY 1968 -- underlies all the developments I have been describing. Where has the peace dividend gone, then? It has gone to support much higher real spending for domestic programs, and into higher after-tax income.

The Peace Dividend: Shifts in the Labor Force

Another way of viewing the matter, Mr. Chairman, is in terms of the labor force. The real cost of Defense, in the last analysis, relates back to manpower. The real cost to the American people stems from the fact that we have 4.8 million people in the Defense effort -- military, civil service, and industry. If these people were not engaged in the Defense program, they could be producing other goods and services. It is the fact of giving up these goods and services -- what economists call the opportunity cost -- that constitutes the real burden, or cost, of Defense.

Table 18 presents data in terms of manpower, the labor force. For comparison, we have used the same periods as before -- 1961-68 and 1968-75. As the table shows, the labor force grew 9.3 million from 1961 to 1968. Defense manpower grew by 2,176,000, leaving an additional 7,170,000 people for non-Defense employment.

From 1968 to 1975, the labor force grows somewhat more -- by 11.3 million. But there is a sharp Defense cutback (3,181,000), so an additional 14,453,000 people become available for non-Defense pursuits.

Thus, in the 1968-75 period, there are 14.5 million additional people available for non-Defense work -- twice as many as the 7.2 million growth from 1961 to 1968. This is the peace dividend and, in these terms, it's as real as anything can be.

These labor force figures, then, show the massive shift away from Defense that we mentioned earlier in connection with spending figures. The lower portion of Table 18 also shows the shift from the public sector to the private sector noted earlier. The total U.S. labor force grew by 9.3 million from 1961 to 1968 and the public sector took nearly half of that growth (4,458,000). From 1968 to 1975, however, the public sector took only 11% of the labor force growth (1,225,000 of 11,272,000), leaving 89% of the growth for the

private sector. From 1961 to 1968, 4,888,000 additional people became available for work in the private sector. From 1968 to 1975, that figure more than doubles, to 10,047,000. If we consider only non-Defense work in the private sector -- that is, setting aside Defense-related employment in industry -- then manpower available for the private sector grew by 4 million from 1961 to 1968 and by 11.5 million (nearly triple) from 1968 to 1975.

I might note, Mr. Chairman, that 1961 was the year in which President Eisenhower uttered his famous warning regarding the military-industrial complex. Since that time, manpower available for non-Defense pursuits has grown by 21.6 million. Defense manpower has dropped by a million. We have allocated the entire growth in our labor force, and a million more, to non-Defense pursuits. We have cut back on Defense spending in real terms -- all of the real growth in our economy, and a bit more, has gone to the domestic sector.

By any measure, then, Mr. Chairman, the peace dividend has been paid in full, and more than that. At bottom, the point of all this is a really simple one: that the dollar of FY 1975 will buy far less than the dollar of FY 1968 or FY 1964 or, for that matter, FY 1945. If one accepts this -- if one recognizes that Defense is not immune to inflation that is felt throughout the economy -- then the Defense budget can be seen in perspective. Those who would deny that the peace dividend has been paid, and who speak of a wartime level budget in peacetime, must operate on the assumption that today's dollar will buy as much as the dollar of the past. This assumption, of course -- while essential to the charges the critics are making -- is left unstated. For a very good reason, obviously: it's untenable. It makes just as much sense to compare today's Defense budget with those of the past without adjusting for inflation as it does to plan a household budget for next week on the basis of round steak at 40 cents a pound, gasoline at 28 cents a gallon, and bread at a dime a loaf.

MANPOWER COSTS AND THE VOLUNTEER FORCE

Defense Pay Trends

. The matter of war costs and the peace dividend, just discussed, is one of the most significant areas that must be covered in considering the Defense budget, Mr. Chairman. An area of even greater importance is that of manpower costs. One need only glance at Table 9 to appreciate the significance of pay costs in our budget. For example, total outlays rise from $50.8 billion in prewar FY 1964 to $85.8 billion in FY 1975 -- an increase of $35 billion. This increase includes:

- $25.5 billion for pay costs -- in spite of the fact that average manpower drops by 540,000.
- $7.1 billion for nonpay operating costs -- a good deal of which is personnel-related, such as medical programs, troop housing costs, and so forth.
- $2.4 billion for procurement, RDT&E and construction, the investment sector of our budget which -- paradoxically -- often receives the major share of attention in discussions of the Defense budget.

If we extend the comparison another 10 years, to relate FY 1954 to FY 1975, we find the same pattern. Pay costs up $31.1 billion (with manpower down 1,521,000); nonpay operating costs up $7.2 billion; and investment up $3.9 billion.

Since the FY 1968 war peak, we have reduced manpower (average strength) by 1,516,000, or 32%; payroll costs have risen by $14.9 billion, or 46%, in spite of that.

It's obvious, then, that some major developments are occurring in the area of pay costs, and that this area holds the key to the question that puzzles so many people: why Defense spending is so much higher than it was in the past, while our programs are so much lower in real terms.

While the impact of pay costs on the Defense budget has been tremendous, though, it's not unusual. Pay costs have been surging throughout the economy, in both the public and private sectors. Payments to military retirees have been growing rapidly, but no more so than payments under other retirement systems. While there have been large pay raises in recent years -- especially for military personnel in the lower grades -- our pay rates over a long span of years are below the national norm. It's important, too, to recognize that volunteer force costs are a relatively small part of the Defense pay picture. I will take up each of these points in somewhat more detail.

Retired Pay

First, let us consider military retired pay, which rises from $1.2 billion in FY 1964 to $6 billion in FY 1975. This rise results from a growth in the retired population (from an average of 410,853 in FY 1964 to an estimated 1,045,475 in FY 1975) and a 95.3% increase in average payments per man. The latter results from personnel entering the rolls at higher rates, cost-of-living allowances, and -- to a small extent -- new legislation now being proposed.

The same factors have operated to increase the costs of virtually every public retirement system over these years. Table 19 presents data for the large ones. Military retirement outlays in FY 1975 will be 5 times as great as in FY 1964 and 15.6 times as great as in FY 1954. Civil service retirement outlays rise even more -- FY 1975 outlays are 5.5 times the FY 1964 level, and 17.6 times the FY 1954 level. Social security outlays in FY 1974 will be 3.9 times the FY 1964 level but -- the greatest increase of any of these -- 19.2 times the FY 1954 level. Social security rose much faster from 1954 to 1964 than the other two systems, and less rapidly from 1964 to 1975. This stems in large part

from the large influx of civil service personnel in the 1930's, and military personnel in the 1940's — a pattern of peaking that would not apply to the labor force as a whole.

In any event, suffice it to say that huge increases in outlays are not unique to the military retirement system. Outlays under other large systems are increasing just as fast, or faster.

Public Payrolls

Payroll costs are growing very rapidly at every level of government -- Federal, state and local -- as shown in Table 20 and Table 21. These show Department of Commerce data for calendar years (CY) 1952-73 with DoD projections for CY 1974-75. (The Commerce series begins with 1952. Note that the postal service payroll is excluded from these figures. All payments to retirees are excluded also.)

Total public payrolls grow from $31.2 billion in 1952 to $147.5 billion in 1973, and are estimated at $174.3 billion in 1975. It is important, in this connection, to consider the total public payroll -- not the Federal payroll alone. The Federal payroll covers only a fraction of the total personnel engaged in education, welfare, health, agriculture, housing, transportation, and other domestic programs. These programs are carried out largely at the state and local level. State and local government spending is financed to an increasing degree through Federal grants-in-aid (22% in FY 1975).

While these data are not available prior to 1952, a reasonable estimate would be that Defense accounted for 12% of total U.S. public payrolls in 1939 (before the U.S. began buildup for World War II); about 80% at the World War II peak in 1945; and about 30% -- a 10-year low -- before the Korean War in 1950. 1952, the first year shown in the accompanying data, was a peak Korean War year. In that year, Defense accounted for 50.6% of all U.S. public payrolls. The trend since that time has been as follows:

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	($ Billions) Defense	All Other	Total Public Payroll
1952	$ 15.8	$ 15.4	$ 31.2
Changes, 1952-64	+4.6 (+29%)	+27.2 (+177%)	+31.8 (+102%)
1964	$ 20.4	$ 42.6	$ 63.0
Changes, 1964-68	$ +9.8 (+48%)	$+22.1 (+52%)	$+31.0 (+51%)
1968	$ 30.2	$ 64.7	$ 94.9
Changes, 1968-75	$+10.3 (+34%)	$+69.1 (+107%)	$+79.4 (+84%)
1975	$ 40.5	$133.8	$174.3

From 1952 to 1964, the Defense payroll grew by 29%, with pay increases more than offsetting the drop in Defense manpower. Other public payrolls grew by 177% over this period -- a combination of higher pay rates and more people.

From 1964 to 1968, the Defense payroll grew 48%, the result of moderately-rising levels of pay and the war manpower buildup. Defense payrolls, in fact, rose almost as much as other public payrolls during this period -- 48% versus 52%.

From 1968 to 1975, the Defense payroll rises 34% -- huge pay increases more than offset sharp manpower reductions. Other public payrolls rise 107% -- again, a combination of higher rates of pay and more manpower.

From prewar 1964 to 1975, the Defense payroll nearly doubles; other public payrolls more than triple. There were large pay raises in both cases (larger for Defense than for others). Defense manpower, however, fell by 15% while other public employment rose by 58%.

The foregoing is perhaps enough to suggest that surging payroll costs are not unique to Defense. In fact, only during a war buildup period can Defense begin to approximate the growth in other public payrolls. Otherwise, the growth in other public payrolls is much greater than the Defense growth.

Payroll as a Share of Total Costs. Excluding retired pay, the Defense payroll has grown sharply as a share of total National Defense spending -- from 34.3% of the total in 1952 to 40.7% in 1964, and 49.7% in 1975. For other public spending (Federal, state and local), the payroll share of the total has been much more stable, hovering in the 53%-55% range over the past 23 years. These trends are shown in Table 22. Thus, Defense is not unique in devoting half its budget to payroll costs -- other units of government have devoted more than that to payroll for over 20 years.

What is noteworthy, though, is the sharply-rising portion of the Defense budget that is devoted to payroll, in contrast to the experience in other areas of public spending. This is not because the Defense payroll is growing more rapidly than others in the public sector. On the contrary, over the past 20 years the Defense payroll grows $25 billion (165%) while other public payrolls grow $115 billion (608%). The difference arises from the fact that Defense purchases from industry have risen much less than those of other units of government. We are speaking here of purchases of equipment (including weapons in the case of Defense), supplies, services, and construction. Excluded from discussion here are payments to military retirees, social security payments, welfare payments, health and other benefit payments, and similar transfers. These items are excluded from the totals and ratios discussed in this section, and from Table 22.

Defense purchases from industry were $23.3 billion in 1955 (after Korea) and are estimated at $41 billion in 1975 -- a growth of $17.7 billion, or 76%. Purchases by other units of government will rise from $16.7 billion in 1955 to about $115.4 billion in 1975 -- a growth of $98.7 billion, or 591%.

Total U.S. Payroll Costs

Total U.S. payroll costs (public and private) have risen sharply over the years since 1952, as shown in Table 23, with the Defense share of the total declining sharply. The picture is as follows:

	(Compensation of Employees, $ Billions)			
	Defense	Other Public	Private Employment	Total
1952	$ 15.8	$ 15.4	$ 164.1	$195.3
Changes, 1952-64	$ +4.6 (29%)	+27.2 (+177%)	$+138.6 (+85%)	$170.4 (+87%)
1964	$ 20.4	$ 42.6	$ 302.7	$365.7
Changes, 1964-68	$ 9.8 (48%)	$ 22.1 (+52%)	$ 117.0 (+39%)	$148.9 (41%)
1968	$ 30.2	$ 64.7	$ 419.7	$514.6
Changes, 1968-73	$ +6.1 (20%)	$ 46.5 (72%)	$ 218.1 (+52%)	$270.7 (+53%)
1973	$ 36.3	$111.2	$ 637.8	$785.3

The Defense payroll growth has been far below that of the other sectors throughout this period, except for the 1964-68 war buildup period when the Defense payroll grew 48% compared to 39% in the private sector.

Over the nine years from prewar 1964 to 1973, the Defense payroll grows $15.9 billion (78%). Other payrolls, public and private, grew $403.7 billion (116%). Put another way, total U.S. payrolls grew $419.6 billion, 1964-73. Of this, the Defense growth amounted to $15.9 billion, or less than 4%.

The magnitudes themselves are striking. Total compensation of employees amounted to $785.3 billion in 1973; Defense manpower (military and civil service) accounted for $36.3 billion (4.6%) of that. This percentage is down from 8.1% in 1952, 5.6% in 1964, and 5.9% in 1968, for example.

Surging payroll costs, then, are by no means a phenomenon limited to Defense. In fact, over the years, the Defense payroll has grown much more slowly than other payrolls, public or private.

Trends in Pay Rates

In comparing pay trends, we will use regular military compensation (RMC) as a point of reference. This includes basic pay, subsistence and quarters allowances (in cash or in kind) and the tax advantage stemming from the fact that these allowances are not subject to the Federal income tax. This is the legal basis for determining the amount of military pay raises -- that is, each time there is a pay increase for civil servants under the general schedule, there is an equal percentage increase in RMC.

Military, Civil Service, and Other Pay Trends since FY 1950. Table 24 shows military and civil service pay trends since FY 1950. RMC for lower grade personnel, as shown, was virtually flat from 1952 to 1965, followed the general pay trend from 1965 to 1971, then increased sharply to return to the general military pay line. The large increases in November 1971, then -- provided by PL 92-129, and often called the "Volunteer Force Package" -- restored these personnel to the pay line they would have been on had they received regular raises through the 1952-65 period.

Higher-grade military personnel received raises more evenly over the period, but lagged far behind civil service pay through the 1960's.

Wage board salaries increased more rapidly than GS salaries over the period since FY 1950, but not since FY 1964.

Note that all the pay rates began to increase much more rapidly in the late 1960's.

Comparing RMC with civil service pay trends, FY 1950-75, the table shows that RMC has grown less than composite civil service pay -- GS and wage board together. (RMC has grown somewhat more than GS pay, but significantly less than wage-board pay.)

Table 25 shows a comparison of composite RMC and composite Defense civil service pay with other pay trends over the period FY 1950-73 (the latest data available). Note that the two Defense systems are far below

the other series. Since all Defense systems were pegged to private sector pay trends by FY 1973, it is reasonable to expect that this trend will continue.

The conclusions are these:

1. That military and civil service pay have grown by about the same amounts, FY 1950-75. Certainly there is no evidence to suggest that military pay rates have risen much faster than civil service pay rates.
2. Both civil service pay systems are pegged by law to comparability with the private sector, and military pay trends are very close to civil service trends.
3. Both military and civil service pay have increased significantly less than pay in the private sector generally, as measured by the most common indices, and significantly less than state and local government pay.

If we consider only the trend since 1967 or 1971, we find that military pay (especially in the lower grades) has risen faster than civil service pay, or pay in the private sector. This must be considered in light of the fact that military personnel in the lower grades received no pay raises at all from May 1, 1952 until October 1, 1965. Civil service pay rates over these years (e.g., since 1967 or 1971) rose by less than the broadest measure of compensation in the private sector, the Index of Compensation, Private.

Impact of Volunteer Force on DoD Budget. In discussing the volunteer force program, it is necessary to distinguish between (a) costs in the true economic sense of the term and (b) what appears in the DoD budget. The key matter here involves the pay of military personnel in the lower grades. At various points in the past few decades, we have drafted young men into the armed forces to serve at pay rates such as $21, $50, or $78

per month. Such pay rates were obviously far below what these young men could have earned in civilian employment. The real cost of having these men in the armed forces is the loss of the goods and services they could have produced in civilian life. That real cost is the same regardless of what these young men are paid in the service. The only question is who shall bear this cost. If they are paid only 1/3 of what they could have earned in civilian employment, then only 1/3 of the cost is borne by taxpayers generally, and the remaining 2/3 is borne by the young men themselves. If military pay reasonably approximates what these men could have earned in civilian employment, then all costs are being borne by taxpayers generally. The real cost is the same either way -- the loss of civilian production. The only difference is in who bears the cost, and in turn how much of it shows up in the Defense budget.

The same point would apply, to cite an example outside the pay area, if a government somewhere decided to secure automobiles by confiscating them from individuals, rather than purchasing them. That government would then show zero spending in its budget for the purchase of automobiles. This doesn't mean that the automobiles could really be produced for nothing: that's obviously impossible. Rather, the cost of providing automobiles for that government would be borne by the former owners, rather than by the taxpayers generally.

In this sense, the cost of the volunteer force is almost impossible to define or measure. It would tend to be very nearly zero.

It is a more manageable job to measure the impact of the volunteer force upon the Defense budget. Even this cannot be measured with absolute precision, but a reasonable maximum approximation (an outside estimate) can be made, using given definitions. Our estimate is about $3.6 billion annually, in FY 1975. This is detailed in Table 21. Let us discuss each element of this estimate, and indicate the assumptions upon which it is based.

The largest amount -- $2.3 billion, or about 63% of the total -- is the large increase in basic pay provided for personnel in the lower grades under PL 92-129. The figure assumes that PL 92-129 was never enacted, and that these personnel received only the general increases that all personnel received over this period. To put it another way, PL 92-129 doubled the basic pay for E-2's; Table 21 includes the reductions that would result from cutting E-2 pay in half.

The next largest item is $563 million for the increase in quarters allowances, also provided by PL 92-129. This is simply the reduction which would result in the FY 1975 budget by returning to the earlier BAQ rates.

There can be considerable argument regarding charging each of these items, calculated on the basis indicated, 100% to the volunteer force. Here, for example, are the amounts involved.

	Prior to PL 92-129 (thru Oct 1971)	After PL 92-129 (Nov 1971)
Basic Pay, per Month		
O-1 (2d Lieutenant or Ensign)	$450.60	$495.00
Cadet (Midshipman)	225.30	247.50
E-3 (Private First Class)	180.90	311.10
E-2 (Private)	149.10	299.10
E-1 (Recruit)	134.40	268.50
Basic Allowance for Quarters (BAQ) per Month		
O-6 (Colonel/Navy Captain	170.10	258.30
O-2 (1st Lt/Lt J.G.	120.00	175.80
E-9 (Top Enlisted Grade)	120.00	184.20
E-4 (Corporal)	105.00	121.50

It could be argued, for example, that pay in the lower enlisted grades was so far out of line (due to the fact that there were no pay raises, 1952-65) that these rates would have had to be significantly increased even if the draft were continued.

The BAQ rates have not been changed since PL 92-129. It can well be argued that -- draft or no draft -- a BAQ rate of something more than $120 per month for an E-9 would have been warranted in FY 1975.

In short, one could argue that Table 21 considerably overstates the budgetary impact of the voluntary force program as regards the

first two items -- that is, that some of these added costs would have been incurred anyway.

The legislative items reflected in Table 21 include practically all military personnel legislation with significant budgetary consequences enacted since 1971 or now proposed, except for retired pay legislation. These items, as the listing shows, are clearly related to the purposes of the volunteer force. Once again, it could be argued that some of these items would have been enacted, at least in part, had the draft been continued.

The last item ($450 million) includes expanded activities under existing legislation. This includes, for example, greater recruiting effort, barracks improvement, contracting out of KP, and other activities to improve conditions of service. This is admittedly a difficult item to estimate. This includes only a part of what is spent for barracks improvements, for example -- after all, money was spent for this purpose when the draft was in existence, and doubtless some amount would be spent in FY 1975, with or without a draft. This is the kind of area where reasonable and well-qualified people, possessed of the same data, would be apt to reach different conclusions -- somewhat higher, or somewhat lower, than the figure shown in Table 21.

To sum it up, then, the figure of $3.6 in Table 21 does not purport to be an estimate of the cost of the volunteer force, as discussed earlier. We make no effort to estimate the true economic cost. It does represent an estimate of the cumulative impact of the volunteer force program on the FY 1975 budget estimates.

Of this $3.6 billion for the volunteer force, about $3.1 billion would appear in the payroll portion of the budget summaries presented earlier; the remainder would appear under operating costs, construction, etc. As noted earlier (Table 9), payroll costs have risen by $25.5 billion from FY 1964 to FY 1975. The volunteer force accounts for $3.1 billion, or about 12% of this rise. Payroll costs rise $6 billion from

FY 1973 to FY 1975. Of this rise, about $153 million, or 2 1/2% of the total increase, involves new items associated with the volunteer force.

The surge in pay costs in the Defense budget since FY 1964, then, is not primarily attributable to the volunteer force. This accounts for only about 12% of the increase in pay costs, FY 1964-75. The remaining 88% results from (a) increases in military retired pay and (b) soaring pay rates in the economy generally, to which Defense pay trends are coupled by law.

It is important, too, to consider the military pay trend over the years, with the costs of the volunteer force included. Note in Table 24, for example, that military pay increases -- including volunteer force items -- have been well below the civil service average from FY 1950 to FY 1975. As shown in Table 25, the gap between military pay trends and those in the private sector is even greater. These gaps would be much wider -- that is, military pay would lag by an even greater amount -- without the volunteer force package.

INFLATION AND CONSTANT PRICES

Mr. Chairman, I have emphasized the matter of inflation -- pay raises and price increases -- throughout this statement. I must do this, because inflation is a major factor in practically any comparison made. In the most-recent two years alone, Mr. Chairman, FY 1973 to FY 1975, pay raises and price increases amount to $14.1 billion, and retired population growth costs $.7 billion on top of that. Our budget would have to rise by $14.8 billion in two years just to stay even -- without adding or promoting a man, and without buying a single additional bullet. Measuring from prewar FY 1964, the comparable impact is $47.2 billion. We spent $50.8 billion in FY 1964. To provide the same manpower and procure the same things at FY 1975 prices, and to pay the FY 1975 retired population, would cost nearly twice that much. By ignoring the effects of inflation, some have observed that the FY 1975

Defense budget is the highest in history -- higher, even, than the FY 1945 spending peak of World War II. If one considers inflation, however, he finds that the FY 1975 budget is about one-fourth the FY 1945 level, and is indeed the lowest Defense budget for a quarter century -- since the Louis Johnson era. Inflation, then, makes quite a difference, and anyone considering the Defense budget must devote a good deal of attention to it.

In this section, I propose to explain how we adjust for inflation -- that is, how we express our budget in constant prices. I also want to cover some of the particular questions that have been raised about our treatment of this matter.

FY 1964 Program at FY 1975 Prices

Table 27 shows the method for stating Defense programs at constant prices. Actual FY 1964 outlays of $50,786 million are shown, by element. Thus, military basic pay was $8,511 million in FY 1964. (This includes basic pay, FICA, and items denominated in basic pay, such as re-enlistment bonuses and separation pay.) Pay raises amount to 178.3% from FY 1964 to FY 1975. At FY 1975 rates, then, that FY 1964 manpower -- the same numbers of people, in the same grades and longevity steps -- would cost $23,689 million.

Military allowances cover everything in the military personnel appropriations aside from basic pay. This includes allowances of all types, in cash or in kind; special, incentive and proficiency pays; and permanent change of station (PCS) travel and transportation costs. Details are presented in Table 28. With a 62.1% increase, the program that cost $4,475 million in FY 1964 would cost $7,254 million at FY 1975 rates.

Civil service pay rates, classified and wage board, weighted, increase 84.3% from FY 1964 to FY 1975. The FY 1964 payroll was $7,305 million. At FY 1975 rates, the same number of people -- in the same grades and longevity steps, nothing changed -- would cost $13,462 million.

In FY 1964, we spent $29,286 million for goods and services purchased from industry -- everything from missiles to scotch tape and telephone bills. The Department of Commerce determines the amount of inflation on Federal purchases (excluding the Commodity Credit Corporation) using appropriate segments of the wholesale price index, a construction cost index, and service cost indices. We have Commerce data through March 31, 1974, and have estimated the remaining 15 months through June 30, 1975. On this basis, purchase inflation from FY 1964 through FY 1975 is estimated at 67%. The purchases which cost $29,286 million at FY 1964 prices would cost $48,899 million at FY 1975 prices.

Here are key data on retired pay:

	FY 1964	FY 1975
Outlays ($ Thousands)	$1,209,447	$6,011,200
Average Retired Population	410,853	1,045,475
Average Payments per Retiree	$2,943.75	$5,749.73

The average payment per retiree thus increased by 95.3% from FY 1964 to FY 1975. At FY 1975 costs per retiree, then, the FY 1964 retired population would cost $2,362 million.

Altogether, then, as shown in Table 27, the program which cost $50,786 million in FY 1964 would cost $95,667 million at FY 1975 pay rates and price levels.

Setting aside retired pay, the FY 1964 program would cost $93,305 million at FY 1975 pay rates and price levels. FY 1975 outlays, excluding retired pay, are estimated at $79,789 million, as the table shows. There is a decline, then, in real terms -- manpower and purchasing power -- of $13,516 million from FY 1964 to FY 1975. That's a decline, in real terms, of 14.5%.

Selected Aspects of Constant-Price Approach

That, in brief, is our approach to stating the Defense budget in constant prices. Except for retired pay, it is a standard, well-recognized approach, used throughout the economy for all sectors, public and private.

Questions have been raised regarding certain elements of our approach, which I would like to address here.

Military retired pay, as I noted, is the one element in our budget which cannot readily be handled in the standard way. This is because of the peculiarities of the military retirement system itself, and the way it is financed.

For civil service retirement, the employee contributes 7% and the agency another 7%. This 14% is shown as part of our payroll cost as we go along. The actual payments to retirees are shown elsewhere in the budget, under the Civil Service Commission. When we deflate our civil service payroll, then, including that 14%, we follow the practice that is standard. The same approach is used throughout the economy for all sectors, public and private. A current cost of future retirement is recognized, and actual retirement payments are set aside.

Military retirement is different, however. In the first place, there is no explicit contribution or recognition of cost as we go along. A major reason for this, in turn, is that -- unlike other retirement systems -- relatively few military personnel ever draw military retirement. Virtually all personnel who have been employed under civil service are entitled to something from the retirement fund -- either a refund or a pension. There are, however, about 30 million living veterans, and only about 1 million on the military retired rolls. 97% of living veterans, then, are entitled to nothing from military retirement. Of the personnel on active duty at any time, less than half will draw retirement.

The $6 billion in payments to retirees included in the FY 1975 budget is not a FY 1975 Defense cost, and would not be recognized as such in any standard approach. It is an accumulation of parts of the costs for many years. The standard approach would be to impute the current service cost of military retirement each year, and to deflate that. This would be confusing. It would be necessary to delete

payments -- which are funded -- and substitute an unfunded current service cost. If this were done, the real cost trend for military retirement would be essentially a straight line. The number of ultimate retirees on active duty has changed relatively little for many years.

When military retirement payments were straight-lined in earlier years, however, to approximate this effect, there were objections from many sources. Therefore military retirement payments are now deflated on a cost-per-man basis, which others suggested be used.

The simplest way out of these woods is to set aside military retirement for most purposes, until and if current service costs are shown in our budget. The trends and year-to-year relationships will be very nearly the same if we (a) exclude military retired pay (b) reflect current service costs or (c) straight-line it.

Rates of Pay. Another question that has been raised involves using the rates of pay we are actually experiencing, versus using pay trends for the economy generally. Implicit in this question is the assumption that Defense pay raises -- especially military pay raises -- have been greater than those for the rest of the economy. And, if one accepted all this, it would follow that the impact of inflation on the Defense budget has been overstated.

To deal with the general proposition first, the standard practice -- indeed, so far as we know, the only acceptable practice -- is to deflate a sector in terms of the experience applicable to that sector. Thus, if one is dealing with bricklayers, it makes no sense to use factors applicable to carpenters or janitors. Aside from this rather basic point, it should be noted that there is no single pay trend applicable to the economy generally, or to the private sector generally. Note, in Table 25, that pay trends throughout the economy follow widely divergent trends. One could get widely different results by using one or another of these.

Moreover, the assumption that Defense pay rates have far outstripped others is incorrect, as shown in Table 25. It is true that, from about FY 1965 through FY 1972, regular military compensation rose more rapidly than civil service pay, and that for some of those years RMC rose more rapidly than most of the private sector indices. For the period since FY 1950, though, Defense pay rates have risen by less than the private sector indices. The principle of comparability with private sector pay is now well-established. It predates 1950 for blue collar workers, and, since 1967, general schedule pay has been tied to comparability with the private sector. Military pay raises are tied by law to general schedule pay raises. (PL 92-129, however, did provide large additional raises for military personnel in November 1971.) For FY 1973 and subsequent years, all our pay projections are on the basis of comparability.

The most that can be said is that military pay badly lagged other pay systems from FY 1950 to FY 1965, grew more rapidly than most other systems from FY 1965 to FY 1972, and has been on a comparability trend since then. Thus, the phasing of military pay raises has been much different than for other systems, but the result over a span of years is well below those other systems.

In short, we are following the standard approach in this area, and we see no reason to modify it.

Pay Raises and Inflation. The real income of military and civil service personnel has grown sharply over recent years. For example, from FY 1964 to FY 1973, regular military compensation grew by 89.1%; civil service pay rates by 63.6%; and the consumer price index (cost-of-living) by 38.6%. Thus real income for military personnel grew by 36% and for civil servants by 18% over this period.

Noting this, some have questioned the treatment of pay raises as inflation, since they comprise an element of growth in real income. Implicit in this question is a confusion of roles -- a mixup between buyer and seller. When we state the Defense budget in constant prices,

we are considering Defense as a buyer of goods and services. Thus, when Defense (or any other buyer) finds that the price of a gallon of milk has risen from $1.00 to $1.25, that's inflation of 25% to the buyer. The dairymen or the middlemen may be better off or worse off than they were before. That's immaterial. What counts is that the price of milk to the buyer rose 25%.

By the same token, Defense buys the services of privates, colonels, and GS-11's. When these costs rise, it represents -- to Defense as a buyer -- the same kind of inflationary impact as when purchase prices rise. The seller (the GS-11 or the military member) may be better off. As in the case of milk, that's immaterial.

The Defense approach here is the standard one used throughout the economy for all sectors, public and private. Pay costs are expressed in constant prices using changes in rates actually paid by the employer.

Productivity. The constant-price figures presented for Defense programs are measures of inputs, not of outputs. Thus, when it is said that the FY 1975 program is equal to about one-fourth of the FY 1945 program or is 15% below the FY 1964 program, these are measures of inputs. This is by no means the same as saying that we are about one-fourth as strong militarily as in 1945 in terms of real resources, or 85% as strong as in 1964. These figures are not intended as measures of Defense outputs (overall military strength or effectiveness). We do not have any overall measures of Defense output in this sense.

It has been suggested by some that the constant-price figures presented for Defense programs are deficient in that they have not been adjusted to take account of productivity gains. These observations have been applied especially to the pay area. Such observations involve a confusion of inputs and outputs. Productivity involves the relationship of output to input, in real terms -- either:

. Physical terms -- e.g., man-hours of work, units of material and capital, etc. to units of output, or

. Constant-price terms -- e.g., inputs and outputs expressed in constant prices.

In order to measure productivity, then, one must have a measure of overall input and output, in real terms. Such an output measure does not exist for Defense or, as we shall see, for a large part of the U.S. economy. All that exists - all that the Defense constant-price figures show -- is a measure of inputs. For example, in FY 1964, DoD/MAP outlays (excluding retired pay) were $49.6 billion. At FY 1975 prices and pay rates, that same program (the same manpower, the same purchases) would cost $93.3 billion. The FY 1975 estimates are $79.8 billion, a drop of $13.5 billion (15%) from the FY 1964 level. This means that we are inputting 15% less to Defense, in real terms, than we were in FY 1964. It means that Defense manpower and Defense purchasing power is down by 15%, FY 1964 to FY 1975. It does not mean that Defense output is down by 15%, or that we are 15% weaker -- absolutely or relatively -- than we were in 1964, or that we are 85% as strong as we were then.

As noted, it is necessary to be able to measure both outputs and inputs in order to measure productivity. Table 29 illustrates the basis for calculating inputs, outputs and productivity. The table shows the computation of input, output, and value added, for an illustrative "this year" and "last year."

Inputs include direct labor, indirect labor and overhead, materials, equipment and facility costs, and other costs. These are shown in current prices ($90 last year and $140 this year) and in constant prices ($85.70 last year and $129.63 this year). Inputs can change for many reasons. More labor, for example, or more equipment. Materials inputs may rise if the firm decides to buy certain items at a higher stage of assembly, rather than during the sub-assembling itself.

Outputs, for an industrial concern, represent the total value of work performed -- the number of completed items, adjusted for changes

in in-process inventories. Outputs, also, can change for many reasons: a higher volume of production, for example, or a decision to sell at a different state of assembly -- perhaps related to a similar decision for inputs.

The key measure, then, for determining productivity, and for other purposes, is not output per se, but value added, as illustrated in Table 29. Productivity is a measure of value-added per unit of input.

As illustrated in Table 29, 10 labor hours were used last year, and value added (in constant prices) was $36.90 -- or $3.69 per labor hour. This rose to $3.79 this year, a gain of 2.7% in constant-price value-added per labor hour. This 2.7% is about the long-run increase in labor productivity for U.S. industry as normally measured. However, total factor productivity in this illustration actually declined -- from $1.43 in value-added per dollar of total input to $1.34, a drop of 6%.

This simply illustrates that labor productivity, in and of itself, is a narrow and often a misleading measure. Labor productivity, as now defined and reported, relates all changes in value added to a single input: labor hours. This can be very misleading. For example, a farmer might buy a machine to dig potatoes. If the machine cost him $3,000 per year, and saved him only $2,000 per year in labor, he'd be much worse off -- his overall productivity would be down -- even though his output per man-hour (potatoes dug per man-hour) would be greatly increased. Similarly, a man who has a small lawn shouldn't buy a power mower, or a man with one cow shouldn't buy a machine to milk her with. Although output per man-hour would be greatly increased, the machines simply wouldn't pay for themselves -- total factor productivity would be down.

A B-17 in World War II, with a crew of 9, carried 3 tons of conventional ordnance. A B-52, with a crew of 8, can deliver 29 tons.

If nuclear weapons are employed, the B-52 can deliver thousands of times as much destruction as the B-17. Thus, it could be said that the B-52 crewmen are 11 times more productive, or (with nuclear weapons) thousands of times more productive than B-17 crewmen. It would be misleading to pursue this matter very far in these terms, though, without taking account of the fact that the B-52 cost 36 times as much as the B-17, and that billions were spent to develop, produce, and support these modern weapons, and to train personnel -- all necessary to get that added output.

For reasons such as this, authoritative treatments of productivity inevitably warn of the limitations of the labor productivity measure. The key measure for an overall analysis is total factor productivity -- not labor productivity alone. There are many difficulties in measuring total factor productivity, however, even in industry -- not to mention government or Defense. Stated quite simply, productivity per labor hour can be measured reasonably accurately for industry, and with a reasonable degree of agreement as to the results. This is covered by official reports. As noted, this is a very limited measure. The more meaningful measure is total factor productivity. This is, however, very difficult to measure. There are no official reports. The best unofficial studies differ considerably. Any attempt to measure productivity involves the use of estimates and of judgment. It is not a precise process, yielding absolutely accurate answers.

It is clear, of course, that growth in total factor productivity is considerably lower than for labor productivity alone.

As noted, there is a good deal of judgment involved -- data gaps, conceptual problems, and other problems -- in measuring real output even in those parts of the private sector which produce tangible goods. These problems are multiplied many times over where intangibles are involved -- certain service elements in the private sector, and the entire public sector. For these latter areas -- about 1/3 of the GNP --

outputs are not calculated in real terms at all. Only inputs are so calculated.

We can determine, within reasonable limits, the cost of various public functions -- that is, what the inputs are: National defense, foreign affairs, health, welfare, housing, education, transportation, legislation and the rest. What we cannot do is measure the value of the outputs of these sectors. We cannot state what education, health programs, Defense and the rest are worth, independently of what they cost. In the private sector, where tangible goods and services are produced, the value of output rests, at bottom, on what consumers are willing to pay for the goods. There is no such measure for the public sector.

Thus, for example, we might be able to measure what education costs -- but not what it's worth. So with police and fire protection and the rest. Even where tangibles are involved -- school buildings, for example -- we can measure only cost. We can't very well measure the worth of a school building if we don't know what education itself is worth.

While there are no overall measures of the output of the U.S. public education system or of Defense, for example, there are a great many measures that are useful at lower levels of aggregation. An immense amount of such work has been done in the DoD. Thus, weapons choices are made in terms of cost/effectiveness. The Department has been active for many years in developing systems of performance and productivity measurement in the support areas -- supply, maintenance, and transportation. The Department of Defense has several active programs directed toward the measurement and improvement of productivity.

When all this has been said, though, it is nevertheless true that the overall output of Defense and other parts of the public sector cannot be measured. There is no way that all the data can be rolled up into a single figure for the value of output of, say, U.S. public educa-

tion activities -- comparable to the value of output of the U.S. automotive industry. It's possible that there may never be a way to do this. Under the circumstances, productivity in the public sector cannot be measured.

Thus, in stating Defense programs in constant prices, we calculate constant prices for inputs, just as is done for the entire economy. We cannot measure outputs. As noted, that's true for about 1/3 of the economy -- it's not peculiar to Defense. And, since we can't measure outputs, we can't calculate productivity.

There have obviously been huge productivity gains in Defense. For example, the crew of a B-52, as noted, is thousands of times more productive than a B-17 crew. Nuclear submarines are vastly more productive than their World War II counterparts. Our forces overall are vastly more productive than our forces in the past. For example, we are inputting about one-fourth as much to Defense in 1975 as in 1945. Our 1975 forces could finish off the Axis forces of World War II, equipped as they were, in a matter of hours or days. In that elemental sense, our forces have gained immensely in productivity. We shouldn't make too much of this kind of comparison, obviously. We aren't confronting forces equipped like our opponents of World War II.

But for what it's worth, the example just cited suggests a 1945-75 productivity gain of several hundred percent, at least. How many hundreds or thousands of percent, though? Obviously, there can be no precision here. We cannot measure the capability of our 1975 forces compared to our 1945 forces with exactitude. It's a far different thing from counting tons of steel or numbers of automobiles.

We can measure, then, the value of Defense inputs in constant prices with a high degree of accuracy. The value of outputs is highly judgmental. Until we can measure the value of outputs more precisely -- and this may never happen -- we can't measure total productivity. As noted, we aren't unique. And our approach in this area is completely

consistent with that followed under comparable circumstances throughout the economy. There's no reason to change our approach in this respect, nor would there be any basis for such changes or adjustments.

Inflation in Defense and Other Government Sectors. The inflation experienced by the Department of Defense (pay raises and price increases combined) is less than that experienced by other units of government. Table 30 shows the data from FY 1950 through FY 1975, on a base of CY 1958=100. These data include estimates for FY 1974 and FY 1975. Here, in tabular form, are inflation rates through FY 1973:

	Inflation on Payrolls and Purchases from Industry Combined	
	CY 1958 to FY 1973	FY 1964 to FY 1973
DoD Military and MAP (Calculated by DoD)	72.3%	58.8%
Inflation Calculated by Department of Commerce:		
Federal Government as a Whole	79.0%	62.5%
State and Local Governments	88.0%	59.6%

It should be emphasized that the DoD figures through FY 1973 include the full-year effect of the large increases in military pay costs under the volunteer force package, which took effect during FY 1972 (November 1971). Even including this, the impact of inflation on Defense programs is less than calculated by the Department of Commerce for government programs generally. State and local government spending, incidentally, is estimated at $237 billion in FY 1975 -- about three times the Defense budget.

There is nothing unusual or unprecedented, then, in the impact of inflation upon Defense programs, bad as it is. Other government programs have been hit even harder.

Inflationary Impact of Defense Programs. Some have alleged that Defense spending has contributed in a major way to our inflationary problems of recent years. These allegations have been based rather loosely upon several propositions: the sheer size of the Defense

budget; the rapid buildup for the war; recollections that war quite clearly did produce inflation in the past, and a readiness in some quarters to blame Defense for any adverse development.

Such allegations are much less common today, because they are so obviously contrary to the evidence. Thus, Defense takes about 6% of the GNP today -- the lowest share in 25 years. Defense took 10% of the GNP in the late 1950's and early 1960's, when we had very stable prices.

Since FY 1968, inflationary pressures have been very intense. Yet, from FY 1968 to FY 1974, National Defense spending rises by $.2 billion. All other public spending, Federal, state, and local, rises by $180.4 billion. Even during the war buildup period, FY 1964 to FY 1968, National Defense spending rose by $26.9 billion, while all other public spending rose by $59.6 billion. National Defense in FY 1974 amounts to 18% of all public spending and 28.3% of the Federal budget -- the lowest shares since FY 1940.

Defense manpower has fallen 3.2 million, or 40%, since FY 1968, and overall Defense spending in real terms has fallen by 36%. In economic terms, such a cutback has a strong depressing effect on the economy -- the very opposite of inflation. Yet, in spite of this, prices have shot up rapidly. It's obvious that the Defense cutback has been overwhelmed by other factors.

Overall, Defense takes about 6% of the GNP. About half of that is for payroll. Defense purchases amount to 3.2% of the output of goods and services of the private sector of the U.S. economy -- compared to, say, 10% in 1953, 7.3% in 1948, 6% in 1964, and 6.2% in 1968. These figures in themselves suggest a good deal of caution in assigning a major economic role to Defense. Moreover, while Defense purchases 3.2% of the private sector output, there is a heavy concentration in a few sectors -- ordnance, aircraft, shipbuilding, and certain aspects

of electronics. For the rest of the economy, Defense accounts for 1% or 2% of the business.

In CY 1972, Defense purchases amounted to 12.1% of the U.S. output of durable goods. Inflation from CY 1964 to CY 1972 was 18.1%. On the other hand, Defense accounted for 1.2% of construction business. Inflation from CY 1964 to CY 1972 was 84%. Defense does most of its buying in sectors with the least inflation, and does relatively little buying in high-inflation sectors.

Summary. The Defense approach to stating programs (inputs) in constant prices is the standard one, applied throughout the economy to all sectors, public and private. The questions which have been directed at the Defense approach could as well be directed to other sectors. This standard approach meets the test of logic, when all factors are considered. Moreover, there is no evidence to suggest that the Defense budget is particularly inflation-prone. The Defense experience here is well in line with trends throughout the economy as a whole.

THE DEFENSE BUDGET AND THE ECONOMY

Mr. Chairman, there has been a great deal of discussion regarding the use of the Defense budget -- the current FY 1974 and FY 1975 requests in particular -- to stimulate the economy. I would like to address this matter here.

First, let me emphasize that everything in the requests you are now considering — the FY 1974 readiness supplemental and the entire FY 1975 estimate -- is needed to meet military requirements. Our program was developed upon this basis, and can be justified only upon this basis. We ask that the Congress review our requests on this basis, and this basis alone. If, in the judgment of the Congress, there are items in this request which fail the test of military need, they should not be approved. Nothing is included in our request for the purpose of stimulating the economy.

As we were projecting our military requirements and budgetary needs last fall, it appeared for a time that our FY 1975 requests might have to be held to a relatively low level. This did not involve any conclusion that our requests did not meet the test of military need, but rather stemmed from overall budgetary considerations and the economic outlook at the time -- the need to fit many competing needs, for Defense and other programs, within a budgetary total that was felt to be appropriate at the time.

We presented our case for the Defense budget on the basis of military need, and we were prepared to make a strong case on this basis should lower figures be suggested within the Executive Branch. However, the overall budgetary totals were increased somewhat as the economy softened. It was possible to provide for our military requirements within the higher total for Federal outlays.

I think it is safe to say that the Defense budget is higher than it would have been had the economy not softened. The President, acting on the counsel of his budgetary and economic advisors, probably didn't take as hard a line on the Defense budget as he might have if he felt he had to reach a much lower spending total.

It is very difficult to calculate an exact amount of money resulting from all these developments -- to determine what the Defense budget might have been under different conditions. In the first place, we are not privy to all the contacts between the President and his top budgetary and economic advisors. We don't know what they might have been thinking or projecting. Nor could they themselves state with exactitude what they might have advocated, had circumstances been different. Had they advocated significant reductions in the Defense budget, we would have presented a strong case for a higher budget level. Again, one can only speculate how this might have been settled.

So we are down to a case of what might have been. Under different circumstances, there might have been a different Defense budget level.

The level approved supports essential military requirements and that is the basis upon which it should be judged.

This "what might have been" aspect of the situation is especially important, Mr. Chairman. The trend of Defense manpower and buying power, after all, is down. Those who say that the Defense budget is being used to stimulate the economy are, at best, speaking in a relative sense -- in the same sense that, relative to a depressant, a glass of water is a stimulant. For example, here are the data on Defense manpower:

	(Thousands)			
	1968	1973	1974	1975
End-strength (June 30):				
Military	3,547	2,252	2,174	2,152
Civil Service	1,287	998	1,029	1,028
Total Direct	4,834	3,250	3,203	3,180
Industry Employment	3,173	1,712	1,708	1,646
Total Defense Manpower	8,007	4,962	4,911	4,826
Fiscal Year Average:				
Military	3,436	2,324	2,218	2,177
Civil Service	1,276	1,033	1,014	1,019
Total Direct	4,712	3,357	3,232	3,196
Industry Employment	3,217	1,743	1,711	1,665
Total Defense Manpower	7,929	5,100	4,943	4,861

Thus, end-strength drops by 51,000 from June 1973 to June 1974, and by 85,000 more to June 1975. Average strength drops by 157,000 from FY 1973 to FY 1974, and by 82,000 more from FY 1974 to FY 1975. These reductions are small compared to the 1968-75 cutbacks, but they can hardly be classed as stimulative.

DEFENSE SHARE OF THE BUDGET

In closing, Mr. Chairman, I would like to present certain data on the Federal budget and overall public spending. These data are presented in Tables 31 through 36.

Table 31 shows the Federal unified budget since FY 1939, and Table 32 shows the percentage distribution. Note, in Table 32, that National Defense accounts for 27.8% of the Federal Unified Budget in FY 1975 -- the lowest share since FY 1940.

Table 33 shows outlays for Federal Funds (that is, excluding trust funds) since FY 1939. This approximates what was called the administrative budget. Table 34 shows the percentage distribution. National Defense in FY 1974 accounts for 39.6% of the total on this basis -- the lowest share since FY 1950.

Tables 35 and 36 show the same data for total public spending -- Federal, state, and local. National Defense, as shown in Table 36, accounts for 17.5% of the total in FY 1975 -- the lowest share since FY 1940.

These figures can be rearranged in any way one might wish, Mr. Chairman -- grouping veterans programs and debt interest with Defense, for example, in whole or in part. I believe that there is no way that the data can be rearranged -- as long as the rearranging is done consistently for all years -- so as to alter the conclusion I have stated: that the current requests represent the lowest Defense share of the tax dollar for 25 years or more.

TABLE 1
DOD Military Functions and Military Assistance
Total Obligational Authority, Budget Authority, Outlays, and Manpower
($ in Millions)

	FY 1973	FY 1974	FY 1975
TOA			
Military Personnel	23,639	24,452	25,898
Retired Military Personnel	4,392	5,164	6,014
Operation and Maintenance	22,148	24,156	26,596
Procurement	18,574	18,653	19,867
Research, Development, Test, and Evaluation	8,020	8,333	9,389
Military Construction	1,464	1,821	2,150
Family Housing	1,009	1,148	1,273
Civil Defense	82	82	86
Special Foreign Currency Program	3	3	3
Naval Petroleum Reserve	-	-	24
Military Assistance Program	1,120	3,295	1,279
Total - TOA	80,452	87,105	92,579
Budget Authority			
Military Personnel	23,727	24,451	25,898
Retired Military Personnel	4,442	5,164	6,014
Operation and Maintenance	21,731	24,151	26,596
Procurement	17,473	17,998	19,867
Research, Development, Test, and Evaluation	7,960	8,306	9,389
Military Construction	1,356	1,592	2,141
Family Housing	967	1,102	1,245
Civil Defense	83	82	86
Special Foreign Currency Program	3	3	3
Naval Petroleum Reserve	-	-	24
Military Assistance Program	2,766	4,238	1,925
Trust Funds and Receipts	-105	-160	-289
Total - Budget Authority	80,404	86,928	92,899
Outlays			
Military Personnel	23,246	24,165	25,685
Retired Military Personnel	4,390	5,158	6,011
Operation and Maintenance	21,069	23,306	25,452
Procurement	15,654	15,144	16,359
Research, Development, Test, and Evaluation	8,157	8,414	8,954
Military Construction	1,119	1,299	1,499
Family Housing	729	966	1,089
Civil Defense	74	83	87
Special Foreign Currency Program	4	7	7
Naval Petroleum Reserve	-	-	18
Military Assistance Program	531	1,100	1,200
Trust Funds and Receipts	-115	-148	-289
Revolving and Management Funds	-1,030	6	-273
Total - Outlays	73,828	79,500	85,800
Manpower (Thousands)			
Military end strength (June 30)	2,252	2,174	2,152
Military average strength	2,324	2,218	2,177
Civil service end strength (June 30)	998	1,029	1,028
Civil service average strength	1,033	1,014	1,019
Military and civil service end strength	3,250	3,203	3,180
Military and civil service average strength	3,357	3,232	3,196
Defense-related industry employment (June 30)	1,712	1,708	1,646
Defense-related industry employment, average	1,743	1,711	1,665
Total Defense-related manpower (June 30)	4,962	4,911	4,826
Total Defense-related manpower, average	5,100	4,943	4,861

Details may not add to totals due to rounding.

TABLE 2

Military Functions and Military Assistance
Summary of FY 1974-75 Programs and Financing
(In Thousands of Dollars)

TOA and Budget Authority - DOD Total	TOA, Budget Authority and Appropriations FY 1974	TOA, Budget Authority and Appropriations FY 1975	Related Outlays FY 1974	Related Outlays FY 1975
TOA - (Total obligational authority for FY Program)	87,105,384	92,578,586		
Financing adjustments	-931,018	-75,715		
Budget authority to be reflected in schedules of individual accounts	86,174,366	92,502,871	79,939,650	86,399,750
Trust funds and offsetting receipts	753,153	396,421	-439,650	-599,750
Budget authority - DOD-wide	86,927,519	92,899,292	79,500,000	85,800,000
Budget Authority and appropriations				
Budget authority, individual accounts, as above	86,174,366	92,502,871	79,939,650	86,399,750
Appropriations for Family Housing debt reduction	100,908	105,183		
Budget authority transferred to other accounts	3,064			
Total appropriations	86,278,338	92,608,054		
Detail of Appropriations and Related Outlays				
Regular appropriations enacted/estimated				
DOD Appropriation Act	73,776,630	85,548,571	71,735,597	80,031,350
Military Construction Appropriation Act	2,762,821	3,491,183	2,260,864	2,588,000
Civil Defense	82,000	86,300	83,000	87,000
Military Assistance	3,325,000	1,240,000	1,391,700	1,510,700
Total, regular enacted/estimated	79,946,451	90,366,054	75,471,161	84,217,050
FY 1974 supplementals itemized in FY 1975 Budget				
DOD Appropriation Act accounts	6,200,421	-	4,366,953	-
Military Construction Appropriation Act accts	32,866	-	4,136	-
Additional supplementals or budget amendments				
Volunteer force legislation	63,600	153,000	62,400	151,200
Military retired pay reform legislation	13,000	55,000	13,000	54,900
Other military pay legislation	22,000	34,000	22,000	33,500
Military and civilian pay increase 10/1/74	-	1,525,000	-	1,479,000
Military retired pay - CPI	-	260,000	-	257,400
FY 1975 wage board pay increases	-	215,000	-	206,700
Total, additional supplementals	98,600	2,242,000	97,400	2,182,700
Grand Total Appropriations	86,278,338	92,608,054	79,939,650	86,399,750

FY 1974 supplementals itemized in FY 1975 Budget:

Force readiness		
Fuel price increase	480,200	
Middle East payback	230,700	
Augmented force readiness	1,397,500	
Increased airlift capability	168,700	
Accelerated modernization	516,000	
Strategic program changes	24,800	2,817,900
Military and civilian pay increases		
1 January 1973	1,495,084	
1 October 1973	1,060,000	2,555,084
Retired military personnel pay increases		
CPI effective 1 July 1973	259,100	
CPI effective 1 January 1974	135,400	
Pay increase 1 January 1973	28,000	
Pay increase 1 October 1973	7,500	
Strength and rate changes	38,800	468,800
FY 1974 wage board pay increases		236,462
Basic allowance for subsistence increase 1 January 1974		107,100
Increased Postal Service charges based on usage and rate increases		47,941
Total reflected by account in President's Budget as submitted in February 1974		6,233,287
Estimated cost of proposed legislation (volunteer force, military retired pay reform, and other military pay)		98,600
Total FY 1974 supplementals		6,331,887

Table 3

Chronology of the FY 1974 Estimates
($ Millions)

		DoD Approp. Act	Mil Con/ Family Housing	Civil Defense	Military Assistance	Subtotal	Contingencies	Total for Congressional Action	Trust Funds, Receipts, Etc.	Grand Total
January 1973 (1974 Budget)	TOA	77,124	3,058	88	1,330	81,600	3,425	85,025	-	85,025
	BA	77,124	2,938	88	1,210	81,361	3,425	84,786	380	85,165
	Approp.	77,124	3,038	88	1,210	81,461	3,425	84,886	-	84,886
	Outlays	72,830	2,184	90	916	76,019	3,190	79,209	-209	79,000
Amendments in CY 1973	TOA	+198	+98	-	+2,400	+2,696	-169	+2,527	-	+2,527
	BA	+198	+60	-	+2,400	+2,658	-169	+2,489	-	+2,489
	Approp.	+198	+42	-	+2,400	+2,641	-169	+2,472	-	+2,472
	Outlays	+477	+72	-	+671	+1,220	-165	+1,055	-	+1,055
Request as Amended in CY 1973	TOA	77,323	3,156	88	3,730	84,297	3,256	87,553	-	87,553
	BA	77,323	2,998	88	3,610	84,019	3,256	87,275	380	87,655
	Approp.	77,323	3,080	88	3,610	84,102	3,256	87,358	-	87,358
	Outlays	73,309	2,256	90	1,587	77,239	3,025	80,264	-209	80,055
Congresssional Action in CY 1973	TOA	-2,957	-210	-6	-435	-3,608	-	-3,608	-	-3,608
	BA	-3,546	-321	-6	-285	-4,159	-	-4,159	-	-4,159
	Approp.	-3,536	-321	-6	-485	-4,349	-	-4,348	-	-4,349
	Outlays	-1,426	-33	-7	-85	-1,550	-	-1,550	-	-1,550
Status after Congressional Action in CY 1973	TOA	74,366	2,946	82	3,295	80,689	3,256	83,945	-	83,945
	BA	73,777	2,676	82	3,325	79,860	3,256	83,116	380	83,496
	Approp.	73,787	2,759	82	3,125	79,753	3,256	83,009	-	83,009
	Outlays	71,882	2,223	83	1,502	75,689	3,025	78,714	-209	78,505
Other Changes	TOA	+95	-10	-	-	+85	-	+85	-	+85
	BA	-3	-14	-	-	-17	-	-17	+374	+356
	Approp.	-	-	-	-	-	-	-	-	-
	Outlays	-146	+38	-	-110	-218	-	-218	-230	-448
FY 1974 Base for Supplementals	TOA	74,460	2,937	82	3,295	80,773	3,256	84,030	-	84,030
	BA	73,774	2,662	82	3,325	79,842	3,256	83,099	753	83,852
	Approp.	73,787	2,759	82	3,125	79,753	3,256	83,009	-	83,009
	Outlays	71,736	2,261	83	1,392	75,471	3,025	78,496	-440	78,057
FY 1974 Supplementals	TOA	+6,200	+33	-	-	+6,233	-3,158	+3,076	-	+3,076
	BA	+6,200	+33	-	-	+6,233	-3,158	+3,076	-	+3,076
	Approp.	+6,200	+33	-	-	+6,233	-3,158	+3,076	-	+3,076
	Outlays	+4,367	+4	-	-	+4,371	-2,928	+1,443	-	+1,443
Current FY 1974 Request (February 1974)	TOA	80,661	2,969	82	3,295	87,007	99	87,105	-	87,105
	BA	79,974	2,695	82	3,325	86,076	99	86,174	753	86,928
	Approp.	79,987	2,792	82	3,125	85,986	99	86,084	-	86,084
	Outlays	76,103	2,265	83	1,392	79,842	97	79,940	-440	79,500

TABLE 4

EXAMPLES OF UNIT COST INCREASES FOR FY 1974 PROGRAM

Item	Unit Cost in FY 1974 budget	Current Unit Cost	Percent Increase
M60 Machine Gun	$ 750	$ 925	23.3%
Laser Range Finder for M551	30,706	43,970	43.1%
Rocket, 66mm, HEAT	49	56	13.4%
Cartridge, 105mm, Smoke, WP, f/How	37	48	29.4%
Cartridge, 105mm, HEAT, w/Fuze, f/Tank	73	85	17.4%
Projectile, 155mm HE	38	43	12.8%
Charge, Propelling, 155mm, Green Bag	13	14	5.9%
Cartridge, 152mm, Practice, TP-T	93	98	5.3%
Truck, Carryall	3,456	3,827	10.7%
Truck, Dump	7,843	12,941	65.0%
Truck, Stake, 2000 GVW	2,857	3,809	33.3%
Truck, Tractor, 6X4	2,857	3,809	33.3%
Truck, Utility	2,424	3,636	50.0%
Truck, Van	5,329	9,404	76.4%
Shelter, Expandable	33,962	35,849	5.5%
Tank & Pump Unit	4,222	4,888	15.7%
Truck, Concrete, 8 Cu Yd	36,666	53,333	45.4%
Truck, Fork Lift, DE, PT, RT, 6000 LB	33,809	38,571	14.0%
Tractor, Crawler	65,517	82,608	26.0%
Bus, 37 passenger	9,545	10,701	12.1%
Bus, Integral	50,000	67,746	35.5%
Truck, 1/2 ton pickup	2,704	3,730	37.9%
Truck, 1/2 ton pickup 6m	3,912	4,942	26.3%
Compressor, air, 600-750CFM	14,555	17,359	19.3%
Sander, street	1,500	2,395	59.7%

Table 5

DoD/Military and Military Assistance

Pay and Price Items Reflected in FY 1975
Estimates which are not Covered in FY 1974
Appropriations Enacted to Date
(TOA, $ Millions)

	FY 1974 Supplemental Amount (Where Applicable)	Cost in FY 1975
January 1, 1973 pay raise	1,495	1,495
October 1, 1973 pay raise	1,060	1,413
Retired pay cost-of-living increases:		
7/1/73	287	287
1/1/74	182	364
FY 1974 wage board increases	236	472
Basic allowance for subsistence	107	214
Postal costs	48	96
Total items covered in pay & rate supplemental	3,415	4,341
POL price increase (part of readiness supplemental)	480	960
Purchase inflation, excluding POL & subsistence[a/]	-	4,312
10/1/74 pay increase	-	1,525
FY 1975 wage board increases	-	215
Proposed personnel legislation	99	242
Retired pay cost-of-living increase in FY 1975	-	260
Total contingencies (not transmitted)	99	2,242
Total cost in FY 1975		11,855

Summary

FY 1974 TOA available to date	80,773
Pay and price items not covered by appropriations to date, but included in FY 1975 estimates	11,855
FY 1974 TOA per appropriations to date adjusted to reflect FY 1975 pay rates and price levels	92,628
FY 1975 TOA, FY 1975 budget	92,579
Difference	49

a/ Total purchase TOA in the FY 1974 program as appropriated to date, excluding all pay, subsistence, and statutory allowances, is $42.9 billion. POL ($1.5 billion) is treated separately and the $2.2 billion for Israel was submitted later in CY 1973. Deducting these items, the resulting purchase TOA is $39.2 billion. The inflation rate from the fall of 1972 to the fall of 1973, the respective pricing bases for the FY 1974 and FY 1975 budgets, is 11%. 11% of $39.2 billion is $4,312 million.

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TABLE 6

Department of Defense
FY 1974 Supplementals

	TOA and Budget Authority ($ Millions)
Force Readiness	
Fuel Price Increase	480
Middle East Payback	231
Augmented Force Readiness	1,397
Increased Airlift Capability	169
Accelerated Modernization	516
Strategic Program Changes	25
Total, Force Readiness	2,818
Pay and Rate Changes	
Military & Civilian Pay Increases	2,555
Military Retired Pay Increases	469
Wage Board Pay Increases	236
Increased Subsistence Costs	107
Postal Costs	48
Total, Pay & Rate Changes	3,415
Total Supplemental Request	6,233

Table 7

Comparison of Original FY 1974 Contingency Estimate (January 1973) with FY 1974 Supplemental Request for Pay and Rate Increases
(TOA & Budget Authority, $ Thousands)

	January 1973 Contingency Estimate	February 1974 Supplemental Request	Difference
January 1, 1973 Pay Increase	$1,560,567	$1,495,984	$ -65,483
January 1, 1974 Pay Increase	801,557	-	
October 1, 1973 Pay Increase	-	1,060,000	+258,443
Retired Pay Cost-of-Living Increases	165,000	468,800	+303,800
Wage Board Increases	180,000	236,462	+56,462
Volunteer Force Legislation	225,300	- a/	-225,300
Retired Pay Legislation	390,000	- a/	-390,000
Other Contingencies	102,576	-	-
Subsistence Allowances	-	107,100	+4,524
Postal Rate Increases	-	47,941	+47,941
Totals	$3,425,000	$3,415,387	$ -9,613

a/ The current FY 1974 estimates include a contingency of $85,600 thousand for volunteer force legislation and $13,000 thousand for retired pay legislation. These amounts have not yet been transmitted.

Table 8

Southeast Asia War Costs and Baseline Force Costs
($ Millions, Fiscal Years)

Current Prices		1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
TOA	SEA Incremental		700	15,119	17,161	19,278	19,762	14,401	9,570	6,982	5,171	1,599	1,914
	Baseline	50,649	49,943	50,548	55,256	56,354	58,709	61,635	64,881	70,610	75,281	85,507	90,664
	Total	50,649	50,643	65,667	72,416	75,632	78,471	76,036	74,450	77,592	80,452	87,105	91,579
	SEA Full Costs (Memo)	-	700	15,119	22,180	26,266	26,461	18,536	12,062	8,662	5,918	1,939	2,162
BA	SEA Incremental		700	14,946	17,696	19,284	19,762	14,401	9,570	6,982	5,171	1,599	1,914
	Baseline	50,669	49,490	49,774	55,759	57,456	57,723	60,082	63,318	71,030	75,233	85,329	90,985
	Total	50,669	50,190	64,720	73,455	76,740	77,485	74,483	72,887	78,012	80,404	86,928	92,899
	SEA Full Costs (Memo)	-	700	14,946	22,715	26,271	26,461	18,536	12,062	8,662	5,918	1,939	2,162
Outlays	SEA Incremental	-	103	5,812	18,417	20,012	21,544	17,373	11,452	7,228	5,266	2,908	1,795
	Baseline	50,786	46,995	49,370	49,898	58,015	57,116	60,507	64,093	68,728	68,563	76,592	84,005
	Total	50,786	47,098	55,182	68,315	78,027	78,661	77,880	75,545	75,957	73,828	79,500	85,800
	SEA Full Costs (Memo)	-	103	5,812	20,133	26,547	28,805	23,052	14,719	9,353	6,271	3,374	2,065
Constant (FY 1975) Prices													
TOA	SEA Incremental	-	1,166	25,206	28,505	31,216	30,923	21,629	13,532	9,052	6,363	1,768	1,914
	Baseline	95,382	91,728	89,825	93,740	93,061	92,201	89,219	87,855	89,066	89,139	92,853	90,665
	Total	95,382	92,894	115,031	122,245	124,277	123,125	110,848	101,386	98,118	95,502	94,621	92,579
	SEA Full Costs (Memo)	-	1,166	25,206	36,420	42,009	41,047	27,722	17,030	11,334	7,331	2,158	2,162
BA	SEA Incremental	-	1,166	24,941	29,308	31,220	30,923	21,629	13,532	9,052	6,363	1,768	1,914
	Baseline	95,420	91,051	88,633	94,486	94,664	90,826	87,118	85,878	89,511	89,025	92,658	90,985
	Total	95,420	92,217	113,574	123,794	125,883	121,749	108,747	99,410	98,563	95,388	94,426	92,899
	SEA Full Costs (Memo)	-	1,166	24,941	37,223	42,012	41,047	27,721	17,030	11,334	7,331	2,153	2,162
Outlays	SEA Incremental	-	177	10,351	30,418	32,459	33,518	25,715	15,976	9,369	6,474	3,192	1,795
	Baseline	95,667	87,125	87,938	85,738	95,130	89,938	87,679	86,877	86,799	81,102	83,148	84,005
	Total	95,667	87,302	98,289	116,156	127,589	123,456	113,394	102,854	96,169	87,575	86,340	85,800
	SEA Full Costs (Memo)	-	177	10,351	33,332	42,573	44,427	33,907	20,479	12,202	7,753	3,715	2,065

TABLE 9

DoD Military and Military Assistance Outlays and Manpower
(Outlay $ in Millions)

	FY 1954	FY 1964	FY 1968	FY 1972	FY 1973	FY 1974	FY 1975
Current Prices							
Military basic pay	$7,631	$8,511	$12,779	$16,911	$17,618	$17,904	$19,030
Other military pay and allowances	3,641	4,475	7,080	6,125	5,628	6,261	6,655
Military retired pay	386	1,209	2,095	3,885	4,390	5,158	6,011
Family housing, excluding pay	-	504	396	549	563	771	878
Civil service payroll	4,755	7,305	10,281	12,776	12,994	13,812	14,929
Total, pay & related	16,413	22,004	32,630	40,245	41,193	43,906	47,504
Operating costs, other than pay	6,096	6,183	12,326	11,395	10,534	12,107	13,320
Proc., RDT&E, & Const.	21,112	22,600	33,071	24,317	22,100	23,487	24,977
Total, non-pay	27,208	28,782	45,397	35,712	32,635	35,594	38,296
Total outlays, current prices	43,621	50,786	78,027	75,957	73,828	79,500	85,800
Total outlays, current prices, ex retired pay	$43,235	$49,576	$75,932	$72,072	$69,438	$74,342	$79,789
Constant (FY 1975 Budget) Prices							
Military basic pay	29,204	23,689	27,687	22,009	20,571	19,293	19,030
Other military pay and allowances	7,145	7,254	10,004	7,575	6,497	6,629	6,655
Military retired pay	979	2,362	3,592	4,985	5,309	5,656	6,011
Family housing, excluding pay	-	878	596	679	660	837	879
Civil service payroll	13,757	13,462	16,362	15,169	14,639	14,657	14,929
Total pay and related	51,086	47,645	58,242	50,417	47,677	47,072	47,504
O&M, excluding pay	13,802	11,284	20,590	15,877	13,901	13,687	13,320
Proc., RDT&E, & Const.	42,865	36,737	48,757	29,875	25,997	25,581	24,976
Total, non-pay	56,666	48,021	69,347	45,752	39,898	39,268	38,296
Total outlays, constant FY 75 prices	107,752	95,667	127,589	96,169	87,575	86,340	85,800
Total outlays, constant FY 75 prices, ex retired pay	106,773	93,305	123,997	91,184	82,266	80,684	79,789
Manpower (Thousands)							
Military end strength (June 30)	3,302	2,685	3,547	2,322	2,252	2,174	2,152
Military average strength	3,425	2,691	3,436	2,512	2,324	2,218	2,177
Civil service end strength (June 30)	1,216	1,035	1,287	1,050	998	1,029	1,028
Civil service average strength	1,292	1,045	1,276	1,085	1,033	1,014	1,019
Military & civil service end strength	4,518	3,720	4,834	3,372	3,250	3,203	3,180
Military & civil service average strength	4,717	3,736	4,712	3,597	3,357	3,232	3,196
Defense-related industry employment (June 30)	2,833	2,280	3,173	1,941	1,712	1,708	1,646
Defense-related industry employment, average	3,030	2,360	3,217	1,979	1,743	1,711	1,665
Total Defense-related manpower (June 30)	7,351	6,000	8,007	5,313	4,962	4,911	4,826
Total Defense-related manpower, average	7,747	6,096	7,929	5,576	5,100	4,943	4,861

TABLE 10

Outlays, DoD Military Functions and Military Assistance
(Fiscal Years, $ Billions)

	Current Prices					Constant FY 1975 Prices				
	Pay	Non-Pay Operating Costs	Proc, RDT&E & Mil Con	Total	Total ex Retired Pay	Pay	Non-Pay Operating Costs	Proc, RDT&E & Mil Con	Total	Total ex Retired Pay
1950	7.5	1.9	2.7	12.0	11.8	26.3	4.5	5.8	36.5	35.8
1951	10.6	4.7	5.4	20.7	20.3	35.7	10.2	10.7	56.7	55.9
1952	16.1	8.9	16.3	41.2	40.9	52.4	19.3	32.6	104.3	103.5
1953	17.1	7.1	23.3	47.5	47.2	53.6	15.7	46.4	115.6	114.8
1954	16.4	6.1	21.1	43.6	43.2	51.1	13.8	42.9	107.8	106.8
1955	16.2	4.1	17.1	37.4	37.0	48.9	8.7	33.4	90.9	89.9
1956	16.8	4.5	16.7	38.0	37.5	47.3	9.1	31.4	87.8	86.7
1957	16.8	5.1	18.3	40.2	39.7	46.5	9.6	32.1	88.1	87.0
1958	17.4	5.0	19.0	41.4	40.8	45.3	9.3	32.7	87.3	86.1
1959	18.0	5.4	20.4	43.7	43.1	44.0	9.8	34.4	88.2	86.9
1960	17.8	5.3	20.0	43.1	42.4	43.1	9.8	33.7	86.6	85.2
1961	18.6	5.5	20.5	44.6	43.9	43.4	10.0	34.1	87.5	85.9
1962	20.2	6.0	22.0	48.3	47.4	47.1	11.0	36.4	94.5	92.7
1963	20.5	6.3	22.7	49.5	48.5	46.9	11.6	37.3	95.8	93.7
1964	22.0	6.2	22.6	50.8	49.6	47.6	11.3	36.7	95.7	93.3
1965	23.0	6.3	17.8	47.1	45.7	47.6	11.3	28.4	87.3	84.6
1966	25.6	8.1	21.4	55.2	53.6	50.5	14.3	33.6	98.3	95.4
1967	29.6	11.6	27.2	68.3	66.5	55.0	19.8	41.4	116.2	112.9
1968	32.6	12.3	33.1	78.0	75.9	58.2	20.6	48.8	127.6	124.0
1969	35.3	13.7	29.7	78.7	76.2	59.1	22.1	42.3	123.5	119.5
1970	38.2	12.2	27.4	77.9	75.0	57.4	18.9	37.1	113.4	109.1
1971	38.6	11.2	25.7	75.5	72.2	53.7	16.3	32.8	102.9	98.2
1972	40.2	11.4	24.3	76.0	72.1	50.4	15.9	29.9	96.2	91.2
1973	41.2	10.5	22.1	73.8	69.4	47.7	13.9	26.0	87.6	82.3
1974	43.9	12.1	23.5	79.5	74.3	47.1	13.7	25.6	86.3	80.7
1975	47.5	13.3	25.0	85.8	79.8	47.5	13.3	25.0	85.8	79.8

TABLE 11

MANPOWER, DoD/MAP
(Thousands)

	Average					June 30 (End)				
	Active Mil.	Civil Service	Total Direct	Defense-related Industry	Total	Active Mil.	Civil Service	Total Direct	Defense-related Industry	Total
1950	1,539	772	2,311	779	3,090	1,460	729	2,189	825	3,014
1951	2,394	940	3,334	1,600	4,934	3,249	1,333	4,582	2,140	6,722
1952	3,504	1,388	4,892	2,577	7,469	3,636	1,443	5,079	3,023	8,102
1953	3,554	1,415	4,969	3,422	8,391	3,555	1,340	4,895	3,245	8,140
1954	3,425	1,292	4,717	3,030	7,747	3,302	1,216	4,518	2,833	7,351
1955	3,178	1,206	4,384	2,587	6,971	2,935	1,195	4,130	2,425	6,555
1956	2,888	1,190	4,078	2,268	6,346	2,806	1,185	3,991	2,251	6,242
1957	2,794	1,175	3,969	2,239	6,208	2,796	1,168	3,964	2,237	6,201
1958	2,674	1,134	3,808	2,235	6,043	2,601	1,104	3,705	2,251	5,956
1959	2,565	1,093	3,658	2,284	5,942	2,504	1,085	3,589	2,260	5,849
1960	2,489	1,067	3,556	2,211	5,767	2,476	1,052	3,528	2,208	5,736
1961	2,490	1,050	3,540	2,204	5,744	2,484	1,048	3,532	2,299	5,831
1962	2,725	1,045	3,770	2,400	6,170	2,808	1,069	3,877	2,412	6,289
1963	2,701	1,066	3,768	2,417	6,185	2,698	1,054	3,752	2,397	6,149
1964	2,691	1,045	3,736	2,360	6,096	2,685	1,035	3,720	2,280	6,000
1965	2,666	1,030	3,696	2,108	5,804	2,653	1,026	3,679	2,125	5,804
1966	2,853	1,075	3,928	2,407	6,335	3,092	1,126	4,218	2,640	6,858
1967	3,298	1,210	4,508	2,980	7,488	3,377	1,278	4,655	3,100	7,755
1968	3,436	1,276	4,712	3,217	7,929	3,547	1,287	4,834	3,173	8,007
1969	3,467	1,286	4,753	2,999	7,752	3,459	1,276	4,735	2,916	7,651
1970	3,294	1,224	4,518	2,589	7,107	3,066	1,161	4,227	2,399	6,626
1971	2,891	1,125	4,016	2,128	6,144	2,714	1,094	3,808	2,031	5,839
1972	2,512	1,085	3,594	1,979	5,576	2,322	1,050	3,372	1,941	5,313
1973	2,324	1,033	3,357	1,743	5,100	2,252	998	3,250	1,712	4,962
1974	2,218	1,014	3,232	1,711	4,943	2,174	1,029	3,203	1,708	4,911
1975	2,177	1,019	3,196	1,665	4,861	2,152	1,028	3,180	1,646	4,826

TABLE 12

SELECTED ACTIVE MILITARY FORCE SUMMARY

(MANPOWER STRENGTH IN THOUSANDS)

	END FY 1945	END FY 1950	END FY 1953	END FY 1956	END FY 1964	END FY 1968	END FY 1975
ICBM LAUNCHERS	-	-	-	-	821	1,054	1,054
STRATEGIC BOMBER SQD	367	45	84	117	78	41	27
POLARIS-POSEIDON LAUNCHERS	-	-	-	-	336	656	656
MANNED FIGHTER/INT. SQD	238	36	78	96	40	26	6
NIKE HERCULES BTRYS	-	-	-	-	107	73	-
ACTIVE LAND DIVISIONS	95	12	23	22	19	22	16 1/3
TOTAL ACTIVE AIRCRAFT:							
FIXED WING	85,340	22,561	33,633	39,969	25,105	23,569	17,591
HELICOPTERS	-	144	1,671	2,596	5,004	9,995	9,480
CARRIERS	98	15	29	24	24	23	15
OTHER WARSHIPS	2,537	232	432	446	387	449	258
OTHER SHIPS	5,565	371	668	503	506	504	235
TOTAL ACTIVE FLEET	8,200	618	1,129	973	917	976	508
TOTAL MILITARY PERSONNEL	12,123	1,460	3,555	2,806	2,685	3,547	2,152
DEFENSE CIVIL SERVICE	2,628	729	1,340	1,185	1,035	1,287	1,028
TOTAL DIRECT MANPOWER	14,715	2,189	4,895	3,991	3,720	4,834	3,180

TABLE 13
DEPARTMENT OF DEFENSE

TOA BY PROGRAM

($ MILLIONS)

FISCAL YEAR	STRATEGIC FORCES	GENERAL PURPOSE FORCES	INTELL AND COMMS	AIRLIFT AND SEALIFT	GUARD + RESERVE FORCES	RESEARCH AND DEVELMNT	CENTRAL SUPPLY+MAINT	TNG.MED OTHER ACT	ADMIN + ASSOC ACT.	SUPPORT TO OTHER NATIONS	UNDIS	TOTAL
CURRENT DOLLARS												
FY 56	9,233	13,525	1,695	829	1,282	1,755	3,968	4,711	949	2,442		40,447
FY 57	10,736	12,941	1,939	825	1,497	2,079	4,293	4,531	943	2,185		41,849
FY 58	10,514	14,223	2,033	869	1,576	2,029	4,198	4,670	983	2,008		43,074
FY 59	11,283	13,329	2,199	1,050	1,547	2,682	4,298	4,721	1,024	1,578		43,709
FY 60	9,828	12,775	2,266	932	1,529	2,905	4,225	4,768	970	1,422		41,622
FY 61	11,521	14,234	2,488	910	1,581	3,433	4,393	5,038	983	1,848		46,430
FY 62	10,876	16,653	3,087	940	1,615	4,067	4,422	5,944	1,012	1,586		50,203
FY 63	9,847	16,519	3,823	986	1,551	4,799	4,535	6,344	1,078	1,368		50,850
FY 64	8,501	16,428	4,339	1,040	1,765	4,813	4,642	6,972	1,077	1,066		50,649
FY 65	6,348	17,718	4,228	1,251	1,779	4,649	4,913	7,462	1,155	1,139		50,643
FY 66	6,123	27,345	4,764	1,435	2,115	4,736	6,519	9,197	1,425	2,004		65,667
FY 67	6,238	29,963	5,115	1,730	2,452	4,629	7,881	10,674	1,262	2,422		72,416
FY 68	7,228	30,552	5,474	1,747	2,177	4,274	8,341	12,210	1,236	2,352		75,632
FY 69	8,434	29,653	5,755	1,451	2,134	4,532	9,280	12,849	1,329	3,045		78,471
FY 70	7,016	27,756	5,463	1,652	2,548	4,765	9,022	13,746	1,468	2,712		76,036
FY 71	7,311	24,644	5,269	1,303	2,677	4,872	8,406	14,555	1,559	3,854		74,450
FY 72	7,316	25,603	5,279	1,112	3,293	5,746	8,686	15,328	1,652	3,580		77,592
FY 73	7,253	25,810	5,683	859	3,897	6,463	8,643	16,360	1,719	3,762		80,452
FY 74	6,883	27,899	5,949	973	4,385	7,003	8,873	18,193	1,849	5,098		87,105
FY 75	7,628	29,183	6,464	1,054	4,796	8,409	9,330	20,077	2,164	3,474		92,579
CONSTANT DOLLARS												
FY 56	19,670	31,183	3,951	1,964	3,315	3,745	9,215	12,437	2,352	4,478		92,313
FY 57	21,231	28,955	4,140	1,891	3,761	4,196	9,279	11,560	2,236	3,760		90,957
FY 58	20,222	30,157	4,175	1,892	3,851	3,952	8,734	11,426	2,223	3,404		90,038
FY 59	21,233	27,459	4,384	2,141	3,599	4,992	8,615	10,856	2,218	2,657		88,154
FY 60	18,721	26,388	4,464	1,915	3,569	5,282	8,493	10,887	2,081	2,406		84,117
FY 61	21,032	28,161	4,727	1,836	3,597	6,087	8,377	11,238	2,036	3,025		90,117
FY 62	19,952	32,644	5,837	1,849	3,598	7,160	8,476	13,199	2,116	2,632		97,493
FY 63	18,176	31,938	7,087	1,895	3,461	8,292	8,569	14,010	2,211	2,285		97,931
FY 64	15,528	31,029	7,803	1,936	3,724	8,179	8,581	14,682	2,135	1,784		95,382
FY 65	11,586	32,309	7,445	2,198	3,624	7,735	8,752	15,140	2,213	1,879		92,894
FY 66	10,754	46,928	8,134	2,427	4,033	7,686	11,247	17,465	2,608	3,309		115,031
FY 67	10,590	49,786	8,410	2,824	4,384	7,261	13,231	19,616	2,217	3,945		122,245
FY 68	11,663	49,646	8,752	2,772	3,837	6,482	13,672	21,636	2,122	3,701		124,277
FY 69	12,830	46,345	8,805	2,229	3,574	6,558	14,544	21,551	2,170	4,518		123,125
FY 70	10,239	40,222	7,856	2,357	3,855	6,385	13,174	20,987	2,201	3,823		110,648
FY 71	9,776	33,572	7,134	1,762	3,771	6,245	11,421	20,510	2,171	5,054		101,386
FY 72	9,159	32,244	6,658	1,416	4,199	7,011	11,180	19,640	2,125	4,464		98,117
FY 73	8,598	30,457	6,740	1,018	4,593	7,561	10,543	19,455	2,066	4,473		95,502
FY 74	7,473	30,214	6,460	1,054	4,743	7,647	9,723	19,756	2,016	5,534		94,621
FY 75	7,628	29,183	6,464	1,054	4,796	8,409	9,330	20,077	2,164	3,474		92,579

TABLE 14

WAR AND PEACE -- THE TREND IN MILITARY MANPOWER

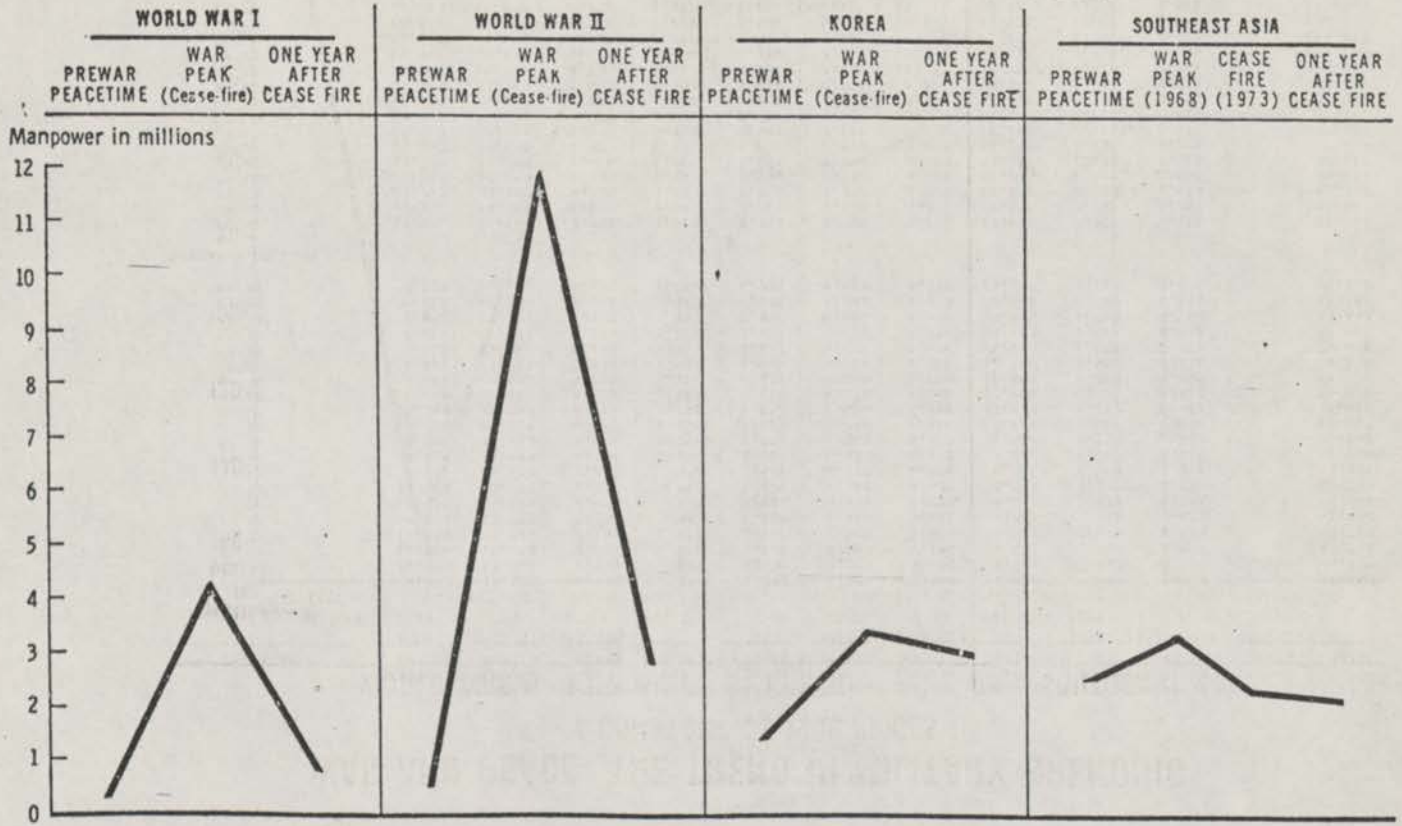


TABLE 15

WAR AND PEACE- THE TREND IN MILITARY SPENDING

[CONSTANT CY 1958 PRICES]

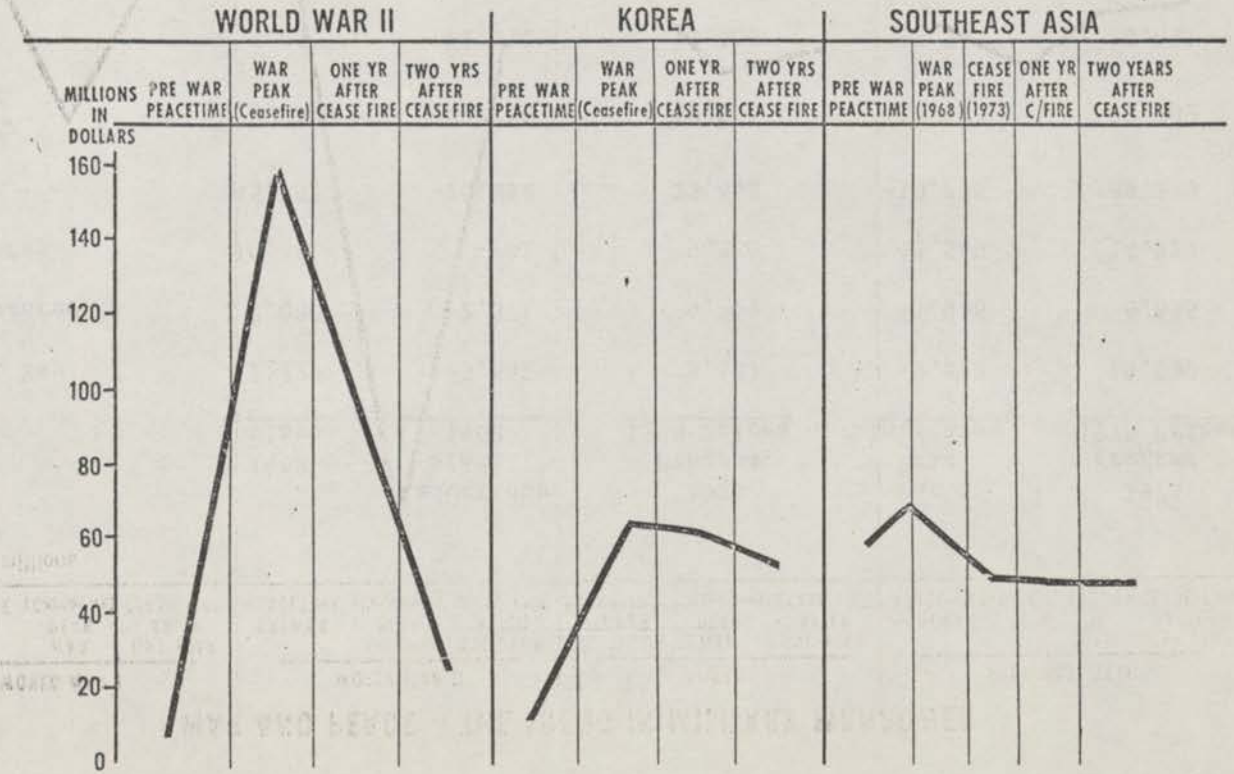


TABLE 16

THE PEACE DIVIDEND

($ millions)

	1968 Outlays	Reductions Since 1968	1975 Program, 1968 Prices	Pay & Price Increases	1975 Program, 1975 Prices
Military Basic Pay	12,779	-3,642	9,137	+9,893	19,030
Military Allowances	7,080	-2,371	4,709	+1,946	6,655
Civil Service Pay	10,281	-901	9,380	+5,549	14,929
Purchases	45,792	-20,352	25,440	+13,735	39,175
Subtotal, Ex Retired Pay	75,932	-27,266	48,666	+31,123	79,789
Retired Pay	2,095	+1,411	3,506	+2,505	6,011
Total	78,027	-25,855	52,172	+33,628	85,800

TABLE 17

CHANGES IN U.S. PUBLIC SPENDING
(In Constant FY 1969 Prices)

	FY 1961 to FY 1968	FY 1968 to FY 1975
National Defense	$ +26.5	$ -27.6
Veterans, interest, space, international	+5.8	-4.8
Social & economic programs	+32.8	+49.4
Total Federal budget	+65.1	+17.0
Deduct increase in grants-in-aid	-10.3	-17.5
Direct Federal programs	+54.8	-.5
State and local governments	+31.0	+56.3
Net U.S. public spending	+85.8	+55.8
National Defense	$ +26.5	$ -27.6
Social & economic programs	+53.5	+88.2
Veterans, interest, space, international	+5.8	-4.8
Net U.S. public spending	+85.8	+55.8
Percentage Change from Base		
National Defense	+45.7%	-32.7%
Social & economic programs	+48.6%	+53.8%
Veterans, interest, space, international	+23.3%	-15.6%
Net U.S. public spending	+44.5%	+20.0%
Total Federal budget	+52.2%	+9.0%
Federal direct (excluding grants)	+47.5%	-.3%
State and local governments	+39.8%	+51.7%
Shares of Real GNP Growth		
National Defense	+10.5%	-12.6%
Social & economic programs	+21.1%	+40.3%
Veterans, interest, space, international	+2.3%	-2.2%
Net U.S. public spending	+33.9%	+25.5%

Table 18

Reallocation of Resources
(Thousands of Personnel, June 30)

	Changes		
	1961 to 1968	1968 to 1975	1961 to 1975
U.S. Labor Force Changes			
Defense (Including Industry)	+2,176	-3,181	-1,005
All Other	+7,170	+14,453	+21,623
Total U.S. Labor Force	+9,346	+11,272	+20,618
Direct Public Employment			
Defense (Military & Civil Service)	+1,302	-1,654	-352
Other Governmental (Federal, State & Local)	+3,156	+2,879	+6,035
Total, Public Employment	+4,458	+1,225	+5,683
Available for Private Sector	+4,888	+10,047	+14,935
Total U.S. Labor Force	+9,346	+11,272	+20,618

TABLE 19

OUTLAYS FOR RETIREMENT AND DISABILITY PROGRAMS

($ MILLIONS)

	FY 1954	FY 1964	FY 1975	FY 1975 outlays as a multiple of: FY 1954	FY 1964
Military retirement	$ 386	$ 1,209	$ 6,011	15.6	5.0
Federal Civil Service Retirement	411	1,318	7,245	17.6	5.5
Old age & survivors insurance	3,405	15,285	57,633	–	–
Disability insurance	–	1,341	7,801	–	–
Total, OASI/DI	3,405	16,626	65,434	19.2	3.9

TABLE 20

U.S. PUBLIC PAYROLLS (DOLLARS IN BILLIONS)

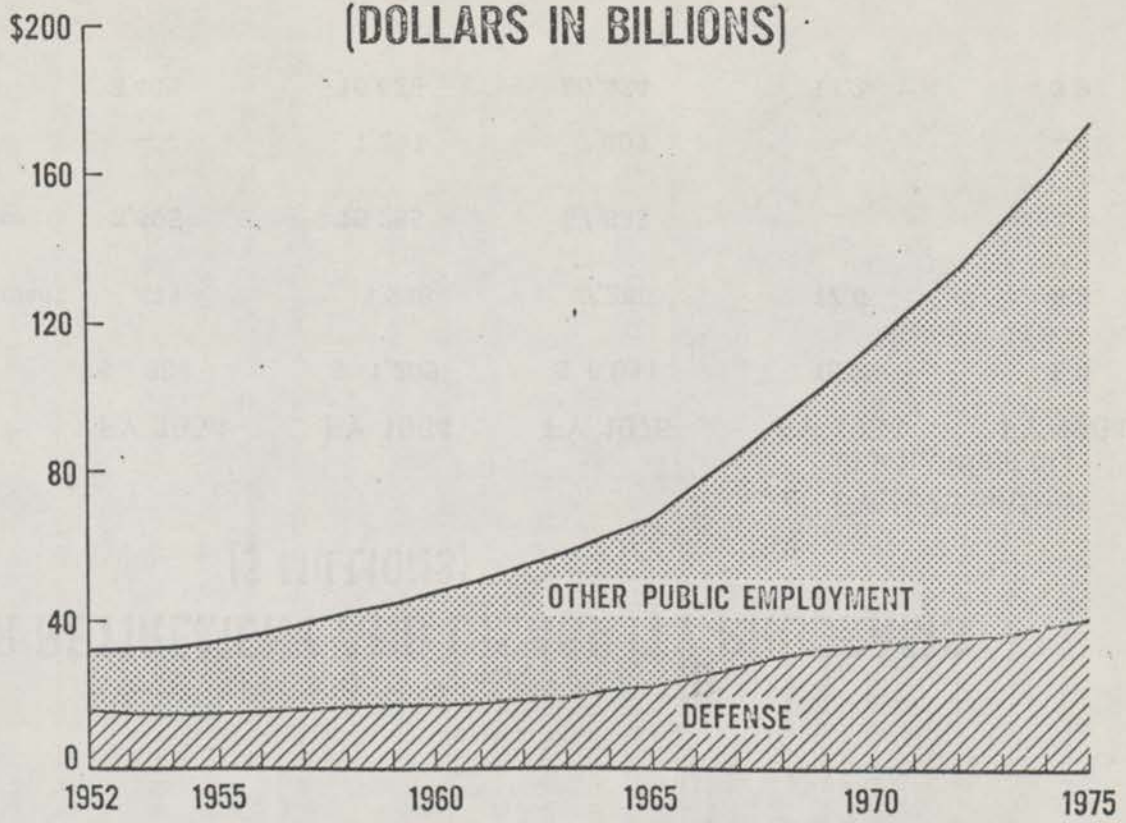


TABLE 21

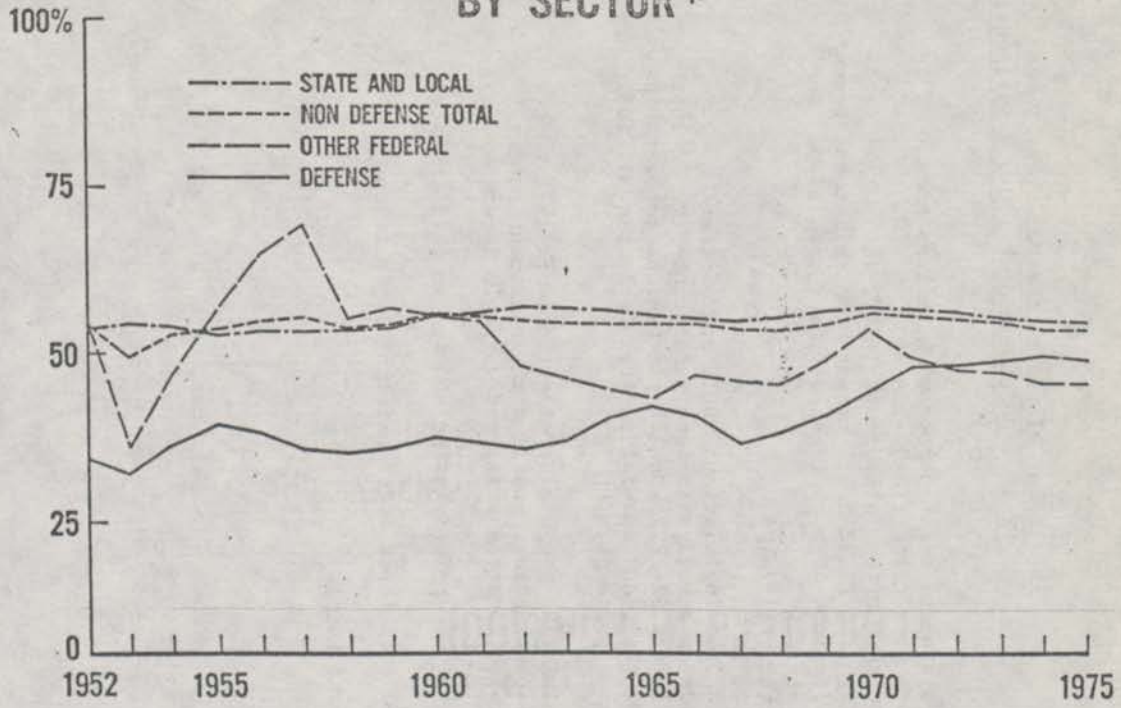
Items Related to the Volunteer Force: Impact on FY 1975 Defense Budget (TOA, $ millions)

Basic pay increase for personnel with less than 2 years of service (PL 92-129)	$2,262
Increase in quarters allowances (PL 92-129)	563
Other items in Pl 92-129: combat arms enlistment bonus, recruiter out-of-pocket expense, and special pay for optometrists	75
Total, PL 92-129	$2,900
Other enacted legislation: ROTC and officer candidates scholarships and subsistence (PL 92-166; 92-171; and 92-172); Health professions scholarships (PL 92-426); and special pay for nuclear-qualified enlisted personnel (PL-581)	71
New legislative proposals reflected in FY 1975 budget (enlistment bonus; modified re-enlistment bonus; medical officers special and variable incentive pay)	153
Total under legislation enacted in 1971 or later	3,124
Expanded activities under existing legislation	450
Grand total	3,574

32-382 O - 74 - 29

TABLE 22

PAYROLL COSTS AS A % OF U.S. PUBLIC SPENDING BY SECTOR*



* PUBLIC SPENDING EXCLUDES PAYMENTS TO RETIREES (MILITARY, CIVIL SERVICE, SOCIAL SECURITY, ETC.) HEALTH BENEFITS, WELFARE PAYMENTS AND SIMILAR TYPE PAYMENTS

TABLE 23

TOTAL U.S. COMPENSATION OF EMPLOYEES PUBLIC AND PRIVATE (DOLLARS IN BILLIONS)

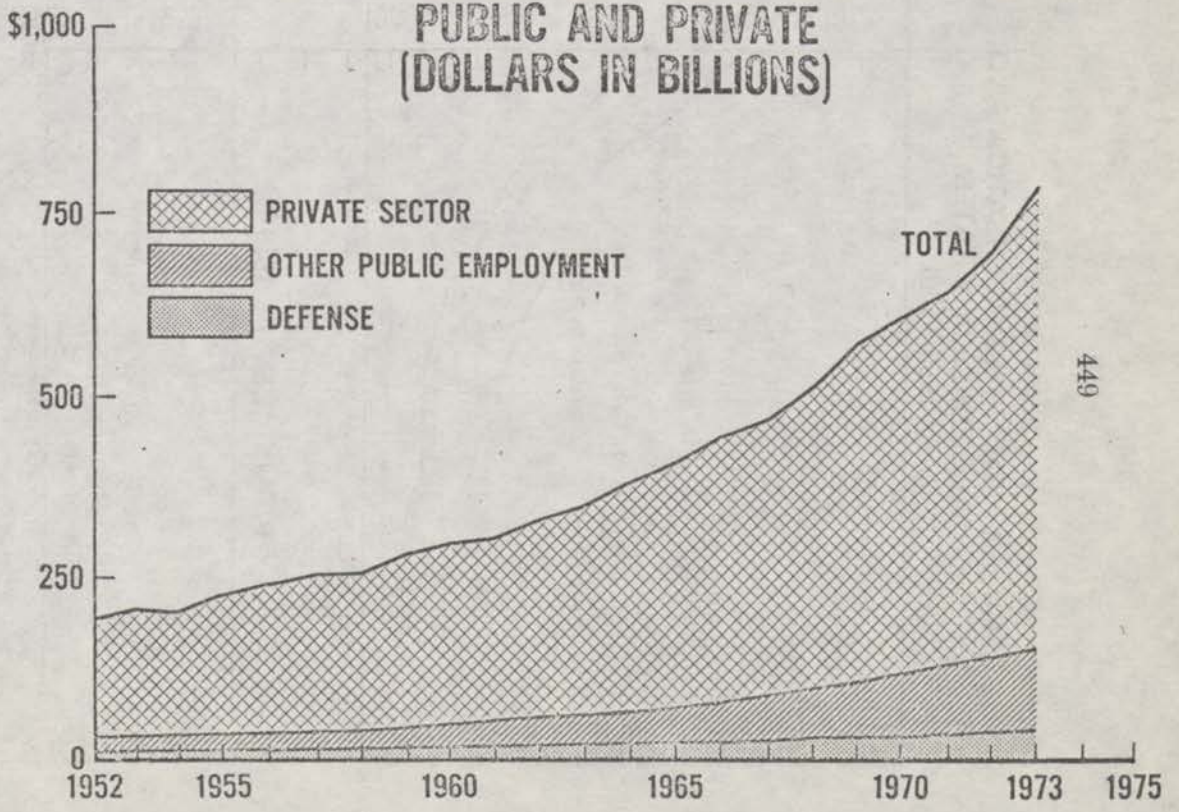


TABLE 24

REGULAR MILITARY COMPENSATION AND CIVIL SERVICE PAY RATES (FY 1950 = 100)

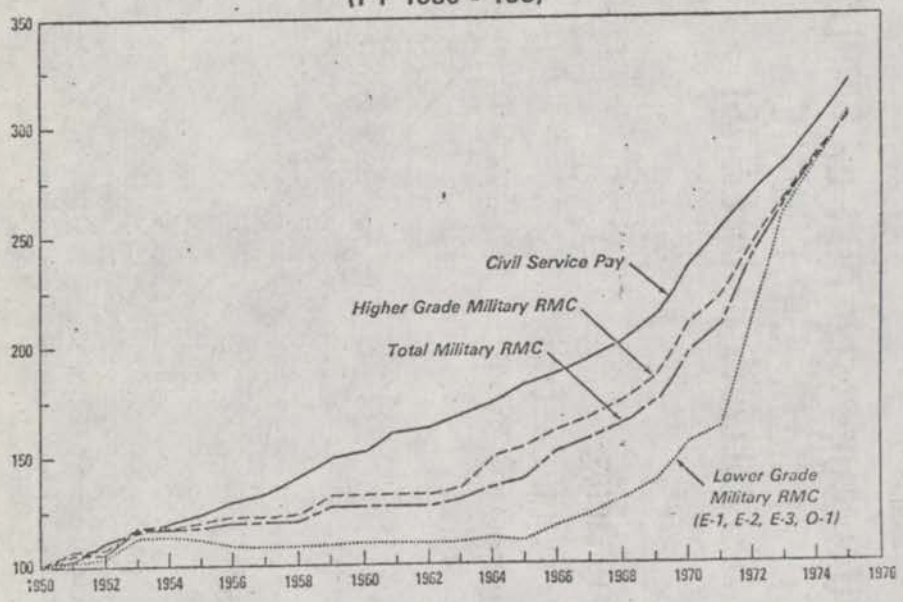


TABLE 25

PAY INDICES, FY 1950 = 100

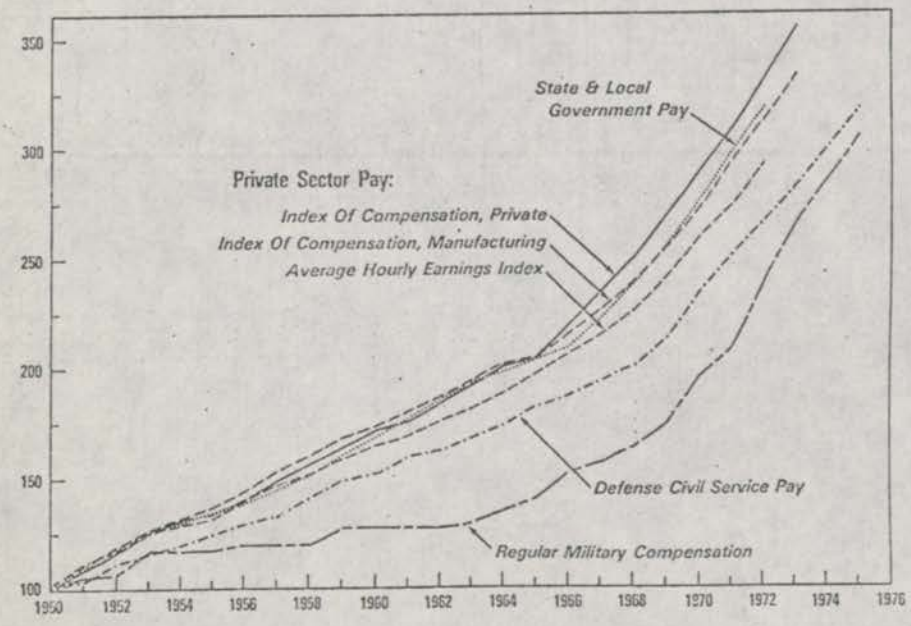


TABLE 26

U.S. Public Payrolls
($ millions)

Calendar Year	Defense Payroll			Non-Defense Payroll			Total Public Payroll
	Military	Civil Service	Total	Federal	State & Local	Total	
1952	$10,770	$ 4,993	$15,763	$ 3,162	$12,225	$15,387	$31,150
1953	10,598	5,028	15,626	2,988	13,306	16,294	31,920
1954	10,245	4,701	14,946	2,859	14,669	17,528	32,474
1955	10,188	5,081	15,269	3,118	15,807	18,925	34,194
1956	10,118	5,486	15,604	3,407	17,585	20,992	36,596
1957	10,266	5,674	15,940	3,668	19,520	23,188	39,128
1958	10,404	5,940	16,344	4,247	21,524	25,771	42,115
1959	10,555	6,160	16,715	4,315	23,280	27,595	44,310
1960	10,631	6,406	17,037	4,831	25,615	30,446	47,483
1961	10,908	6,767	17,675	5,250	27,975	33,225	50,900
1962	11,496	7,113	18,609	5,668	30,391	36,059	54,668
1963	11,651	7,358	19,009	6,252	32,859	39,111	58,120
1964	12,633	7,722	20,355	6,801	35,876	42,677	63,032
1965	13,131	8,074	21,205	7,230	39,346	46,576	67,781
1966	15,753	9,010	24,763	7,826	43,927	51,753	76,516
1967	17,506	9,927	27,433	8,432	49,222	57,654	85,087
1968	19,438	10,761	30,199	9,297	55,434	64,731	94,930
1969	20,734	11,463	32,197	9,980	61,644	71,624	103,821
1970	21,422	12,126	33,548	11,616	69,553	81,169	114,717
1971	21,425	12,965	34,390	13,173	77,562	90,735	125,125
1972	22,436	13,462	35,898	14,383	85,145	99,528	135,426
1973	22,521	13,805	36,326	15,390	95,784	111,174	147,500
1974	23,679	14,586	38,265	16,611	105,093	121,704	159,969
1975	25,133	15,340	40,473	17,977	115,845	133,822	174,295

Table 27

DoD Military and MAP
FY 1964 Program at FY 1975 Prices
($ Millions)

	Actual FY 64 Outlays	Pay Raises and Price Increases	Cost at FY 75 Prices
Military Basic Pay	$ 8,511	178.3%	$23,689
Military Allowances	4,475	62.1%	7,254
Civil Service Pay	7,305	84.3%	13,462
Purchases	29,286	67.0%	48,899
Subtotal	49,576	88.2%	93,305
Retired Pay	1,209	95.4%	2,362
Total	50,786	88.4%	95,667
FY 1975 Defense Budget (Excluding Retired Pay)			79,789
Reduction in Program			(13,516)

TABLE 28

MILITARY SPECIAL PAYS AND ALLOWANCES
APPLICATION OF DEFLATORS FOR FY 1973 PROGRAM
($ MILLIONS)

	At FY 1964 Prices	FY 1964-73 Deflator	At FY 1973 Prices (actual)	FY 1973-75 Deflator	At FY 1975 Prices	FY 1964-75 Deflator
Statutory items:						
Enl. subs. ($2.57 rate)	$ 62	100.0	$ 62	100.0	$ 62	100.0
BAQ	1,254	147.7	1,852	100.0	1,852	147.7
Rates unchanged since 6/30/63	791	100.0	791	100.0	791	100.0
Interest on savings deposits	–	–	30	15.1	4	–
Enlistment bonus	–	–	41	100.0	41	–
Family sep. payments	39	136.5	53	100.0	53	136.5
FY 1974-75 legislation	–	–	–	–	187	–
Other legis, FY 1964-73	–	–	14	100.0	14	–
Cost related & other:						
Enlisted subsistence	668	149.5	998	146.6	1,464	219.2
PCS Travel & trans	837	145.8	1,221	112.3	1,371	163.8
Enlisted clothing	194	130.4	254	117.6	298	153.3
Station allowance overseas	61	236.6	144	121.8	175	288.2
MASF	70	195.8	138	116.4	160	227.9
Hostile fire pay	61	118.2	72	100.0	72	118.2
All other	21	139.4	28	121.0	34	168.6
Total, active forces	4,058	140.4	5,698	115.5	6,578	162.1
Reserve forces	230	140.4	323	115.5	373	162.1
TOA total	4,288	140.4	6,021	115.5	6,951	162.1
Outlays	4,008	140.4	5,628	115.5	6,497	162.1

Table 29

Value Added and Productivity Measures

	Last Year			This Year		
	Current Prices	Deflator	Constant Prices	Current Prices	Deflator	Constant Prices
Output	$130.00	106.0	$122.60	$190.00	109.0	$174.31
Input	90.00	105.0	85.70	140.00	108.0	129.63
Value Added	$ 40.00	108.4	$ 36.90	$ 50.00	111.9	$ 44.68
Labor Hours			10			11.8
Value Added per Labor Hour			$ 3.69			$ 3.79
Growth in Value added per Labor Hour (Labor Productivity)					+2.7%	
Ratio of Total Output to Total Input			1.43			1.34
Decline in Total Factor Productivity (Oversimplified)					-6.0%	
Long Term Annual Averages:						
Labor Productivity (1947-73)					+2.75%	
Total Factor Productivity (1950-62)					+1.2%	

TABLE 30

DEFLATORS

COMPENSATION AND PURCHASED GOODS AND SERVICES

(CY 1958 = 100)

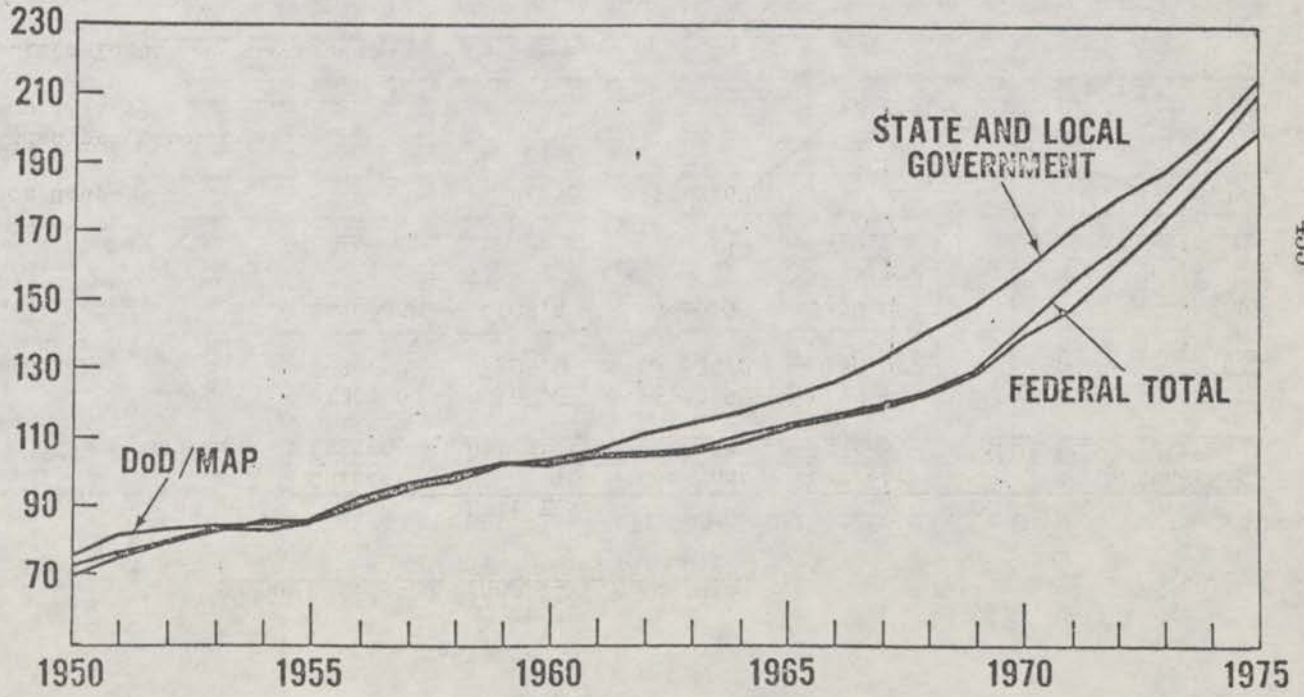


TABLE 31

Federal Unified Budget
(Outlays, $ Millions; Fiscal Years)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
Mil. Functions & Mil. Assistance	1,075	1,498	6,006	23,570	62,660	75,914	80,356	43,549	12,499	12,434	12,159	12,025	20,667	41,250	47,512
Other National Defense	--	6	56	400	552	960	1,229	1,182	560	581	938	1,094	1,877	2,765	2,901
Total National Defense	1,075	1,504	6,062	23,970	63,212	76,874	81,585	44,731	13,059	13,015	13,097	13,119	22,544	44,015	50,413
Education & Manpower	100	73	142	188	198	197	234	110	97	171	165	219	221	322	425
Health	--	48	53	61	73	152	186	173	146	150	183	252	307	330	318
Income Security	700	1,460	1,628	1,454	1,136	1,080	1,173	2,509	2,762	2,782	3,580	4,707	4,442	5,206	6,128
Veterans Benefits & Services	560	628	629	603	613	709	1,132	3,364	6,907	6,445	6,601	8,837	5,530	5,350	4,522
Total, Human Resources	1,360	2,209	2,452	2,306	2,020	2,138	2,725	6,156	9,912	9,548	10,529	14,015	10,500	11,208	11,393
Agriculture & Rural Development	1,199	1,580	1,530	1,833	785	1,228	1,623	478	1,274	604	2,547	2,818	691	1,086	2,965
Natural Resources & Environment	360	481	459	541	510	412	329	322	554	770	1,089	1,246	1,311	1,409	1,517
Commerce & Transportation	3,769	2,643	2,152	3,549	7,515	7,740	4,147	849	664	1,063	1,482	1,618	1,482	1,807	1,826
Community Development & Housing	-148	28	122	207	297	307	-191	-579	260	100	295	250	501	589	397
Total, Physical Resources	5,180	4,732	4,263	6,130	9,107	9,687	5,908	1,070	2,752	2,537	5,413	5,932	3,985	4,891	6,705
Interest	950	1,049	1,116	1,263	1,786	2,544	3,549	4,694	4,903	5,135	5,414	5,744	5,628	5,834	6,450
International Affairs & Finance	20	52	146	1,841	3,320	3,642	3,312	2,739	4,552	4,651	6,121	4,775	3,822	2,954	2,268
Space Research & Technology	2	3	8	12	23	30	38	32	35	38	49	54	62	67	79
General Government	335	354	384	480	791	886	758	885	1,224	1,294	1,060	1,174	1,312	1,463	1,497
Total, Other	357	409	538	2,333	4,134	4,558	4,108	3,656	5,811	5,983	7,230	6,003	5,196	4,484	3,844
Undistributed Intragovernmental	-8	-314	-451	-1,502	-1,350	-1,845	-2,691	1,431	494	275	-1,113	-1,666	-2,056	-2,470	-2,036
Net Total	8,841	9,589	13,980	34,500	78,909	93,956	95,184	61,738	36,931	36,493	40,570	43,147	45,797	67,962	76,769
National Defense	1,075	1,504	6,062	23,970	63,212	76,874	81,585	44,731	13,059	13,015	13,097	13,119	22,544	44,015	50,413
Veterans, Space, International	582	683	783	2,456	3,956	4,381	4,482	6,135	11,494	11,134	12,771	13,666	9,414	8,371	6,869
Interest	950	1,049	1,116	1,263	1,786	2,544	3,549	4,694	4,903	5,135	5,414	5,744	5,628	5,834	6,450
Social & Economic	6,234	6,667	6,470	8,313	11,305	12,002	8,259	4,747	6,981	6,934	10,401	12,284	10,267	12,212	15,073
Agency Total	8,841	9,903	14,431	36,002	80,259	95,801	97,875	60,307	36,437	36,218	41,683	44,813	47,853	70,432	78,805
Undistributed Intragovernmental	--	-314	-451	-1,502	-1,350	-1,845	-2,691	1,431	494	275	-1,113	-1,666	-2,056	-2,470	-2,036
Net Total	8,841	9,589	13,980	34,500	78,909	93,956	95,184	61,738	36,931	36,493	40,570	43,147	45,797	67,962	76,769

FEDERAL UNIFIED BUDGET
(Outlays, $ Millions; Fiscal Years)

TABLE 31 Page 2

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
Mil. Functions & Mil. Assistance	43,621	37,386	37,994	40,188	41,403	43,703	43,110	44,643	48,253	49,549	50,786	47,098	55,182
Other National Defense	3,024	2,859	2,311	2,572	2,968	2,914	2,798	2,738	2,844	2,708	2,805	2,480	1,604
Total National Defense	46,645	40,245	40,305	42,760	44,371	46,617	45,908	47,381	51,097	52,257	53,591	49,578	56,785
Education & Manpower	437	573	674	672	820	916	1,076	1,175	1,379	1,591	1,762	2,290	4,265
Health	288	271	342	461	540	655	755	871	1,128	1,376	1,713	1,700	2,505
Income Security	7,760	9,122	9,789	11,522	15,016	17,305	18,261	21,331	22,612	24,034	25,141	25,711	28,932
Veterans Benefits & Services	4,341	4,522	4,810	4,870	5,184	5,427	5,427	5,688	5,625	5,520	5,681	5,722	5,921
Total, Human Resources	12,826	14,488	15,615	17,525	21,560	24,303	25,519	29,065	30,744	32,521	34,297	35,423	41,623
Agriculture & Rural Development	2,373	4,023	3,991	3,082	3,224	5,365	3,322	3,340	4,122	5,138	5,184	4,805	3,676
Natural Resources & Environment	941	493	251	752	870	1,179	1,000	1,560	1,675	1,498	1,966	2,056	2,036
Commerce & Transportation	1,118	1,128	1,791	2,171	3,033	4,503	4,812	5,069	5,459	5,797	6,531	7,440	7,302
Community Development & Housing	-639	12	80	832	109	846	966	191	589	-880	-185	288	2,644
Total, Physical Resources	3,793	5,656	6,113	6,837	7,236	11,893	10,100	10,160	11,845	11,553	13,496	14,589	15,658
Interest	6,012	6,030	6,292	6,679	6,944	7,070	8,298	8,108	8,321	9,215	9,810	10,358	11,285
International Affairs & Finance	1,503	2,038	2,181	3,074	3,063	3,267	3,054	3,357	4,492	4,115	4,117	4,340	4,490
Space Research & Technology	90	74	71	76	89	145	401	744	1,257	2,552	4,170	5,091	5,933
General Government	1,247	1,187	1,331	1,643	1,243	1,047	1,239	1,429	1,570	1,742	1,979	2,160	2,240
Total Other	2,840	3,299	3,583	4,793	4,395	4,459	4,694	5,530	7,319	8,409	10,266	11,591	12,663
Undistributed Intragovernmental	-1,226	-1,209	-1,448	-1,853	-1,931	-2,238	-2,296	-2,449	-2,513	-2,644	-2,877	-3,109	-3,364
Net Total	70,890	68,509	70,460	76,741	82,575	92,104	92,223	97,795	106,813	111,311	118,584	118,430	134,652
National Defense	46,645	40,245	40,305	42,760	44,371	46,617	45,908	47,381	51,097	52,257	53,591	49,578	56,785
Veterans, Space, International	5,934	6,634	7,062	8,020	8,336	8,839	8,882	9,789	11,374	12,187	13,968	15,153	16,344
Interest	6,012	6,030	6,292	6,679	6,944	7,070	8,298	8,108	8,321	9,215	9,810	10,358	11,285
Social & Economic	13,525	16,809	18,249	21,135	24,855	31,816	31,431	34,965	38,532	40,296	44,093	46,447	53,601
Agency Total	72,116	69,718	71,908	78,594	84,506	94,342	94,519	100,243	109,324	113,955	121,462	121,536	138,015
Undistributed Intragovernmental	-1,226	-1,209	-1,448	-1,853	-1,931	-2,238	-2,296	-2,449	-2,513	-2,644	-2,877	-3,109	-3,364
Net Total	70,890	68,509	70,460	76,741	82,575	92,104	92,223	97,795	106,813	111,311	118,584	118,430	134,652

FEDERAL UNIFIED BUDGET
(Outlays, $ Millions, Fiscal Years)

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Mil. Functions & Mil. Assistance	68,315	78,027	78,661	77,880	75,545	75,957	73,828	79,500	85,800	92,000
Other National Defense	1,766	2,490	2,571	2,415	2,116	2,379	2,193	1,073	1,929	2,700
Total National Defense	70,081	80,517	81,232	80,295	77,661	78,336	76,021	80,573	87,729	94,700
Education & Manpower	5,880	6,743	6,529	7,289	8,226	9,752	10,185	10,819	11,537	12,300
Health	6,661	9,603	11,604	12,898	14,452	17,099	18,417	23,268	26,282	28,600
Income Security	31,168	34,139	37,748	43,734	56,128	64,909	73,073	84,995	100,071	107,200
Veterans Benefits & Services	6,899	6,882	7,640	8,677	9,776	10,731	12,013	13,285	13,612	13,800
Total, Human Resources	50,608	57,367	63,521	72,598	88,582	102,491	113,688	132,367	151,502	161,900
Agriculture & Rural Development	4,373	5,940	6,218	6,201	5,096	7,063	6,191	4,039	2,729	3,400
Natural Resources & Environment	1,878	1,722	2,169	2,568	2,716	3,761	589	609	3,128	4,100
Commerce & Transportation	7,647	8,126	7,942	9,455	11,428	11,284	13,070	13,521	13,400	13,900
Community Development & Housing	2,616	4,076	1,961	2,965	3,357	4,282	4,132	5,450	5,667	7,400
Total, Physical Resources	16,514	19,864	18,290	21,189	22,597	26,390	23,982	23,619	24,924	28,800
Interest	12,588	13,746	15,791	18,312	19,609	20,582	22,813	27,754	29,122	30,400
International Affairs & Finance	4,547	4,619	3,785	3,570	3,095	3,726	2,957	3,886	4,103	4,100
Space Research & Technology	5,423	4,721	4,247	3,749	3,381	3,422	3,311	3,177	3,272	4,200
General Government	2,429	2,500	2,800	3,255	3,875	4,787	5,480	6,800	6,774	7,000
General Revenue Sharing and other							6,636	6,447	7,736	10,700
Total, Other	12,399	11,840	10,832	10,574	10,351	11,935	18,384	20,310	21,885	26,000
Undistributed Intragovernmental	-3,936	-4,499	-5,117	-6,380	-7,376	-7,857	-8,363	-9,963	-10,717	-11,600
Net Total	158,254	178,833	184,548	196,588	211,425	231,876	246,526	274,660	304,445	330,200
National Defense	70,081	80,517	81,232	80,295	77,661	78,336	76,021	80,573	87,729	94,700
Veterans, Space; International	16,869	16,222	15,672	15,996	16,252	17,879	18,281	20,348	20,987	22,100
Interest	12,588	13,746	15,791	18,312	19,609	20,582	22,813	27,754	29,122	30,400
Social & Economic	62,652	72,847	76,970	88,365	105,279	122,936	137,774	155,948	177,324	194,600
Agency Total	162,190	183,332	189,665	202,968	218,801	239,733	254,889	284,623	315,162	341,800
Undistributed Intragovernmental	-3,936	-4,499	-5,117	-6,380	-7,376	-7,857	-8,363	-9,963	-10,717	-11,600
Net Total	158,254	178,833	184,548	196,588	211,425	231,876	246,526	274,660	304,445	330,200

Source: OMB. For FY 1939, figures are for administrative budget. FY 1940-53 figures are on the consolidated cash basis. FY 1954 and later figures are on the unified budget basis. This is the basis that OMB uses to show outlays on a comparable basis since FY 1939. OMB personnel state that FY 1940-53 consolidated cash figures closely approximate unified budget figures, and that FY 1939 outlays would be very nearly the same on any of the three bases.

TABLE 32

Federal Unified Budget
(Outlays, % of Net Total, Fiscal Year)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
Military Functions & Military Assistance	12.2	15.6	43.0	68.3	79.4	80.8	84.4	70.5	33.8	34.1	30.0	27.9	45.1	60.7	61.9
Other National Defense	-	.1	.4	1.2	.7	1.0	1.3	2.0	1.6	1.6	2.3	2.5	4.1	4.1	3.8
Total National Defense	12.2	15.7	43.4	69.5	80.1	81.8	85.7	72.5	35.4	35.7	32.3	30.4	49.2	64.8	65.7
Education & manpower	1.1	.7	1.0	.5	.3	.2	.2	.2	.3	.5	.4	.5	.5	.5	.6
Health	-	.5	.4	.2	.1	.2	.2	.3	.4	.4	.5	.6	.7	.5	.4
Income security	7.9	15.2	11.6	4.2	1.4	1.1	1.2	4.1	7.5	7.6	8.8	10.9	9.7	7.7	8.0
Veterans benefits & services	6.3	6.6	4.5	1.7	.8	.8	1.2	5.4	18.7	17.7	16.3	20.5	12.1	7.9	5.9
Total, human resources	15.4	23.0	17.5	6.7	2.6	2.3	2.9	10.0	26.8	26.7	26.0	32.5	22.9	16.5	14.8
Agricultural & rural development	13.6	16.5	10.9	5.3	1.0	1.3	1.7	.8	3.4	1.7	6.3	6.5	1.5	1.6	3.9
Natural resources & environment	4.1	5.0	3.3	1.6	.6	.4	.3	.5	1.5	2.1	2.7	2.9	2.9	2.1	2.0
Commerce & transportation	42.6	27.6	15.4	10.3	9.5	8.2	4.4	1.4	1.8	2.9	3.7	3.8	3.2	2.7	2.4
Community development & housing	-1.7	.3	.9	.6	.4	.3	- .2	- .9	.7	.3	.7	.6	1.1	.9	.5
Total, physical resources	58.6	49.3	30.5	17.8	11.5	10.3	6.2	1.7	7.5	7.0	13.3	13.7	8.7	7.2	8.7
Interest	10.7	10.9	8.0	3.7	2.3	2.7	3.7	7.6	13.3	14.1	13.3	13.3	12.3	8.6	8.4
International affairs & finance	.2	.5	1.0	5.3	4.2	3.9	3.5	4.4	12.3	12.7	15.1	11.1	8.3	4.3	3.0
Space research & technology	-	-	.1	-	-	-	-	.1	.1	.1	.1	.1	.1	.1	.1
General government	3.8	3.7	2.7	1.4	1.0	.9	.8	1.4	3.3	3.5	2.6	2.7	2.9	2.2	2.0
Total, other	4.0	4.3	3.8	6.8	5.2	4.9	4.3	5.9	15.7	16.4	17.8	13.9	11.3	6.6	5.0
Undistributed, intragovernmental	- .9	-3.3	-3.2	-4.4	-1.7	-2.0	-2.8	2.3	1.3	.8	-2.7	-3.9	-4.5	-3.6	-2.7
Net total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National Defense	12.2	15.7	43.4	69.5	80.1	81.8	85.7	72.5	35.4	35.7	32.3	30.4	49.2	64.8	65.7
Veterans, space & international	6.6	7.1	5.6	7.1	5.0	4.7	4.7	9.9	31.1	30.5	31.5	31.7	20.6	12.3	8.9
Interest	10.7	10.9	8.0	3.7	2.3	2.7	3.7	7.6	13.3	14.1	13.3	13.3	12.3	8.6	8.4
Social & economic	70.5	69.5	46.3	24.1	14.3	12.8	8.7	7.7	18.9	19.0	25.6	28.5	22.4	18.0	19.6
Agency total	100.0	103.3	103.2	104.4	101.7	102.0	102.8	97.7	98.7	99.2	102.7	103.9	104.5	103.6	102.7
Undistributed, intragovernmental	-	-3.3	-3.2	-4.4	-1.7	-2.0	-2.8	2.3	1.3	.8	-2.7	-3.9	-4.5	-3.6	-2.7
Net total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Military Functions & Military Assistance	(12.2)	(15.1)	(41.6)	(65.5)	(78.1)	(79.2)	(82.1)	(72.2)	(34.3)	(34.3)	(29.2)	(26.8)	(47.1)	(58.6)	(60.3)
National Defense	12.2	15.2	42.0	66.6	78.8	80.2	83.4	74.2	35.8	35.9	31.4	29.3	47.1	62.5	64.0
Veterans, space & International	6.6	6.9	5.4	6.8	4.9	4.6	4.6	10.2	31.5	30.7	30.6	30.5	19.7	11.9	8.7
Interest	10.7	10.6	7.7	3.5	2.2	2.7	3.6	7.8	13.5	14.2	13.1	12.8	11.8	8.3	8.2
Social & economic	70.5	67.3	44.9	23.1	14.1	12.5	8.4	7.8	19.2	19.2	24.9	27.4	21.4	17.3	19.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Federal Unified Budget
(Outlays, % of Net Total, Fiscal Year)

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
Military Functions & Military Assistance	61.5	54.6	53.9	52.4	50.1	47.5	46.8	45.7	45.2	44.5	42.8	39.8	41.0
Other National Defense	4.3	4.1	3.3	3.3	3.6	3.1	3.0	2.7	2.6	2.4	2.4	2.1	1.2
Total National Defense	65.8	58.7	57.2	55.7	53.7	50.6	49.8	48.4	47.8	46.9	45.2	41.9	42.2
Education & manpower	.6	.8	1.0	.9	1.0	1.0	1.1	1.2	1.3	1.3	1.5	1.9	3.2
Health	.4	.4	.5	.6	.7	.7	.8	.9	1.1	1.2	1.4	1.4	1.9
Income security	10.9	13.3	13.9	15.0	18.2	18.8	19.8	21.8	21.2	21.6	21.2	21.7	21.5
Veterans benefits & services	6.1	6.6	6.8	6.3	6.3	5.9	5.9	5.8	5.8	5.0	4.8	4.8	4.4
Total, human resources	18.1	21.1	22.2	22.8	26.1	26.5	27.7	29.7	28.8	29.2	28.9	29.9	31.0
Agricultural & rural development	3.3	5.9	5.7	4.0	3.9	5.8	3.6	3.4	3.9	4.6	4.4	4.1	2.7
Natural resources & environment	1.3	.7	.4	1.0	1.1	1.3	1.1	1.6	1.6	1.3	1.7	1.7	1.5
Commerce & transportation	1.6	1.6	2.5	2.8	3.7	4.9	5.2	5.2	5.1	5.2	5.5	6.2	3.4
Community development & housing	-.9	-	.1	1.1	.1	.9	1.1	.2	.6	-.8	-.2	.2	2.0
Total, physical resources	5.4	8.3	8.7	8.9	8.8	12.9	10.9	10.4	11.1	10.4	11.4	12.3	11.6
Interest	8.5	8.8	8.9	8.7	8.4	7.7	9.0	8.3	7.8	8.3	8.3	8.7	8.4
International affairs & finance	2.1	3.0	3.1	4.0	3.7	3.5	3.3	3.4	4.2	3.7	3.5	3.7	3.3
Space research & technology	.1	.1	.1	.1	.1	.2	.4	.8	1.2	2.3	3.5	4.3	4.4
General government	1.8	1.7	1.9	2.1	1.5	1.1	1.3	1.5	1.4	1.6	1.7	1.9	1.6
Total, other	4.0	4.8	5.1	6.2	5.3	4.8	5.1	5.7	6.8	7.6	8.7	9.8	9.3
Undistributed, intragovernmental	-1.7	-1.8	-2.1	-2.4	-2.3	-2.4	-2.5	-2.5	-2.4	-2.4	-2.4	-2.6	-2.5
Net total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National Defense	65.8	58.7	57.2	55.7	53.7	50.6	49.8	48.4	47.8	46.9	45.2	41.9	42.2
Veterans, space & international	8.4	9.7	10.0	10.5	10.1	9.6	9.6	10.0	10.6	10.9	11.8	12.8	12.1
Interest	8.5	8.8	8.9	8.7	8.4	7.7	9.0	8.3	7.8	8.3	8.3	8.7	8.4
Social & economic	19.1	24.5	25.9	27.5	30.1	34.5	34.1	35.8	36.1	36.2	37.2	39.2	39.9
Agency total	101.7	101.8	102.1	102.4	102.3	102.4	102.5	102.5	102.4	102.4	102.4	102.6	102.5
Undistributed, intragovernmental	-1.7	-1.8	-2.1	-2.4	-2.3	-2.4	-2.5	-2.5	-2.4	-2.4	-2.4	-2.6	-2.5
Net total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Military Functions & Military Assistance	(60.5)	(53.6)	(52.8)	(51.1)	(49.0)	(46.3)	(45.6)	(44.5)	(44.1)	(43.5)	(41.8)	(38.8)	(40.0)
National Defense	64.7	57.7	56.0	54.4	52.5	49.4	48.6	47.2	46.7	45.9	44.1	40.8	41.2
Veterans, space & international	8.2	9.5	9.8	10.2	9.9	9.4	9.4	9.8	10.4	10.7	11.5	12.5	11.8
Interest	8.3	8.7	8.8	8.5	8.2	7.5	8.8	8.1	7.6	8.1	8.1	8.5	8.2
Social and economic	18.8	24.1	25.4	26.9	29.4	33.7	33.2	34.9	35.3	35.3	36.3	38.2	38.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Federal Unified Budget
(Outlays, % of Net Total, Fiscal Year)

TABLE 32 Page 3

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Military Functions & Military Assistance	43.2	43.6	42.6	39.6	35.7	32.8	29.9	28.9	28.2	27.9
Other National Defense	1.1	1.4	1.4	1.2	1.0	1.0	.9	.4	.6	.8
Total National Defense	44.3	45.0	44.0	40.8	36.7	33.8	30.8	29.3	28.8	28.7
Education & manpower	3.7	3.8	3.5	3.7	3.9	4.2	4.1	3.9	3.8	3.7
Health	4.2	5.4	6.3	6.6	6.8	7.4	7.5	8.5	8.6	8.7
Income Security	19.7	19.1	20.4	22.2	26.6	28.0	29.6	31.0	32.9	32.5
Veterans benefits & services	4.4	3.8	4.1	4.4	4.6	4.6	4.9	4.8	4.5	4.2
Total, human resources	32.0	32.1	34.4	36.9	41.9	44.2	46.1	48.2	49.8	49.0
Agricultural & rural development	2.8	3.3	3.4	3.2	2.4	3.0	2.5	1.5	.9	1.0
Natural resources & environment	1.2	1.0	1.2	1.3	1.3	1.6	.2	.2	1.0	1.2
Commerce & transportation	4.8	4.5	4.3	4.8	5.3	4.9	5.3	4.9	4.4	4.2
Community development & housing	1.7	2.3	1.1	1.5	1.6	1.8	1.7	2.0	1.9	2.2
Total, physical resources	10.4	11.1	9.9	10.8	10.6	11.4	9.7	8.6	8.2	8.7
Interest	8.0	7.7	8.6	9.3	9.3	8.9	9.3	10.1	9.6	9.2
International affairs & finance	2.9	2.6	2.1	1.8	1.5	1.6	1.3	1.4	1.3	1.2
Space research & technology	3.4	2.6	2.3	1.9	1.6	1.5	1.3	1.2	1.1	1.3
General government	1.6	1.4	1.6	1.7	1.9	2.0	2.2	2.5	2.2	2.1
General revenue sharing	-	-	-	-	-	-	2.7	2.2	2.0	3.2
Total, other	7.9	6.7	5.9	5.4	4.9	5.1	7.5	7.3	6.6	7.9
Undistributed, intragovernmental	-2.5	-2.5	-2.8	-3.2	-3.5	-3.4	-3.4	-3.5	-3.5	-3.5
Net total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National Defense	44.3	45.0	44.0	40.8	36.7	33.8	30.8	29.3	28.8	28.7
Veterans, space, international	10.7	9.1	8.5	8.1	7.7	7.7	7.5	7.4	6.9	6.7
Interest	8.0	7.7	8.6	9.3	9.3	8.9	9.3	10.1	9.6	9.2
Social & economic	39.6	40.7	41.7	44.9	49.8	53.0	55.8	56.8	58.2	58.9
Agency total	102.5	102.5	102.8	103.2	103.5	103.4	103.4	103.6	103.5	103.5
Undistributed, intragovernmental	-2.5	-2.5	-2.8	-3.2	-3.5	-3.4	-3.4	-3.6	-3.5	-3.5
Net total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Military Functions & Military Assistance	(42.1)	(42.6)	(41.5)	(38.4)	(34.5)	(31.7)	(29.0)	(27.9)	(27.2)	(26.9)
National Defense	43.2	43.9	42.8	39.6	35.5	32.7	29.8	28.3	27.8	27.7
Veterans, space & international	10.4	8.9	8.3	7.9	7.4	7.4	7.2	7.1	6.7	6.5
Interest	7.8	7.5	8.3	9.0	9.0	8.6	9.0	9.8	9.2	8.9
Social & economic	38.6	39.7	40.6	43.5	48.1	51.3	54.0	54.8	56.3	56.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 33

ADMINISTRATIVE BUDGET
(Outlays, $ Millions, Fiscal Years)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
National Defense	1,075	1,498	6,054	23,970	63,216	76,757	81,277	43,226	14,398	11,779	12,926	13,018	22,471	44,037	50,442
Veterans Benefits & Services	560	552	566	558	606	745	2,095	4,415	7,381	6,653	6,725	6,646	5,400	4,933	4,368
International Affairs & Finance	20	51	145	1,839	3,299	3,642	3,312	3,107	6,536	4,566	6,052	4,674	3,736	2,826	2,216
Space Research & Technology	2	3	8	12	23	30	38	32	35	38	49	54	62	67	79
Subtotal	582	606	719	2,409	3,928	4,417	5,445	7,554	13,952	11,257	12,826	11,374	9,198	7,826	6,663
Agriculture & Rural Development	1,199	1,538	1,314	1,482	610	1,215	1,607	747	1,243	575	2,512	2,795	676	1,068	2,955
Natural Resources	360	471	452	533	501	402	319	342	548	743	1,057	1,206	1,275	1,367	1,478
Commerce & Transportation	662	454	577	2,600	7,211	7,725	4,143	886	655	1,218	1,618	1,759	1,625	1,888	1,926
Housing & Community Development	-148	35	129	215	309	316	-185	-193	356	94	295	268	531	593	396
Health, Labor & Welfare	3,866	3,000	2,536	1,926	1,132	881	864	865	1,148	1,213	1,433	1,790	1,863	1,916	2,052
Education	41	41	43	47	47	94	154	79	62	68	67	78	103	191	320
General Government	335	370	409	515	825	989	880	1,047	1,353	1,263	1,054	1,170	1,307	1,445	1,461
Adjustments & Interfunds	-81	-14	-101	-933	-236	-433	137	957	196	-503	241	269	-793	-962	-156
Total Social & Economic	6,234	5,895	5,359	6,386	10,399	11,189	7,919	4,730	5,561	4,671	8,277	9,335	6,587	7,506	10,432
Interest	950	1,056	1,123	1,272	1,825	2,623	3,662	4,816	5,012	5,248	5,445	5,817	5,714	5,934	6,583
Total Administrative Budget	8,841	9,055	13,255	34,037	79,368	94,986	98,303	60,326	38,923	32,955	39,474	39,544	43,970	65,303	74,120

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Administrative Budget
(Federal Funds)
(Outlays, $ Millions, Fiscal Years)

TABLE 33 Page 2

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
National Defense	46,630	40,213	40,268	42,907	44,270	46,642	45,857	47,417	51,091	52,533	53,830	49,657	56,742
Education & Manpower	437	573	674	672	820	870	1,051	1,097	1,224	1,357	1,574	2,092	4,000
Health	288	271	342	461	540	654	756	873	1,130	1,379	1,731	1,714	2,443
Income Security	1,756	1,722	1,805	1,949	2,228	3,017	2,721	3,125	3,151	2,691	3,035	3,291	3,484
Veterans Benefits & Services	4,071	4,370	4,731	4,750	5,010	5,267	5,244	5,389	5,400	5,185	5,493	5,594	5,880
Total, Human Resources	6,552	6,936	7,552	7,832	8,598	9,808	9,772	10,484	10,905	10,612	11,833	12,691	15,807
Agriculture & Rural Development	2,382	4,023	3,968	3,038	2,980	5,043	3,134	3,169	3,948	4,886	4,934	4,460	3,143
Natural Resources & Environment	941	493	253	752	870	1,200	1,007	1,570	1,708	1,513	1,983	2,114	2,061
Commerce & Transportation	1,220	1,226	1,895	1,309	1,636	1,977	1,979	2,590	2,800	2,903	3,048	3,550	3,425
Community Development & Housing	-639	96	-32	-139	4	717	-17	280	272	-150	-148	197	1,166
Total, Physical Resources	3,904	5,838	6,084	4,960	5,490	8,937	6,103	7,609	8,728	9,152	9,817	10,321	9,795
Interest	6,012	6,030	6,292	6,679	6,944	7,070	8,299	8,108	8,321	9,215	9,810	10,357	11,285
International Affairs & Finance	1,503	2,038	2,181	3,074	3,063	3,267	3,054	3,357	4,492	4,115	4,117	4,340	4,490
Space Research & Technology	90	74	71	76	89	145	401	744	1,257	2,552	4,170	5,091	5,933
General Government	1,272	1,213	1,361	1,674	1,278	1,209	1,368	1,581	1,741	1,892	2,155	2,328	2,409
Total Other	2,865	3,325	3,613	4,824	4,430	4,621	4,823	5,682	7,490	8,559	10,442	11,759	12,832
Undistributed	-39	-63	-48	-60	-1	-7	11	36	59	70	29	22	51
Net Total	65,924	62,279	63,761	67,142	69,731	77,071	74,865	79,336	86,594	90,141	95,761	94,807	106,512
National Defense	46,630	40,213	40,268	42,907	44,270	46,642	45,857	47,417	51,091	52,533	53,830	49,657	56,742
Veterans, Space, International	5,664	6,482	6,983	7,900	8,162	8,679	8,699	9,490	11,149	11,852	13,780	15,025	16,303
Interest	6,012	6,030	6,292	6,679	6,944	7,070	8,299	8,108	8,321	9,215	9,810	10,357	11,285
Social & Economic	7,618	9,554	10,218	9,656	10,355	14,680	12,010	14,321	16,033	16,541	18,341	19,768	22,182
Net Total	65,924	62,279	63,761	67,142	69,731	77,071	74,865	79,336	86,594	90,141	95,761	94,807	106,512

Administrative Budget
(Federal Funds)
(Outlays, $ Millions, Fiscal Years)

TABLE 33 Page 3

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
National Defense	70,089	80,463	81,129	80,158	77,657	78,249	76,364	80,721	87,879	95,000
Education & Manpower	5,557	6,415	6,157	6,924	7,852	9,362	9,794	10,402	11,115	11,900
Health	4,236	5,221	6,784	7,339	8,736	10,265	10,781	13,607	14,959	15,900
Income Security	3,956	4,762	5,718	7,183	10,616	14,238	13,670	16,596	19,828	21,700
Veterans Benefits & Services	6,426	6,917	7,426	8,381	9,512	10,404	11,910	13,069	13,366	13,500
Total Human Resources	20,175	23,315	26,085	29,827	36,716	44,269	46,155	53,674	59,268	63,000
Agriculture & Rural Development	3,709	5,419	6,429	6,201	5,096	7,059	6,191	4,039	2,730	3,400
Natural Resources & Environment	1,900	1,761	2,209	2,599	2,800	3,770	616	612	3,127	4,100
Commerce & Transportation	3,853	4,183	4,083	5,256	7,139	6,431	8,175	8,694	7,855	8,200
Community Development & Housing	1,809	2,179	1,978	2,965	3,357	4,282	4,132	5,450	5,667	7,400
Total, Physical Resources	11,271	13,542	14,699	17,021	18,392	21,542	19,114	18,795	19,379	23,100
Interest	12,588	13,744	15,791	18,312	19,609	20,586	22,832	27,773	29,140	30,400
International Affairs & Finance	4,547	4,619	3,785	3,570	3,095	3,734	2,972	3,931	4,144	4,300
Space Research & Technology	5,423	4,721	4,247	3,749	3,381	3,422	3,314	3,177	3,273	3,400
General Government	2,645	2,706	3,015	3,651	4,845	6,157	7,360	9,289	9,786	10,800
General Revenue Sharing	--	--	--	--	--	--	8,295	6,055	6,205	6,400
Total Other	12,615	12,046	11,047	10,970	11,321	13,313	21,941	22,452	23,408	24,900
Contingencies, Civilian Agency Pay Raises, & Undistributed	41	-5	60	13	-44	--	--	300	1,561	4,400
Net Total	126,779	143,105	148,811	156,301	163,651	177,959	186,403	203,715	220,636	240,800
National Defense	70,089	80,463	81,129	80,158	77,657	78,249	76,364	80,721	87,879	95,000
Veterans, Space, International	16,396	16,257	15,458	15,700	15,988	17,560	18,196	20,177	20,783	21,200
Interest	12,588	13,744	15,791	18,312	19,609	20,586	22,832	27,773	29,140	30,400
Social & Economic	27,706	32,641	36,433	42,131	50,397	61,564	69,011	75,044	82,834	94,200
	126,779	143,105	148,811	156,301	163,651	177,959	186,403	203,715	220,636	240,800

TABLE 34
Administrative Budget
(Federal Funds)
(Outlays, % of Net Total, Fiscal Years)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
National Defense	12.2	16.5	45.7	70.4	79.6	80.8	82.7	71.7	37.0	35.7	32.7	32.9	51.1	67.4	68.1
Veterans Benefits & Services	6.3	6.1	4.3	1.6	.8	.8	2.1	7.3	19.0	20.2	17.0	16.8	12.3	7.6	5.9
International Affairs & Finance	.2	.6	1.1	5.4	4.2	3.8	3.4	5.2	16.8	13.9	15.3	11.8	8.5	4.3	3.0
Space Research & Technology	-	-	.1	-	-	-	-	.1	.1	.1	.1	.1	.1	.1	.1
Subtotal	6.6	6.7	5.4	7.1	4.9	4.7	5.5	12.5	35.8	34.2	32.5	28.8	20.9	12.0	9.0
Agriculture & Rural Development	13.6	17.0	9.9	4.4	.8	1.3	1.6	1.2	3.2	1.7	6.4	7.1	1.5	1.6	4.0
Natural Resources	4.1	5.2	3.4	1.6	.6	.4	.3	.6	1.4	2.3	2.7	3.0	2.9	2.1	2.0
Commerce & Transportation	7.5	5.0	4.4	7.6	9.1	8.1	4.2	1.5	1.7	3.7	4.1	4.4	3.7	2.9	2.6
Housing & Community Development	-1.7	.4	1.0	.6	.4	.3	-.2	-.3	.9	.3	.7	.7	1.2	.9	.5
Health, Labor & Welfare	43.7	33.1	19.1	5.7	1.4	.9	.9	1.4	2.9	3.7	3.6	4.5	4.2	2.9	2.8
Education	.5	.5	.3	.1	.1	.1	.2	.1	.2	.2	.2	.2	.2	.3	.4
General Government	3.8	4.1	3.1	1.5	1.0	1.0	.9	1.7	3.5	3.8	2.7	3.0	3.0	2.2	2.0
Adjustments & Intrafunds	-.9	-.2	-.8	-2.7	-.3	-.5	.1	1.6	.5	-1.5	.6	.7	-1.8	-1.5	-.2
Total Social & Economic	70.5	65.1	40.4	18.8	13.1	11.8	8.1	7.8	14.3	14.2	21.0	23.6	15.0	11.5	14.1
Interest	10.7	11.7	8.5	3.7	2.3	2.8	3.7	8.0	12.9	15.9	13.8	14.7	13.0	9.1	8.9
Total Administrative Budget	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Administrative Budget
(Federal Funds)
(Outlays, % of Net Total, Fiscal Years)

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
National Defense	70.7	64.6	63.2	63.9	63.5	60.5	61.3	59.8	59.0	58.3	56.2	52.4	52.3
Education & Manpower	.7	.9	1.1	1.0	1.2	1.1	1.4	1.4	1.4	1.5	1.6	2.2	3.8
Health	.4	.4	.5	.7	.8	.8	1.0	1.1	1.3	1.5	1.8	1.8	2.3
Income Security	2.7	2.8	2.8	2.9	3.2	3.9	3.6	3.9	3.6	3.0	3.2	3.5	3.3
Veterans Benefits & Services	6.2	7.1	7.4	7.1	7.2	6.8	7.0	6.8	6.2	5.8	5.7	5.9	5.5
Total, Human Resources	9.9	11.1	11.8	11.7	12.3	12.7	10.4	13.2	12.6	11.8	12.4	13.4	14.8
Agriculture & Rural Development	3.6	6.5	6.2	4.5	4.3	6.5	4.2	4.0	4.6	5.4	5.2	4.7	3.0
Natural Resources & Environment	1.4	.8	.4	1.1	1.2	1.6	1.3	2.0	2.0	1.7	2.1	2.2	1.9
Commerce & Transportation	1.9	2.0	3.0	1.9	2.3	2.7	2.6	3.3	3.2	3.2	3.2	3.7	3.2
Community Development & Housing	-1.0	.2	-.1	-.2	-	.9	-	.4	.3	-.2	-.2	.2	1.1
Total, Physical Resources	5.9	9.4	9.5	7.4	7.9	11.6	8.2	9.6	10.1	10.2	10.3	10.9	9.2
Interest	9.1	9.7	9.9	9.9	10.0	9.2	11.1	10.2	9.6	10.2	10.2	10.9	10.6
International Affairs & Finance	2.3	3.3	3.4	4.6	4.4	4.2	4.1	4.2	5.2	4.6	4.3	4.6	4.2
Space Research & Technology	.1	.1	.1	.1	.1	.2	.5	.9	1.5	2.8	4.4	5.4	5.6
General Government	1.9	1.9	2.1	2.5	1.8	1.6	1.8	2.0	2.0	2.1	2.3	2.5	2.3
Total, Other	4.3	5.3	5.7	7.2	6.4	6.0	6.4	7.2	8.6	9.5	10.9	12.4	12.0
Undistributed	-.1	-.1	-.1	-.1	-	-	-	-	-	.1	-	-	-
Net Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National Defense	70.7	64.6	63.2	63.9	63.5	60.5	61.3	59.8	59.0	58.3	56.2	52.4	53.3
Veterans, Space, International	8.6	10.4	11.0	11.8	11.7	11.3	11.6	12.0	12.9	13.1	14.4	15.8	15.3
Interest	9.1	9.7	9.9	9.9	10.0	9.2	11.1	10.2	9.6	10.2	10.2	10.9	10.6
Social & economic	11.6	15.3	16.0	14.4	14.8	19.0	16.0	18.1	18.5	18.4	19.2	20.9	20.8
Net Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Administrative Budget
(Federal Funds)
(Outlays, % of Net Total, Fiscal Years)

TABLE 34 Page 3

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
National Defense	55.3	56.2	54.5	51.3	47.5	44.0	41.0	39.6	39.8	39.4
Education & Manpower	4.4	4.5	4.1	4.4	4.8	5.3	5.3	5.1	5.0	5.0
Health	3.3	3.6	4.6	4.7	5.3	5.8	5.8	6.7	6.8	6.6
Income Security	3.1	3.3	3.8	4.6	6.5	8.0	7.3	8.1	9.0	9.0
Veterans Benefits & Services	5.1	4.8	5.0	5.4	5.8	5.8	6.4	6.4	6.1	5.6
Total, Human Resources	15.9	16.3	17.5	19.1	22.4	24.9	24.8	26.3	26.9	26.2
Agriculture & Rural Development	2.9	3.8	4.3	4.0	3.1	4.0	3.3	2.0	1.2	1.4
Natural Resources & Environment	1.5	1.2	1.5	1.7	1.7	2.1	.3	.3	1.4	1.7
Commerce & Transportation	3.0	2.9	2.7	3.4	4.4	3.6	4.4	4.3	3.6	3.5
Community Development & Housing	1.4	1.5	1.3	1.9	2.1	2.4	2.2	2.7	2.6	3.1
Total, Physical Resources	8.9	9.5	9.9	10.9	11.2	12.1	10.2	9.3	8.8	9.7
Interest	9.9	9.6	10.6	11.7	12.0	11.6	12.2	13.6	13.2	12.6
International Affairs & Finance	3.6	3.2	2.5	2.3	1.9	2.1	1.6	1.9	1.9	1.8
Space Research & Technology	4.3	3.3	2.9	2.4	2.1	1.9	1.8	1.6	1.5	1.4
General Government	2.1	1.9	2.0	2.3	3.0	3.5	3.9	4.6	4.4	4.5
General Revenue Sharing	-	-	-	-	-	-	4.5	3.0	2.8	2.6
Total, Other	10.0	8.4	7.4	7.0	6.9	7.5	11.8	11.1	10.6	10.3
Contingencies, Civilian Agency Pay Raises, & Undistributed	-	-	-	-	-	-	-	.1	.7	1.8
Net Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National Defense	55.3	56.2	54.5	51.3	47.5	44.0	41.0	39.6	39.8	39.4
Veterans, Space, International	12.9	11.4	10.4	10.0	9.8	9.9	9.8	9.9	9.5	8.8
Interest	9.9	9.6	10.6	11.7	12.0	11.6	12.2	13.6	13.2	12.6
Social & Economic	21.9	22.8	24.5	27.0	30.8	34.6	37.0	36.9	37.5	39.2
Net Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 35

U.S. Public Spending, $ Millions, Fiscal Years
(All units of government -- Federal, State and local)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
National Defense														44,069	50,468
Educ., manpower, health, income sec. & welfare														21,105	23,004
Veterans benefits & services														5,401	4,577
Total, human resources														26,506	27,581
Agriculture and rural development														1,354	3,256
Natural resources and environment														1,990	2,121
Commerce, transportation & housing														7,313	7,416
Total, physical resources														10,657	12,793
Interest														6,131	6,776
International Affairs & finance														2,954	2,868
Space research & technology														67	79
General government														3,715	3,918
Total, other														6,736	6,865
Federal undistributed														-2,470	-2,036
Net total														91,629	101,847
National Defense	1,075	1,504	6,062	23,970	63,212	76,874	81,585	44,731	13,059	13,015	13,097	13,119	22,544	44,069	50,468
Veterans, space, international	582	683	783	2,456	3,956	4,381	4,482	6,135	11,494	11,134	12,771	13,666	9,414	8,422	6,924
Interest	950	1,049	1,116	1,263	1,786	2,544	3,549	4,694	4,903	5,135	5,414	5,744	5,628	6,131	6,776
Social & economic	14,334	14,951	14,770	16,645	19,405	19,911	16,559	14,920	19,892	22,980	28,725	32,818	32,380	35,477	39,713
Agency total	16,941	18,187	22,731	44,334	88,359	103,710	106,175	70,480	48,748	52,264	60,007	65,347	69,966	94,099	103,883
Federal undistributed	-	-314	-451	-1,502	-1,350	-1,845	-2,691	1,431	494	275	-1,113	-1,666	-2,056	-2,470	-2,036
Net total	16,941	17,873	22,280	42,832	87,009	101,865	103,484	71,911	49,242	52,539	58,894	63,681	67,910	91,629	101,847
Federal budget (unified)	8,841	9,589	13,980	34,500	78,909	93,956	95,184	61,738	36,931	36,493	40,570	43,147	45,797	67,962	76,769
State & local governments	9,000	9,229	9,200	9,190	9,000	8,863	9,200	11,028	14,000	17,684	20,200	22,787	24,400	26,098	27,910
Less grants-in-aid	-900	-945	-900	-858	-900	-954	-900	-855	-1,689	-1,638	-1,876	-2,253	-2,287	-2,431	-2,832
Net total U.S. public spending	16,941	17,873	22,280	42,832	87,009	101,865	103,484	71,911	49,242	52,539	58,894	63,681	67,910	91,629	101,847

U.S. Public Spending, $ Millions, Fiscal Years
(All units of government -- Federal, State and local)

	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
National Defense	46,701	40,305	40,368	42,819	44,416	46,655	45,947	47,423	51,133	52,289	53,623	49,615	56,828	70,122	80,577
Educ., manpower, health, income sec. & welfare	26,336	29,668	32,096	36,069	42,308	46,644	50,024	56,238	60,230	64,484	69,069	73,737	84,123	97,639	107,941
Veterans benefits and services	4,370	4,570	4,871	4,927	5,269	5,504	5,501	5,792	5,706	5,552	5,706	5,745	5,937	6,917	6,913
Total, human resources	30,706	34,238	36,967	40,996	47,577	52,148	55,525	62,030	65,936	70,036	74,775	79,482	90,060	104,556	114,854
Agriculture and rural development	2,688	4,351	4,331	3,452	3,616	5,750	3,750	3,871	4,702	5,771	5,846	5,452	4,380	5,183	6,785
Natural resources and environment	1,990	1,230	1,109	1,739	1,974	2,408	2,350	3,051	3,169	3,046	3,657	3,780	3,822	3,832	3,817
Commerce, transportation & housing	6,158	7,339	8,493	10,183	10,671	12,573	12,916	13,027	14,243	13,266	14,761	16,484	19,834	21,603	24,075
Total, physical resources	10,436	12,920	13,933	15,374	16,261	20,731	19,016	19,949	22,114	22,083	24,264	25,716	28,036	30,618	34,677
Interest	6,404	6,499	6,816	7,242	7,559	7,768	9,046	8,902	9,177	10,065	10,588	10,983	11,723	12,877	13,876
International Affairs & finance	1,503	2,038	2,181	3,074	3,063	3,267	3,054	3,357	4,492	4,115	4,117	4,340	4,490	4,547	4,619
Space research & technology	90	74	71	76	89	145	401	744	1,257	2,552	4,170	5,091	5,933	5,423	4,721
General government	3,925	4,112	4,559	5,349	5,457	5,846	6,366	6,927	7,528	8,158	9,086	9,951	10,828	12,158	13,819
Total, other	5,518	6,224	6,811	8,499	8,609	9,258	9,821	11,028	13,277	14,825	17,373	19,382	21,251	22,128	23,159
Federal undistributed	-1,226	-1,209	-1,448	-1,853	-1,931	-2,238	-2,296	-2,449	-2,513	-2,644	-2,877	-3,109	-3,364	-3,936	-4,499
Net total	98,539	98,976	103,447	113,077	122,491	134,322	137,059	146,884	159,126	166,654	177,745	182,072	204,535	236,364	262,645
National Defense	46,701	40,305	40,368	42,819	44,416	46,655	45,947	47,423	51,133	52,289	53,623	49,615	56,828	70,122	80,577
Veterans, space, international	5,963	6,682	7,123	8,077	8,421	8,916	8,956	9,893	11,455	12,219	13,993	15,176	16,360	16,887	16,253
Interest	6,404	6,499	6,816	7,242	7,559	7,768	9,046	8,902	9,177	10,065	10,588	10,983	11,723	12,877	13,876
Social & economic	40,697	46,699	50,588	56,792	64,026	73,221	75,406	83,115	89,874	94,725	102,418	109,407	122,988	140,414	156,438
Agency total	99,765	100,185	104,895	114,930	124,422	136,560	139,355	149,333	161,639	169,298	180,622	185,181	207,899	240,300	267,144
Federal undistributed	-1,226	-1,209	-1,448	-1,853	-1,931	-2,238	-2,296	-2,449	-2,513	-2,644	-2,877	-3,109	-3,364	-3,936	-4,499
Net total	98,539	98,976	103,447	113,077	122,491	134,322	137,059	146,884	159,126	166,654	177,745	182,072	204,535	236,364	262,645
Federal budget (unified)	70,890	68,509	70,460	76,741	82,575	92,104	92,223	97,795	106,813	111,311	118,584	118,430	134,652	158,254	178,833
State & local governments	30,701	33,724	36,711	40,375	44,851	48,887	51,876	56,201	60,206	63,977	69,302	74,546	82,843	93,350	102,411
Less grants-in-aid	-3,052	-3,257	-3,724	-4,039	-4,935	-6,669	-7,040	-7,112	-7,893	-8,634	-10,141	-10,904	-12,960	-15,240	-18,599
Net total U.S. public spending	98,539	98,976	103,447	113,077	122,491	134,322	137,059	146,884	159,126	166,654	177,745	182,072	204,535	236,364	262,645

U.S. Public Spending, $ Millions, Fiscal Years
(All units of government -- Federal, State and local)

	1969	1970	1971	1972	1973	1974	1975	1976
National Defense	81,338	80,408	77,782	78,458				
Educ., manpower, health, income sec. & welfare	122,585	139,403	164,946	185,220				
Veterans benefits and services	7,697	8,756	9,853	10,802				
Total, human resources	130,282	148,159	174,799	196,022				
Agriculture and rural development	7,095	7,097	6,036	7,983				
Natural resources and environment	4,631	5,461	6,022	7,307				
Commerce, transportation & housing	22,721	25,723	28,936	30,480				
Total, physical resources	34,447	38,281	40,994	45,770				
Interest	15,688	17,960	19,257	20,225				
International Affairs & finance	3,785	3,570	3,095	3,726				
Space research & technology	4,247	3,749	3,381	3,422				
General government	16,351	18,220	20,322	23,044				
Total, other	24,383	25,539	26,798	30,192				
Federal undistributed	-5,117	-6,380	-7,376	-7,857				
Net total	281,021	303,966	332,255	362,809				
National Defense	81,338	80,408	77,782	78,458	76,021	80,573	87,729	94,700
Veterans, space, international	15,729	16,075	16,329	17,950	18,281	20,348	20,987	22,100
Interest	15,688	17,960	19,257	20,225	22,813	27,754	29,122	30,400
Social & economic	173,383	195,903	226,263	254,033	281,710	319,055	362,592	402,400
Agency total	286,138	310,346	339,631	370,666	398,825	447,730	500,430	549,600
Federal undistributed	-5,117	-6,380	-7,376	-7,857	-8,363	-9,963	-10,717	-11,600
Net total	281,021	303,966	332,255	362,809	390,462	437,767	489,713	538,000
Federal budget (unified)	184,548	196,588	211,425	231,876	246,526	274,660	304,445	330,200
State & local governments	116,728	131,332	150,674	166,873	187,900	211,400	237,000	264,500
Less grants-in-aid	-20,255	-23,954	-29,844	-35,940	-43,964	-48,293	-51,732	-56,700
Net total U.S. public spending	281,021	303,966	332,255	362,809	390,462	437,767	489,713	538,000

State and local spending totals 1952-71, and for even years 1940-50, from Economic Report of the President, January 1973, p. 277. Odd years 1939-51 estimated by DoD, on basis of interpolating between even years, per the Economic Report, using as a guide fiscal year NIA data from OMB. 1972 figure from Bureau of Census, 1973-76 figures estimated by DoD, based on projections by a private economic consulting concern.

Federal totals from Table I-1. Grants-in-aid from Table I-12 through FY 1951, and table I-13 thereafter. Distribution from 1952 on is based on Federal totals (Table I-1) plus State and local totals (Table I-11) less grants-in-aid (Table I-13). See sources in those tables.

TABLE 36

U.S. PUBLIC SPENDING, FISCAL YEARS, PERCENTAGE DISTRIBUTION
(All Units of Government -- Federal, State and Local)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951
National Defense													
Education, Manpower, Health, Income Security & Welfare													
Veterans' Benefits & Services													
Total Human Resources													
Agriculture & Rural Development													
Natural Resources & Environment													
Commerce, Transportation & Housing													
Total Physical Resources													
Interest													
International Affairs & Finance													
Space Research & Technology													
General Government													
Total Other													
Federal Undistributed													
Net Total													
National Defense	6.3	8.3	26.7	54.2	71.5	74.1	76.9	63.4	26.8	24.9	21.8	20.1	32.2
Veterans, Space, International	3.4	3.8	3.4	5.5	4.5	4.2	4.2	8.7	23.6	21.3	21.3	20.9	13.5
Interest	5.6	5.8	4.9	2.8	2.0	2.5	3.3	6.7	10.1	9.8	9.0	8.8	8.0
Social & Economic	84.7	82.1	65.0	37.5	22.0	19.2	15.6	21.2	39.5	44.0	47.9	50.2	46.3
Agency Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal Budget (Unified)	52.2	53.7	62.7	80.5	90.7	92.2	92.0	85.9	75.0	69.4	68.9	67.7	67.5
State & Local Governments	53.1	51.6	41.3	21.5	10.3	8.7	8.9	15.3	28.4	33.7	34.3	35.8	35.9
Less Grants-in-Aid	-5.3	-5.3	-4.0	-2.0	-1.0	-.9	-.9	-1.2	-3.4	-3.1	-3.2	-3.5	-3.4
Net Total US Public Spending	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal, Net of Grants	46.9	48.4	58.7	78.5	89.7	91.3	91.1	84.7	71.6	66.3	65.7	64.2	64.1
State & Local, Gross	53.1	51.6	41.3	21.5	10.3	8.7	8.9	15.3	28.4	33.7	34.3	35.8	35.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal, Gross	52.2	53.7	62.7	80.5	90.7	92.2	92.0	85.9	75.0	69.5	68.9	67.8	67.4
State & Local, Net of Grants	47.8	46.3	37.3	19.5	9.3	7.8	8.0	14.1	25.0	30.5	31.1	32.2	32.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

U.S. PUBLIC SPENDING, FISCAL YEARS, PERCENTAGE DISTRIBUTION
(All Units of Government -- Federal, State and Local)

TABLE 36 Page 2

	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
National Defense	48.0	49.6	47.5	40.6	39.0	37.9	36.2	34.7	33.6	32.3	32.1	31.4	30.2
Education, Manpower, Health Income Security & Welfare	23.0	22.5	26.7	30.0	31.0	31.8	34.5	34.7	36.6	38.3	37.8	38.7	38.8
Veterans' Benefits & Services	5.9	4.5	4.4	4.6	4.7	4.4	4.3	4.1	4.0	3.9	3.6	3.3	3.2
Total Human Resources	28.9	27.0	31.1	34.6	35.7	36.2	38.8	38.8	40.6	42.2	41.4	42.0	42.0
Agriculture & Rural Development	1.5	3.2	2.7	4.4	4.2	3.1	3.0	4.3	2.7	2.6	3.0	3.5	3.3
Natural Resources & Environment	2.2	2.1	1.6	1.2	1.1	1.5	1.6	1.8	1.7	2.1	2.0	1.8	2.1
Commerce, Transportation & Housing	8.0	7.3	6.2	7.4	8.2	9.0	8.7	9.4	9.4	8.9	9.0	8.0	8.3
Total Physical Resources	11.7	12.6	10.5	13.0	13.5	13.6	13.3	15.5	13.8	13.6	14.0	13.3	13.7
Interest	6.7	6.7	6.5	6.6	6.6	6.4	6.2	5.8	6.6	6.1	5.8	6.0	6.0
International Affairs & Finance	3.2	2.2	1.5	2.1	2.1	2.7	2.5	2.4	2.2	2.3	2.8	2.5	2.3
Space Research & Technology	.1	.1	.1	.1	.1	.1	.1	.1	.3	.5	.8	1.5	2.3
General Government	4.1	3.8	4.0	4.2	4.4	4.7	4.5	4.4	4.6	4.7	4.7	4.9	5.1
Total Other	7.4	6.1	5.6	6.4	6.6	7.5	7.1	6.9	7.1	7.5	8.3	8.9	9.7
Federal Undistributed	-2.7	-2.0	-1.2	-1.2	-1.4	-1.6	-1.6	-1.7	-1.7	-1.7	-1.6	-1.6	-1.6
Net Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
National Defense	46.8	48.6	46.8	40.2	38.5	37.3	35.7	34.2	33.0	31.8	31.6	30.9	29.7
Veterans, Space, International	9.0	6.7	6.0	6.7	6.8	7.0	6.8	6.5	6.4	6.6	7.1	7.2	7.7
Interest	6.5	6.5	6.4	6.5	6.5	6.3	6.1	5.7	6.5	6.0	5.7	5.9	5.9
Social & Economic Agency Total	37.7	38.2	40.8	46.6	48.2	49.4	51.4	53.6	54.1	55.6	55.6	56.0	56.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal Budget (Unified)	74.2	75.4	71.9	69.2	68.1	67.9	67.4	68.6	67.3	66.5	67.0	66.8	66.7
State & Local Governments	28.5	27.4	31.2	34.1	35.5	35.7	36.6	36.4	37.8	38.3	37.8	38.4	39.0
Less Grants-in-Aid	-2.7	-2.8	-3.1	-3.3	-3.6	-3.6	-4.0	-5.0	-5.1	-4.8	-5.0	-5.2	-5.7
Net Total US Public Spending	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal, Net of Grants	71.5	72.6	68.8	65.9	64.5	64.3	63.4	63.6	62.2	61.7	62.2	61.6	61.0
State & Local, Gross	28.5	27.4	31.2	34.1	35.5	35.7	36.6	36.4	37.8	38.3	37.8	38.4	39.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal, Gross	74.2	75.4	71.9	69.2	68.1	67.9	67.4	68.6	67.3	66.6	67.1	66.8	66.7
State & Local, Net of Grants	25.8	24.6	28.1	30.8	31.9	32.1	32.6	31.4	32.7	33.4	32.9	33.2	33.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

U.S. PUBLIC SPENDING, FISCAL YEARS, PERCENTAGE DISTRIBUTION
(All Units of Government -- Federal, State and Local)

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
National Defense	27.2	27.8	29.8	30.6	29.0	26.5	23.4	21.6				
Education, Manpower, Health, Income Security & Welfare	40.4	41.1	41.4	41.0	43.7	45.8	49.7	51.1				
Veterans' Benefits & Services	3.2	2.9	2.9	2.6	2.7	2.9	3.0	3.0				
Total Human Resources	43.6	44.0	44.3	43.6	46.4	48.7	52.7	54.1				
Agriculture & Rural Development	3.0	2.1	2.2	2.6	2.5	2.3	1.8	2.2				
Natural Resources & Environment	2.1	1.9	1.6	1.5	1.6	1.8	1.8	2.0				
Commerce, Transportation & Housing	9.1	9.7	9.1	9.2	8.1	8.5	8.7	8.4				
Total Physical Resources	14.2	13.7	12.9	13.3	12.2	12.6	12.3	12.6				
Interest	6.0	5.7	5.4	5.3	5.6	5.9	5.8	5.6				
International Affairs & Finance	2.4	2.2	1.9	1.8	1.3	1.2	.9	1.0				
Space Research & Technology	2.8	2.9	2.3	1.8	1.5	1.2	1.0	.9				
General Government	5.5	5.3	5.1	5.3	5.8	6.0	6.1	6.4				
Total Other	10.7	10.4	9.3	8.9	8.6	8.4	8.0	8.3				
Federal Undistributed	-1.7	-1.6	-1.7	-1.7	-1.8	-2.1	-2.2	-2.2				
Net Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
National Defense	26.8	27.3	29.2	30.2	28.4	25.9	22.9	21.2	19.1	18.0	17.5	17.2
Veterans, Space, International	8.2	7.9	7.0	6.1	5.5	5.2	4.8	4.8	4.6	4.5	4.2	4.0
Interest	5.9	5.6	5.4	5.2	5.5	5.8	5.7	5.5	5.7	6.2	5.8	5.5
Social & Economic	59.1	59.2	58.4	58.5	60.6	63.1	66.6	68.5	70.6	71.3	72.5	73.3
Agency Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal Budget (Unified)	65.1	65.8	66.9	68.1	65.7	64.7	63.6	63.9	63.1	62.7	62.2	61.3
State & Local Governments	40.9	40.5	39.5	39.0	41.5	43.2	45.4	46.0	48.1	48.3	48.4	49.2
Less Grants-in-Aid	-6.0	-6.3	-6.4	-7.1	-7.2	-7.9	-9.0	-9.9	-11.2	-11.0	-10.6	-10.5
Net Total US Public Spending	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal, Net of Grants	59.1	59.5	60.5	61.0	58.5	56.8	54.7	54.0	51.9	51.7	51.6	50.8
State & Local, Gross	40.9	40.5	39.5	39.0	41.5	43.2	45.3	46.0	48.1	48.3	48.4	49.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Federal, Gross	65.0	65.8	67.0	68.1	65.7	64.7	63.6	63.9	63.1	62.7	62.2	61.3
State & Local, Net of Grants	35.0	34.2	33.0	31.9	34.3	35.3	36.4	36.1	36.9	37.3	37.8	38.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SUBCOMMITTEE RECESS

Chairman McClellan. This concludes this day of hearing. The subcommittee will now stand in recess until 10 o'clock on March 7.

Admiral Moorer. Thank you, Mr. Chairman.

[Whereupon, at 4:29 p.m., Tuesday, March 5, the subcommittee was recessed to reconvene at 10 a.m., Thursday, March 7.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

FRIDAY, APRIL 5, 1974

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10 a.m. in room 1223, Everett McKinley Dirksen Office Building, Hon. John L. McClellan (chairman) presiding.

Present: Senators McClellan, Young, and Case.

DEPARTMENT OF DEFENSE

DEFENSE RESEARCH AND ENGINEERING

STATEMENTS OF:

DR. MALCOLM R. CURRIE, DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING

LT. GEN. ALFRED D. STARBIRD, DEPUTY DIRECTOR FOR TEST AND EVALUATION

DR. STEPHEN J. LUKASIK, DIRECTOR, DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

BUDGET REQUEST

Chairman MCCLELLAN. The subcommittee will come to order.

This morning the subcommittee will receive testimony in support of fiscal year 1975 budget requests for the directorate and agency of the Department of Defense charged with top level research and development management.

PROGRAM AND FINANCING

I will include in the record at this point certain program and financing information from the justifications that may prove pertinent. This includes tables on the total request for "Research, Development, Test and Evaluation, Defense Agencies" as well as similar information on the Office of the Director of Test and Evaluation and Advanced Research Projects Agency.

[The information follows:]

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

	IDENTIFICATION CODE 07-20-0400-0-1-051	BUDGET PLAN (AMOUNTS FOR RDT+E ACTIONS PROGRAMED)			OBLIGATIONS		
		1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:						
	DIRECT:						
	1. MILITARY SCIENCES	52,334	54,161	59,900	53,326	54,967	59,723
	3. MISSILES AND RELATED EQUIPMENT	73,982	69,304	75,000	74,665	69,015	74,781
	7. OTHER EQUIPMENT	304,268	322,782	375,400	306,984	323,348	373,313
	8. PROGRAMWIDE MANAGEMENT AND SUPPORT	15,727	16,669	18,400	15,303	17,288	18,400
	TOTAL DIRECT	446,311	462,916	528,700	450,278	464,618	526,217
	REIMBURSABLE (TOTAL)	12,435	20,080	7,500	12,435	20,080	7,500
10	TOTAL	458,746	482,996	536,200	462,713	484,698	533,717
	FINANCING:						
	RECEIPTS AND REIMBURSEMENTS FROM:						
11	FEDERAL FUNDS	-3,275	-4,080	-4,500	-3,275	-4,080	-4,500
14	NON-FEDERAL SOURCES	-9,160	-16,000	-3,000	-9,160	-16,000	-3,000
21	UNOBLIGATED BALANCE AVAILABLE, START OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-10,135	-5,207	-3,505
	REPROGRAMING FROM (-) OR TO PRIOR YEAR BUDGET PLANS	-961	.....	.....	.....	.....	.....
24	UNOBLIGATED BALANCE AVAILABLE, END OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	5,208	3,505	5,988
25	UNOBLIGATED BALANCE LAPSING						
	UNOBLIGATED BALANCE LAPSING, BUD PLAN	961	.....	.....	961	.....	.....
	BUDGET AUTHORITY	446,311	462,916	528,700	446,311	462,916	528,700
	BUDGET AUTHORITY:						
40	APPROPRIATION	435,313	457,900	528,700	435,313	457,900	528,700
42	TRANSFERRED FROM OTHER ACCOUNTS	10,998	.....	.....	10,998	.....	.....
43	APPROPRIATION (ADJUSTED)	446,311	457,900	528,700	446,311	457,900	528,700
44.20	PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	5,016	.....	.....	5,016	.....
	RELATION OF OBLIGATIONS TO OUTLAYS:						
71	OBLIGATIONS INCURRED, NET				450,278	464,618	526,217
72	OBLIGATED BALANCE, START OF YEAR				348,641	321,635	305,298
74	OBLIGATED BALANCE, END OF YEAR				-321,635	-305,298	-336,515
77	ADJUSTMENTS IN EXPIRED ACCOUNTS				-2,093	.....	.....
90	OUTLAYS, EXCLUDING PAY RAISE SUPPLEMENTAL				475,191	476,039	494,900
91.20	OUTLAYS FROM CIVILIAN PAY RAISE SUPPLEMENTAL				.....	4,916	100

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 07-20-0450-0-1-051	BUDGET PLAN (AMOUNTS FOR RDT&E ACTIONS PROGRAMED)			OBLIGATIONS		
	1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:						
DIRECT: 8. PROGRAM WIDE MANAGEMENT						
10 PROGRAMWIDE MANAGEMENT AND SUPPORT	27,000	24,600	27,000	25,076	26,000	24,060
FINANCING:						
21 UNOBLIGATED BALANCE AVAILABLE, START OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	.....	-1,924	-524
24 UNOBLIGATED BALANCE AVAILABLE, END OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	1,924	524	3,464
BUDGET AUTHORITY	27,000	24,600	27,000	27,000	24,600	27,000
RELATION OF OBLIGATIONS TO OUTLAYS:						
71 OBLIGATIONS INCURRED, NET				25,076	26,000	24,060
72 OBLIGATED BALANCE, START OF YEAR				.....	21,672	27,672
74 OBLIGATED BALANCE, END OF YEAR				-21,672	-27,672	-27,732
90 OUTLAYS				3,404	20,000	24,000
OBJECT CLASSIFICATION						
25.0 OTHER SERVICES	27,000	24,600	27,000			
PERSONNEL SUMMARY						
NOT APPLICABLE						
SUMMARY BY PROGRAM CATEGORY						
6.1 RESEARCH	-	-	-			
6.2 EXPLORATORY DEVELOPMENT	-	-	-			
6.3 ADVANCED DEVELOPMENT	-	-	-			
6.4 ENGINEERING DEVELOPMENT	-	-	-			
6.5 MANAGEMENT AND SUPPORT	27,000	24,600	27,000			
TOTAL RESEARCH & DEVELOPMENT (PROGRAM 6)	27,000	24,600	27,000			
TOTAL OPERATIONAL SYSTEMS PROGRAM	-	-	-			
TOTAL-DIRECT	27,000	24,600	27,000			
REIMBURSABLE	-	-	-			
TOTAL PROGRAM	27,000	24,600	27,000			

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 97-20-0400-0-1-051	BUDGET PLAN (AMOUNTS FOR ROTATE ACTIONS PROGRAMED)			OBLIGATIONS		
	1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:						
DIRECT:						
1. MILITARY SCIENCES	37,979	38,573	41,100	38,101	38,316	40,955
3. MISSILES AND RELATED EQUIPMENT	73,982	69,304	75,000	74,665	69,015	74,781
7. OTHER EQUIPMENT	84,392	82,910	96,800	84,372	82,415	96,769
8. PROGRAMWIDE MANAGEMENT AND SUPPORT	3,390	3,603	3,900	3,231	3,762	3,900
TOTAL DIRECT	199,743	194,390	216,800	200,369	193,508	216,405
REIMBURSABLE (TOTAL)	2,258	1,500	1,500	2,258	1,500	1,500
10 TOTAL	202,001	195,890	218,300	202,627	195,008	217,905
FINANCING:						
RECEIPTS AND REIMBURSEMENTS FROM:						
11 FEDERAL FUNDS	-2,258	-1,500	-1,500	-2,258	-1,500	-1,500
21 UNOBLIGATED BALANCE AVAILABLE, START OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-2,178	-1,123	-2,005
REPROGRAMING FROM (-) OR TO PRIOR YEAR BUDGET PLANS	-429	.....	.....	.....	.....	.....
24 UNOBLIGATED BALANCE AVAILABLE, END OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	1,123	2,005	2,400
25 UNOBLIGATED BALANCE LAPSING						
UNOBLIGATED BALANCE LAPSING, BUD PLAN	429	.....	.....	429	.....	.....
BUDGET AUTHORITY	199,743	194,390	216,800	199,743	194,390	216,800
BUDGET AUTHORITY:						
40 APPROPRIATION	199,730	194,228	216,800	199,730	194,228	216,800
42 TRANSFERRED FROM OTHER ACCOUNTS	13	.....	.....	13	.....	.....
43 APPROPRIATION (ADJUSTED)	199,743	194,228	216,800	199,743	194,228	216,800
44.20 PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	162	.....	.....	162	.....

[redacted]

SUMMARY BY PROGRAM CATEGORY

6.1 RESEARCH	34,708	34,869	39,100	THIS EXHIBIT INLCUDES FY 1974 PAY
6.2 EXPLORATORY DEVELOPMENT	161,645	155,918	173,800	
6.3 ADVANCED DEVELOPMENT	-	-	-	SUPPLEMENTAL BUT DOES NOT INCLUDE
6.4 ENGINEERING DEVELOPMENT	-	-	-	
6.5 MANAGEMENT AND SUPPORT	3,390	3,603	3,900	FY 1974 PROGRAM SUPPLEMENTAL WHICH
TOTAL RESEARCH & DEVELOPMENT (PROGRAM 6)	199,743	194,390	216,800	IS DISPLAYED ON THE SEPARATE
TOTAL OPERATIONAL SYSTEMS PROGRAM	-	-	-	
TOTAL-DIRECT	199,743	194,390	216,800	EXHIBIT FOLLOWING THE FY 1975
REIMBURSABLE	2,258	1,500	1,500	PROGRAM AND FINANCING SCHEDULE.
TOTAL PROGRAM	202,001	195,890	218,300	

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DIRECTOR OF TEST AND EVALUATION, DEFENSE APPROPRIATION
(Under Title V, RDT&E)
FEDERAL CONTRACT RESEARCH CENTER SUMMARY

Program Element 65804D, Test and Evaluation

(Thousands of Dollars)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
University Centers:			
. . . . .	-	-	-
Systems Integration/Technical Direction FCRC's:			
1. MITRE Corporation	234	250	260
Specialized Research Group FCRC's:			
. . . . .	-	-	-
Operational Research/Systems Analysis FCRC's:			
1. Institute for Defense Analysis	1,172	1,450	1,765
Total FCRC Support	1,406	1,700	2,025

DIRECTOR OF TEST AND EVALUATION, DEFENSE
(Under Title V, RDT&E)

Installation Analysis - FCRCs

		TOA ($ in thousands)						PERSONNEL							
								Professional					Support		
FCRC & Location	FY	Mgt. Bur. Etc.	From Parent Dept	Other DoD	All Other Funds	Subtotal	Mil Pers	Total	Paid From Parent Dept RDT&E	Paid From Other RDT&E	Paid From Other	Paid From Parent Dept RDT&E	Paid From Other RDT&E	Paid From Other	Mil Pers As gnd	Total
Institute for Defense Analyses	1973		1,172			1,172		1,172	18			27				45
	1974		1,450			1,450		1,450	21			32				53
	1975		1,765			1,765		1,765	25			38				63
MITRE Corp.	1973		234			234		234	4			2				6
	1974		250			250		250	5			1				6
	1975		260			260		260	5			1				6

PROJECT LISTING
(Dollars in Thousands)

Date: 17 January 1974

Element Code	Project Number	Title	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
MILITARY SCIENCES					
6.5	Program-Wide Management and Support				
65804D	Test and Evaluation	Joint Test Activities	27,000	24,600	27,000

INTRODUCTION OF WITNESSES

Chairman McCLELLAN. The witnesses are Dr. Malcolm R. Currie, Director of Defense Research and Engineering: Lt. Gen. Alfred D. Starbird, USA (Ret.), the Deputy Director for Test and Evaluation; and Dr. Stephen J. Lukasik, Director, Defense Advanced Research Projects Agency.

The committee has asked these gentlemen to appear together in order that we may get a clear picture as to the responsibilities of each and how they relate to each other, how they avoid overlap and duplication, the total cost of the Department of Defense research effort, and what lessons were learned in the recent Mideast war with respect to the research and development community.

The first witness will be Secretary Currie.

Dr. CURRIE. Thank you, Mr. Chairman.

Chairman McCLELLAN. Do you have a prepared statement?

Dr. CURRIE. Yes, sir; I have a prepared statement which I would like to enter in the record, with your permission, and just introduce our program by some preliminary comments.

PREPARED STATEMENT

Chairman McCLELLAN. The prepared statement presented by Secretary Currie may be printed in the record in full.

You may proceed to highlight it, Doctor.

Dr. CURRIE. Thank you very much.

[The statement follows:]

1. OVERVIEW

INTRODUCTION

I am privileged to appear before this Committee, Mr. Chairman, to present the Defense Research, Development, Test and Evaluation budget request for Fiscal Year 1975 and to respond to questions.

We are requesting a total of $9.3 billion for Defense RDT&E. This is the largest sum ever requested for this purpose, but the real increase in RDT&E effort from Fiscal Year 1974 is relatively small—about 4 percent after proper allowance is made for inflation and for adjustments between appropriations.

REQUESTED INCREASE OVER FY 1974

Chairman McCLELLAN. How much of an increase over FY 74 are you requesting? What rate of inflation are you using for this budget? List all adjustments between appropriations.

Dr. CURRIE. We are requesting an increase of $1.2 billion in the DoD RDT&E budget request over what was appropriated in FY 1974, from $8.1 billion to $9.3 billion. However, about $500 mililon of this increase is made up of inflation and another approximately $225 million is made up of transfers into RDT&E from other appropriations and less than $500 million is made up of real growth. The rate of inflation used for this budget is about 5%.

The attached table of information lists the adjustments between appropriations. The FY 1975 transfers shown in the attachment total $248 million however, when the $23 million for Close-in Weapon System is deducted and a slight adjustment in the Navy, Test and Evaluation Support is taken into account to reflect final PBD action, the actual amount transferred from other accounts in FY 1975 to RDT&E totals $225 million.

Increases to R.D.T. & E. appropriations resulting from transfers from other accounts

	Millions
Army:	
AMC—236 civilians transferred from O. & M. to R. & D	+4.7
Test and evaluation funding realignment	+8.5
Total	+13.2
Navy:	
MK 48 Torpedo, fiscal year 1975 impact of Congress directed fiscal year 1974 transfer Procurement to R & D	+5.4
Captor, Testing transferred from Procurement to R & D	+3.5
CIWS (Phalanx), Change of ground rules in required systems for O.T. & E	+23.1
Naval Air Station—Lakehurst closing required assumption of additional R. & D. costs	+4.8
Alterations for AG–153 (R & D ship)	+1.4
SM–2 T & E missiles transfer from Procurement to R & D for test of AEGIS	+17.0
5" 54 Ammo—High fragmentation projectile MOD II transfer from Procurement to R. & D	+2.5
A–4—T & E for two improved light attack delivery systems transfer from Procurement to R & D	+.6
Ship Contract Design—transfer from Procurement to R & D	+29.4
Preproduction shelters—T & E efforts	+1.5
Test and Evaluation funding realignment	+25.0
Total	+114.2
Air Force:	
CIP for F–15 and A–10—Component Improvement Programs transfer to R & D	+95.6
Congressional funding direction on defense support program, transfer from Procurement to R & D	+24.8
Total	+120.4
Total increases to RDT & E	+247.8

Chairman McClellan. Proceed.

Dr. Currie. Mr. Chairman, I believe this increase is vitally necessary and, in fact, is modest in light of the confluence of events of the past year. These events have affected the world and our perception of our place in the world. They have led, I believe, to an improved understanding on the part of serious Americans of the need for a strong national security program and the central role of advanced technology in achieving it.

The events of the past year which directly influenced the level of RDT&E funding include: The massive Soviet demonstration of an ability to upset the nuclear deterrence equilibrium.

Nuclear Deterrence Equilibrium

Chairman McClellan. How have the Soviets demonstrated an ability to upset the nuclear deterrence equilibrium?

Dr. Currie. The interim agreements which emerged from SALT I tended to balance U.S. technological achievements against Soviet numerical and throw weight advantages. At the present time, however, their intense and broad based efforts to close the qualitative gap tends to upset both the perceived and real nuclear deterrence equilibrium. [Deleted.]

Chairman McClellan. Proceed.

Dr. Currie. The hard fact that SALT II has shown little progress.

Salt II

Chairman McClellan. Why has SALT II shown such little progress? What have been the major areas of disagreement?

Dr. Currie. The principal objective of SALT TWO is the negotiation of a comprehensive permanent agreement limiting strategic offensive arms. In trying to reach this agreement, we in DoD are, of course, guided by the provisions in Public Law 92–448. This is in many respects a much more difficult task than the

negotiation of the ABM Treaty. In particular, whereas neither side had significant ABM deployments, both sides have large numbers of strategic offensive weapons. More importantly because of differences in technology and in perceptions of strategic requirements, these systems have evolved along different paths so that at the present time there are important differences, both quantitatively and qualitatively, in the composition of the forces on the two sides. This complicates the attainment of an agreement which seeks to provide essential equivalence in strategic offensive capability; and as such, this difficult task is being pursued in a deliberate fashion by both sides because of its important implications for national security.

[Deleted.]

Chairman McCLELLAN. Proceed.

Dr. CURRIE. The Middle East war and its disquieting implications. The Department of Defense has responded to these events with a set of research and development initiatives which are necessary, first to provide the Nation with continued effective nuclear deterrence in the face of all foreseeable strategic threats and, second, to insure that our conventional forces will have the weapons necessary to cope with adversaries who increasingly use advanced weapons technology, along with the numerical superiority, to achieve their objectives. We believe that the programs requested are necessary now—and that the return of this investment in Defense RDT&E will greatly strengthen deterrence and avoid hurried and expensive programs which might otherwise be required later.

Further, I believe that the time has come to halt and reverse the erosion of defense research and development buying power and the technological leadership we depend on. For several years our RDT&E effort has not kept pace with inflation, while the Soviets have continued to reduce our technological margin of security. We do retain an effective margin, today, but the resolute Soviet technological progress now threatens to change the technology balance to our disadvantage within the lead time of our current research and development programs. Therefore, our FY 1975 programs must be right and must be sufficient to compensate for probable future Soviet advances.

Stable funding, I would emphasize, cannot do this. You will see from the table on page A–9 that this request will permit Defense RDT&E to buy 20 percent less next fiscal year than it bought just 12 years ago. The total purchasing power will be slightly more than that available a year ago; slightly less than in FY 1970.

I believe that this FY 1975 request will be seen as sufficient and economical, if it is viewed in the context of this crucial juncture of world history and if there is an expectation that the money will be carefully spent.

I firmly believe that a well-conceived and well-managed strategy for the use of research and development constitutes the most powerful mechanism we have to insure our security and the health of our economy and, indeed, our place in history.

Let me express this in simple business terms. What I am talking about is defense research and development deliberately used as a highly leveraged investment which will yield a return in national well-being immeasurably greater than the initial investment in dollars.

All of us in this room share responsibility for the broad direction our country takes in framing its program for national security. We can ask ourselves this question: Will future historians see us as people who failed to act decisively and boldly at this juncture, or will they see us as a people who reacted with strength, with a sense of purpose, with understanding of the technological well-springs of our strength?

I ask you to regard our research and development resources in this light. In return, I pledge to you the sense of responsibility, the sense of judgment, the sense of accountability that you and the American public deserve.

MAJOR BUDGET INFUENCES

With your permission, Mr. Chairman, I will turn now to the major influences that shaped this budget request. Some of these influences are long-term and enduring—the necessity to maintain world leadership in defense-related technology and the broad national security goals of strength, partnership and negotiation. Other influences are shorter term—on the one hand the rapidly evolving international environment which had a direct effect on this budget request and,

on the other hand, a set of management initiatives and principles which will help insure that we buy only what we need and at an affordable and controlled cost.

U.S. Technological Superiority

American security, like the American economy, stands on a foundation of technological superiority. We need superiority in defense technology. First, because the openness of our society tells our adversaries what we are planning in military technology while their secrecy forces us to provide for many possibilities. Second, in military operations we traditionally depend on superior quality of equipment to compensate for inferior numbers. Third, in order to interpret vital but fragmentary technical intelligence information, we must have had extensive prior experience in the area. Finally, we react to aggression; we do not initiate it. Consequently, we must be thoroughly and broadly prepared for crises and wars in circumstances and at places chosen by our adversaries. The Soviet technological progress now threatens our superiority. This budget is designed to preserve it.

U.S./Soviet R&D

Chairman McClellan. How would you compare our R&D program with that of the Soviets?

Dr. Currie. During the past thirty years or so, the U.S. had enjoyed unquestioned technological superiority over the rest of the world. However, the pace of technological change in the Soviet Union during the last two decades has now resulted in a total military force on a rough par with that of the United States. Further, the Soviet leadership's continued emphasis on attaining pre-eminence in science and technology is exemplified by their expanding base of manpower, the breadth and depth of technological investigations and improving research and test facilities. Further, the weapons and weapon systems resulting from this effort are continually increasing in numbers, types and quality.

Manpower Base

A. The number of Soviet full-time-equivalent (FTE) R&D scientists and engineers continues to increase with an average of 20,000 having been added annually for the past 4 years. The USSR surpassed the U.S. in the numbers of FTE R&D scientists and engineers employed in 1968–1969 and in 1972 had over 100,000 more than the U.S. (641,000 vs. 536,000) due to the decline in U.S. R&D manpower in 1969–1971.

B. The Soviet Union continues to grant top priority to the training of engineers. Although the USSR already employs twice as many engineers as the U.S., Soviet higher schools continue to graduate five engineers for every one graduated in the U.S. In 1971, 253,600 of the graduating students were in fields considered to be engineering fields in the U.S. Soviet engineering graduates were 2.6 times greater than in 1960 and comprised 37.7% of the graduating class as compared to 28.9% of the class of 1960.

C. Overall, the Soviet Union is graduating roughly five engineers for every engineer graduated in the U.S., but the U.S. is graduating two natural scientists for every natural scientist graduated in the Soviet Union. On balance, however, considering the total of natural scientists and engineers graduated, the Soviet Union still enjoys roughly a two-to-one edge in natural science and engineering graduates annually.

D. The Ninth Five-Fear Plan calls for the training of 3.4 million specialists with higher education by 1975. Of these, 40% are progarmmed to be engineers. By the end of 1971, about 20% of this goal had been accomplished. It is thus expected that Soviet educational authorities will be successful in meeting their target quota.

E. While it is not possible to estimate the total number of scientists and engineers engaged in all Soviet military-product R&D, the above data indicates the size and the range of skills of the national scientific-engineering manpower pool that may be applied to military R&D programs. Since military R&D receives the highest national priority, the required numbers of scientists and engineers could be diverted from lower priority programs to man these programs.

There is no evidence that the availability of qualified professional scientific and technical manpower has constrained Soviet military-product R&D.

F. The Soviet leaders have invested heavily in the development of the S&T cadre to increase the nation's scientific capability. The Soviet Union already

employs throughout her economy twice as many engineers as the U.S. Soviet statisticians estimate that the USSR R&D establishment employs one-quarter of all the R&D scientists and engineers working in the world today. Clearly, Soviet leaders consider professional S&T manpower as a Soviet national resource.

Technology Base

The U.S. currently enjoys, in total technological capabilities of military significance, some advantage in lead-time over the USSR.

The change in relative status of U.S. and USSR national advancement evident in broad technology areas in 1950 and again in 1970, indicates that the USSR has "closed the technology gap" in several important areas during this period.

Important U.S. leads are identified in computer technology with particular attention to management infrastructure and programming, integrated circuits, telecommunications, ship and submarine quieting techniques with some kinds of very high strength fiber reinforced composite materials, rolling of titanium, tungsten and tantalum alloys, stainless steels, automation of welding and resistance welding.

Important Soviet leads are found in chemical warfare defense technology, high performance integral rocket-ramjets, land vehicle capabilities for coping with arctic conditions and difficult terrain, maintainability of aircraft, small portable nuclear power plants, thermionic reactors, weldbonding (gluewelding), titanium casting, basic titanium research, boron diffusion coatings, underwater welding, efficient welding of ship hulls, heavy extrusion and forging presses, and biomedical applications of organosilicon compounds.

One can conclude from these representative lists that Soviet scientists, given sufficient investment in their capabilities, are quite capable of matching their U.S. counterparts in the generation and incorporation of militarily significant technological innovations in weapons systems.

Facilities Base

Eight defense-industrial ministries are the core elements of the Soviet military product R&D system. Four are chartered to perform the research, development, testing, and production of major weapon systems. The balance are performers of defense-related supporting tasks. Another closely related group of five civilian product ministries is involved in a subcontractual production role, and they plan a key role in supplementing the prime military product developers/producers.

Of the over 5,000 scientific institutes in the Soviet Union, the NIIs (Research Institutes and Graduate Schools) and their branches and divisions perform the greatest part of the Soviet theoretical and applied research. In 1971 there were 2,648 NIIs, including social science and humanities research institutes, in the Soviet Union. It is estimated that about 85–90% (2,251–2,383) are performing research in the natural sciences and engineering. The number of NIIs has been increasing steadily since 1955, and the current rate of growth is about 5%. Allocation of funds for financing research and extending the experimental facilities of scientific institutions are to be increased by over 60% in the Ninth Five Year Plan.

Soviet physical facilities for RDT&E (including test ranges) continue to expand consistent with manpower and weapon output growth.

What Has Been the Result

The Soviets in 1973 have clearly embarked on an unprecedented major commitment to the modernization of all the important elements of its strategic offensive force:

Conducted flight tests on 4 new ICBMs, each significantly improved in system capability, particularly in throw-weight, than its precedent system;

Flight tested with MIRVs, at least three of the new ICBMs, including the large SS–9 follow-on, the SS–X–18;

Deployment continued on a new class of long range SLBMs, SS–N–8, on a modified YANKEE–Class submarine;

Have three ballistic missile submarine programs;

Backfire bomber development and production program progressing steadily;

Continued aggressive program toward the development of a follow-on ABM system.

Currently retains, in total technological capabilities of military significance, some advantage in lead-time over the USSR;
Not engaged in a major ICBM development program;
Not engaged in any SLBM R&D flight testing programs;
Laid new SSBN, Trident, with scheduled completion late 1977;
Expanded lead in SLBM reentry vehicles, throw-weight;
Continued B–1 development program;
Initiated strategic cruise missile technology program.

Trends

U.S. strategic offense and defense budgets have not increased since the 1950s:
The budgets have declined in real value;
The budgets were 2½ times larger in fixed-prices in the mid-fifties than today.
Quantitative measures demonstrated, for the U.S. in the 60s, a leveling out in the number of strategic vehicles;

Summary

Superiority in deployed technology is a major ingredient of U.S. force posture.
Central ingredient in maintenance of U.S. deterrent posture, and source of leverage in our negotiation posture with USSR;
Balance between quantity and quality must be improved in the 70s;
Existence of only partially understood RDT&E activities, of a significant scale, complicates our problem of judging the changing technological position of each nation;
Both the USSR and the U.S. are concerned with the possibility of technological surprise. Because of asymmetry in state secrecy within the USSR, U.S. problem is compounded in assessing Soviet activity in a time-responsive manner.
Soviet technology base is impressive, manpower, facilities, investment; commitment to research is high.
Soviet technology base is producing results; increased rate of innovation; impressive technical improvements in new weapon systems currently being tested.
Considering Soviet momentum in military programs under development, backed up by an increasingly improving technology base, the U.S. must continue to provide and improve upon its assessment of Soviet activities versus the U.S. to improve our resource allocation to those areas of highest importance.
Concern that one or more unanticipated Soviet technological advances could be achieved that coupled together with their current broad evolutionary improvements in deployed systems, could change the balance of security, provide more aggressive options to Soviet policymakers, weaken Allied perception of U.S. strength for deterrence.
In conclusion, with past trends on U.S. R&D expenditures, U.S. technological superiority in this decade could be endangered.
Chairman McClellan. Proceed.

Basic National Objectives

Dr. Currie. This budget is designed also to provide technological support for the broad national objectives of our foreign and defense policies. As repeatedly stated by the President, the goals are strength, partnership and negotiation. Defense research and development must contribute significantly to all three. Our strength comes from the strength of our Armed Forces, whose quality—past, present, and future—is based on a wise use of rapidly evolving technology. Quality is particularly important if we are to preserve our overall strength despite sharp reductions in force levels since 1968. In addition, defense R&D contributes to partnership with our allies by providing options for systems which can be used effectively by them and by creating confidence in the ability of the U.S. to meet all challenges. Defense R&D contributes to negotiation by maintaining capabilities which our potential adversaries will not wish to confront and by creating incentives to our adversaries to abide by agreements.

The Turbulent Year

This budget request was influenced also by specific international events of the past year which affected the emphasis of our research and development program. I will elaborate, Mr. Chairman, in Chapters 2, 3, and 4 of this statement, which I have offered for the record. But in brief:

Strategic Equilibrium

The Soviet Union is continuing a massive program in strategic weapons development which offers various combinations of numbers, explosive yield and accuracy which could undermine the U.S. effort to maintain essential equivalence in deterrent capabilities.

Soviet demonstrations include four new ICBM systems with increased throw weight—three of which have a MIRV capability—a new generation of guidance technology and an elaborate program of hardening and testing silos. Other efforts include new SLBMs, aggressive ABM research and development and impressive implementation of hardened command and control. Our efforts to negotiate further limitations in nuclear weaponry in the current series of Strategic Arms Limitation Talks (SALT II) have not yet borne fruit. It has become clear during recent months that it is necessary for the United States to hedge against the failure of SALT to stabilize nuclear forces, and, ultimately, to reduce them.

Soviet Nuclear Efforts

Chairman McClellan. List, in order of priority, the most disquieting aspects of the nuclear crisis.

Dr. Currie. I would not describe the current state of affairs as a nuclear crisis, but rather would characterize it as a situation which causes us grave concern. [deleted]. Thus, we are concerned with the Soviet pursuit of a wide range of qualitative improvements in their nuclear forces, principally because the effort is of such massive proportions. Within this broad improvement program we see work in both SLBM and ICBM areas; improved accuracy; increased throw weight; and MIRVed warheads.

We are further concerned with the continuing high level of Soviet R&D spending. The areas enumerated above are but the most recent and vivid example of the results of their programs. Its magnitude permits examination of a wide range of options, the early selection of the most promising, and the concentration of resources toward rapid deployment. They are technically competent and their level of effort suggests that our advantage in any area could be transitory.

While we have every reason to believe that our own modest endeavors and planned acquisitions will maintain our retaliatory capability intact, [deleted.]

It is for these reasons that we seek to embark on strategic R&D Options which will provide us the opportunity to develop forces which can be deployed, if necessary, to meet continuing Soviet intransigeance with respect to nuclear armaments.

Chairman McClellan. Proceed.

Mid East War

Dr. Currie. During the recent Middle Eastern conflict, various high-technology Soviet and U.S. weapons were used by the combatants. It will take some time to pin down all of the conclusions we should reach about our own research and development directions but, in general, the profound change that will be brought to future warfare by today's technology is now clear. The first findings from the Mid East reinforced and expanded our initiatives in the areas of command and control, precision weapon delivery, air mobility, defense suppression and air defense. I will elaborate on this theme later in the statement.

Management Initatives

There is a final major influence on this budget request which I feel is important to emphasize in this statement. My colleagues and I bring to this job certain management convictions which helped shape this program and which will increasingly guide the changes which I will pursue aggressively through the future.

These principles, which I will describe, are shared by the Secretary of Defense, the Deputy Secretary of Defense and the Assistant Secretaries and Military Chiefs of Research and Development. Together we will use these principles to manage our business and to build the confidence of the Congress and public that defense research and development is being managed the way you have a right to expect.

When we have demonstrated that research and development can be managed to your reasonable satisfaction, we hope that the attention of defense leaders, Members of Congress and the public can dwell more on the vital issues of defense technology and less on past mistakes.

Management problems must be addressed directly and openly. However, what we can do, and what we are determined to do, is use proven and sound basic business practices to control program cost, set realistic schedules and technology objectives and demonstrate that the public is getting its monies worth.

Let me say that it is realistic to expect to manage defense RDT&E well. A GAO report, for instances, shows that in the '70s, there has been impressive progress in the Defense Department in identifying cost growth causes and bringing under control the cost of major development projects. But these results are not good enough; I promise you better.

The progress, so far, of cost control in defense R&D has been the result of many positive actions by many persons through the community. No one has found a simple or single formula. I am encouraged to believe that a broad, renewed attack by the truly dedicated people in the research and development management community will bring the kind of further progress which will restore the faith of the Congress and the American people in our ability to manage our funds well. I believe it would be worthwhile here to review several of the concepts which I believe will contribute to this objective.

R. & D. Decision Methodology

Chairman McClellan. Please provide a statement on the procedure you follow in deciding what R&D projects should be undertaken and which ones should cease.

Dr. Currie. With respect to major defense development programs, the sponsoring Service having completed conceptual studies related to basic operational needs will determine that it is ready to initiate a system development program. The Service will draft a Development Concept Paper (DCP) detailing the proposed program. The draft DCP is then coordinated with the OSD and any other interested Defense Agencies. The DCP will summarize the essential information of a program (e.g., the nature of the program, the need and threat; program description including cost, schedule and performance and the related risks; alternative programs considered with their advantages and disadvantages, cost-effectiveness analysis of competing alternatives and trade-offs possible; acquisition strategy and procurement plan, contract plan; achievement milestones; management plan; test and evaluation plan) and program thresholds.)

At this point the Service will request a review by the DSARC that will result in recommendations to the SecDef for decision on starting the program; that is, commiting resources to advanced development in a Validation Phase.

Primary concerns at this point are 1) the identified need has been substantiated; 2) the proposed range of system major performance parameters matches the need; 3) the plan for evaluating system alternatives has given consideration to all approaches that appear to be technologically feasible, operationally practicable and economically affordable; 4) preliminary cost and schedule estimates are realistic and acceptable; 5) plans and schedules for test and evaluation required before start of full-scale development are adequate; 6) that the relative estimates of costs to maintain and operate the system have been addressed and evaluated; 7) the acquisition strategy is consistent with program characteristics including risk, allowable costs, fiscal year phasing and constraints on projected total budget.

The following relates to determining programs which should be cancelled or reoriented. The DCP contains a set of threshold limits on the principal characteristics of the program (i.e., principal performance parameters, costs such as unit-production cost, total development cost, etc.; schedule thresholds on achievement milestones). Whenever any of these thresholds are breached, or the situation threatens to breach a threshold, the Service Secretary will inform the DSARC Chairman. After having obtained the details of the breach and determining the seriousness of the situation, the DSARC Chairman will convene a DSARC meeting to evaluate the alternative courses of action available to the SecDef. In the case of the SCAD, the development was terminated since its projected cost was considered incommensurate with its perceived benefits.

Chairman McClellan. Proceed.

Top Down Planning

Dr. Currie. The details of the thousands of defense research and development projects make it difficult to view and manage the parts as one inter-related whole. The budget tends to be built from the bottom up as individual programs are proposed by the military users and the technologist innovators. It is necessary for the senior military and civilian leaders with whom I work to look together at the totality of programs, aggregate them by military mission areas, prioritize and balance the area needs and formulate the most effective overall RDT&E investment strategy within a limited financial resource. We are making encouraging progress in doing this.

User Needs Versus Technology Opportunities

It is often debated whether the technical opportunities or the military needs should drive the defense research and development process. In fact, both have validity. I believe that we must use both in a two-pronged, integrated approach to programming and budget formulation and review. One key function of my office and those of my colleagues in the Military Departments is to insure that the military users will thoroughly understand the opportunities of science and technology and that the technical community will be guided by real military needs.

Responsible Program Planning

A successful development project must be well conceived, well laid out and adequately funded. It is our responsibility to insure that the need for a new advance is clear, that the technology is ready, and the schedule attainable. Then, we will ask you for realistic funding. Realism implies greater care and selectivity from the start but greater payoff in security at the end.

Test and Evaluation

I believe that program should be paced by successful milestone demonstrations and not by fixed calendar dates. In the long run we will achieve better deployed systems more quickly and for less total investment in this way. Fundamental to this approach is careful test and evaluation at each stage, both to demonstrate technical progress and to validate military utility. Objective test and evaluation must be used to modify and guide the project—even at the risk of greater short-term cost in time and dollars.

We have recently restructured the SAM–D program to follow this approach and also to provide for simplified and more cost-effective versions of a final system. The Surface Effects Ship program is another example. Here, we are slowing the pace of development until certain key technologies are better in hand. The restructured B–1 program is still another example. These decisions were all difficult, but I believe they were necessary .

Return on Investment

My commercial background leads me to approach any investment analytically--to attempt to quantify the return I can get from the investment I make. It's a more difficult process in management for national security, but I believe that the discipline that such an effort brings to the decision process is extremely valuable. It forces recognition of limited resource availability and forces a conscious evaluation of how much additional deterrence or fighting capability we will get for the investment—and by investment, I mean the total cost of research and development, acquisition, operation and maintenance. It also forces a realistic appraisal of the risks in the program, since in any business venture we must evaluate the risk versus the potential payoff.

In the end, return on investment must be seen clearly in terms of superior deployed capabilities and reduced logistics and maintenance costs. I would note, for instance, that the NAVSTAR Global Positioning System which we are initiating will bring an enormous future return by reducing the numbers of systems used.

Competition

One way to help insure a fair return on investment is to foster competition at many stages of the research and development process. Competition is by far the most leveraged method of reducing our costs. Our prototyping efforts are probably

the most dramatic examples of competition—funding two highly competent companies to design and build competing prototype models.

We did this in the A–10 program and it has proven to be a good way of doing business. The real benefits will be demonstrated in the production program. The lightweight fighter program is using this concept, as is the AAH, the UTTAS, and many other programs. Without having the effect of competition, the cutting edge of any organization grows dull. Bad practices develop and high costs result. We cannot tolerate the results of the lack of some kind of competition anywhere in the system. Insisting on it may cost more money in research and development but it will pay off over the life of the program.

Viable Options

Our basic research and development strategy is to develop viable options. We must avoid two unacceptable alternatives—either to fully develop and deploy all systems that might be needed or to wait until the adversaries show new capabilities and then develop counter from scratch. A better strategy is to concentrate on generating optional solutions to anticipated problems in the exploratory and advanced development programs but make an explicit decision on need before full engineering development is approved. After advanced development, the technology is certain, but the clear military need may not be. At that point we will proceed with some options, delay others and terminate a good many. If we have the managerial strength to follow through this selection process, the strategy of viable research and development options will provide better deployed systems and flexibility to respond rapidly to change.

Design-to-Cost

Inherent in this term, much misused and misunderstood, lies an extremely powerful management concept. It is well understood—and is commonly used—in the commercial world. The major automobile manufacturers, for instance, ordered their design departments to develop a car to a cost competitive with the VW. The Pinto and Vega are testimony to the effectiveness of design-to-cost. In defense, the sacredness of the "requirement," the inflexibility of the specifications and the complexities of the development and procurement process have made use of design-to-cost most difficult. The past result is well known—extremely expensive equipment. I believe that considerable progress is being made now by the Services to accommodate this business concept. A number of design-to-cost programs, such as the A–10, Advanced Attack Helicopter (AAH), TACAN, Radar Altimeter Shipboard Electronic Warfare Suite, etc., are in various phases in the development cycle, and the results are encouraging. The details of approach are almost all different, and we encourage flexibility. We believe that we are getting significant results.

Let me outline in some detail now the thrusts of the specific programs in strategic and general purpose forces RDT&E.

Strategic Programs

The purpose of our strategic forces is to deter war by making it clear to a potential attacker that the losses to him will far outweigh any possible gain.

In the past we have sought to do this with a balanced force of offensive retaliatory weapons, defensive systems and their associated command, control and communications. Under the agreement with the Soviet Union after SALT I both sides gave up efforts to deploy more than token ballistic missile defenses. Both sides are continuing however, to work on defensive technology, and we will make every effort to keep an offensive force that will deter any level of nuclear attack.

For now, we need and have adequate forces in being. For the future we must have in development a range of viable alternatives from which a timely selection for deployment can be made. The B–1 and TRIDENT are at present our major development programs. We have added a set of strategic research and development initiatives which will provide hedges against failure of arms control. Developing these options is not a commitment to produce and deploy them; it is to provide us with a ready posture so that we can respond quickly if necessary. Let me highlight what these initiatives are.

Investigation of a new basing mode to maintain the survivability of land based missiles has been under way for some time. We have accelerated this program to

permit choosing the preferred mode from among land-mobile and air-mobile options, thereby permitting a timely decision to initiate engineering development should the threat develop faster than anticipated.

To maintain the ability of aerodynamically-delivered weapons to penetrate, we have started prototype development of two subsonic cruise missiles: an air-launched version for bombers and a submarine-launched version which would also be capable of launch from surface ships. The air-launched cruise missile (ALCM) will increase the flexibility of the B–52 and B–1 bombers in a way the Soviets will find difficult to counter, thereby enhancing the effectiveness of the bomber. The submarine-launcher version will permit attacking perimeter targets from a variety of unexpected directions. It will also have a tactical variant with a conventional warhead. Note that the cruise missile is a concept whose time has come, technologically speaking. The availability of small, efficient turbofan engines and precise navigational updates using terrain comparison permits development of long-range, accurate, cruise missiles which can fit into extremely small volumes such as bomb racks and torpedo tubes. We have allowed sufficient funds in the budget to pursue competitively this technology and prototype development.

Just as a bomber requires a fast escape for survivability, so do the accompanying tankers. We propose to examine a variety of methods of achieving this capability, including variants of commercial aircraft as well as newly designed ones.

To provide a more effective but limited hard-target capability we are initiating programs which would permit us to extract from our present missiles all the accuracy of which they are capable and to develop for the TRIDENT options which will permit substantial improvements in its accuracy. We are continuing the development, initiated in FY 1974, of an improved version of the MK–12 reentry vehicle. We are also exploring other conceptual possibilities for improving our capabilities in this area.

Finally, we are initiating the conceptual design of a new submarine, slightly larger than the present 640 class, capable of carrying the TRIDENT I missile. This ship will cost considerably less than the present TRIDENT submarine and will be suitable for Atlantic deployment.

The cost to our Nation of these added options is small compared to that which will be required if we do not achieve agreements limiting arms.

Soviet Testing Impact on U.S. Budget

Senator Young. Has the Soviet testing of strategic weapons developments influenced this year's budget request? If so, please provide the specific items.

Dr. Currie. At the present time the Soviets have four new ICBMs and a new SLBM that are being flight tested. These programs give evidence that the Soviets are not content with their quantitative advantages in ICBMs and SLBMs but have decided to strive for at least comparable qualitative capabilities as well. [Deleted.] We have therefore responded to the potential resulting strategic asymmetry with a set of strategic R&D initiatives devoted to improving ballistic missile yield and accuracy combinations and ICBM rebasing. These programs and the associated funding for FY 75 are as follows:

Fiscal year 1975:	*Millions*
1. Minuteman yield and accuracy	$96.0
2. ICBM basing	37.3
3. SLBM accuracy	33.0
Total	166.3

Chairman McClellan. Proceed.

Dr. Currie. I will now provide you with the supporting rationale for our Strategic RDT&E programs.

Offensive Forces

The strength of our strategic systems is provided by our advanced technology and by the diversity and flexibility which that technology permits. Our deterrent systems—bombers, submarine-based missiles, and land-based missiles—provide a variety of basing modes, penetration techniques, and command, control and communications systems, which an aggressor would find impossible to overcome.

We have a clear lead in technical capabilities today, but we must not remain complacent. Soviet technology already has the potential to threaten the pre-

launch survivability of a significant portion of our deterrent forces, their penetration capability, and the survival and effectiveness of our command and control.

In estimating the survivability of our strategic forces, we carefully consider their vulnerability to a well-planned surprise attack and select from several paths we can take to improve survivability: mobility, escape, hardening, attack dilution through proliferation, defense, and warning.

For our bombers, the greatest threat is from submarine-launched ballistic missiles. In the future, our present capabilities will be inadequate against fast missiles on depressed trajectories. Short warning times require a bomber with quick reaction (start-up, acceleration, etc.), high speed and increased hardness. These are features of the B–1 bomber, whose survivability is every bit as important as its improved ability to penetrate.

U.S. Bomber Flight Technique

Chairman McClellan. You state that to counter Soviet defenses that our bombers must fly "low" and "fast". You do not anticipate that penetration and flight to target for the common mission will be supersonic?

Dr. Currie. No, we have determined that low altitude flight at high subsonic speed is very effective. In arriving at this conclusion we have considered the altitude requirements for supersonic flight, the development risk involved, and the range reduction incurred. This does not rule out penetration to some targets at supersonic speeds depending on the tactics to be employed.

Chairman McClellan. Proceed.

Dr. Currie. Fixed, hardened missiles can also be subjected to surprise attack and as Soviet accuracy improves, such an attack becomes feasible. We have been raising the hardness of our missile silos to the highest level achievable with steel and concrete, but in the long run this may be inadequate. Preservation of the land-based missile force requires the new basing mode initiative. This will give us the option of using uncertainty of position combined with moderate hardness to gain survivability.

The survivability of our submarine-launched missiles depends upon their remaining hidden in the ocean depths. It would be prohibitively costly for an enemy to survey large regions of the ocean for quiet submarines, so we want to expand the area of operations of our missile submarines.

This objective has led to the TRIDENT missile system, which has such long range it can attack targets from all the oceans of the world. Companion to this missile is the TRIDENT submarine which will replace the old POLARIS and some aging POSEIDON submarines with a new, much quieter submarine, better able to avoid detection and keep a greater percentage of the force on patrol.

Survivability is only one facet of concern in our strategic forces. Also of vital importance is their ability to penetrate and their effectiveness. The Soviets have deployed the most formidable air defenses the world has ever seen: SAM's, interceptors and surveillance systems. In the future, the SAM's will be mobile, and the interceptors and surveillance systems will have "look down" capability. To counter these require low, fast flight and small radar cross-sections—all attributes of the B–1.

Although the ability of our ballistic missiles to penetrate is assured as long as the Soviets honor the treaty limiting ABM systems, the effectiveness of our missiles is limited by the yield and accuracy of warheads. High yield and, more important, high accuracy, are needed to destroy hard targets. If our goal were solely to provide forces capable of killing Soviet people, only a few hard targets would need to be hit. But as Secretary Schlesinger explained in his testimony, an all-out nuclear counterattack on people is not always a credible deterrent. We need effective limited nuclear options, which requires precise force application. Such a capability—I wish to emphasize—is not a disarming first strike capability nor should it be interpreted as such. A disarming first strike capability is beyond us technically, and we do not seek it.

The MIRVing of our current forces hedges against the rapid deployment of a light Soviet ABM system. However, an upgrade of their numerous SAM's could give them a widely deployed ballistic missile defense capability. One potential counter is the evading Maneuvering Reentry Vehicle (MaRV) which can nullify such simple systems and thereby remove Soviet motivation for upgrading SAM's. We are carrying through development (but not planning to deploy, unless necessary) a MaRV for TRIDENT, investing $45.7 million in FY 1975 (and $175 million total) to achieve a fully tested advanced development model.

I will touch in Chapter II on a separate MaRV program whose objective is improved accuracy.

DEFENSIVE SYSTEMS

The goals for our strategic air defense system are to provide warning, maintain airspace sovereignty in peacetime and provide a mobile air defense force. The major program here is the over-the-horizon warning radar which I have mentioned.

The rationale for our ballistic missile defense program is based on our strong belief that we must have technology available to counter any Soviet unilateral deployments, that we must have visible programs which foreclose potential developments on their part and we must stay in the forefront of technology. By so doing, we will explore new concepts before our enemies do, and we will be able to interpret limited intelligence indicators correctly.

To achieve these objectives, we need both strong BMD technology programs and ongoing systems work. Separate system work is needed because there is really a technology of systems every bit as important and every bit as difficult as component technology. Radars, interceptors, and computers, alone, do not comprise a BMD system. Their integration, and the hardware and software to accomplish this, constitute system technology.

Our technology efforts are conducted by the Advanced Ballistic Missile Defense Agency. The focus of our system-related efforts is the Site Defense system, although we are also funding the last of the Safeguard RDT&E for system testing and performance verification. We have developed a minimal program of $91.4 million in technology to continue to push the most advanced BMD concepts across a broad spectrum and $160.0 million in Site Defense to continue prototype development and maintain the system-capable industrial team. Along with the remaining Safeguard efforts, these add to $312 million, well below the $500 million planned for this area only one year ago. I believe that this new level is an appropriate yearly investment in this pivotal area as long as international relations remain as at present.

SALT

All our Strategic Programs have SALT implications. Our intent in the strategic arms limitations talks is to enable maintaining our security through reading essential equivalence in strategic weapons with the USSR by reducing the overall levels of strategic armaments.

The Soviets have shown that they will not accept agreements which change their perception of strategic relationships. Thus, they will give up real strategic capabilities only in exchange for what they consider to be real concessions from ourselves. Unilateral cutbacks on our part are not credited by them in process, and there is no *quid pro quo* for our forebearance. Thus, we should continue to pursue worthwhile developments and deployments even though they may be made obsolete by future agreements—in order to help achieve these agreements.

U.S.S.R. PARTICIPATION IN SALT II

Senator YOUNG. Are our strategic programs of such a nature to reasonably expect the USSR to participate in the SALT II negotiations?

Dr. CURRIE. While we have been encouraged by the arms limitations agreements signed in May of 1972, there does not yet exist a comprehensive set of limitations to improve upon and stabilize the strategic relationship for the future. In view of this fact, we must not assume that additional comprehensive agreements are necessarily forthcoming, but instead pursue those programs which we consider necessary for our national security and be prepared for all possible outcomes from the ongoing SALT negotiations. Our recommended strategic programs, with particular emphasis on those elements for development, are such that they should insure the Soviets would perceive the necessity to negotiate additional meaningful agreements, as well as the mutual benefit in maintaining the agreements already signed.

Chairman MCCLELLAN. Proceed.

STRATEGIC COMMAND, CONTROL AND COMMUNICATIONS

Dr. CURRIE. Strategic C^3 is an integral and essential element of our nuclear force posture. Technology is the form of communications satellites, electronic microminiaturization and data processing has provided us with a significantly

enhanced world-wide communications capability. We must continue our efforts to insure that C^3 can survive a massive attack and that our nuclear forces will be responsive under all conditions to the National Command Authorities. Programs such as the Advanced Airborne Command Post, special communications satellites and Sanguine will make this possible.

Space Programs

Space is a medium—not a mission. Many of our space programs are intimately tied to warning, attack assessment, command and control and advanced concepts for our strategic forces touched on previously. Tactical purposes have also been served by communications and weather satellites. We have been able to focus our navigation satellite needs on the development of a universal positioning system—NAVSTAR—which will provide world-wide, highly accurate fixes while permitting long-term economies in overall navigation systems for our strategic and tactical forces. This program, just under way, could revolutionize world navigation and weapon delivery.

General Purpose Forces

I will turn now to general purpose forces. A remarkable series of new technical developments has brought us to the threshold of what I believe will become a true revolution in conventional warfare.

Some of the new technology, in its model-T stages, have already been proven in combat; we are continuing to work on terminal guidance for weapons—leading to first-shot kill, day or night and in all weather—ability to incorporate large stand-off ranges for these weapons, and application of remotely piloted-vehicles to military missions.

I believe that advances such as these, further developed and widely applied, can change a broad spectrum of conventional warfare in the next decade the way tanks once revolutionized ground combat and radar revolutionized air defense.

The research and development program for our general purpose forces is designed to build on and accelerate these advances and to maintain the technological balance in our favor.

I believe the programs will not only keep us ahead in weapons technology but will enhance deterrence of conventional warfare and help establish enduring peace and safety for the United States and preserve its interests abroad.

The significance of some of the research and development innovations has been reinforced by the recent Middle East War, which is discussed later in Chapter 3 of this statement. My major perception from that conflict has been that our research and development has, in fact, anticipated the decisive new possibilities well and is on the right track. With this reconfirmation of our general directions and with the sharpening of focus and the urgency provided by recent events, the proposed research and development program will accelerate the evolution of these concepts, create from them options based on firm demonstration of technical performance and cost and allow selection from these options the systems we will finally develop for introduction to our inventory.

Precision Delivery

The effectiveness and importance of precision delivery through terminal guidance, which was first demonstrated in Southeast Asia and reconfirmed in the recent Middle East War, is enormous. Essentially, we would like for every missile, bomb or shell, when properly employed, to kill its target. In many cases this capability would make unnecessary repeated attacks on a target by large numbers of aircraft or tanks or cannon and thereby reduce the loss of life and equipment in our own forces.

This class of weapons is in its infancy, but the first generation of daytime electro-optical weapons, such as TOW and MAVERICK, has had outstanding success. Sensor concepts which can extend this capability to night and all-weather operations at an affordable cost and which we have been developing for the last decade in our technology base, are emerging from the laboratories. Each of these is a subject of intensive efforts and could provide a flexible and decisive new set of capabilities.

These efforts are being addressed and coordinated on a DoD-wide basis to eliminate unnecessary duplication and to arrive at the best solution for production at costs we can afford.

Defense Suppression

The broad area of defense suppression is receiving special attention, including one-shot/one-kill weapon delivery through precision weapons—which holds great promise also for low-cost precision weapons—and through improved radiation-seeking missiles. It also includes systems to locate and precisely attack missile and gun sites, and expanded electronic warfare capability to cover projected threats (e.g., EF–111A), and the use of remotely piloted vehicles for both reconnaissance and strike against dense air defenses.

Real-Time Intelligence

In the same concept, AWACS will join various intelligence sensors with the powerful new overland radar surveillance technology for efficient command and control of airborne and ground air defense and air battles over extended geoggraphical areas. I would like to call your attention to the result of a recent DSARC review of AWACS. It directed an increase in RDT&E in this vital program to enhance the full exploitation of these new capabilities and directed a block approach to procurement which will allow orderly, time-phased introduction of these capabilities as they are tested and proven.

Air Defense

Air defense is receiving major emphasis and re-direction. AWACS will become an important element. SAM-D will continue as the major technological thrust to a new plateau of capability for defense of high-value targets. It will be complemented by the acquisition, initiated this year, of a low cost, highly mobile all-weather air defense system which can be proliferated and widely dispersed in forward battle areas. Air defense, including defense against the anti-ship cruise missile, is also a critical and difficult problem for our fleet, and major development efforts are directed toward this continuing serious problem including AEGIS, Vulcan/Phalanx and the Low Cost Electronic Warfare Suite.

Ground Warfare

In the end, battles are won or lost and territory held or given up by individual soldiers. A prime objective of research and development is to enhance the effectiveness of the individual soldier. How might the Middle East conflict have been different had either side possessed in quantity high-quality night vision equipment and the training and tactics to use it most effectively? We are driving toward the goal of ubiquitous employment of infrared imaging sensors on the ground and in the air for detection, acquisition and attack of targets at night. Nighttime will become our ally. Difficult problems must still be overcome in attaining this goal at a reasonable cost, and we are devoting much effort to this end.

Other programs that will help the individual soldier include a new tank (XM–1) with vastly improved armor, other highly mobile armored vehicles and close-support aircraft (A–10 and Advanced Attack Helicopter) providing unprecedented and highly mobile lethality on the battlefield.

In an era in which conflicts may be brief and intense and demand quick reaction, mobility of forces has become paramount. Helicopter and advanced transport programs are being directed to this crucial area. The capability simply must be there when we need it.

Modernization

Our objective of deterring all kinds of conflict requires that we continually renew our forces. Also, we must be in a position, if needed, to be able to procure equipment in quantity and expand our force capabilities and those of our allies on short notice at an acceptable cost. Thus we have evolved the "high-low force" concept—a mixture of high-performance, high-cost systems and limited performance, lower-cost systems. A light-weight fighter is under development at a prudent pace which will make available one such option for ourselves and our allies when and if it is needed. Other examples of this approach are the Patrol Frigate as a supplement to full-size destroyers and the Sea Control Ship as a supplement to present aircraft carriers.

Anti-Submarine Warfare

Finally, I want to mention anti-submarine warfare. The Soviet Union continues to build an impressive nuclear attack submarine capability. In my mind

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this is an area of increasing concern. It is a complex and difficult problem, and it requires a broad spectrum of approaches. We are making progress in our capability to detect, localize and attack submarines. Programs to improve airborne acoustic sensors, new concepts for deployable surveillance systems, basic technology and ship-based and airborne systems are being encouraged. I believe that our future security may well depend on these efforts, and I want to assure you that we are mindful of its urgent importance.

Through these major thrusts we expect to enhance significantly the deterrent and war-fighting capabilities of our conventional forces. We shall continue to press for development of low-cost alternatives, modernization through modification and the exercise of firmer management to get useable, needed capabilities in the field. This is the return on our investment in general forces research and development.

The Technology Base: Our Long Term Security

Successful development programs—and ultimately our continuing security and strength—must derive from the basic exploratory and research which constitutes our defense-related technology base. It is this effort that generates from selected fields of science and engineering the devices, techniques, materials and concepts which become building blocks for our developing systems capabilities.

Here, for instance, is where one major investment over the years married solid-state device physics to military needs and produced basic sensor capabilities for night vision systems, precision weapons and space surveillance. Here in the technology base are the explorations which could one day make transparent the undersea world and thus change the nature of the strategic balance; here also are the explorations which insure against that kind of technological surprise.

Materials which make possible higher temperature jet engines and new aircraft structures also evolve from this effort, and when combined with new aerodynamic principles, make possible continuing superiority for our aircraft and our aerospace industry.

Rapidly evolving generations of micro-miniaturized computers and electronic devices and systems revolutionized our capabilities in the past decade. Now we are exploring new billion-bits-per-second communication techniques, propulsion technology, new kinds of radar and lasers which can, in the future, give us important new capabilities for reconnaissance, weapons and weapon delivery. The technical opportunities could well provide another, broader revolution in the next ten years.

All of these results depend upon the dynamism, innovation and aggressiveness of the people who contribute to our technology base programs—people who accept the challenge to generate technical opportunities to meet defense mission needs. Indeed, our nation's position in the world will be measured by how well they respond to this challenge.

I want to stress that, in reviewing our technology base efforts, I see much of which all of us can be proud: The existence of a team composed of industry, university and Government laboratories with complementary strengths and with strong and vital interaction among the elements. The creation of a pool of talented professionals, recognized experts, who are knowledgeable in areas of defense technology and who can be called on in formulating and executing a dynamic program. The flexibility to exploit aggressively new opportunities provided by these teams.

The technology base consists of many thousands of individual programs which must somehow coalesce to provide the major thrusts for the future. This is a difficult management challenge—particularly at a time when research for the sake of research is not enough and when defense-supported science and technology must clearly be related to the defense side of our nation's needs.

I have specifically not requested this year the substantial increase in technology base funding which may be necessary in the future to preserve our technological superiority. Such a request, I believe, would be premature until I strengthen the framework in which such an increase would be used.

My specific approaches to this goal will follow these general directions:

Comparison of U.S. R. & D. Versus Other Nations

Chairman McClellan. Provide a list on how the U.S. compares with all other major nations in their R&D programs.

Dr. Currie. As you know, is it difficult to determine the amounts of funding various countries expend for military RDT&E, since there are different methods

of accountability, reporting, differences in indices of conversion for converting foreign currencies to dollars (depending on type of goods and services) and definitions of R&D.

Therefore at this time, the most meaningful comparison available is one of gross national R&D expenditures. The following chart provides this data for the five leading western countries and the USSR. Please note that the data for 1973 for Japan, West Germany, France and the United Kingdom are projections and should be viewed with considerable caution.

PRESENT AND PROJECTED GROSS EXPENDITURES FOR R. & D.

[In billions of current U.S. dollars]

Country	Actual 1969[1]	Projected 1973
United States	26.6	30.1
Japan	2.6	7.1–8.4
West Germany	2.7	4.3–6.3
France	2.7	3.6–3.9
United Kingdom	2.4	3.0–4.0

[1] Expenditure data as reported by OECD.
[2] These ranges are based on (1) estimated percentages of GNP to be devoted to R. & D. and (2) on projections of annual rates of growth in R. & D. expenditures. There are numerous uncertainties involved, including the effect of the energy crisis.

The comparative Soviet data for Science and Technology is USSR,[1] actual 1969, 10.5; projected 1973,[2] 15.5.

In conclusion, the many difficulties with developing the data, monetary conversion factors, and estimating the percentage of Gross Expenditures for R&D that applies to military R&D suggests that the most important use for the data is the development, and awareness, of trends.

Chairman McClellan. Proceed.

Dr. Currie. The technology base is a DoD-wide asset and is being addressed by the Service Assistant Secretaries and my office acting together.

The thousands of programs are being aggregated into areas of special potential and areas of perhaps diminishing return on investment. This helps us to see how proper overall emphasis and balance can be achieved. An evolving series of Technology Coordinating Papers will also aid in this selectivity.

Tri-Service "topical" reviews and planning sessions are being used to focus on mission area technology barriers, increase inter-Service cooperation and interdependency and reduce unnecessary duplication and overlap.

The balance between in-house and contract research is being reassessed in the face of limited resources.

From time to time high pay-off opportunities emerge which warrant major commitments in the technology base. One which well merits your special interest, is our work on high-energy lasers. I feel that this is the time to present a consolidated review for you of the impressive progress so far, our assessment of high-energy laser importance and the problems which lie ahead. This review is contained in Chapter 7 of this statement.

Also, in that chapter I have devoted a special section to the programs of the Defense Advanced Research Projects Agency. DARPA plays an extremely important role in providing the flexibility needed to initiate work rapidly in new areas—such as the high-energy laser—which are vital to the missions of the entire Department.

Fiscal Year 1975 R.D.T. & E. Request in Summary

Mr. Chairman, you have before you a summary of the RDT & E request, broken down in several different ways. In addition, I have submitted for the record additional chapters of this statement which justify the requested programs in detail. Also, Service spokesmen will testify in further detail about their programs.

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[1] The science and technology ruble/dollar conversion range is variously estimated as 1 ruble=1 to 4 dollars. The military RDT&E ruble/dollar conversion range is estimated as 1 ruble=1.50 to 2.50 dollars.
[2] This figure is considered fairly accurate since the year is over.

The FY 1974 funding is $8,333 million ($8,115 million in FY 1974 Appropriations Bill and $217 million in the FY 1974 Supplemental request).

To arrive at the FY 1975 request of $9,323 million add: $515 million for inflation; $225 million for items appearing in other accounts in FY 1974 but generally in accord with Congressional direction moved to RDT & E for FY 1975; $250 million in increase in real effort.

Thus, recognizing the transfer and the escalation factors, the FY 1975 request is an increase of less than 4 percent in real effort.

The budget itself is presented in terms of budget activities, and detailed line item information by budget subactivity is contained in the justification books made available to the Committee.

Force Reduction and Need for R. & D. Effort

Chairman McClellan. How do you measure the reduction of force levels and its relation to the need for additional R&D funds and better quality systems?

Dr. Currie. The evaluation of combat effectiveness of our forces is a continuing process and is accomplished in several ways. As a threat develops or a cutback in our own capability is made, special studies are undertaken to assess the potential impact of those developments or actions. This assessment may involve many groups within the DoD and the results reflect the best combined opinion of what needs to be done to meet the threat or maintain or improve our capability in that mission area. These are special case actions or studies to meet a particular need or contingency and are taking place all the time.

We also have a method by which we regularly assess our operational needs and to add R&D emphasis where it is needed. The unified and specified commanders, the Services and Defense Agencies provide inputs on mission area needs and capabilities to the JCS. The JCS examines these mission area needs, force levels and system capabilities against the military objectives and threat to identify any operational deficiencies that now exist or are projected to exist. The current R&D problems are evaluated to identify those which address the operational deficiencies and from that evaluation deficiencies are identified and R&D objectives developed and ranked according to their importance. The JCS includes these R&D objectives in the Joint Research and Development Objectives Document which provides the Secretary of Defense with the advice and assistance of the JCS in developing the DoD R&D program.

Chairman McClellan. Proceed.

R.D.T. & E. Categories

Dr. Currie. The request in terms of RDT&E categories is given below:

[In millions of dollars]

Category	Fiscal year—		
	1973	1974	1975
Research	304.3	307.8	309.4
Exploratory development	1,071.4	1,095.1	1,129.9
Advanced development	1,322.9	1,474.9	2,043.1
Engineering development	2,186.7	2,562.5	3,087.0
Management and support	1,099.1	1,129.7	1,223.2
Operational systems development	2,031.6	1,763.0	1,529.9
Total R.D.T. & E.	8,016.0	8,333.0	9,322.5

As discussed previously, the amount for the total Research and Exploratory Development categories is being held at essentially the same dollar level for FY 1975 as in the past two fiscal years.

The funding requested for Advanced Development shows a considerable (38.5%) increase over FY 1974. The increase is the result of conscious decisions to emphasize technical exploration and the development of viable options that might later be pursued to full engineering development. Some of these items are Strategic Initiatives summarized in Chapter 2; others represent an increase in funding of previously existing programs.

The final development of miltary hardware, covered by Engineering Development and Operational Systems Development, increases only 6.5 percent and

thus represents about the same level of actual effort. Substantial increases in some of the new systems—AWACS, B–1, Airborne Command Post, TRIDENT—are offset by decreases in systems whose development is essentially complete—such as the F–14, F–15 and HARPOON.

The Management and Support Category is being maintained at about a constant effort level. The dollar increase reflects mainly civilian salary raises.

Chairman McCLELLAN. Please define for the Committee the following R&D states: (*a*) Research, (*b*) Exploratory Development, (*c*) Advanced Development (*d*) Engineering Development, (*e*) Management and Support, (*f*) Operational Systems Development.

Dr. CURRIE. *Research (6.1)*. Includes scientific study and experimentation directed toward increasing knowledge and understanding in those fields of the physical, engineering, environmental, biological-medical, and behavioral-social sciences related to long-term national security needs. It provides fundamental knowledge for the solution of identified military problems. It also provides part of the base for subsequent exploratory and advanced developments in Defense-related technologies and of new or improved military functional capabilities in areas such as communications, detection, tracking, surveillance, propulsion, mobility, guidance and control, navigation, energy conversion, materials and structures and personnel support.

Exploratory development (6.2). Includes all effort directed toward the solution of specific military problems, short of major development projects. This type of effort may vary from fairly fundamental applied research to quite sophisticated bread-board hardware, study, programming and planning efforts. It would thus include studies, investigations and minor development effort. The dominant characteristic of this category of effort is that it be pointed toward specific military problem areas with a view toward developing and evaluating the feasibility and practicability of proposed solutions and determining their parameters. Program control of the Exploratory Development element will normally be exercised by general level of effort.

Advanced development (6.3). Includes all projects which have moved into the development of hardware for experimental or operational test. It is characterized by line item projects and program control is exercised on a project basis. A further descriptive characteristic lies in the design of such items being directed toward hardware for test or experimentation as opposed to items designed and engineered for eventual Service use.

Engineering development (6.4). Includes those development programs being engineered for Service use but which have not yet been approved for procurement or operation. This area is characterized by major line item projects and program control will be excised by review of individual projects.

Management and support (6.5). Includes research and development effort directed toward support of installations or operations required for general research and development use. Included would be test ranges, military construction, maintenance support of laboratories, operations and maintenance of test aircraft and ships and studies and analyses in support of the R&D program. Costs of laboratory personnel, either in-house or contract-operated, would be assigned to appropriate projects or as a line item in the Research, Exploratory Development, or Advanced Development program areas, as appropriate. Military construction costs directly related to a major development program will be included in the appropriate element.

Operational system development (6.6). Includes research and development effort directed toward development, engineering and test of systems, support programs, vehicles and weapons that have been approved for production and Service employment. This area is included for convenience in considering all RDT&E projects. All items in this are are major line item projects which appear as RDT&E Costs of Weapons Systems Elements in Other Programs. Program control will thus be exercised by review of the individual research and development effort in each Weapon System element.

Chairman McCLELLAN. Proceed.

BROAD MISSION AREAS

Dr. CURRIE. Another way of analyzing the entire RDT&E program is in terms of broad mission areas, and my detailed statement to be submitted for the record, discusses the program in terms of mission areas. A summary table of the funding by mission areas follows:

[In millions of dollars]

Mission area	Fiscal year— 1973	1974	1975
Tactical	2,938.7	2,928.2	3,254.3
Strategic	1,894.4	1,942.2	2,358.0
Defense wide systems	532.1	730.9	764.5
Technology base	1,381.4	1,410.2	1,447.1
Management support	1,108.2	1,135.6	1,235.7
Advanced technical development	161.2	185.9	262.3
Total R.D.T. & E	8,016.0	8,333.0	9,322.5

Military Departments

Lastly in this summary of funding is the distribution by Military Departments:

[In millions of dollars]

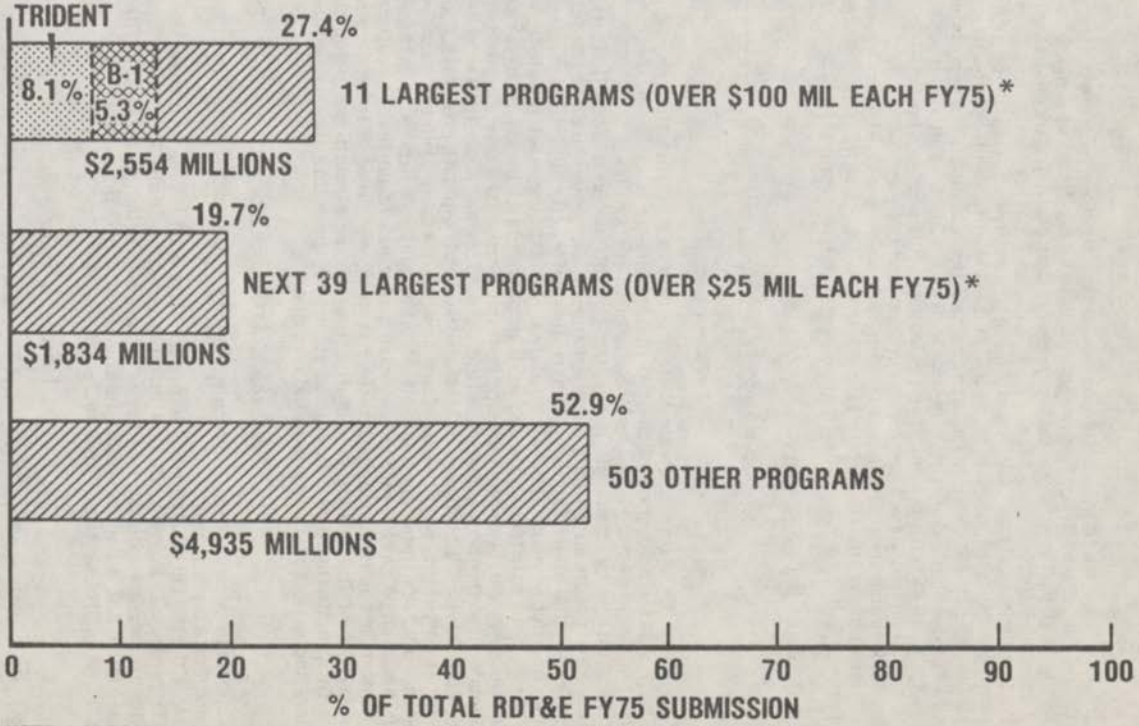
Department	Fiscal year— 1973	1974	1975
Army	1,881.1	1,970.5	1,986.0
Navy	2,541.6	2,743.4	3,261.9
Air Force	3,120.0	3,125.7	3,518.9
Defense Agencies	473.3	394.4	555.7
Total R.D.T. & E	8,016.0	8,333.0	9,3225

I believe it will be helpful to your deliberations to point out how a relatively small number of major development programs consume a substantial amount of the available RDT&E funds. The chart, on page 1–32, shows that 11 programs over $100 million each will take over 27 percent of the FY 1975 funds.

A number of detailed funding tables and related charts are included in the Appendices of my statement.

RDT&E FY75

TOTAL $9,323 MILLIONS



*NOTE: LARGEST PROGRAMS IN ABOVE CHART EXCLUDES RESEARCH, EXPLORATORY DEVELOPMENT, AND MANAGEMENT & SUPPORT

Final Comment

Dr. Currie. I want to conclude my remarks, Mr. Chairman, with a recognition that Defense research and development is paid for by hard work of all Americans; it is their investment in the preservation of their freedom as individuals in a unique society.

In the final analysis, the exact size and texture of this investment will be determined by a composite of judgements—on affordability, lessons from the past, confidence in those who manage the investment, and perception of the world environment. And there is an element of faith—faith that science, technology and an adventuresome spirit remain a vital part of the foundation for the future, just as they have been for the present and the past.

In your deliberation, I ask you to step back and view the Defense research and development investment in this larger context. I believe that now is the time to renew our faith, to renew our commitment and to reverse trends of the recent past.

The dividends we seek will follow.

STRATEGIC PROGRAMS

Introduction

The objective of our strategic R&D program is to insure that we will continue to have strategic forces sufficient to deter nuclear attack—or coercion by the threat of nuclear attack—on the United States or its allies.

The strategic environment is constantly evolving, and arms limitation agreements have produced a fundamental change in our assessment of the future strategic environment by imposing constraints on Soviet and U.S. strategic forces which had not previously been postulated. Nevertheless, technological momentum of the Soviets' strategic program and, in particular, the great disparity in missile throw-weight between our two countries are extremely disquieting. We see evidence that the Soviets are continuing a vigorous program to improve their strategic forces. They have flight tested several sophisticated MIRV configurations, are working on at least four new land based systems, new submarine systems, and continue development of other major weapons systems. So, while significant steps have been made toward a new era of mutual restraint and arms limitation on the two principal nuclear powers, we have yet to achieve a comprehensive set of limitations to stabilize the strategic relationship for the indefinite future. Meanwhile each side is vigorously pursuing those programs it considers necessary for its own national security.

Strategic R&D Programs

Chairman McClellan. How much money does the U.S. annually spend for strategic R&D programs?

Dr. Currie. The U.S. spends approximately $2.0 billion per year for strategic R&D programs. For FY 75 this amount is $2.5 billion. The addition in FY 75 is due to increases in our two major programs, Trident and B–1 ($170 million), plus additional amounts ($325 million) for strategic initiatives.

Chairman McClellan. Continue.

The Impact of Salt

Dr. Currie. The ABM Treaty and the Interim Offensive Agreement limit the level of ICBM and SLBM launchers but not qualitative improvements. Therefore, the Soviets are directing their major efforts at technological upgrade in an apparent attempt to close the qualitative gap between U.S. and Soviet missile systems.

Our own response must be to insure preservation of our technological lead with emphasis on maintaining the survivability and penetrativity of our strategic deterrent forces. This will require a concerted effort, because in some areas we have already achieved much of the theoretically possible gains and are at a point of diminishing returns. In the long term we cannot expect our technology to counterbalance indefinitely their numerical and throw-weight advantage. If the Interim Agreement is permitted to expire without being replaced by a more comprehensive follow-on agreement, the United States could be placed in a position of strategic disadvantage unless we have programs to permit us quickly to counterbalance the Soviet capability.

Missile Throw Weight Disparities

Chairman McClellan. Provide greater detail on the great disparity in missile throw-weight between the U.S. and the Soviet Union.

Dr. Currie. Before discussing the specifics of the disparity I would like to define what we consider to be "throw-weight." As we see it, the throw-weight of ICBMs (and SLBMs) is the useful weight which the boost stages of the missile are capable of throwing. The useful weight includes the weight of reentry vehicles which the boost stages are capable of throwing to an impact point, plus penetration aids. It also includes the weight of any dispensing and release mechanisms, reentry shrouds, covers, buses and propulsion devices with their propellants, which are present at the end of boost phase. Using this definition, we have calculated the following throw-weights. [Deleted.] The disparity could grow even more marked in the future if the Soviet Union chooses to replace existing deployments with missiles currently in test. [Deleted.]

Chairman McClellan. Proceed.

Dr. Currie. Our R&D efforts must therefore be continued and intensified lest through our inaction we permit the Soviets to perceive and exploit a potential asymmetry. I am therefore recommending programs designed to provide appropriate options, to maintain a strategic deterrent posture adequate to safeguard the United States' security and encourage the Soviets to feel the necessity to conclude an equitable final agreement and keep the agreements already signed.

Arms Limitation Agreement

Chairman McClellan. What steps do you recommend that we take to insure an arms limitation agreement?

Dr. Currie. The Department of Defense has continued to emphasize the importance of maintaining a vigorous R&D effort in strategic weapons to insure the Soviets perceive the necessity to negotiate additional agreements as well as the mutual benefit in maintaining the agreements already signed. In addition, as the Secretary of Defense has publicly stated, the level of forces to be permitted both sides will, in large measure, be determined by what the Soviet position will be in SALT. The Department of Defense believes that force levels to be permitted under the agreements currently being negotiated should be at levels lower than those currently in being. We believe the strategic programs in the defense budget submitted for the coming fiscal year will enhance the prospects for an equitable permanent agreement limiting, and hopefully reducing, strategic offensive arms.

Chairman McClellan. Proceed.

Offensive Systems

Land-Based Missiles

Given the Soviet deployment of their developing MIRV capabiltiy together with the potential accuracy of which ICBMs are capable, there is no question that our present land-based missiles deployed in fixed silos could be in jeopardy by the mid-1980s. Major deterrents to a Soviet attack on these missiles would be Soviet uncertainty about the actual hardness of our silos, the uncertainty surrounding U.S. reaction to warning and assessment of the ICBM attack and the fact that they would have to contend with the other strategic retaliatory forces.

Soviet Missile Accuracy

Chairman McClellan. How does Soviet missile accuracy compare with that of the U.S.?

Dr. Currie. We do not have precise knowledge of the accuracy of Soviet missiles. We estimate that our missiles are [deleted] times more accurate than theirs, and our technology represents a three to five year lead. An additional consideration is that their larger throw-weight and higher yield warheads do not require as much accuracy as we do to destroy a specific target.

Chairman McClellan. Proceed.

Dr. Currie. These considerations do not eliminate the potential vulnerability of our land-based missiles, but they do show that a high confidence first strike against these forces is difficult to achieve. The conclusion of an equitable agreement in SALT II could serve to defer any Soviet first-strike expectations and stabilize the strategic deterrent of each country. In the interim, we propose to

proceed with three distinct courses of action to maintain technological options that are available to us: (1) improve our present MINUTEMAN force; (2) continue a paced development of the technology of an alternate land basing mode; and (3) continue Site Defense development to provide a viable active defense option (see 2.4.1.2).

Chairman McCLELLAN. Has the Defense Department been able to find a countermeasure for the SA–6?

Dr. CURRIE. [Deleted.]

Chairman McCLELLAN. Proceed.

Dr. CURRIE. We plan to continue to improve MINUTEMAN by modernizing the force, upgrading the hardness of the silos and developing selective improvements in missile accuracy and payload flexibility in order to obtain the most versatile capability presently available to us. These improvements will give a greater destructive capability to the missile force after any Soviet first strike and will provide the capability to place at risk any selected strategic target. Thus, our initial counter to Soviet qualitative improvements is to selectively improve the quality of the present MINUTEMAN.

SILO DAMAGE EFFECT ON MISSILE FIRING

Chairman McCLELLAN. Can any silo be hardened against an almost direct enemy hit? How close must a missile come before the silo will be too severely damaged to allow our missile to be fired?

Dr. CURRIE. No silo can be hardened against an almost direct enemy hit which comes within a few feet of the silo. A one megaton warhead would have to detonate between [deleted] feet from a silo to produce such severe damage that the missile could never be fired.

Chairman McCLELLAN. Continue.

Dr. CURRIE. Our RDT&E request of $142.9 million for MINUTEMAN is for continuation of the force modernization ($71.9 million), improving missile accuracy ($30.0 million), engineering development to increase the yield of the present MINUTEMAN II MK–12 re-entry vehicle ($25.0 million), and the demonstration of the capability to carry more re-entry vehicles on a MINUTEMAN III ($16.0 million).

UPGRADING OF MINUTEMAN

Chairman McCLELLAN. Do you intend to upgrade all MINUTEMAN to #IIIs?

Dr. CURRIE. We have preserved the option to deploy all MINUTEMAN IIIs. This will be considered by the Secretary of Defense during the upcoming FY 1976 budget cycle since the FY 1975 procurement is the last for the present program. No decision has been reached at this time to propose conversion to all MINUTEMAN IIIs.

Chairman McCLELLAN. Proceed.

Dr. CURRIE. For the long term we have requested $37.3 million to continue technology development associated with an alternate basing mode. A key portion of this technology program will be two essential elements, guidance and propulsion, for the next generation ICBM. Critical investigations will be conducted to determine the appropriate basing mode. Thus we will be in a position to provide survivable rebasing of our land-based missile force, if required.

NEW BASING MODE

Chairman McCLELLAN. List in detail the studies undertaken to investigate "a new basing mode" for land base missiles. Estimate the total cost of these research programs.

Dr. CURRIE. Numerous studies have been undertaken to investigate a new rebasing mode for land based ICBMs. These include the STRAT–X study completed in August 1967, the Road/Off Road Mobile Basing study in October 1969, the Shelter Based MINUTEMAN study of January 1970, the Canal Basing Study of February 1970, the Air Mobility studies of 1973, plus many others. Under Advanced ICBM Technology we are pursuing the technology associated with the various rebasing modes, principally in the areas of propulsion and guidance. The FY 1975 request is for $37.3 million. Our estimate for FY 1976–1979 is $175 million for this line item.

Chairman McCLELLAN. Proceed.

Sea-Based Missiles

Dr. Currie. The sea-based portion of our strategic deterrent force currently consists of 41 Fleet Ballistic Missile submarines (SSBNs) and their POLARIS/POSEIDON missiles. The 31 newest SSBNs of our fleet are being modified to carry the POSEIDON missile with its MIRVed payload of re-entry vehicles. By mid-1974 we expect to complete phase-out of the older POLARIS A–2 missiles and have at sea only the POLARIS A–3 and the POSEIDON C–3 missiles. We believe that this force is, and will continue throughout this decade to be, a nearly invulnerable and particularly effective deterrent.

POSEIDON Force

Chairman McClellan. Why do you consider the present POSEIDON force to be "nearly invulnerable"?

Dr. Currie. Based on extensive and repeated assessments of the vulnerability of our sea-based strategic deterrent system, the present POSEIDON force is considered essentially invulnerable to the potential threat exhibited by the current SOVIET ASW forces. Exercises conducted under the SSBN Security Program have shown that even our own ASW forces, considered the best in the world, have marginal success in detecting our SSBNs. This does not mean that we can become complacent and assume SSBN invulnerability in the 1980s. The Soviets are showing a very strong interest in ASW and are applying significant technological efforts toward the detection and tracking of submarines. They have made great strides in naval capability in recent years including efforts in faster, quieter SSNs; [deleted]; MOSKVA and KIEV class carriers; and increasing experience in operating an SSBN system similar to our own. Such potential threats must be combated by a viable aggressive SLBM force improvement program on our part.

Chairman McClellan. Proceed.

Dr. Currie. The Soviet Union continues to increase its already high level of effort to improve anti-submarine warfare (ASW) capabilities. This effort could significantly improve ASW potential in waters in which our missile submarines are now constrained to operate because of comparatively short missile range. As we discussed with you last year, it is impossible to predict when a significant threat to the survivability of our SSBNs will arise. We do know that any foreseeable advances made by the Soviets in ASW capability can be mitigated by continuing to make improvements in our current submarines by providing longer-range missiles, greatly increased available operating areas for our ships, and by developing a new ship incorporating the advances in technology which have evolved since our current SSBNs were designed.

Because of the uncertainty over future Soviet ASW capability and the long lead times for intelligence and for developing and deploying a new strategic weapon system, it was decided to initiate the TRIDENT submarine and long-range missile programs on a schedule to permit an initial operational capability (IOC) in FY 1979.

This year we are requesting $107.2 million to continue the orderly development of TRIDENT submarine systems as detailed design of the ship proceeds on schedule. We expect that a leadership construction contract will be awarded early this year. We are also requesting $648.8 million for continuing development of the TRIDENT I (C–4) missile and the associated weapons subsystems.

C–4 Missile

Chairman McClellan. What problems does the C–4 missile have with accuracy?

Dr. Currie. Our design goal is to have the C–4 missile as accurate at the longer ranges (4000 NM) as POSEIDON is at its shorter range (2000 NM). The difficulty with further improving C–4 accuracy as compared to land based ICBMs is in initializing the missile guidance systems on the moving submarines. By initializing we mean the precise alignment of the guidance set in an earth fixed reference frame and the injection of present position and velocity into the guidance computer. This requirement is further complicated by uncertainties in the knowledge of the [deleted], a value that can be precisely measured in fixed based systems. However, certain advanced hardware developments are being considered within the FBM line item which could improve accuracy, including a stellar updated guidance set, an electrostatically supported gyro navigator and a [deleted].

Chairman McCLELLAN. Proceed.

Dr. CURRIE. TRIDENT missile characteristics will permit CONUS basing without sacrifice of alert rate and will permit more than a four-fold increase in available operating area. Additionally, TRIDENT I is being developed to be compatible with the current POSEIDON SSBNs as well as the new submarine. In fact, the program provides for initiation of the TRIDENT I missile backfit into POSEIDON SSBNs, commencing in FY 1979, while permitting us to proceed with a slower TRIDENT submarine building program. The TRIDENT program includes advanced development of an evading re-entry vehicle (MARV) as a hedge against Soviet upgrading of their SAM's to have an ABM capability. This simple evader will be funded at $45.7 million in FY 1975.

For the Fleet Ballistic Missile (FBM) Systems Program element, we are requesting in FY 1975 a total of $46.7 million, a significant increase over last year. Within that element we are funding the continuation of the development of improvements to current SSBN sonar and navigation subsystems with the objective of increasing submarine survivability. Additionally, as a new initiative within that element, we are requesting $33.0 million for advanced developments efforts to provide the technology required for significantly improved targeting effectiveness.

We are proposing in this year's budget request $16.0 million to fund the conceptual design studies for a new, smaller, less costly SSBN to follow the TRIDENT and to permit replacement, when necessary, of POSEIDON SSBNs. These ships are expected to be about half the size of the TRIDENT or only slightly larger than the current 640 class SSBN. These ships will probably not have the growth potential of the TRIDENT SSBN, but given the missile technology advances which we expect to achieve, they will be very effective platforms, particularly for Atlantic deployment.

SMALLER VERSION OF TRIDENT

Chairman McCLELLAN. You have recommended that the Navy develop a number of smaller TRIDENTs, arguing that for deterrent purposes "quantity" is important. Hasn't this been the argument of the opponents of TRIDENT? Why build the TRIDENT if this smaller class will be as effective and more survivable? Compare the basic characteristics of the three submarines: the TRIDENT, the new proposed submarine and the present POSEIDON.

Dr. CURRIE. Development of SSBN–X has been recommended primarily to provide the potential for acquiring a more economical replacement for our present SSBNs, on a ship-for-ship basis, when they reach an age such that their continued operation is no longer economical or safe, or at such time that their eroded survivability in the face of an increased threat might lower the credibility of our sea-based deterrent. The SSBN–X force could complement our TRIDENT force, thereby providing us the option to respond flexibly to SALT developments or future moves by the Soviets. Failure to develop the SSBN–X would leave us with the more expensive TRIDENT submarine as our only option for force modernization in the 1980s.

Until the conceptual design studies for SSBN–X are completed it will be difficult to make a meaningful comparison of the characteristics of the TRIDENT and POSEIDON SSBNs to SSBN–X. Any proposal to develop SSBN–X would of necessity require such a comparison and would be done if the FY 75 conceptual design study is approved.

Senator YOUNG. If a smaller TRIDENT submarine is developed, will it be necessary to build 10 TRIDENT submarines as presently planned or something less?

Dr. CURRIE. We propose to initiate conceptual design of the smaller SSBN–X in 1975 to determine if such a submarine will be equal to or more survivable than a force of all TRIDENT submarines and if such a submarine will be more cost effective. Only after these conceptual studies have been completed will we be in a position to recommend the final TRIDENT force size. In the interim, we recommend proceeding with TRIDENT as a replacement for our aging, less effective SSBN force.

Chairman McCLELLAN. Proceed.

Advanced Ballistic Re-Entry Systems (ABRES)

Dr. Currie. During 1973, the Air Force-managed ABRES program continued development of a re-entry vehicle and penetration technology as a base for developing advanced strategic systems and understanding Soviet and Chinese developments in re-entry systems and assessing our relative position. Through ABRES-developed technology, we gain greater confidence in the application of new techniques to the design of re-entry vehicles for missiles such as MINUTEMAN AND TRIDENT.

ABRES

Chairman McClellan. At what stage are we in developing MARV? How much have we spent to date on their development and how much will maneuvering reentry vehicles be required in the future?

Dr. Currie. At this stage in MARV development, we have demonstrated the technology associated with an evader MARV under the Advanced Ballistic Reentry Systems (ABRES) program managed by the Air Force. The Navy is conducting an advanced development program for an evader MARV compatible with the TRIDENT missile. We propose to initiate in FY 1975 the advanced developmet of a highly accurate terminally guided MARV under the ABRES program. Through FY 1974, we will have spent $119.3 million on MARV technoland advanced development. We estimate the completion of the advanced development and technology programs will require $240.5 million.

Chairman McClellan. Proceed.

Projects in ABRES Program

Chairman McClellan. List the major projects presently being undertaken in the ABRES program.

Dr. Currie. Major ABRES projects include: (1) Environmental effects measurements, material and subsystem developments including nosetip and heatshield environmental testing and material development, advanced heatshield and structures development and arming and fuzing subsystem development. In this latter area a major effort is devoted to the understanding of the effect natural and induced environments can have on these various subsystems; (2) Maneuvering reentry vehicle advance development including both evader vehicles and investigation of techniques for terminal homing; and (3) Penetration aids including decoy advanced developments and studies and experiments to determine reentry vehicle observables which could be used as a decoy discriminants.

Chairman McClellan. Proceed.

Dr. Currie. Our RDT&E request of $120.0 million reflects a continuation of the broad-base technology associated with re-entry vehicles development, with $20.0 million included to explore conceptual possibilities for a terminally guided MARV. This maneuverer would be of the second type mentioned in Chapter I: a MARV whose objective would be to increase accuracy. Whether it would also have an evasive capability depends on the outcome of the design tradeoffs. Many of the postulated guidance schemes do not admit of violent maneuvering. In any event, such decisions will not face us for many years, since this is still an infant art.

Aircraft

Because of our continuing belief in a deterrent comprised of a balanced mix of strategic weapon systems, we continue to stress the need for more effective aircraft systems. In maintaining our strategic aircraft forces, we must contend with two urgent problems which have not been eased by the arms-limitation agreements:

(1) The Soviets are allowed a formidable force of SLBMs which in a few years could launch pattern attacks on our bomber and tanker bases.

(2) Air defenses are not limited; the penetration of present and projected Soviet air defenses by aircraft remains a challenging task.

For the future we must have a strategic bomber that will:

Operate from austere auxiliary fields;

Reduce the time required for safe escape from a pattern nuclear attack; and

Have the versatility to stand-off and/or penetrate, thus placing the greatest stress on the defense.

Similarly, tanker capacity and tanker survivability are a concern for the future. For the pure strategic role, a tanker with good pre-launch survivability is essential to provide the necessary match with the bomber forces.

B–1 Bomber

The B–1 bomber offers substantially improved pre-launch survivability by virtue of its reaction time, speed and hardness. As a weapons platform it will be able selectively to stand-off and launch cruise missiles or penetrate with SRAM and gravity bombs. The many operational options to us with the B–1 will make it the most versatile segment of our strategic deterrent force.

Since development was initiated in June 1970, the program has been under continuous management review. An independent study of the program was directed by the Secretary of the Air Force in July 1973. This review has been completed and has resulted in a number of recommendations for restructuring the program. The Air Force is acting on these recommendations and is prepared to provide to the Congress the details of the restructured program. The essential recommendations are directed toward achieving an orderly phasing into a production capability and resolving the inherent conflicting demands of the fly-before-buy philosophy with program continuity where only a few, unique and expensive units are produced in a development program.

The first flight of an extensive and comprehensive test program is scheduled for September of this year. We are requesting $499.0 million in FY 1975 to continue development and to initiate the flight test program.

B–1 and ALCM

Chairman McClellan. Why do we need a sophisticated B–1 and the ALCM? Compare the strategic mission of each, their payloads, range, survivability, cost, O&M cost, unit buy and CEP.

Dr. Currie. The ALCM is an adjunct to the manned penetrating bomber, not a replacement for it. It is another type of bomber weapon which will allow a portion of the bombers to stand-off relatively long distances from certain targets either after a partial penetration or before penetrating. Since the ALCM proliferates the number of penetrators, it also improves the probability of survival of the penetrating bomber. It is not proper to make a direct comparison between the B–1 and the ALCM since the ALCM requires a survivable launch platform to be effective.

A gross comparison of the B–52 with ALCMs and the B–1 would indicate that: (1) each would have the same strategic mission, the destruction of objective targets should deterrence fail, (2) the B–1 would carry the greater payload, (3) when used as a stand-off system, B–52/ALCM has shorter penetration range than the B–1, but when used as a penetrating system the B–52/ALCM has greater range than the B–1 since ALCM provides range extension, (4) considering all aspects, the B–1 would be more survivable, (5) the B–1 costs more than a reasonable number of ALCMs for the B–52, (6) O&M cost would be comparable; the B–1 is more sophisticated, but the B–52 is an aging aircraft, (7) procurement of 241 B–1s is planned compared to 1000–2000 ALCM's, and (8) over the total target base the B–1 would have a better CEP. Study efforts currently underway will highlight the strengths and weaknesses of various combinations of ALCMs and manned bombers.

Cost Effectiveness Study on B–1

Chairman McClellan. When was the last total cost effectiveness study performed on the B–1? At what level do you believe this system will be cost-effective? Do you intend to order a comprehensive cost effectiveness study? Why has the Department been so lethargic in disclosing the overwhelming cost increases in this program? Are you having studies performed looking into alternative systems to the B–1 or a more austere version of this bomber? Have the cost increases that have occurred been a result of mismanagement on the part of DoD or the contractor? What major trade-offs have been made in this program? Has there been any change in the requirements of this program since its inception?

Dr. Currie. The last total cost effectiveness study of the B–1 was accomplished in October 1966. Proposed alternatives have been evaluated at various times since then. It is just not possible to establish a specific level for cost effectiveness. There are many factors to consider in making such a judgment. Many of the factors will be more visible as the flight test program is conducted prior to considering a decision for production. A comprehensive cost effectiveness study using the latest available information will be accomplished for the Defense Systems Acquisition Review Council review prior to a production decision. At each point in the B–1 program where the cost estimates were changed because of restructuring or the

application of new inflation factors, the Congress has been informed either directly or through the Selected Acquisition Report process as soon as the decision was made. A comprehensive bomber penetration study is presently underway. This study, managed by my office, will address various combinations of alternate weapon systems. It is expected that the results of the study will be available this summer. The major cost increases have resulted from adjustments in program schedules because of revised milestones as the development program matured, rephasing to ease the projected transition from development to production and the application of higher factors for inflation reflecting the economic facts of life. As in any program, there have been management changes to strengthen the program; but there has been no evidence of serious mismanagement which led to cost increases. There have been a number of trade-offs made in the B–1 design which affected performance and cost. The titanium content in the air frame has been reduced; a simpler engine inlet is being developed; an interim capability escape capsule is being developed; infrared suppression will not be incorporated; and the defensive avionics has been prioritized and limited. As a result of these decisions, there have been minor changes in performance together with appropriate cost benefits. There have been no changes in the requirements of the B–1 program since its inception.

Chairman McCLELLAN. Proceed.

BOMBER DEFENSE WEAPONRY

Dr. CURRIE. In FY 1975, we will continue at a low level our studies of the utility of bomber defense weapons for the strategic bomber force. Advanced development efforts will be initiated on guidance and propulsion systems for a long-range supersonic missile.

LONG RANGE SUPERSONIC MISSILE

Chairman McCLELLAN. Provide greater detail on your advanced development efforts on guidance and propulsion systems for a "long-range supersonic missile."

Dr. CURRIE. The advanced development work on the long-range supersonic missile is being pursued to determine the feasibility of providing [deleted]. The propulsion and guidance systems will be developed under separate contracts.

Chairman McCLELLAN. Proceed.

STRATEGIC TANKER

Dr. CURRIE. We have requested $20.0 million in FY 1975 to initiate investigations of the design and performance characteristics for new strategic tankers. These studies will determine the appropriate engineering trade-offs and initiate advanced development.

B–1 TANKER REQUIREMENTS

Chairman McCLELLAN. Does the B–1 require its own tanker? Will this tanker be used to carry either cruise or ICBM missiles? Compare the survivability of the B–1 and the B–52 to the KC–135 and the proposed tanker.

Dr. CURRIE. The B–1 does require a tanker to accomplish its basic design mission, but no new tanker is specifically required for this task since the KC–135 is compatible with the B–1. Tankers used with the B–1 will not carry either cruise or ICBM missiles. For the future we have not ruled out a multipurpose aircraft which could perform a number of missions. We propose to investigate the modifications required for existing aircraft to provide greater capability in the tanker/cargo rôle. The B–1 will be more survivable in an attack on our bases than the B–52 or KC–135. Our investigations associated with the advanced tanker will be concerned in a large way with the survivability of this aircraft.

Chairman McCLELLAN. Can both the DC–10 and 747 be used for the tanker role?

Dr. CURRIE. Both the DC–10 and 747 could be used for the tanker role with appropriate modifications. The investigations we propose for FY 1975 will be concerned with a variety of existing aircraft, the degree of modification required, and the resulting capability.

Chairman McCLELLAN. Please provide the Committee with all studies performed and used as a basis for the $20 million request for the new strategic tanker.

Dr. CURRIE. Numerous planning studies have indicated the need for consideration of a new tanker aircraft. However, there has been no specific study that could be used as a basis for the request. Rather, we have requested the $20.0

million in order to conduct the necessary competitive studies of the performance characteristics obtained by modification of an existing aircraft for the tanker/cargo mission. The results of these studies will form the basis for a funding request to develop the necessary modifications for an advanced tanker/cargo capability.

Chairman McClellan. Proceed.

Cruise Missiles

Dr. Currie. As a major alternative approach to penetration of formidable Soviet aid defenses, including tens of surveillance radars, hundreds of ground radars and thousands of interceptors and SAMs, we have started a development program for two cruise missiles. One version is an air-launched missile for bombers; the other is launched by submarine or surface ship. Such missiles are subsonic, so they can fly long distances. They are difficult to attack, and their profusion gives confidece that they will penetrate even if unexpected techniques are developed to detect and attack them. These systems will provide a new dimension to our strategic deterrent force and tax any defensive system which might be developed.

Although such version operates in a different environment, we are taking steps to assure close integration and commonality of effort. Both will use the same engine technology (developed by the Air Force); both will use the same terrain comparison guidance techniques now being brought to perfection by the Navy. Each program office will station permanent liaison officers with the other.

Two Cruise Missile Types

Chairman McClellan. Why are we developing two different cruise missiles? Why haven't you required the Air Force and Navy to commit themselves entirely to one missile?

Dr. Currie. We are proposing to develop an air launched cruise missile for the B–52 and the B–1 based on the terminated Subsonic Cruise Armed Decoy (SCAD) program. This will take advantage of the SCAD development work accomplished prior to termination. This missile will meet the specific requirements of these aircraft for internal and external carriage and directly interface with present aircraft equipment used with the Short Range Attack Missile (SRAM). The Navy is to conduct advanced development prototype testing of a submarine launched cruise missile which meets the unique requirements of the submarine interface and launch from torpedo tubes. Because of the shape constraints and unconventional considerations a single missile would not meet each of these requirements without reducing the effective range of both systems to a point where there would be little operational usage. The torpedo tube launched cruise missile needs to be of a long cylindrical shape to make maximum volumetric use of the torpedo tube and must be designed to withstand the underwater environment. The ALCM on the other hand should be relatively short and triangular in cross section to fit the SRAM rotary rack. There is, however, a degree of commonality in that each will use the same basic engine and guidance technology.

Chairman McClellan. Proceed.

Air Launched Cruise Missile (ALCM)

Dr. Currie. The Air Force will develop the ALCM as an adjunct to our strategic bomber force. The initial carrier will be the B–52, but the ALCM will be used on the B–1 and could take advantage of the B–1's improved pre-launched survivability.

The ALCM will make maximum utilization of the terminated SCAD engineering development program for air vehicle design and turbofan engine development. This design is uniquely suited for launching from strategic bombers in that it can substitute the SRAM missile on a one-for-one basis in both rotary racks and pylon mounts. The fact that so much relevant work has been accomplished under the SCAD program makes it possible for use to move aggressively on this program, with a first flight planned for the summer of 1976. Our request for $80.0 million will permit us to accomplish this.

Scad Engine for Cruise Missile

Chairman McClellan. Why have you limited yourself to the SCAD engine for the new cruise missile? Compare the characteristics of this missile and your pres-

ent RPVs. What changes would have to be made on the RPV to fill the CM mission?

Dr. CURRIE. The SCAD engine is most appropriate for the cruise missile. It is the right size for the physical constraints considered the SRAM rotary rack for the ALCM and the standard torpedo tube for the SLCM. It is a turbofan engine with low specific fuel consumption for long range, and it can be operated with high density fuels for increased range. The characteristics of RPVs and cruise missiles are not dissimilar. There is a great deal of common technology involved. In a way, the cruise missile is a form of RPV packaged for a specific application, integrated with a specific launch platform, and optimized for range, payload, and accuracy considerations.

Chairman MCCLELLAN. Proceed.

SUBMARINE LAUNCHED CRUISE MISSILE (SLCM)

Dr. CURRIE. This system will be developed by the Navy to provide both strategic and tactical variants of a missile designed to take advantage of the standard-size torpedo tube. In the strategic variant, the SLCM system will combine effective low-altitude strategic penetration with the highly survivable launch base of our nuclear submarine force. It provides for proliferation of the strategic submarine force, because every strategic and tactical submarine could become a potential launch platform for strategic cruise missiles.

In a tactical variant, the SLCM system will deliver a payload to a range of 300 NM, thereby taking advantage of existing and future target detection systems and increasing the destruction potential of each torpedo tube load.

Our $45.0 million request for SLCM provides for a paced competitive flight demonstration program leading to a decision for development of either or both of the variants.

DEFENSIVE SYSTEMS

BALLISTIC MISSILE DEFENSE

Although the ABM Treaty prohibits extensive deployment of ABM systems, a number of vital strategic issues hinge on our continued pursuit of ABM research and development programs. We must maintain an R&D program will provide incentive for the Soviets to reach additional arms limitation agreements with us and to abide by the agreements already concluded. Our position at the forefront of ballistic missile defense (BMD) technology was important in SALT I; we must maintain our leading position so that we are not surprised by Soviet advancements and so that we may evaluate the impact on our deterrent forces of new Soviet BMD developments.

Our overall BMD program consists of three major parts. First, the SAFEGUARD program will provide operational experience with a deployed BMD site and protect a portion of the land-based deterrent force. Secondly, the site defense program will demonstrate a credible capability to defend MINUTEMAN should we be unable to arrive at an acceptable permanent agreement on the limitation of strategic offensive arms, and it will therefore provide an incentive to the Soviets both to conclude a final agreement on offensive weapons limitations and abide by current agreements. Third, the Advanced Ballistic Missile Defense technology program will improve our technological capabilities in BMD; will improve our understanding of potential Soviet BMD capabilities—thereby helping us maintain our own offensive deterrent capability—and protect us against being surprised by the technological advancement of our adversaries.

Our FY 1975 program plan includes completion of the planned deployment of SAFEGUARD at Grand Forks, North Dakota, continuation of the Site Defense prototype demonstration program and also continuation of the Advanced Ballistic Missile Defense technology R&D program.

COMPONENT TECHNOLOGY IN BMD

Chairman MCCLELLAN. Has the major obstacle in BMD been in developing component technology or integration of the various components?

Dr. CURRIE. Each of these factors has been important to BMD development and both are needed for a viable system. Component development addresses the need to improve performance in specific technological areas. Such development requires in-depth research in specialized areas where shortcomings appear or threat advance requires increased performance. Components, however, can never

be dealt with in isolation since they must eventually operate and be compatible within a system context. This can only be accomplished by integration of the critical components in a system context, and testing that system to verify that all interactions between the components are understood and within appropriate limits. Without successful system integration, there is no guarantee that incorporation of good components will result in good system performance. Advanced Technology programs concentrate on the technology of components and new phenomenology whereas programs like the Site Defense Prototype Demonstration perform the integration of the components into a system. A viable capability in BMD needs to address both the component and the system activity.

Chairman McClellan. Proceed.

SAFEGUARD

Dr. Currie. The FY 1975 RDT&E program for SAFEGUARD has progressed on schedule with the achievement of a number of significant milestones. The PAR and MSR radars at the Grand Forks site are both tracking satellites as part of their scheduled testing activity. The test program at Kwajalein continues well with 42 successful and two partially successful live-target tests out of a total of 49 as of 28 December 1973. In FY 1975 we will complete the RDT&E activities on the SAFEGUARD system, and the Grand Forks site will achieve its initial operational capability.

Site Defense

The Site Defense development program is intended to provide the capability to protect MINUTEMAN against threats that could develop in the late 1970s as a result of qualitative improvements in Soviet offensive forces that are allowed by the Interim Offensive Agreement. The Soviets have recently demonstrated such improvements. The Secretary of Defense has expressed to you his belief that the Site Defense program is a prudent and necessary hedge against the inability to arrive at an acceptable arms limitation agreement with the Soviet Union. The Deputy Secretary of Defense testified last December that Site Defense is an essential program for the defense of MINUTEMAN and is important to support our SALT objectives. To provide such a capability requires a program of system development and test and evaluation which we plan to continue in FY 1975. Site Defense utilizes less powerful radars than the SAFEGUARD system, commercial data processors, modified SPRINT interceptors, and new construction and operating techniques which makes it a more cost-effective defense of MINUTEMAN than SAFEGUARD. The Site Defense program involves a prototype demonstration of critical system performance at Kwajalein. As previously noted, the scope of this program results from the need to develop "systems" technology over and above component technology, and this is achieved only by building a prototype *system*.

No funds will be spent on deployment, engineering development or studies of NCA defense.

Site Defense Obsolescence

Chairman McClellan. What is the anticipated date that Site Defense will be obsolete?

Dr. Currie. It is difficult to predict when Site Defense will be obsolete. The system is designed to handle both qualitative and quantitative increases in the threat. Site Defense is being developed to counter the Soviet threat of the 1980's and beyond. Various sophisticated threats such as MIRVs as well as advances in technology that might feasibly be developed in the 1980–90 time frame are considered in the design of the basic system. The basic system design allows it to respond to increasing threat quantity or sophistication by the deployment of additional defense modules. The basic design of the system also will allow the upgrading of the system by incorporating new technological advancements developed through our advanced and exploratory R&D programs. Eventually, however, advances in defense technology will occur, as is true in any system, where it is necessary to develop a new system to utilize fully the advances. Similarly, eventual offense advances may require that more advanced defense capabilities be the basis for the system. The Site Defense system, therefore, is not expected to become obsolete for many years. Some presently unforeseen offense technology breakthroughs or similar breakthrough in defense technology could, however, conceivably obsolete it earlier.

Chairman McClellan. Proceed.

Advanced Ballistic Missile Defense

Dr. Currie. The Advanced Ballistic Missile Defense (ABMD) program supports advanced research in stratgice defense in the same manner as the ABRES program supports advanced research in offensive capabilities. The two programs work cooperatively to develop a better understanding of complex physical phenomena such as ICBM and SLBM re-entry effects.

In FY 1975 the ABMD program will continue the investigation of new concepts and new technologies for missile defense, conduct critical phenomenological experiments in radar and optical discrimination and pursue methods of achieving lower cost, higher performance and more reliable sensor systems, computers, software, and interceptors. No funds will be spent on area defense system developments.

In FY 1974 the ABMD funding was reduced because Congress was concerned that the program was directed toward development of a light area defense system which would be in conflict with the SALT agreements. During the FY 1974 Congressional approval cycle, the ABMD program was restructured to emphasize its basic R&D nature and to introduce certain new technology tasks. Despite these actions the ABMD program sustained a severe funding reduction causing a concurrent reduction in an ability to accomplish the program objectives.

The ABMD program must necessarily cover a broad scope of rapidly expanding technologies that have application to ballistic missile defense. This is a demanding task but one that is critical if we are to maintain our technology lead over the Soviets and prevent technological surprises by them. Therefore, in FY 1975, it is important that ABMD be funded at the requested level of $91.4 million.

Air Defense

The manned bomber still presents a potential threat to this country. We are developing an improved warning and airspace control capability. The over-the-horizon backscatter (OTH–B) radar program, which is to provide early warning of aircraft attack, is completing the validation phase. We will review the program during the third quarter of FY 1974 to determine if prototype development is warranted. We will start a program in FY 1975 to improve our interceptor capability. The increased effectiveness that the F–106 could obtain from either a modern radar, infrared sensor or missile, or some combination of these, will be studied. In addition, the AWACS will help perform both the warning and the airspace control missions.

Studies on Bomber Threat to CONUS

Chairman McClellan. What studies (please list) has the Department performed on the possibility of a manned bomber threat to CONUS? What defense do we have against such a threat?

Dr. Currie. The Services have conducted numerous studies on possible manned bomber attacks on CONUS, some of which are: 1) JCS Study on CONUS Air Defense dated 19 Feb 71 (JCS J–5) 1899/838/3 with update dated 24 March 72, 1899/846/3; 2) Saber Scan, Vol. II, dated Jul 73; 3) Analysis of the Value of OTH–B Radar, dated 17 Jan 73 and 4) Modernized Air Defense Force Effectiveness Analysis, dated 1973. We have intelligence estimates on the technical capabilities of the Soviet Union as well as other nations to mount such an attack. It is our national policy to rely on deterrence to prevent an enemy attack. Accordingly, we have only a very limited defense against a missile attack in compliance with the SALT I agreement and we have reduced our defenses against the manned bomber threat. We feel it essential, however, as with missile attacks, to provide ample warning that bomber attack is underway so that appropriate actions can be taken.

Chairman McClellan. Proceed.

Ballisitic-Missile Warning

Dr. Currie. For years we have relied on the Ballistic Missile Early Warning System (BMEWS) to give us warning when an ICBM attack was underway. Recently we improved our warning capability to gain higher reliability and the ability to meet a more diversified threat. For example, early warning of ICBM and Fractional-Orbit Bombardment System (FOBS) launches is now provided by

over-the-horizon (OTH) radar, an early warning satellite and BMEWS. Warning of submarine-launched ballistic missiles (SLBMs) is provided by coastal radars and an early warning satellite. With the launch of the second satellite last year, enhanced surveillance coverage of Soviet launch areas has been obtained. The operational satellites have been exceeding design performance lifetime specifications, and this success has permitted the reduction of projected inventories, with considerable savings in out-year program costs.

Satellite BM Warning System

Chairman McClellan. Please discuss the strength and weaknesses of our satellite BM warning system and how do we compare with the Soviets in this area?

Dr. Currie. The strength of our satellite ballistic missile warning system is perhaps best exemplified by its performance to date: Every satellite placed in its geo-stationary orbit has met system design specifications, covering the western hemisphere to warn us of SLBM attack, and the eastern hemisphere to warn us of an ICBM or FOBS attack. To date the satellites have detected over [d] missile launches, including ballistic missile multiple test launches, space launches, and rocket research launches. The program has been highly successful, based on proven technology, and responsive to its original mission. As the ballistic missile threat evolves to deployment of longer range missiles, an additional satellite, perhaps with a modified sensor, may be required to expand the coverage. The system's weaknesses may be identified as follows: (1) the simplicity of its design, frozen to an early warning mission, may preclude it from additional missions in the future, but this remains to be determined from studies to be conducted by the Services this calendar year; (2) satellites are expensive and care must be exercised in consideration of options against changes in the ballistic missile threat; and (3) the current system, [d] may be adequate for early warning, but would need a higher degree of survivability [deleted].

The Soviet ballistic missile early warning system, on the other hand, appears to consist of Hen House Radars capable of giving approximately 15 minutes warning of an ICBM attack, [deleted].

Chairman McClellan. Proceed.

Dr. Currie. Research and development is being undertaken to provide warning coverage against new threats. Other R&D is directed toward reducing the vulnerability of our warning systems to electronic countermeasures (ECM), increasing the survivability of our command and control systems and enhancing the quality of the information received from the combination of warning sensors in order to better characterize the nature of any attack.

Present SLBM detecting coastal radars are obsolescent and have a low availability. Replacement is planned by two phased-array radars, and a modification to the FPS–85 space-track radar is being accomplished to provide an SLBM detection capability. The phased-array radars will give better coverage and attack-assessment information.

Strategic Command and Control

Command and control systems are essential elements of our strategic deterrent posture to support Presidential decisions on the use of strategic forces and to communicate those decisions for force application, if required. We continue to place heavy emphasis on survivability, reliability and security in the development of these command and control systems.

Strategic Command Control and Communications

Chairman McClellan. Discuss the necessity of having an efficient strategic C^3 missile program? What are the major problems with this program? What amount of funds have been requested in FY 75 for these programs? List the major ongoing C^3 programs.

Dr. Currie. It has become clear to us by means of studies and exercises that although our present strategic command and control system is adequate under a strategy of massive retaliation, substantial improvements are necessary to allow the more flexible options now being discussed. The improvements necessary to implement these options are part of our present and future program.

These systems must be able to operate in a hostile environment. They must be able to gather the appropriate information, process it, and present it to the national decision-makers in a timely and reliable manner, thus allowing these au-

thorities to respond in a manner appropriate to the level of provocation. It is important from the point of view of flexibility and stability that the survivability of these systems be sufficiently credible that decisions are not made hastily before the situation is completely assessed.

Furthermore, with the prospect of limitations of forces and weapons as a result of international agreements, equipment wear out and budget reductions, it is even more imperative to obtain quicker and more responsive command and control and more timely and reliable flow of operational and intelligence information if our forces are to be comparably effective in our defense. A dollar spent efficiently on command and control can have more than a dollars worth increase in effectiveness of our overall force employment.

An important problem with the program is illustrated by the fact that in the past, support for C^3 improvements has generally lagged the support for weapons systems because of the more overt nature of the latter. Since a better C^3 system allows more effective use of the weapons, we are now spending a relatively higher amount in the C^3 area than previously, thus helping to correct this situation. However, it will be several years before these improvements can be seen in operational systems.

As you are well aware, project SANGUINE, which is an important part of the overall strategic C^3 improvement program is beset by political difficulties. This may result in a gap in our capability to command and control the Fleet Ballistic Missile submarines.

Another major problem, inflation, is rapidly becoming a serious one. Programs which were approved with fixed cost limits and capability levels several years ago are now being faced with either capability reductions or schedule slips in order to keep the overall program within fiscal constraints. The area of sophisticated electronic components in satellites and computers has been especially hard hit. There is little you can do to help us combat the effect of inflation, but I would hope you can understand that cost increases in our programs are not always caused by increasing capabilities after a target cost has been set.

In RDT&E, for the entire command and control and communications (C^3) area, $448.1 million is being requested for FY 1975. Of this amount, $170.2 million is associated with the command and control of our strategic forces (WWMCCS).

The major ongoing efforts in the overall C^3 area are:

Fiscal year 75 R.D.T. & E. dollar request:	*Millions*
Satellite communications	$112.4
Tactical communications	70.6
Communications security	50.2
Command and control	132.5
Long haul communications (DCS)	23.6
General communications	58.8
Total	448.1

Dr. CURRIE. Telecommunications is treated in greater detail in Chapter 5 and will also be the subject of separate testimony.

SPACE SYSTEMS

We are relying increasingly on space systems to perform vital defense functions—early warning of Soviet rocket launches, meteorology, communications, navigation and surveillance. The success of our space systems in the present climate of budgetary austerity has tempted us to reduce and even eliminate other means of accomplishing certain functions.

During the past year we have reorganized our space defense RDT&E activities into functional areas, each with its own program element, space surveillance, and satellite systems survivability.

SPACE BUDGET REQUEST

Chairman MCCLELLAN. What percentage of the defense budget is being spent on space programs? What is being done to coordinate these programs? How do you determine which service should develope certain systems.

Dr. CURRIE. In FY 1975 DoD is requesting $2.03 billion for space and space-related programs. This is slightly over 2 percent of the total FY 1975 Defense Budget of $92.58 billion. Program coordination within DoD is a part of the normal management process. It is accomplished during the budget review

process, by memoranda such as Technology Coordinating Papers (TCP's), Area Coordinating Papers (ACP's), Development Concept Papers (DCP's), Program Memoranda (PM's), and, related Defense Systems Acquisition Review Council (DSARC) and Management Reviews. Service proposals for new systems require specific OSD approval based on DCP and DSARC policies. The DCP, when approved by the Secretary of Defense, will designate the Service responsible for execution of the program.

Chairman McCLELLAN. Continue.

SPACE SURVEILLANCE

Dr. CURRIE. At present our SPADATS network can provide operational surveillance coverage. We must extend our coverage. We are now working on detectors, target discrimination techniques, data processing and other critical components in both the visual optical and radar portions of the spectrum, with the goal of demonstrating the feasibility of a near real-time ground-based capability to detect, track and identify all objects. We are also developing technology to determine whether a space-based surveillance system would be cost-effective.

LAND RADARS VS. SATELLITE COVERAGE

Chairman McCLELLAN. Why do we need a phased array radar coastal system when satellites will have broader coverage?

Dr. CURRIE. The satellites do have broader coverage than the phased array radars. However these satellites, while exceeding performance requirements, do have limitations. One limitation is predictable periods of ocean coverage degradation due to sun glint and glare from the surface. [Deleted.] The phased array radars complement the warning satellites and would compensate for the limitations.

A second major consideration in using a radar system is the need for a confirmatory system to support satellite warning. In anything as serious as a nuclear attack upon our country, we would like to have an independent, alternative means of verification. We have that for ICBMs and we did have that capability in our existing SLBM warning system for submarines. A combination of advanced Soviet technology, our equipment aging and a radio frequency interference problem have, in sum, made our present SLBM radar system obsolete. Seven of the eight radars in the existing system can be circumvented by operational SLBMs which the Soviets have now deployed. The remaining radar, the FPS 49, is on standby because of possible difficulty with heart pacemakers. Congress directed the FPS 49 to be moved or deactivated, and it is not cost effective to move it.

The phased array radars in supplanting the existing system would reduce the number of operating sites and reduce radar support costs while providing significantly increased dependability and performance. They would compensate for satellite limitations and provide the independent confirmatory information that an attack was imminent.

SPADATS NETWORK

Chairman McCLELLAN. Provide an explanation of the SPADATS network.

Dr. CURRIE. The Space Detection and Tracking System (SPADATS) is a combined network of sensors reporting to NORAD for surveillance of space objects. The network consists of the following sensor systems: The U.S. Navy NAVSPASUR; USAF SPACETRACK (which includes four Baker/Nunn cameras, and three radars); Canadian Air Defense Command Baker-Nunn Camera at Cold Lake, Canada; and USAF early warning sensor inputs from such systems as BMEWS (Sites I, II, and III); USAF 440L and [d.]

This world-wide network of radars and optical sensors is linked to a central data processing complex at Cheyenne Mountain, Colorado. The network collects and processes data to provide orbital information on all of the nearly 3,000 manmade space objects now in orbit; and attempts to identify new objects and unusual characteristics as quickly as possible after launch. The current system has a nominal detection capability [deleted.]

Chairman McCLELLAN. Proceed.

Satellite Systems Survivability

Procedures have been established this past year to require that most of our new space systems programs evaluate threats and incorporate appropriate survivability measures as design specifications.

Space Shuttle

NASA has undertaken the development of a Space Shuttle to meet the needs of both the DoD and NASA for a more routine means of access to space and to enable space operations at a lower cost. The DoD strongly supports the Shuttle program, and is now planning to exploit the new opportunities for less costly military space operations that the Shuttle will offer. Even though there are a number of fiscal and technical uncertainties in the Shuttle program, we must insure that our needs are incorporated in the vehicle's design; and we must establish a basis of understanding that will enable a potentially major commitment to the Shuttle in the near future.

We are now developing plans that will include options for the DoD's rapid and economical entry into the Shuttle program as early as development progress allows.

DOD Role in Space Shuttle Program

Chairman McClellan. What role do you anticipate for DoD in the Space Shuttle program and are any funds being requested in this year's budget for participation in this program?

Dr. Currie. The Department of Defense would expect to be a major user of the Space Shuttle once it is developed by NASA. The Shuttle holds great promise for reducing the cost of our military space operations while at the same time introducing new capabilities which could make such operations even more effective.

Our Shuttle related study and planning efforts to date have been concerned primarily with (1) providing information to NASA to assume that our military needs are fully considered in the Shuttle design: (2) examining the Shuttle's new capability to provide more effective, lower cost space operations; and (3) establishing the information needed to support future management decisions relating to commitments to the Shuttle for military use.

In FY 1975 we are requesting $12.3 million to conduct studies and planning in more detail to assure compatibility of the system for military use; to define the configuration of the initial upper stage; to define DoD ground and flight operations at Vandenberg; and to plan for payload transition to the Shuttle and eventual phase-out of current expendable launch vehicles.

Chairman McClellan. Proceed.

Nuclear Weapons Effects (Defense Nuclear Agency)

Dr. Currie. The objective of the weapons effects program conducted by the Defense Nuclear Agency (DNA) is to provide the technology base which can be used to assure survivability and enhanced effectiveness of military systems. It involves prediction of nuclear environments, assessment of system responses, technology development to produce survivable materials and tests to confirm hardnesses. A newly added task is the identification of weapon systems and technologies required for increasing the range of nuclear options available.

Weapon effects R&D is done by the Defense Nuclear Agency for all three Services, the Defense Agencies, the Joint Chiefs of Staff and the Office of the Secretary of Defense. Priorities are being realigned toward increasing support to command, control, communications and surveillance as well as tactical nuclear weapons systems. Strategic systems such as TRIDENT maneuvering reentry vehicles and advanced ABM programs will continue to be supported.

Recent Successes and Follow-on Efforts

A newly designed prototype reentry vehicle made of a carbon fiber reinforced heatshield with carbon matrix has been fabricated.

DNA has started a program to investigate the possible erosion of reentry vehicles in the cloud resulting from a nuclear explosion.

In this coming year DNA will conduct a very low yield test which, if successful, promises yet greater cost reductions in underground exposure events. The experience gained from similar tests in the past, coupled with much experimental work, should substantially reduce the number of tests needed.

Together with the Defense Communications Agency (DCA), DNA is conducting a program to evaluate the viability of the Defense Communication System (DCS) in the presence of electromagnetic pulse (EMP) environments from high altitude nuclear detonations. The ultimate purpose is to create a credible analytical tool with which to predict the response of an entire network of switches, connections and terminals. More tests on different types of communication switching centers are planned. Preliminary estimates show that the system will have some serious problems but no catastrophic breakdown is predicted.

Complementary Metal Oxide Semiconductors (CMOS) present a highly miniaturized, ultra-low power and potentially very radiation-hard electronic technology which in its unhardened version has found widespread acceptance in industrial applications, such as pocket computers. Its availability in hardened versions has great promise for use in military satellites and missile systems. DNA has succeeded in developing several methods by which radiation hardness can be achieved, and the present program is aimed toward a pilot production demonstration of military user oriented parts during the latter part of FY 1975. The payoff for military systems will be reduced size and power requirements, coupled with a high degree of hardness.

Rainout is a collateral effect of possible significance that can result from an airburst of tactical nuclear weapons. The radioactive debris from an airburst can be scavenged in rain clouds and then deposited in subsequent rainfall, creating hot spots of radioactive fallout. DNA has a program to measure the parameters which determine the probability that these processes occur. The program also attempts to utilize known meteorological data for Europe in order to estimate the severity of the problem.

Perspectives Gained From the Middle East

Background

The October war in the Middle East confirmed the progress being made by the Soviet Union to develop and deploy modern effective weapons for conventional warfare. Important military successes were made possible for the Arabs early in the war by their use of modern equipment developed by the Soviets. The most notable examples were the rapid crossing of the Suez, the heavy initial destruction of Israeli aircraft and tanks and the successful concealment of the Arab intent to launch an offensive.

Both the Soviet Union and the United States sent to the theater much of their modern operational equipment. Before the war started, the Soviet Union had provided Egypt and Syria with many major weapon systems which previously had not been seen in combat (at least not in significant numbers). These included systems for air defense, ground battle, air and naval warfare and electronic countermeasures. Some of these key systems were given to the Arabs even before they had been made available to Warsaw Pact partners. The Soviets did withhold from the Egyptians and Syrians only a few of their most modern developments in conventional weapons.

The war has provided much evidence which helps to clarify our perspective on our own research and development programs. The insight gained on R&D are essentially evolutionary. For the most part, the war confirms that the United States has been on the right track in developing and acquiring weapons. In some cases, the war has clarified our understanding, and this had led, in formulating the FY 1975 program, to acceleration of certain programs or assignment of high priority to certain characteristics in on-going programs. In a number of cases, the war has highlighted issues that must be carefully examined, including the possible impact of systems that were not widely available, or are under development. This examination will doubtless affect our R&D programs. But in no case did the war provide evidence that some systems we are developing, or have recently procured, are not necessary or have been designed significantly in the wrong direction.

Insights From the War

Some reservations must be kept in mind when drawing lessons from the war. The most demanding and important objective for our conventional forces is deterrence of a major conventional war in Central Europe through the military ca-

pability in NATO to successfully defend against a Warsaw Pact attack. Although the land and air battles in the Middle East were fought with many of the weapons that would be used in NATO, and although the density of deployment in some areas was comparable to those in NATO, there were many significant differences which affect the applicability of insight gained in the Middle East to Europe (or to Southeast Asia or Korea or elsewhere):

The consequences of a surprise attack in NATO are much different from what might have occurred in the Middle East. Surprise could be exploited in the Middle East because the Israeli ground forces are maintained at only a fraction of their planned wartime manning, whereas NATO forces are held almost at full strength.

The terrain and weather in the Middle East (particularly in the Sinai) are significantly different from that in Europe. Thus, operational characteristics and effectiveness of many weapons systems should be expected to be different in Europe than in the Middle East. Some examples: the optical sights on Soviet air defenses and the electro-optical sensors on U.S. precision-guided bombs would be much less effective during many days in East or West Germany and would also be affected by different contrast between weapons and terrain; the hillier and foliated terrain in NATO means that anti-tank and anti-vehicle weapons would often be used at closer range than was the case in the Middle East.

In Europe, both sides have tactical nuclear weapons. Their presence affects the tactics and outcome of non-nuclear battles, because the potential of their use leads to prudent measures.

Perspective Gained

In spite of these reservations, there are important general perspectives gained or reinforced:

Technology Pays

During the past decade, technology has significantly changed the nature of weaponry. This promises to be the case during the next decade with the biggest impact in the area of precision-guided weapons. The impact of modern weapons was evident at the outset. Some examples:

Anti-tank weapons destroyed a large number of Israeli tanks early in the war. Subsequently, the Israelis were able to mobilize their artillery and improvise appropriate tactics.

Syrian and Egyptian air defense inflicted considerable losses on the Israeli aircraft throughout the war. The loss rate on the Egyptian front decreased after the first four days, probably because the Israelis developed protective tactics and destroyed some of the defense.

Late in the war, the Israelis used the U.S.-developed precision guided munitions with what appear to be very high success rates.

The Israelis had excellent results with their anti-ship missile—GABRIEL.

Each of these cases illustrates the impact of electronics technology on weapons. It is becoming easier to incorporate into guided weapons better sensors, more accurate controls and better communications with remote-command platforms. Increasingly, we should expect to see these kinds of capabilities affect air defense, suppression of air defenses, close-fire support (from air to ground), interdiction and naval warfare.

Soviet Weapons in Mid-East War

Senator Young. The Committee has received testimony concerning the Soviet equipments utilized during the mid-east war. In your opinion what initiatives should the U.S. pursue first to ensure our troops have adequate weapons to counter these weapons?

Dr. Currie. As I have stated before, our overall evaluation of the mid-east conflict convinces us that in general the thrust of our R&D efforts to develop weapons is on the right track. We see no immediate new, different initiatives to provide adequate weapons. What will be required is a persistent, dedicated effort to maintain the programs we have. In certain cases, exploitation has indicated some slight changes we can make to enhance the utility of our weapons (e.g., change frequency coverage slightly), but these have been small. The mid-east experience has re-confirmed our emphasis on defense suppression and we will continue to inventory some of the programs started several years ago.

In this regard, we must insure that we have adequate defense suppression systems to counter sophisticated and dense air defense systems. Moreover, the concept employed in the mid-east war by the Egyptians of moving radar directed

guns and SAM's with the forward forces increases the threat to aircraft at the forward edge of the battlefield. We have, however, been expecting such tactics to develop since learning of the existence of the ZSU–23–4 and the SA–6.

Let me mention a few specific programs that will provide our forces the capability to counter the best in the Soviet inventory.

To provide tanks with better combat effectiveness (firepower, protection, mobility), the following steps are underway, and should continue with high priority:

1. M60A2 SHILLELAGH missile firing tanks are now in operational tests, with fielding scheduled late this year.

2. M60A1 product improvements are under development and test, for production of the M60A3 with improved firepower and system reliability.

3. XM–1 prototype development for a new tank with major improvement in armor, tactical mobility, and firepower.

Mechanized Infantry Combat Vehicle (MICV), a new armored infantry squad carrier, will provide the options of mounted or dismounted combat and significant improvement in mobility, firepower, and protection over the current M113A1 armored personnel carrier.

We are improving anti-armor capability of attack helicopters, through product improvement of the current Cobra helicopters to provide improved flight performance and a TOW missile capability, and development of the Advanced Attack Helicopter with anti-tank missile capability.

A major lesson, reenforced by the Mideast War, is the necessity of countering enemy air defense systems which threaten our close air support aircraft. We rely on close air support much more heavily than the Soviet Union. We must be certain it can operate effectively. Many of our current developments are applicable to suppressing forward area air defense. We need to explore some new approaches and we need to fill in gaps in our capability. Above all, we need to make certain that our total defense suppression capability will do the job.

We are developing a stand-off anti-armor capability especially for low visibility conditions. This is particularly needed during the initial stages of battle when enemy air defenses may limit the effectiveness of close air support.

Chairman McCLELLAN. Proceed.

SOVIET EQUIPMENT CAN BE EXPENSIVE

Dr. CURRIE. The Soviets, long characterized as having rugged, cheap, plentiful weapons, appear also to have many complex, expensive, plentiful weapons.

I have followed with interest the views developed by the group of Congressmen who visited the Middle East in late November 1973. It is my impression that one of the concerns of this group was that the Middle East conflict may demonstrate that the Soviets achieve more effective military power by depending on the proliferation of rugged, inexpensive devices rather than the use of more expensive, sophisticated technology. The evidence is often otherwise. As you know, cost of individual systems has been an increasing concern of the DoD during the past several years. It has culminated in the concept of a "hi-lo force" and "design-to-cost" approach to developing most weapons. We believe that these are important approaches (whether or not the Soviets are following them).

In a number of cases the Soviets' most successful weapons are very likely as expensive or significantly more expensive than U.S. counterparts. Proliferation of the sophisticated Soviet system is evident and expensive.

EXPENSIVE SOVIET WEAPONRY

Chairman McCLELLAN. What Soviet weapons have you found to be extremely costly?

Dr. CURRIE. The BMP armored personnel carrier and infantry fighting vehicle, used for the first time in combat in the Mideast War by the Arabs, is the most sophisticated Soviet ground combat vehicle observed to date. It features highly integrated system design, use of much higher quality materials than used in previous Soviet vehicles, and is estimated to cost about five or six times as much as the current first-line U.S. armored personnel carrier, the M113A1.

The ZSU–23–4 anti-aircraft system is very complex and expensive ($1 M).

Other costly Soviet weapons:

FOXBAT (Mig–25)

SA–6

FENCER A

Chairman McCLELLAN. Proceed.

Dr. CURRIE. There are some cases where the Soviets have developed inexpensive weapons which are effective and can be proliferated.

The war demonstrated that weapon expenditure rates can be very high in the early phases of a war. This should become increasingly so given the trends in modern weaponry, the trends in delivery vehicles and improvements possible in battlefield surveillance and communication which make possible rapid acquisition of targets and their precision location. All of these factors place a premium on plentiful, "affordable" weapons. But the extent to which performance of an individual weapon should be compromised to lower its cost must be carefully thought out in each case; there is no evidence from the Middle East war that the Soviets are better at this than we are.

LIKELY SOVIET REACTIONS

The Soviets are fully aware of Israeli and Arab successes and failures in this conflict, and we should expect that they will use these lessons as a guide to modernization of current weapons or development of new weapons.

As was pointed out, both the United States and the Soviet Union displayed, for the first time in battle, significant quantities of new types of weapon systems. Where U.S. weapons worked well, we should expect that the Soviets will:

Develop countermeasures.

Emulate these kinds of capabilities in their arsenals where they have not already done so.

This means that the United States must push forward with its own next generation of these devices and, in the process, be concerned about countermeasures.

Where Soviet weapons worked relatively poorly, we should expect next-generation developments or possibly movement towards new operational concepts to do the same job.

Other evidence of this kind of Soviet reaction was visible during the air war in Southeast Asia, and in the improved air defenses given the Arab countries. Compared to the air defense of North Vietnam, the Arab air defense had added:

SA–6 mobile surface-to-air missiles.

Optical back-up on all systems to counter jamming of radars.

Extensive use of ZSU–23–4 anti-aircraft guns.

Aircraft shelters to protect aircraft on the ground.

The fact of a war stimulates evaluation and reaction. It is a vivid and instructive experience. This should be particularly so for the Middle East war, considering that numerous, modern forces were pitted against each other.

THE NEED FOR DIVERSITY

For any kind of conflict, a nation must depend on a diverse inventory of weapons which pursues redundant and competing approaches and which "hedges" bets.

Some may assume that an evolution which favors air defenses and anti-vehicle weapons must play down planes and tanks in our future thinking. This is seldom correct. Accordingly, we should recognize in planning future forces, that evidence was at best evolutionary and possibly unique, that unpredictable reactions will take place and that technology advances. The best operational test and evaluation can only partly get a handle on these factors. Diverse forces are needed as insurance against these uncertainties.

TRAINING COUNTS

Since training, adaptability, organization and leadership are important factors in determining the outcome of a conflict, research and development must consider ways to make training and operation evaluation more effective, realistic, inexpensive and creative.

The single most important overall lesson of the war was the reminder that training is crucial.

The impact of this lesson is greatest on operational programs, but R&D can do much to improve training opportunities or to make weapon systems less dependent on high technical skills:

We should explore better simulators including reducing the cost of high-fidelity simulators.

In order to increase the realism of live training, we should improve instrumentation to give rapid and vivid feedback, and we should provide special training rounds that can be used safely and frequently.

A primary purpose of OT&E should be to highlight areas where weapons performance is highly dependent on operator training so that we can justify that training, find ways to do it at a lower cost or redesign follow-on systems to make them simpler to operate.

Plan for Different Conflicts

The sum of the weapons we develop must be aimed at many different kinds of conflict under diffierent scenarios, with different objectives and with different relations with allies.

The war in Southeast Asia and in the Middle East reminds us that the U.S. weapons may be used in many different circumstances. The answer is not to make all weapons operable in all climates. The answer is to think through this challenge in the case of each weapon.

Summary

In summary, I see the impact of this new perspective on our RDT&E efforts as follows:

In some cases, the insights have shown specific areas that needed to be re-oriented, better funded or maintained at high priority.

In some cases, the data are not yet all in; thus, we may find that redirection and reprogramming are necessary in FY 1975.

In some cases, some basic issues have been identified which we will address in FY 1975 but which will not have significant fiscal impact until FY 1976.

In some cases, areas have been identified where additional operational test and evalution are needed.

All of these underscore the need for a vigorous program in FY 1975 on conventional weapons.

Research and Development for General Purpose Forces

Introduction

We are witnesses to a clear period of rapid and significant change due to technological advancement. New possibilities, some demonstrated, are at hand. The research and development program for General Purposes Forces recognizes these possibilities and contains elements that promise to dramatically improve the capability of our forces to deter war and fight effectively.

The technology is in hand that will make an aggressor uncertain about the success of an adventure he may be contemplating. Some of this technology has been combat tested. Observation about the recent Middle East War generally reconfirms the overall direction of our research and development programs.

Various aspects of the research and development program that promise to permit greatly increased capabilities include precision-delivered munitions to achieve first round kill; systems to provide near real-time intelligence and integrated command and control to the tactical commander, thus allowing heretofore unrealized efficiency in employment of forces; and the use of recoverable remotely piloted vehicles as substitutes for manned systems in performing various missions. Technology advances must be pursued to offset numerical inferiority, hedge against technological breakthroughs by an enemy, and to accrue economies of force.

To accompany the innovations, a consistent theme throughout the General Purpose Forces R&D program is modification of existing systems or components to achieve new capabilities rather than starting new development programs from scratch. Concern about cost and risk is another constant theme as efforts to more fully exploit our research and development investment are emphasized.

U.S. Low Cost Precision Weapons

Chairman McClellan. Identify our low-cost precision weapons.

Dr. Currie. The low-cost precision air-to-surface weapons are:

(*a*) laser guidance kits for bombs and dispensers
(*b*) EO guidance kits for bombs, also WALLEYE
(*c*) Maverick (EO and laser)
(*d*) SHRIKE
(*e*) TOW
(*f*) Modular guided glide bombs (MGGB)

Chairman McClellan. Proceed.

Dr. CURRIE. The structure of our research and development program is mission oriented. The following is a detailed discussion of how the R&D program is designed to improve the capability of land, naval and air forces to perform their various missions. With regard to land warfare forces, missions addressed include battlefield surveillance and target acquisition, close combat, fire support, air defense, air mobility and logistics; naval missions addressed include fleet offense and defense, anti-submarine warfare and ocean surface surveillance; air warfare missions include reconnaissance, tactical command, control and communications, air superiority, defense suppression, and strike and interdiction. Finally, tactical nuclear weapons are separately discussed.

R&D FOR LAND WARFARE FORCE

For Land Warfare mission we are required to plan a defense against a force which is markedly superior in surface firepower—armor and artillery. The goal of R&D is to design a force which makes up for this deficiency through superior mobility and weapon precision, and to insure that this force is protected against enemy air attack.

We are counting on the close-air-support capability which A–10 close-air-support aircraft and advanced-attack helicopter will provide with weapons such as the GAU–8 30mm gun, MAVERICK (Electro-Optic and laser) and TOW. We are developing a modern family of armored combat vehicles with greater mobility, survivability and weapon effectiveness. We need to upgrade some of our artillery, which is old and inferior to comparable Soviet systems, and to provide artillery with important new capabilities such as scatterable mines and guided projectiles. We need to convert our technical superiority in night vision into a major combat advantage. This war also showed that air defenses can have a decisive effect on the course of battle. We are developing a family of air defense weapons to protect our forces and their assets. We must also increase our efforts to counter enemy forward area air defense systems to insure that close-air-support aircraft can accomplish their assigned missions. A conservative program to accomplish these goals has been designed. Detailed discussion of these efforts follows.

CLOSE COMBAT

Not only do the Warsaw Pact forces have numerical superiority over NATO in tanks, but they are also modernizing this tank inventory with the T–62 and the new M1970 battle tanks. Additionally, the Pact continues to produce tanks at a higher rate than the NATO nations.

In response to the armor threat and in support of our armor and infantry forces, R&D plans emphasize replacement of key items of equipment to overcome deficiencies of inadequate firepower and armor protection, mobility, reliability, and night-fighting capability.

The XM–1 is being developed as the future main battle tank. Competitive contracts were awarded in June 1973 for development of XM–1 prototypes. These will be tested competitively beginning in February 1976 to select the winning design for full-scale development. To meet the design-to-cost goal of $507,000 (constant FY-1972 dollars) per tank, simplicity of design is being emphasized. Improvements over current tanks were carefully selected and limited to those areas showing the greatest payoff, such as significantly improved armor which the XM–1 will feature. The validation phase, including competitive tests to be completed in FY 1976, is expected to cost a total of $198 million, of which $95.5 million has been funded in FY 1974 and prior years. We are requesting $68.8 million for this program in FY 1975.

Dr. CURRIE. For the near term we are improving the M60A1 tank. The FY 1975 funding ($6.0 million) for the M60A1 supports completion of development and testing of improvements in reliability, fire control and night-fighting aids. To increase firepower, we plan to field the M60A2 SHILLELAGH missile firing tank late this year after thorough testing.

We are including $9.0 million in the FY 1975 request for continued development and testing of the Mechanized Infantry Combat Vehicle (MICV). This project started its engineering development in 1972. This armored squad carrier will replace the M113 which is deficient in firepower, protection and mobility. The new vehicle will provide the option for mounted or dismounted infantry combat. The MICV will compete effectively with a similar Soviet combat vehicle that has been in the field since 1967.

One of our serious deficiencies in mechanized infantry and armored operations has been the unsatisfactory performance and poor reliability of the M114 Armored Reconnaissance Vehicle in the ground scout mission. The Armored Reconnaissance Scout Vehicle (ARSV), for which competitive prototype development was initiated in 1972, will remove the deficiencies of the M114. The $8.1 million requested in FY 1975 supports production engineering planning and test of the design selected for production.

Efforts to improve the combat capability of the infantryman include work on a new one-man machine gun and a light-weight mortar. We are requesting $1.6 million for engineering development of the machine gun and $5.0 million for the lightweight mortar.

Firepower To Support Land Forces

The U.S.S.R. and the Warsaw Pact have placed great emphasis on armor and artillery. Not only do they have substantial numerical superiority (approximately three to one in tanks and artillery) over NATO, but also their systems appear qualitatively equal or superior to current NATO systems. The U.S.S.R. has also emphasized mobile air defense systems which can move with and protect their forces.

Air-delivered fire support is a key element in our planning to counter this threat. Aircraft mobility is necessary to protect a broad front and to mass firepower to counter enemy attacks and blunt breakthroughs. To a considerable extent the effectiveness of air-delivered fire support rests on the recent revolution in precision guided munitions. But we need to insure that our aircraft can survive the enemy ground air defenses.

The A–10 will significantly improve our ability to mass anti-armor firepower against the numerically superior armored forces of the Warsaw Pact countries. The response time of this system will permit concentration of large and lethal amounts of firepower at any point along a wide front within minutes. The A–10 is capable of delivering all conventional and stand-off weapons and will carry internally the GAU–8 30mm cannon for increased lethality against heavy armor. Also, the A–10 has been "hardened" more than any other current aircraft to increase its survivability in heavy anti-aircraft environments. The FY 1975 request of $93.9 million is to continue full-scale development and to conduct side-by-side testing with the A–7, as requested by the Congress. In the fourth quarter of FY 1973 the winner of the 30mm close-air-support gun competition was selected, and engineering development of that system commenced. FY 1974 work includes flight testing the 30mm close-air-support gun in the A–10 aircraft. For this gun program, $8.0 million is required in FY 1975 to continue engineering development and test.

A–10 and A–7 Aircraft

Chairman McClellan. What do you see as your role in the fly-off between the A–10 and the A–7? What steps have you taken to insure a fair and competitive fly-off?

Dr. Currie. With the approval of the Secretary of Defense, I appointed General Starbird, the Deputy Director for Test and Evaluation (DDT&E), to coordinate with the WSEG and the Air Force and develop OSD guidance for the test, including a test concept. The Air Force prepared a detailed plan based on the OSD concept and submitted it to OSD for coordination. The DDT&E coordinated the test plan within OSD and recommended changes which the Air Force incorporated. The DDT&E tasked WSEG to assist in the preparation of the test concept and review the test plan. The WSEG is also tasked to assist DDT&E in monitoring the test and to prepare an independent analysis of test results for DDT&E. In addition, the DDT&E is funding somewhat over one million dollars of test costs, including special instrumentation, data reduction and analysis.

We have attempted to ensure fairness by:

(*a*) Requiring that each pilot perform identical missions against identical targets in both aircraft.

(*b*) Obtaining independent (WSEG/IDA) analysis of the test results.

(*c*) Providing quantitative, instrumented data in addition to the subjective pilot evaluations.

(*d*) Making this a Joint Test with participation of appropriate Army ground forces.

(e) Allowing, insofar as possible, evaluation of unique systems or techniques for each aircraft.

Chairman McCLELLAN. Proceed.

Dr. CURRIE. We expect to field the Advanced Attack Helicopter (AAH) with its major improvements in performance, survivability and night operations capability, in the early 1980s. Two contractors were selected for June 1973 to develop prototypes to compete in a flyoff in FY 1976 to select the winning design for further development. The program is proceeding on schedule, with a continuing emphasis on cost-performance tradeoffs in the design to assure that this major weapon system will be both affordable and effective in combat. The cost of the competitive development phase, to be completed in FY 1976, is expected to be about 38 percent of the total estimated development cost of $430 million. We are requesting $60.8 million in FY 1975 for this program.

The current attack helicopter, COBRA, has inadequate performance, especially at night, for employment in a high threat environment. To provide a near-term improvement in combat capabilities of the COBRA, we developed and are currently testing a modification (AH–IQ) of the Army AH–1G equipped with the TOW anti-tank missile to enable a precision delivered weapon capability. We also are initiating product improvements of the AH–IQ and the Marine AG–IJ to improve their flight performance.

To enhance the precision weapon delivery capability of aircraft, two laser-guided missile developments are being continued in FY 1975. One program, the Army HELLFIRE, is being slowed. On the second program, the Air Force Close-Air-Support Weapon System (CASWS), engineering development will be completed expeditiously.

HELLFIRE has been conceived as a modular missile able to accept a variety of seekers. The initial emphasis has been on a laser-guided missile although exploratory development of other seekers has been underway; also, a dual mode RF/IR seeker is in advanced development. Technical progress on laser-guided HELLFIRE has been excellent. As a result, the decision on initiating engineering development has been deferred to permit further operational testing and thorough cost-effectiveness comparisons. For this purpose, $9.0 million is requested. Also, $6.3 million is requested to continue the dual mode RF/IR seeker development.

The Close-Air-Support Weapon System (CASWS) will be a laser-guided MAVERICK in order to exploit the excellent performance and large production base of that missile. It will provide a new day and night attack capability for countering armor and suppressing enemy air defenses. The advanced development flight tests were very successful and $16.4 million is requested for continuation of engineering development which will be completed in August 1976. An additional $3.6 million is requested for other seekers for MAVERICK, for a total of $20.0 million in this program element.

Strong action has been taken to eliminate duplication in laser-guided missile development. Our goal has been a common laser-guided missile for fixed-wing aircraft of the Air Force, Navy and Marine Corps and a common seeker for all the Services. No funds are being requested to procure the Navy BULLDOG missile because we are convinced that laser MAVERICK can meet the needs of the Air Force, Navy and Marine Corps. I am directing the Air Force to hold a competition to select a common multi-Service seeker. Specifications for a tri-Service seeker were agreed to at the project manager level. In light of the HELLFIRE status, there is less reason to insist on a tri-Service seeker for MAVERICK, but tri-Service applicability will still have some weight in selecting a seeker. Finally, the competitive environment that has been associated with this effort has had favorable impacts on both the cost and performance of candidate seekers.

To improve our artillery capability, development of two new towed artillery pieces will be nearing completion in FY 1975. One is the soft recoil 105mm XM204 which has been very successful and for which $5.9 million is requested. The other is the 155mm XM–198 to replace the M114 which entered service in 1942. The XM–198 will have an extended range. After some serious initial structural problems, recent testing of the XM–198 has been proceeding well. The $6.1 million requested in FY 1975 will complete engineering development of the XM–198.

In an effort to provide artillery with highly accurate, first-round kill capability, the cannon-launched guided projectile, using semiactive laser guidance, is being developed. This program was scheduled to complete advanced development in FY 1974 with 12 firings by each of the two contractors. However, the program

is being slowed to insure that before entering full scale development, the technical foundation is sound and the operational employment and value of the system are well understood. This program could revolutionize the role of artillery by enabling a high first-round kill probability against hard-moving targets. The $12.6 million requested in FY 1975 completes the competitive advanced development flight tests and allows additional contractor design work based on these flight tests.

We are asking for $4.7 million to support Tactical Fire/Direction System (TACFIRE). This tactical computer system will automate many of the present manual field artillery fire control functions, and therefore enable us to more effectively employ our indirect fire weapons. This system has not achieved its expected potential to date and tests are to be conducted between April and September 1974 to determine if the deficiencies found in earlier tests have been corrected. Future program direction hinges upon the results of these tests.

In the past, mines have been a significant cause of battlefield casualties. About $18.5 million is requested for both mine and countermine developments. Our present stocks of land mines take much too long to emplace. Our current development programs are concentrating on anti-tank and anti-personnel mines which can be deployed rapidly by helicopter and artillery.

Battlefield Surveillance and Target Acquisition

Advantages in mobility and firepower can be negated if enemy movements go undetected or if the response time between detection and attack of a target is too long. Therefore, the emphasis in battlefield surveillance and target acquisition must be devoted to minimizing the delay between detecting enemy activity, identifying and precisely locating targets, rapidly passing target information to weapon systems controllers, and finally, assessing the damage accomplished after the selected targets have been brought under fire. Present shortcomings include night surveillance capability, vulnerability of communications and other electronic gear to enemy jamming, a continuing inability to quickly and accurately locate hostile artillery and mortar positions, and inability to conduct surveillance in areas characterized by unfavorable terrain, heavy forage or bad weather. A number of programs have been undertaken to ameliorate these deficiencies.

Far infrared thermal imaging surveillance devices and weapons night sights will provide a quantum improvement in our ability to operate during the hours of darkness. Competition is underway to select the preferred techniques to provide both a portable night vision equipment and a vehicular mounted equipment for greater mobility. Modularity is being emphasized to achieve a high degree of commonality and resultant savings. This effort is being closely monitored to achieve maximum benefits from the modular approach.

Modern military forces make extensive use of the electromagnetic spectrum in their sophisticated surveillance and weapons systems. Our own electronic equipment does not have the necessary protection against countermeasures. Also, we must develop systems to prevent or degrade the enemy's use of electronic gear. Our R&D funding request for electronic warfare, in FY 1975, will support some 30 advanced development tasks and 20 tasks in engineering development. These efforts address identifying and reducing vulnerabilities of our own equipment such as radios and radars. Equipments resulting from these tasks are being designed to locate or suppress emissions from enemy ground equipments, and our own sensors, radios, missiles, etc., are being analyzed and tested to harden them against electronic warfare activity.

Historically, artillery and mortar fires have accounted for the largest percentage of our personnel casualties and equipment losses, and the Warsaw Pact has large quantities of high quality weapons. We are developing weapons which will be effective against enemy artillery if these targets can be accurately located. Our current counter mortar radar is deficient because it utilizes older (1950s) technology, is unreliable, and is easily saturated by massed fire. Until recently, the level of technology of data processing and antenna design had not permitted development of a counter battery radar.

The Army's AN/TPQ–37 Counter Battery Radar (artillery) advanced development will be completed early in FY 1975 and testing will be initiated in October 1974. We are requesting $7.8 million for the AN/TPQ–37 competitive prototype development effort in FY 1975. The FY 1975 R&D budget requests $5.4 million for the continued engineering development of the AN/TPQ–36 Counter Mortar Radar which was begun in October 1973.

Geography (hills, foliage, etc.) and weather hinder the Army's ability to perform surveillance. Remotely Monitored Battlefield Sensor System (REMBASS), currently in advanced development, will extend our surveillance into areas normally denied. This system is a derivative of sensors developed for use in Southeast Asia that have been modified to operate in the European environment. A decision on entering full-scale development is expected by the end of 1974. We are requesting $10.6 million to support this program.

Air Defense of Land Forces

The recent Mid-East war demonstrated again the necessity of effective field army air defense. As shown in the figure below, we are developing a family of air defense systems to replace the currently deployed NIKE-HERCULES, HAWK, CHAPARRAL, REDEYE, and VULCAN. Replacement is necessary for a number of reasons. NIKE-HERCULES is too expensive to operate for the level of medium/high altitude defense which it provides, and it has no multiple target capability. HAWK also has high operating costs.

SAM–D is intended to replace both the NIKE-HERCULES and Improved HAWK for medium and high-altitude defense. SAM–D is of major importance to our future air defense family of weapons. The present program represents a large investment to achieve major gains in operational capability (ECCM and simultaneous target engagement) based on technological advances in phased-array radars, digital signal processing, and fabrication techniques. The program has recently been restructured to emphasize greater austerity and to complete flight test validation of the guidance concept by July 1975 before committing to completion of development. Program costs will be minimized until completion of this phase by reducing the fabrication of test articles and deferring those efforts not directly contributing to the initial flight tests.

Greater austerity is being sought by reducing initial requirements of the system but providing for growth as the threat evolves. The system concept is being re-examined with greater emphasis on providing a flexible battlefield air defense. Trade-offs will be conducted to improve the system's low altitude capability, mobility, utility of launchers, and interface with our airborne systems. This restructuring effort addresses recognized shortcomings of the current system. In FY 1975, $111 million is requested for SAM–D.

SAM–D Contract

Chairman McClellan. In your opinion, what mistakes have both the contractor and DOD made in the SAM–D program?

Dr. Currie. If the program were begun today, it would make sense to precede entering Advanced Development by a more thorough analysis of performance/cost trade-offs with our NATO Allies consulted on the results; feasibility of the system design concept should be demonstrated during advanced development; a competitive advanced development, at least for selected major subsystems, would probably pay off in lower production cost and better equipment. Contracts could be structured to emphasize meeting production cost goals.

Chairman McClellan. Proceed.

Dr. Currie. A Short Range Air Defense (SHORAD) SAM is a low-cost, highly mobile, system for dispersal throughout the battlefield. It complements our large SAM systems (Improved HAWK, NIKE-HERCULES, and SAM–D) and airborne air defenses to protect critical assets under various weather conditions. We simply cannot afford to provide all the low-altitude coverage we need with our large SAMs due to terrain masking limitations which reduce their effective coverage against the low-altitude threats.

Improvements to CHAPARRAL are planned to correct some of its deficiencies. The United States has conducted preliminary tests on three foreign developed SHORAD SAMs which could meet the SHORAD requirements. These are France's CROTALE, UK's RAPIER, and France's and West Germany's ROLAND. All three systems performed well in their tests.

Development and procurement of a completely new U.S. system has been examined which could provide a capability comparable to the existing foreign systems. However, its RDT&E and procurement costs would be much higher (by about $300–$400 million) and its availability several years later than the alternative of U.S. manufacture of one of the foreign developed systems. As a consequence, $35 million is requested in the FY 1975 RDT&E budget for initiating a U.S. produced version of either CROTALE, RAPIER, or ROLAND.

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STINGER will replace REDEYE and thus remove the deficiencies associated with that system. An engineering development program has been underway since 1973 and $33 million is requested for FY 1975 to continue this program.

Air Defense Gun improvements to our current VULCAN are required. Gun activity during FY 1974 supported advanced gun/fire control concepts and improved our capability to evaluate existing and proposed gun concepts. This effort provided the basis for initiating in FY 1975 a competitive feasibility demonstration program for a VULCAN replacement, for which $6.4 million is requested in FY 1975.

Air Mobility

Air mobility is an essential element of both tactical and strategic movement of combat forces and supplies. Our development program is directed at the acquisition of an efficient family of rotary-wing and fixed-wing aircraft capable of providing the broad spectrum of mobility required in battle. We are confident that our efforts in this area are essential and well structured as far as timing, application of new technology, relative level of R&D investment, scope, and interrelationship with other efforts.

Mobile Air Defense Force

Chairman McClellan. Please describe our mobile air defense force.

Dr. Currie. All regular Air Defense Command (ADC) F–106 Fighter Interceptor Squadrons (FIS) and the 552 Airborne Early Warning and Control (AEW &C) Wing are part of the mobile air defense force. In addition, support is provided by the Military Airlift Command (MAC), Tactical Air Command (TAC) and Strategic Air Command (SAC). The mission of this force is, through rapid deployment to Continental U.S. (CONUS) or overseas bases, to provide for air defense of land areas in support of U.S. interests. These mobile forces will augment any existing in place forces.

Chairman McClellan. Proceed.

Dr. Currie. The following programs are included:

A Heavy Lift Helicopter (HLH) which will provide our forces the capability of emplacing our medium and heavy artillery and air defense systems, emplacing tactical bridging, off-loading logistics containers from ships off-shore, and performing other critical combat and combat-support tasks which current aircraft cannot accomplish. We are now testing the effectiveness of the rotor, transmissions, engines, flight control system, and the load-handling system developed during the past 30 months under the initial advanced technology components (ATC) phase. These components will be flight tested on a prototype aircraft beginning next year. The design lift of the HLH is 22.5 tons under conditions defined for off-loading containers from ships. It will have a greater alternate lift capability under less stringent conditions. We have requested $57.7 million for the HLH this year. Total development cost through the prototype stage is $189.9 million.

An Advanced Medium STOL Transport (AMST) will bring to our tactical forces the same efficiencies that commercial airlines realized in the transition from propeller-driven to turbo-fan transports. Additionally, the AMST will provide our forces the capability to operate into more austere airfields and to transport important tactical equipment which cannot be accomplished with the excellent but obsolescing C–130 aircraft. The design-to-cost objective of this program is $7.5 million unit average for 300 aircraft (in 1972 dollars). The amount of $55.8 million is needed to support continued development of the AMST prototypes.

The Utility Tactical Transport Aircraft System (UTTAS) will provide a modern utility and tactical helicopter with substantially improved reliability, survivability, and productivity compared with the operational fleet of UH–1 and other utility helicopters now in service. Prototypes developed by competing contractors will begin initial flight tests late this summer. FY 1975 funding is $54.1 million.

The VCX or Carrier Onboard Delivery (COD) Transport is essential for fleet logistics support. We are now completing a comprehensive series of analysis which indicate that development of a new aircraft for the COD mission was not essential. It is our plan to develop a modern COD by either modernizing the C–2 aircraft now performing the COD role or by modifying S–3 aircraft being procured for ASW applications. The choice between these two possible alternatives is expected to be made this fall and will reflect our need for an extended range capability for COD transport. Five million dollars is programmed for this effort this year.

The CH–53E will be capable of being based aboard the Marine Corps' LPH and LHA amphibious carriers and provide a greater capability in support of amphibious operations than we now have. If design objectives are achieved the CH–53E will have a maximum lift capability under optimum conditions of about 16 tons. Under less desirable conditions, the lift capability will be substantially less, about one-half that of the HLH. FY 1975 funding is $46.7 million.

The HSX medium utility helicopter is needed for ASW operations and other general purpose missions now performed by a large fleet of H–3 and H–46 helicopters in each of the military services. We have not yet finalized our detailed plans for this development but expect that development of a multi-purpose helicopter by the Navy to meet our needs of the 1980s and beyond. The current series of H–3 and H–46 helicopters are products of the 1950s and, despite substantial investments in life-extension modifications, will be inadequate to our needs some years hence. We are requesting $2.0 million to enable us to more fully define our need in this area.

We are investigating the potential of using a civil transport as a military tanker. Resupply of fuel is a continuing problem and the current tanker fleet of KC–135 aircraft is aging beyond a period of efficient operations. Current transport aircraft (C–5, C–141, C–130) were designed to carry large military equipment. Petroleum, oil and lubricants and troops can be efficiently carried in aircraft whose compartment design is not driven by the need to contain large vehicles. Possibilities include variants of the Boeing 747 and McDonnell Douglas DC–10.

Logistics

We must assure that the capability to support forces in the field is maintained. Improvements are sought in POL supply and distribution systems, camouflage materials, material handling equipment and in our ability to perform forward area maintenance of various missile systems. The following programs highlight efforts in this area.

A multi-element project, funded at $5.3 million includes efforts to provide improved camouflage material, POL supply and distribution equipment, materials handling equipment, logistics containers and supporting equipment, individual field clothing and equipment, environmental control and water purification systems.

The development of Land Combat Support System, which will enable automated test and fault isolation in the guidance and control components of LANCE, SHILLELAGH, TOW and DRAGON in the field, will be completed with the $0.3 million requested.

A continuing program to provide rapid correction of field identified deficiencies and improvements to existing communications electronic equipment is being sustained with a requested $0.6 million.

A Family of Mobility Engineer Contractor Equipment (FAMECE) is being continued to provide heavy construction equipment with the mobility necessary if it is to be used in airmobile and combat engineer units. The sum of $4.8 million in FY 1975 continues this effort.

R&D for Tactical Naval Forces

Our tactical naval forces provide sea control, projection of power and peacetime presence. As a major maritime power, our strength depends in large measure on the oceans. The oil crisis has dramatized the importance of freedom of sea lanes for transport of not only oil but a wide variety of critical materials.

Research and development programs for tactical naval forces emphasize improving the fleet offensive capability to counter Soviet stand-off missiles; improving the air defense capability to cope with air, surface and submarine-launched cruise missile; improving our ability to detect, locate and attack enemy submarines; and improving ocean surface surveillance system to provide the commander more timely intelligence regarding the statuts of enemy combatants.

Improvements in Fleet Offensive Capability

The fleet offensive mission is to project power, through potential or actual use of force, to deter actions inimical to the United States. To do this, we must be able to destroy ships and submarines, to support forces ashore and to strike land targets.

The major deficiency in our offensive capability is lack of ship-launched anti-ship missiles with sufficient range to cope with similar Soviet systems. A number of programs are underway to alleviate this situation. Also, we are attempting to correct deficiencies in mine and countermine warfare, and are exploring possibilities to exploit advanced ship designs.

The most significant improvement to offensive posture will result from fleet introduction of the HARPOON Anti-Ship Missile. This 60-mile range missile will be delivered from aircraft, ships or submarines. This common launch configuration is unique and will enable world-wide operational flexibility as well as economies inherent in large procurement quantities. This program met both cost and schedule milestones during advanced development and has transitioned into engineering development. We expect successful completion of initial operational tests by mid-1974, to be followed by limited pilot production. While the objective of this pilot production is to produce missiles from production facilities at a minimum sustaining rate for operational evaluation by fleet personnel, it will provide an expandable production capability should a national emergency so dictate. Funding of $57.7 million is required in FY 1975 to continue this development. Concurrently, development of the capability to launch an Encapsulated HARPOON missile from a submerged submarine is proceeding successfully. Funding of $9.7 million is required in FY 1975 for Encapsulated HARPOON.

Development of Active STANDARD SSM was initially started to provide an interim surface-launched, anti-ship missile capability until HARPOON would complete normal development. However, delays in the Active STANDARD program have resulted in a development and test schedule which corresponds to HARPOON. Recognizing the importance of an early anti-ship missile capability in the fleet, we have elected to continue the Active STANDARD missile in development as a hedge against any delays which may occur in the HARPOON program. Should HARPOON successfully complete its initial operational tests this summer, we would expect to terminate the Active STANDARD program. However, should HARPOON encounter significant development delays, we would have a procurement option in the Active STANDARD program, following successful completion of its operational tests.

GABRIEL Versus STANDARD Missile

Chairman McClellan. How does the GABRIEL missile compare with those in the U.S. inventory?

Dr. Currie. A comparison of GABRIEL with our anti-snip missiles, both operationally deployed and in development, is provided in the attached table. From this table it can be seen that the GABRIEL and STANDARD missile in the Surface Mode both use semi-active homing and therefore have no inherent capability over the radar horizon. Consequently, either system requires a relatively short range engagement. [Deleted.]

CONDOR

Chairman McClellan. Proceed.

Dr. Currie. CONDOR will provide a day-clear weather, optically guided air-to-surface stand-off missile capability for aircraft attacking ships at sea, land targets, and waterborne targets in harbors or inland waterways. However, we are continuing development of a dual-mode (electro-optical and radar-homing) seeker to provide a night and adverse weather capability to CONDOR and a low-cost data link. Completion of the operational tests on the electro-optical configuration is scheduled for this year. The amount of $10.2 million is required for CONDOR in FY 1975 to continue the development of the dual-mode seeker and low-cost data link integration.

HARPOON and CONDOR Weapons

Chairman McClellan. Do you believe it absolutely essential that the Navy needs both the HARPOON and CONDOR? Please explain.

Dr. Currie. Both HARPOON and CONDOR are essential weapons for our Navy because of their different tactical performance capabilities. CONDOR provides a daytime, fair weather tactical capability for our attack aircraft against shore targets and waterborne targets in rivers, harbors, or other restricted waterways that are outside the designed capabilities of the HARPOON radar seekers. This capability is important to the mission of our A–6 and A–7 attack

aircraft, but is not necessary against surface targets on the high seas. We are additionally proceeding with a dual-mode CONDOR development to provide an all-weather stand-off capability for these attack aircraft. Our S–3 and P–3 aircraft will have a HARPOON capability because of the way in which this weapon complements their primary, open-ocean ASW role. In addition to an air-launch mode, HARPOON can be launched from surface ships and, in an encapsulated version, from our submerged submarines. CONDOR does not have a surface launch capability.

Chairman McCLELLAN. Proceed.

Dr. CURRIE. The successful mining of Haiphong Harbor brought attention to the effectiveness of naval mines, under the proper conditions. Consequently, we have intensified our R&D in mine countermeasures. Particular emphasis is being placed on the use of the helicopter for mine countermeasures missions through the Airborne Mine Countermeasures program funded as $2.6 million in FY 1975. Surface minesweepers and mine hunters will continue to be needed in limited numbers to fill special roles and improved equipment is being developed for them under the $4.0 million Surface Mine Countermeasures program. Since our present anti-ship mines are obsolescent, we have a modest Mine Development (Advanced) program funded at $6.5 million in FY 1975 to develop a family of low-cost but more-effective successors.

We are pursuing a number of R&D programs relating to development or improvement of multi-mission surface ships and related vehicles. By far the largest of these is the 2000-ton Surface Effect Ship (SES) Prototype Program. The 2000-ton SES will ride on a fan-fed "cushion" of low pressure air, trapped between the vehicle and the water by knife-like hulls at the sides and flexible pressurized seals fore and aft. Admiral Zumwalt has expressed confidence that the 80-knot speed capability of the SES will have a revolutionary impact on naval warfare and help tip the naval balance in our favor. On the basis of this military judgment, we support pursuing SES development, but there are certain factors which make it undesirable to proceed as rapidly as originally planned. Although two 100-ton SES test craft have provided data which demonstrate the validity of the basic SES principle, their configurations differ substantially from those proposed in the 2000-ton SES preliminary design efforts. Accordingly, we are undertaking additional development and testing to provide increased confidence in the critical aspects of the 2000-ton SES designs. These efforts will include model tests, tests with the 100-ton test craft modified to model certain aspects of the 2000-ton SES configuration, and a few tests of full-scale subsystems and components on special test rigs. Funding of $58 million is requested for this program. Of this, some $5.4 million is for fabrication of long-lead components and subsystems for the 2000-ton program, but none of this will be released for obligation unless and until the DSARC has reviewed the development and test results and determined that the program risks are acceptable.

The NATO Patrol Hydrofoil Guided Missile Ship (PHM) is a small, fast craft designed to strike against enemy surface ships in the coastal waters and narrow seas around Europe. Because the United States developed the basic technology involved, we are assuming the lead role. West Germany and Italy are sharing the design costs. Two prototypes are being developed for testing. If tests are successful, follow-on ships will be procured. Initial difficulties in fabricating light gauge aluminum hulls appears solved. Overall I see this as an outstanding example of R&D cooperation with our NATO allies.

Two other advanced development programs for novel types of naval vehicles are: the Amphibious Assault Landing Craft (AALC) Program and the Advanced Hydrofoil Program. The AALC is an air-cushion vehicle (ACV), technologically related to the SES, but smaller and less ambitious. It is intended as the forerunner of a fleet of such craft which can carry tanks and other heavy cargoes from amphibious ships over the beach to vehicle parks and supply dumps, at speeds of up to 50 knots. Evaluation prototypes are being built by two contractors and the $19.8 million requested is needed to continue their construction in an efficient manner. The hydrofoil is an entirely unrelated type of high-speed naval vehicle which "flies" on submerged "wings." Hydrofoils are expected to be useful in many roles because of their ability to travel at speeds in excess of 40 knots in heavy seas, with craft much smaller than feasible for SES. But the future prospects for hydrofoil are heavily dependent upon our experiences with the NATO PHM I described earlier. The $6 million requested for FY 1975 will carry on technology development and lay the groundwork for a possible future ocean-going hydrofoil.

Exciting as advanced vehicles may be, surface ships and submarines similar to current types will continue to provide the bulk of our force. We have a number of programs which support continued development of these ships to result in improved effectiveness, efficiency, and/or economy. Particular attention is being paid to improving and extending ship nuclear propulsion capabilities.

The $19.1 million Ship Development (Advanced) Program provides for conceptual and preliminary design efforts for new ships while Ship Development (Engineering) is a new program to support $29.4 million ship contract design efforts formerly procurement funded. The Reactor Propulsion Plants ($6.3 million), A4W/A1G Nuclear Propulsion Plant (Advanced) ($7.2 million), D2W Nuclear Propulsion Plant (Advanced) ($7.2 million) and Advanced Design Submarine Nuclear Propulsion (Advanced) ($12.4 million) programs all involve improvement and extension of our vital ship nuclear propulsion capabilities, while the Ship Propulsion Systems (Advanced) program (which is carried as a technology base program) will provide efficient power plants for ships for which nuclear propulsion is not suitable. Six additional programs totaling $21.2 million in FY 1975 support development of improved materials, components, and subsystems for ship applications.

Improving the Air Defense of the Fleet

Fleet air defense must cope with large numbers of missile launching aircraft supplemented by surface and sub-surface launched cruise missiles. The growing severity and sophistication of this threat has resulted in a defensive capability that lags Soviet offensive capability. To close this gap, we need improved capability to detect and identify air threats in time to take appropriate action; improved combat coordination to permit ship and task force defenses to be effectively and efficiently employed; improved kill, deception and decoy capabilities to counter effectively the full range of current air threats in a complementary way. Furthermore, improvement in our ability to resist enemy electronic countermeasures is also needed.

Successful completion of current development programs will largely meet the projected Soviet air threat. Our objective is a balance of aircraft, missile, gun and electronic warfare systems for integrated and complementary self defense and area defense.

AEGIS, a fully integrated detection-to-kill area defense system for high value forces, will defeat the projected threat of the 1980s, can coordinate task force defenses and operate effectively in a severe electromagnetic environment. Installation is planned in a new DG-class ship of about 6,000 tons with a total ship cost of about $125 million and, also, in nuclear-powered DGN, which is yet to be defined. Demonstration tests on land have been completed. Installation in the USS NORTON SOUND for testing at sea commences in FY 1975. Minimization of risk and performance demonstration has been emphasized through all development phases. Specific design and combat system integration efforts will be initiated in FY 1975 to insure a coordinated DG/DGN/AEGIS development schedule. To accomplish these tasks, funding of $67 million is requested in FY 1975.

The F–14 Weapon System is operational and contributes in a major way to improved area defenses. The aircraft has demonstrated maneuvering superiority over other carrier-based fighter aircraft. It has simultaneously engaged six target drones and "killed" four of them with PHOENIX missiles.

Technology growth in the STANDARD missile family is being sustained with development of SM–2 which utilizes a mid-course command guidance rather than semi-active home-all-the-way, an improved inertial reference unit and a data link. This missile will improve the AAW capabilities of existing fleet missile ships and is intended for use in AEGIS-equipped DG ships. The $32.2 million FY 1975 funding requested is largely to buy missiles for technical and operational evaluation.

For short range self defense against anti-ship missiles, we are establishing a balance among technology approaches with the long-term objective of minimizing tactical redundancy among programs.

Israeli countermeasures recently were successful in defeating the STYX missile. While this success was against an older anti-ship missile, it emphasized that countermeasures both electronic and chaff can contribute significantly to ship

self defense against the cruise missile threat. To provide a more effective electronic warfare capability to our fleet, a program to develop a modular family of electronic warfare system components, which will provide the basis for equipping a wide range of ships, was initiated. This Low-Cost EW Suites Program follows a design-to-cost objective which is intended to achieve the maximum tactical effectiveness from an EW system above a specified minimum performance level, but within a fixed unit production cost ceiling. We expect this innovative management approach to provide a badly-needed EW capability to our fleet at affordable prices. Funding for FY 1975 of $17.1 million is required for this program.

Recognizing the requirement for automatic threat-reactive search systems that are fully capable of meeting a technologically sophisticated opponent in the 1980s, we are developing the Target Acquisition System (TAS) to be used with Sea Sparrow and other short range defensive weapons. It will consist of a modular automatic tracking radar, a manual tracking radar, and an independently-mounted infrared search set. This modular approach will enable the Navy to acquire a fully-integrated system for ships designed to operate in high-threat areas and selectively install certain modules on ships to operate in lower threat areas. Development of the initial subsystems has been completed and land-based tests are continuing. At-sea tests will commence this year. Funding in the amount of $5.3 million is requested.

We are initiating efforts toward development of a low-cost radar for automatic, quick-reaction threat detection and tracking. While desirable to provide the more capable (and expensive) TAS radar to many ships, it is not economically feasible. The lower cost alternative will provide a needed, but reduced capability. The sum of $4.0 million is required to initiate this effort in FY 1975.

For very short range defense, development of the PHALANX Close-In Weapon System (CIWS) is continuing. It will provide an essentially continuous-alert, automatic, fast-reacting, all weather defense against most Soviet anti-ship missiles and a growth capability to counter others. While it is not designed to counter all threats, it will, in combination with other weapon systems, provide an inner zone defense against missiles which have penetrated the longer-range defensive systems. Its light-weight unitized design will permit installation at minimum installation costs. Initial operational tests are presently being conducted. Procurement of improved models for operational evaluation is planned for FY 1975. Realistic testing against representative war-head-configured anti-ship missiles will be included in these tests to evaluate system effectiveness. FY 1975 funding of $32.1 million is requested.

PHALANX Program Status

Chairman McClellan. What is the status of the PHALANX program? Describe its past and future funding level. What major problems have you encountered with this system?

Dr. Currie. PHALANX has successfully completed Initial Operational Test and Evaluation (IOT&E) at-sea which have followed extensive land-based testing with an earlier prototype and with the unit used in IOT&E. During the land-based and at-sea tests, a number of design deficiencies were identified which adversely affected equipment reliability and performance. However, most of these problems had been anticipated and concurrent efforts initiated to develop and evaluate solutions on a second development model located at the environmental test facility at the contractor's plant. From the combined experience of the operational tests and the contractor reliability improvement efforts, the design configuration of the following six Operational Suitability Models (OSM) will be established. The OSMs will be used in the final Operational Evaluation on various class ships and in single or dual mountings to assess fully the system effectiveness in the at-sea tactical and phyical environment. Additionally, a number of firings will be conducted against tactical missiles that will be representative of Soviet Anti-Ship Missiles and against those representative of sea skimming missiles that are intended for worldwide sales over the next five to ten years. Details of the final operational tests and the tactical missile tests are currently under review by my staff.

The funding profile for PHALANX is correctly reflected in the 31 Dec 73 Selected Acquisition Report (SAR) for this program. This profile is summarized below:

Funding	Fiscal year 1974 and prior	Fiscal year 1975	To complete
Development	[1] 67.7	32.1	23.3
Procurement	0	0	517.1
Total	[1] 67.7	32.1	540.4

[1] Includes $23,200,000 from congressionally directed reprograming of fiscal year 1973 OPN funds for OSM procurement nto fiscal year 1974 R & D.

Chairman McCellan. Proceed.

Dr. Currie. Our short-range defensive missile programs follow two approaches: those which exploit missile characteristics and those which minimize dependence upon it. In the first category, the 2.75" Dual Mode Rolling Airframe Missile (RAM) is keyed to the Army STINGER development. The Navy development adds an RF antenna to the missile. The basic IR seeker capability is retained. This program is being held in advanced development until missile effectiveness against representative anti-ship missiles have been demonstrated. Requested funding for FY 1975 is $4.5 million.

The second category of short-range defensive missile is presently handled by the SEA SPARROW Missile used in the Basic Point Defense Missile System and the NATO SEA SPARROW System. To insure adequacy of this or a new missile to meet the projected threat at affordable costs, we are initiating an investigation of the SEA SPARROW missile effectiveness against low-flying targets and a study of a short range, low-cost alternative missile. When these efforts are completed, we will initiate appropriate action to insure a 1980 defensive missile capability. Aggregate funding for FY 1975 of $8.0 million is required for these two efforts.

Improvements to Fleet Anti-Submarine Warfare Capability

The large submarine fleet of the Soviet Navy consists of a mix of high-performance nuclear submarines, and large numbers of diesel/electric submarines which are effective in the Mediterranean and water contiguous to Europe. The deployment of an increasing number of submarines with a cruise missile capability, coupled with a reduction of U.S. fleet assets, results in a major and increasing threat which is very difficult to deal with. Maintaining a priority R&D program to preserve our capability in anti-submarine warfare (ASW) could be the key to much of our future in terms of keeping the sea lanes open for transporting supplies and strategic materials. Accordingly, the Navy is working on a balance of offensive and defensive programs to provide this protection to our naval and merchant ships.

SSBN Sonar

Chairman McClellan. Please explain specifically how you intend to upgrade our SSBN sonar and navigational subsystem.

Dr. Currie. Two major sonars are planned for installation in SSBNs. The first is the AN/BQR–15 Towed Array which will provide a [deleted] long range detection and classification capability and represents the primary counter to the potential threat of development of a trailing capability by quiet Soviet SSNs in the late 1970s. The AN/BQR–15 Mod 0 system is service approved and in production. Development of signal processor and display equipment for this sonar is under review.

The second sonar, AN/BQR–21 DIMUS (Digital Multi-Beam Steering) system, will increase the passive broadband sonar capabilty of SSBNs by providing increased sensitivity, continuous [deleted] azimuthal coverage and improved capability to track the quiet nuclear submarines which may be deployed by the Soviets in the 1970s. This system is being evaluated for service use. The AN/BQR–21 sonar will replace the present AN/BQR–2 passive sonar.

A Submarine Acoustic Warfare System will be installed on SSBNs. This system will provide SSBNs with an enhanced acoustic capability against enemy torpedoes and a capability to reduce the effectiveness of enemy sensors.

There are three primary efforts in progress to improve the navigational capability of SSBNs.

The Transit Improvement Program (TIP) was initiated in 1969 to harden the Navy Transit navigation satellite against nuclear radiation effects induced

by exo-atmospheric nuclear activity. New Loran-C sensor equipment and frequency standard equipments are being installed on 31 SSBNs. This equipment will be more reliable and provide for increased coverage by the existing Loran-C stations.

The Electrostatically Supported Gyro Monitor (ESGM), being developed for the TRIDENT navigation subsystem, is under consideration for installation in SSBNs. The ESGM will reduce the dependence of SSBNs on external navigation aids.

Chairman McCLELLAN. Proceed.

Dr. CURRIE. To continue work on attack submarine improvement, $88.5 million is requested to support a broad program to improve our attack submarines. This program provides for development of the BQQ–5 sonar, advanced sonar, submarine silencing, countermeasures, weapons, surveillance equipment and shipboard command, control and communications equipment. These programs are primarily oriented towards maintaining our first-line attack submarines.

The first of the SSN 688 class of attack submarines, featuring the new BQQ–5 sonar, will be going to sea in FY 1975 for operational test and evaluation. Backfit of the BQQ–5 into the 594- and 637-class submarines is planned. These submarines, armed with the MK–48 torpedo, will have significantly improved offensive and defensive ASW capabilities to support submarine roles in the ASW mission.

During 1974, we have achieved major gains in *ASW escort* sonar. Tests of improvements to the SQS–26 Sonar demonstrated a dramatic increase in long-range active capability. On this basis, $7.1 million is requested to determine the full capabilities, passive as well as active, that can be provided by the improvements and to define backfit options for the 76 systems currently in the fleet. Included in this planning will be integration of the Tactical Towed Array and LAMPS processing.

REVIEW OF TOTAL U.S. ASW CAPABILITY

Chairman McCLELLAN. Have you made a review of our total ASW capability? If so, would you provide the committee with the results of that study?

Dr. CURRIE. We are continuously reviewing the total ASW capability. This is accomplished as major reviews during budget cycles where the ASW program is examined as a whole and element-by-element. This form of program review occurs at budget submission; during apportionment and during the POM cycle.

Detailed examination of smaller parts of the ASW program are accomplished through the DSARC process in the approval of DCPs and PMs for smaller programs.

In addition, DDR&E together with other parts of OSD have required the Navy to examine for us several aspects of the ASW problem in "Selected Analyses" the results of these analyses are used to both validate judgments made on important programs and to assure that we are approaching the ASW problem in a balanced way.

In order to achieve a complete and coherent documented assessment of the ASW capability, DDR&E and the Navy have been working on an Area Coordinating Paper (ACP) for ASW. The ACP should be in final form late in FY 75. It will provide a complete assessment of our ASW capability and alternatives to be pursued to offset deficiencies.

Chairman McCLELLAN. Proceed.

Dr. CURRIE. The *Tactical Towed Array* is being developed for eventual integration on escorts such as the Patrol Frigate, DD–963 and DE–1052 classes. The funding for this development is included in the ASW Surveillance program.

WEAPON SYSTEM FOR PATROL FRIGATE

Chairman McCLELLAN. Please describe the weapon system which will be placed on the patrol frigate. When do you anticipate that the ship will be available and when can the gun be married to the ship?

Dr. CURRIE. The Patrol Frigate (PF) is slated to have a multi-purpose (anti-aircraft, anti-missile, anti-submarine, and anti-ship) weapon system with the following principal components:

AN/SPS–49 Long Range Air Search Radar
AN/SPS–55 Surface Search Radar

Mk 92 Mod.2 Dual-channel missile and gun fire control system (FCS)
Mk 13 Mod.4 Guided-missile launching systems (GMLS)
STANDARD medium range missiles (SM–1) fired from Mk 13 GMLS and directed by Mk 92 FCS.
HARPOON missiles fired from Mk 13 GMLS
Mk 75 (OTO Melara) 76 mm dual-purpose gun directed by Mk 92 FCS
AN/SQS–56 (Raytheon DE–1160) sonar
Mk 309 torpedo fire control panel
Two sets of Mk 32 Mod.5 triple torpedo tubes
Mk 46 Mod.1 ASW torpedoes
NIXIE acoustic countermeasures equipment.

In addition the PF is designed to operate and hangar two helicopters of the size of the SH–2D LAMPS–I. The ship has space and weight reserved for the VULCAN–PHALANX close-in weapon system (CIWS) and for a towed-array passive sonar. It will be able to make use of more advanced missiles and torpedoes if and when they are developed.

The first PF, being built by Bath Iron Works, is expected to deliver in June 1977. Assuming a total procurement of 50 ships, the last is planned for delivery in 1983 or 1984. The 76 mm gun with the Mk 92 fire control system will be evaluated at sea in the USS TALBOT (DEG–4) this fall. (TALBOT is the nearest equivalent to the PF, in terms of size, overall design, and mission, in the Fleet today). The gun will be installed on the lead and follow PFs during ship construction and thus be in place (married to the ship) at the time of each ship's delivery.

Chairman McClellan. Proceed.

LAMPS

Dr. Currie. The Destroyer-Helicopter Program (LAMPS MK–III) is intended to provide our escort ships, such as the DD–963, Patrol Frigate and DE–1052 with an independent capability to prosecute long-range sonar contacts, as well as supplementing their HARPOON-targeting and anti-ship missile defense capabality. Selection of an airframe will not be made until FY 1976. In FY 1975, $17.9 million will allow avionics development and testing aboard helicopters.

A key element of our ASW capability is the use of air-dropped Acoustic Search and Localization Sensors. FY 1974 saw efforts to structure the overall program. In addition to development to upgrade P3C capabilities, this has resulted in decisions to develop a number of advanced sensors to offset quieting trends, and finally, to achieve this increased capability at affordable costs. The programs include development and evaluation of candidate passive advanced sonobuoys. A particularly important part of the effort is engineering development of an Advanced Signal Processor, primarily for use with all air acoustic sensors but with additional applicability to shipborne sensors. The amount of $37.6 million is requested for these programs.

Advanced development of a new lightweight torpedo, to be available in the mid-1980's, will be initiated. Such a development is necessary to provide a capability against submarine characteristics expected in that time frame. $3.0 million is requested for FY 1975.

As a complement to our ASW capability, we are continuing development of CAPTOR. This system will detect a submarine, determine if it is within range, and if so, launch a MK–46 torpedo. Efforts on this program has progressed well. Engineering development is in progress and operational evaluation begins in FY 1975. $11.2 million is requested in FY 1975 for this program.

Our fixed undersea surveillance system, Sound Surveillance Systems (SOSUS), is being modified to improve its detection and localization capability against current quiet submarines and the quieter ones anticipated in the later 1970s. $37.3 million are requested to pursue the development aspects of this program and $79.5 million in procurement funds.

Other improvements of extreme importance to our surveillance capability are being developed. The two major programs to provide this deployable capability which is not currently available are the Moored Surveillance System (MSS), a quick-response air-deployable area-coverage concept now in advanced development, and the Towed Array Surveillance System (TASS), a mobile ship-towed surveillance system expected to be in engineering development in late FY 1974. Results of field experiments in both of these programs have shown great promise. The R&D funding requested for these and the other advanced development programs in undersea surveillance is $40.0 million.

Surface Ocean Surveillance for Fleet Support

Concern about the extensive deployment of surface-to-surface missiles highlights several deficiencies in surface ocean surveillance.

During FY 1974, several programs to improve surface ocean surveillance were slowed to permit a more comprehensive evaluation of surface ocean surveillance requirements.

In addition, the efforts to achieve local area surface surveillance capability by using a high-flying aircraft were considerably modified during FY 1974. Instead of procuring two aircraft, the Air Force is making two U–2s available to the Navy for a two and one-half year period for concept validation. The funding requested in FY 1975, $4.0 million, will be used to complete active and passive sensor integration and start the test program.

Particular emphasis will be placed in FY 1975 on programs to support the total ocean surveillance and Fleet Command Control effort. Two closely allied programs are being pursued. They are the Fleet Command Support Center and the Ocean Surveillance Information Center.

R&D for Tactical Air Forces

R&D to support our tactical air forces is directed primarily toward exploiting recent technology advancements to better transform tactical reconnaissance data into suitable form for use by attack aircraft; improving tactical air command, control and communications; modernizing fighter and air-to-air weaponry to provide air superiority; attacking ground targets throughout the battle area by means of standoff systems, and protecting our aircraft against heat-seeking missiles and radar or optically-aimed weapons. Systems which detect these threats will allow our pilots to avoid them, confuse them with decoys or suppress them with anti-radiation missiles, bombs, cannon-fire or jamming. Emphasis will be on developing a program appropriately balanced between numbers and types of aircraft and defense suppression systems to keep expected attrition within acceptable limits.

Tactical Air Reconnaissance

Experiences in both Southeast Asia and the recent Middle East war have highlighted the need for rapid and responsive air reconnaissance to provide reliable data for accurate targeting. To meet this need, we must minimize delays in transmitting and processing reconnaissance data from the gatherer to the tactical user; provide adequate resolution capability to detect and locate small nonradiating targets such as tanks and trucks; and provide a reliable reconnaissance capability in night and adverse weather. The proposed program is also directed to reduce the cost and complexity of night and adverse weather systems, reduce the complexity of dedicated reconnaissance aircraft such as the RA–5, and reduce exposure of aircraft and crews in high threat environments. The following programs are designed to satisfy these needs.

The Air Force is continuing extensive testing of its Quick Strike Reconnaissance concept. The results of these tests provide the basis for the initiation of a system development program in FY 1975 ($1.2 million). This program should permit the tactical strike aircraft to put bombs on the target within minutes after initial target detection. Maximum use of common equipment and ground terminal compatibility with airborne systems will be required between the Army and the Air Force because their roles are mutually supporting.

The Navy and Marine Corps are monitoring these developments. If a determination is made that such a system is needed, they will be required to select from these.

In night and adverse weather, we are attempting to improve the reliability of our air reconnaissance capability. Electronic intercept data give good indications of intent and location of active emitters. Recently twelve RF–4C mounted side-looking radar systems were deployed to Europe to investigate the operational utility of a radar resolution. Results warranted initiation of the UPD–X digital side-looking radar development program in FY 1974. This project will develop and demonstrate the feasibility of using digital processing techniques to permit this type of sensor to be used in near real-time target detection and location. $3.0 million is planned for this program in FY 1975. In addition to the side-looking radar for night reconnaissance, the Air Force is investigating ways to decrease the per unit cost of the high resolution AAD–5 infrared sensor. For night clear-weather reconnaissance operations, this sensor is unexcelled. Installation in the RF–4C is planned for late 1975.

A new FY 1975 project is the Navy reconnaissance pod development program. The age, cost and complexity of dedicated reconnaissance aircraft like the RA–5C necessitates a new approach for accomplishing essential reconnaissance. It appears that a reconnaissance sensor pod which can be attached to a fighter or attack aircraft may be sufficient for future Navy tactical air reconnaissance missions. $5.3 million is planned to start this development this year.

The Air Force is conducting studies and analyses to determine whether or not a new system to replace the RF–4C is needed. No development is planned in FY 1975, but there will be significant analysis of the tactical air reconnaissance problem that should be useful in determining the direction and magnitude of our reconnaissance sensors and subsystems developments.

Tactical Air Command, Control and Communications (TC^3)

Achievement of effective tactical air command, control and communications (TC^3) requires integration of surveillance, reconnaissance and weapon control in offensive and defensive missions. Southeast Asia and Middle East operations again demonstrated that the effectiveness of a combat force depends on efficient TC^3. Deficiencies in this area include lack of capability to detect low altitude aircraft flying over land from an airborne platform.

The major effort in this area is the continued development of the E–3A AWACS. This system will provide the U.S. with its first fully integrated airborne surveillance and TC^3 system. It will provide vastly improved airborne surveillance and aircraft control capabilities, and, also, permit netting air and surface based TC^3 facilities. Near realtime information will be supplied the tactical commander allowing efficiency in employment of forces heretofore unattainable. The initial configuration of the AWACS will be expanded to permit an augmentation of roles and capabilities for better support of the General Purpose forces. Plans include procurement of the AWACS in blocks of 12 aircraft per year beginning in FY 1975, with the configuration of each block evolving as necessary for orderly adjustment of mission equipment to meet the dynamic needs of the General Purpose Forces. The average unit procurement cost is currently estimated at $40.5 million, including peculiar AGE, training, data and initial spares. $219.7 million is required for the AWACS program in FY 1975.

Another important TC^3 project is the Tactical Air Control Systems/Tactical Air Direction Systems (TACS/TADS) program to develop, test and demonstrate data transmission, command action compatibility and interoperability among Army, Navy, Air Force and Marine air control/direction systems. Testing began in April 1973 and will continue through 1975. Operational effectiveness tests determine if the systems integration has achieved the required level of interchange of command orders. As the AWACS becomes available, it will be integrated into the TACS/TADS program. $7.1 million is programmed for this effort in FY 1975.

A related program is the Ground Amphibious Military Operations (GAMO) project which is to develop, test and demonstrate compatibility and interoperability among later generation TC^3 systems such as the Army TOS, the Navy Fleet Command Support Center, and their related intelligence subsystems. A technical interface design plan is being prepared by the Services. Testing is scheduled to start in FY 1976. Requested FY 1975 funding for GAMO is $3.8 million.

The Services are in the last phase of installing the Mark XII IFF system. A comprehensive RDT&E program for future IFF is being developed. Also, development of special purpose techniques, for example, radar signature interpretation to identify non-cooperative aircraft, continues. Funding for investigation of these advanced techniques in FY 1975 amounts to $2.7 million.

Program for Air Superiority

In air superiority, the challenge is to provide aircraft that can compete with a technologically sophisticated opponent, to provide less costly and sophisticated aircraft for use in quantity and to improve the reliability and lethality of air-to-air weapons.

Aircraft Systems

The F–14 and F–15 aircraft systems can compete with any aircraft in the world. Although the F–14 completes development in FY 1975, three squadrons are operational. In FY 1975, $11.8 million concludes the R&D program. The F–15 program is progressing satisfactorily with flight tests well ahead of schedule.

Production release of the first wing was authorized early in 1973. The full engine endurance test was completed last fall. The current request for $182.6 million supports the engine component improvement plan (CIP) ($80.8 million which formerly would have been carried in the production account), engines and engine test support ($67.6 million), weapons systems, and ground and flight test programs ($34.2 million). This work essentially completes the F–15 RDT&E program.

Although the need for the unique capabilities of the F–14 aircraft and the PHOENIX system to defend the carrier force is unchallenged, there is concern over the unit costs. Consequently, we plan to initiate prototype development of a Navy low cost fighter to complement the F–14 aboard carriers. Variants of the F–14, the Air Force YF–16 and YF–17, and new development aircraft are being considered. The Navy is completing a study that investigates cost/configuration trade-offs to be reflected in a potential procurement of the chosen aircraft. Review of Navy recommendations will be completed within the next several months. In FY 1975, $34 million is requested for initiation of an effort to achieve affordable, effective aircraft systems that will influence the direction of naval aviation for years to come.

Lightweight Fighter Aircraft

Chairman McClellan. What do you foresee as the role of the light-weight fighter? How does early testing of this plane compare with the characteristics of the F–15 and F–14?

Dr. Currie. Specifically, these lightweight fighter aircraft should be outstanding performers over the battlefield when the enemy ground control intercept (GCI) radar system is degraded by the high number of aircraft to be identified and tracked. It will also be very effective in areas where we can exercise GCI. In these roles we see the lightweight fighter as complementing the F–15 and as reversing the trend which has been to more sophisticated and more costly fighter aircraft. This trend cannot continue with constrained or level budgets; if it does, our military posture will be severely jeopardized due to the limited number of aircraft procured. We must find low cost solutions to arrest the decline in inventory of tactical fighters. It is still too early in the test program of the YF–16 and YF–17 to draw conclusions. However, we are encouraged by tests to date.

Chairman McClellan. Proceed.

Dr. Currie. While recognized as the free world's best fighter aircraft for its designed missions, the F–15, is, also, an expensive aircraft and, under constrained budgets, such equipment cannot be bought in high quantities. To provide an alternative solution and a high/low mix with an effective capability (while acknowledging limitations), a relatively austere, clear weather only, highly maneuverable fighter aircraft was conceived—the lightweight fighter. This includes two Lightweight Fighter (LWF) prototypes (YF–16 and YF–17) and the F–5E/F Tiger II. The LWF are viewed as possible replacements for the F–104 and F–5 on the world market and as a possible augmentation to our more sophisticated fighter forces; the F–5E/F is intended for use by Asian allies. The Lightweight Fighter prototype continues as an Air Force advanced development program to explore emerging technology and reduce risks and uncertainties of full-scale developments. This program could make available a less costly (targeted at a flyaway price of $3 million in FY 1972 funds), relatively austere, high performance fighter by incorporating new aerodynamic concepts and design ideas.

Each of two contractors is designing, fabricating and flight-testing two prototype aircraft in the 20,000-pound class. The program, which is on schedule, saw the first flight of the YF–16 in January 1974 and is leading to the first flight of the YF–17 in May 1974. The FY 1975 request for this effort is $22.7 million, including $10.0 million for the YF–101 engine used in the YF–17.

In FY 1975 the *Air Combat Fighter* Program will provide low cost options for our land based tactical air forces, such as transitioning the LWF program for prototyping development to engineering development. Engineering activity for both LWF contractors could be continued, as necessary, including continued flight testing. FY 1975 will see selection of the potentially best operational candidates and beginning of engineering development as a possible future fighter. This program provides a major option which can give us the capability for rapid expansion—if needed—of our Air Force and perhaps those of our Allies as well.

Full scale development of the F–5F, a tandem seat version of the F–5E, was begun in November 1973. This version will be fully combat capable in addition to being a trainer. First flight is scheduled in September 1974. For this effort, $3.0 million is requested for FY 1975 research and development in addition to $11.1 million recouped through F–5E/F Foreign Military sales.

We are also continuing the development of the F401 engine to provide a proven engine for new aircraft under consideration. For this effort, $27.5 million is requested in FY 1975.

The Navy VSTOL effort is proceeding as planned. The XFV–12A is particularly encouraging. As you know, the thrust augmented wing (TAW) concept is a high technical risk program with high potential value. Two prototypes will be completed in FY 75, and the flight test data which is necessary to determine the worth of this concept will be available to aid in future budget decisions. Should the TAW concept not meet our expectations, the Navy has the lower performance Advanced Harrier design available which is a very low technical risk effort, $19.3 million is requested for VSTOL aircraft development in FY 1975.

Air-to-Air Missiles and Guns

Southeast Asia experience revealed significant shortcomings in our air-to-air weaponry. The major problem was unacceptably low reliability and high maintenance requirements as well as constrained engagement envelopes against maneuvering targets for air-to-air missiles. Guns were found to be a valuable complement to missiles despite the earlier trend away from gun armament in tactical aircraft.

The AIM–7F SPARROW is demonstrating substantial improvements in range, but problems have arisen in missile stability, resulting in excessive miss distances; goals set for electronic countermeasures have not yet been fully demonstrated; and current AIM–7F reliability falls short of both the goal and the threshold for captive carry mean time between failure. Efforts are underway to identify solutions to these problems. Further, the missile production cost ($100,000 each) is too high. A second contractor has been engaged to help solve the seeker problems, identify alternative seeker designs for reducing the missile cost and to introduce a competitive pressure on missile costs. R&D funds of $7.7 million are requested to continue this program.

Although the AIM–9L was considered a relatively moderate change from the predecessor AIM–9H, the RDT&E program was structured to reduce concurrency and assure completion of testing before the missile was committed to production. The program is scheduled for DSARC III (production) in January 1975, after completion of OPEVAL. Only $0.5 million is contained in the FY 1975 request.

Because of configuration, the SIDEWINDER family of missiles has inherent limitations in maneuverability. As a result, the Navy is developing the AGILE (AIM–95) missile, a thrust-vector-controlled airframe featuring better maneuverability and shorter minimum range than SIDEWINDER. Although hardware prototypes are nearly completed, the decision to enter engineering development has been delayed until feasibility models can be flight tested and the requirement better defined. These tests will examine the suitability of using AGILE both on attack aircraft (as self-protection weapons) and on fighter aircraft (as dogfight missiles). Also, better cost estimates will be on hand prior to entering engineering development. In FY 1975, $20.0 million is requested to continue the AGILE in advanced development.

Due to the relatively high estimated costs of the AIM–9L and the AGILE, the possibility that a low cost (less than $10,000 each), lightweight (less than 80 pounds) air-to-air missile may be feasible for use on high performance aircraft is being investigated. The Air Force is to prototype such a missile. The FY 1975 budget request contains $3.2 million for this effort. Tentative schedules call for flight tests in about 2½ years.

The GAU–7A, a 25mm caseless ammunition Gatling gun, is a development intended for use in the F–15. When successfully developed, it was to replace the M–61 20mm gun. However, a combination of technical difficulties including excessive action time, total system over-weight, short barrel life and problems with ammunition protective covering extraction, will not allow integration of this gun early in F–15A production. For FY 1975, $7.5 million is requested to satisfy present contractual agreements but does not pursue integrating the gun into the F–15. An additional $2.2 million is requested to provide improved M–61 gun

and ammunition for use on the F–15 and the approximately 4000 other aircraft which use the M–61 gun.

Improving Capability To Attack Surface Targets

Improving our capability to attack surface targets is receiving increased attention. Our efforts are dictated by the continued improvements in enemy defenses and reduction of target vulnerabilities. Both were demonstrated in the recent Middle East conflict. Fundamental problems including extending the technology of precision guidance and stand-off range to a great number of aircraft to allow one-shot kills without penetrating a heavily defended terminal area. The thrust of our programs is to develop and introduce precision guided weapons and to improve aircraft subsystems to be compatible with these precision weapons.

Weapons

Our current television and laser guided glide weapons give us a good capability at short stand-off ranges during clear day conditions. These weapons have proven successful in combat operations in Southeast Asia and the electro-optical weapons used by the Israelis in the recent Middle East War, apparently achieved a very high success rate.

We are developing modifications to our television guided glide weapons which will give them longer standoff ranges. As part of the Air Force's program to emphasize conventional attack capability, called PAVE STRIKE, we are requesting $9.4 million to continue development of the Modular Guided Glide Bomb (MGGB II). (The PAVE STRIKE program is discussed in Section 4.4.6.). The modifications to be demonstrated in this development will provide stand-off capability and integrate both television and DME guidance. The latter guidance technique is for use with the Airborne Locator and Strike System and the Precision Emitter Location and Strike System, discussed later. The MGGB II weapon will be compatible with Navy aircraft aboard carriers.

In order to employ glide weapons at maximum ranges, a data link is required. We are developing, under Navy cognizance, a common, low-cost data link which will have the ability to control the MGGB II, WALLEYE stand-off capability and CONDOR stand-off capability. To continue this development, $2.5 million is requested.

To provide precision guidance under a variety of tactical conditions, we are continuing to explore, in advanced development, several guidance schemes. We are requesting $10.4 million for the Air Force weapons guidance technology, and $3.6 million for the Navy. The majority of these funds will be used to flight test two types of imaging IR guidance schemes. Other captive flight tests will include radiometric correlation guidance which can be used during adverse weather.

Improved kill mechanisms are also being sought. Advanced development tests of the hard structure warhead designed to destroy massive concrete structures continues and $1.0 million is requested. Munitions for a more efficient attack of hardened airfield facilities and runways are under development and $2.0 million is requested for these efforts. Additionally, $1.7 million is requested for continued development of an air-delivered anti-armor mine, GATOR, to be used by all services.

The multiplicity of guidance technologies and warheads for air-launched weapons creates a management problem; development of a variety of seekers and warheads is possible, but it is neither necessary nor economical to build a new missile to incorporate each new development. The concept of the Modular Weapons Family is to prevent weapon proliferation by controlling interfaces so that various modules are interchangeable. An advanced development program, for which $5.6 million is requested, will test the feasibility of interchangeability through hardware tests of a limited number of existing components in a combination of three warheads and three seekers (nine optimized weapon possibilities).

In line with our plans for application to future weapons, we will flight test a low-volume ramjet (LVRJ) engine. The FY 1975 request is for $3.0 million. Such an engine has the potential of achieving missile velocities of Mach 3 to Mach 4 and of operating at altitudes to 100,000 feet in both air-to-air and air-to-ground use. Such a capability would make enemy defensive measurements more difficult. It should be noted that the Soviets lead the U.S. in this technology area, having applied it to the SA–6 SAM.

Improvements to Aircraft

In conjunction with improved weapons, we have plans to upgrade our existing aircraft with high resolution sensors. The first of these to enter the inventory will be PAVE SPIKE, a day laser designator pod for the F–4. The PAVE SPIKE will enter the inventory this year. This unit is smaller, lighter and less expensive than the similar first generation PAVE KNIFE pods. A limited number of PAVE KNIFE pods were used to deliver laser guided bombs with success in Southeast Asia by both the Navy and Air Force.

The evolution of infrared technology can provide a night capability similar to what we now enjoy in daylight. Infrared guided and laser guided weapons can be employed if the aircraft carries suitable sensors for initial target acquisition and a precision laser designator. Therefore, developments will continue to provide forward looking infrared (FLIR) sensors for the Navy's A–6E and A–7E aircraft. These developments are called Target Recognition and Attack Multisensor (TRAM). The internally mounted A–6E TRAM system is equipped with a FLIR and laser target designator. The request for this program is $10.4 million. The A–7E pod-mounted system contains a FLIR only and the program request is $7.6 million this year.

For use on the F–4 and potentially the F–111, we are developing another pod configuration containing a FLIR and laser target designator. This program, called PAVE TACK, was chosen by the Air Force for special emphasis under its PAVE TACK, was chosen by the Air Force for special emphasis under its PAVE STRIKE program package and $8.3 million is requested. Since the FLIR systems and associated stabilization are expensive, emphasis will continue to reduce procurement and support costs. The TRAM and PAVE TACK programs will provide the Navy and the Air Force the ability to strike with precision weapons during day, night and in some limited visibility conditions.

Remotely Piloted Vehicles (RPV's)

Studies indicate that Remotely Piloted Vehicles (RPVs) may have potential to replace manned aircraft for missions in high threat areas. Based upon their extensive RPV Mission Analysis, the Air Force has requested $11.0 million in the FY 1974 Supplemental Budget for a multi-mission RPV development to prototype an existing AQM–34 type drone with interchangeable configurations for (1) camera or side-looking radar reconnaissance, (2) electronic warfare jamming and seeding decoys and (3) for dropping bombs or launching missiles such as MAVERICK to strike selected targets. $4.0 million will be needed in FY 1975 to complete this project. $5.5 million is required for the Army advanced development program called RPAODS to establish the feasibility of using small model airplane-type RPVs for selected reconnaissance and target designation missions in the FEBA. $1.0 million is requested to update the avionics in existing units and $6.0 million to begin advanced development of a system needed to control and receive data (CDRS) from several RPVs in flight. The military worth of numerous proposals for using industry-developed drones for such purposes as tactical expendable decoys (TEDS) or anti-shipping missiles is being studied. Flight evaluation of COMPASS COPE drones designed for peripheral reconnaissance missions will require $6.0 million in FY 1975.

Future Role of RPV's

Chairman McClellan. Please describe the future role of RPV's. Aren't they now capable of carrying and accurately firing the Maverick? Will these vehicles eventually replace our extremely expensive fighter aircraft?

Dr. Currie. If RPV's are perfected and become as reliable and effective as manned aircraft then inventory trade-offs would be appropriate. In the trade-off the duties of the pilot must be performed to advantage by the RPV. As you know RPV's already do a remarkable job on both low and high altitude reconnaissance missions. They have performed effectively on EW missions and it is true that RPV's are now being considered for selected strike missions. RPV's have accurately delivered Maverick missiles. We believe that over the next ten years the RPV will begin to complement manned aircraft rather than replace them. There are too many uncertainties to make any other predictions. Problems which must be overcome include simultaneous control of multiple RPV's, RPV vulnerability to manned fighter aircraft and non-combat associated attrition. We seriously doubt that RPV's will completely replace all manned military aircraft. We have good confidence that RPV's can reduce manned aircraft combat attrition.

Chairman McClellan. Proceed.

Defense Suppression

Dr. Currie. Because of proliferation and demonstrated effectiveness of enemy air defense systems, including several versions of SAMs, numerous calibers of AAA, and an integrated early warning and command net, much attention is being paid to defense suppression. Major problems are accurate location of missile sites, lack of stand-off weapons with range sufficient to attack the site without penetrating the defended zone, slow speed of current ARM missiles resulting in increased exposure in the defended zone along with a warhead that does not give a high probability of killing the radar, absence of guidance heads with wide frequency coverage, lack of intelligence concerning pertinent characteristics of Soviet SAM guidance systems to permit development of appropriate aircraft self-protection ECM equipment, and large IR signatures of aircraft which increase their vulnerability to IR missiles.

A number of programs have been undertaken to solve these problems. The FY 1975 budget contains $25.0 million for development of a precision emitter location and strike system based upon Time-of-Arrival/Distance Measuring Equipment (TOA/DME) techniques. Either a modification to the Airborne Location and Strike System (ALSS), currently being used to demonstrate the TOA/DME technique, or development of a new Precision Emitter Location and Strike System (PELSS) will be undertaken. The ALSS, although limited in frequency and capacity, has located emitters at ranges of 150 miles. Employing DME guidance, weapons have been delivered to simulated enemy emitters from a stand-off range. Such a system permits precision location and weapon delivery without penetrating the defended zone. The design of the data links will be coordinated with the NAVSTAR program to ensure world-wide compatibility when the NAVSTAR becomes available. The FY 1975 request also contains $5.0 million for work to determine whether airborne Moving Target Indication (MTI) radars can be mated to DME techniques to locate and permit stand-off destruction of tanks and mechanized infantry as well as radar associated systems when they are not emitting. The stand-off weapon employed to achieve these ranges is the Modular Guided Glide Bomb (MGGB II), described earlier.

The Navy has requested $5.7 million to develop a carrier-compatible Tactical Airborne Signal Exploitation System (TASES) to enable the task force commander to locate and monitor enemy anti-ship missile forces over the horizon from the task force and provide tactical ELINT and communications intelligence in support of operations against land targets.

A High Speed Anti-Radiation Missile (HARM), with improved frequency coverage and warhead, is continuing in development. Such a missile will overcome deficiencies of current anti-radiation missiles when defended areas must be penetrated by manned aircraft because TOA/DME coverage is not available. The FY 1975 request to support this missile development is $18.1 million. Both the Navy and the Air Force will employ this weapon.

A variety of self-protecting systems is being developed. A jammer to degrade the fire-control capability of air defense weapons is being developed. $4.1 million is requested to support that task. Models of SAMs are being built. This will enable test and development of tactics for defense. $5.8 million is requested to support this task. IR signature reduction and techniques are being developed.

Because each attack, fighter and bomber aircraft cannot carry all the radar, IR and optical countermeasures needed, the Air Force plans to develop a Manned Support Jammer using the F–111A airframe. $36.7 million is requested in FY 1975 to begin modification of two F–111A training aircraft to the EF–111A configuration.

The EF–111A will be able to jam hostile air defense systems; will perform a reconnaissance function by detecting and locating hostile positions so that attacking aircraft may avoid defenses; and will permit training of U.S. and NATO radar operators in an ECM environment.

Major Program Thrusts

In summary, there are three program groupings deserving special attention. Individual program elements have been presented on a mission area basis, but these three groupings represent major technological thrusts crossing mission area lines. They are precision guided weapons, Remotely Piloted Vehicles, and the Air Force PAVE STRIKE program.

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PRECISION GUIDED AIR-TO-SURFACE WEAPONS

We are convinced of the revolutionary aspects of applying precision guidance to conventional weapons. Combat experience in Southeast Asia and the recent Middle East war have reconfirmed this conclusion.

As a result, we are moving on a broad front to upgrade weapon inventories with this capability. Our current precision guided weapons are limited by weather/visibility restrictions and stand-off ranges. Therefore, our emphasis is to improve the flexibility of applications of current weapons and provide longer standoff ranges. In order not to proliferate weapon types, we are applying the precision guidance to existing weapons, where applicable.

A summary of the programs associated with precision weapons delivery, and the amounts in the FY 1975 budget, are shown below. These programs represent both advanced development of potential guidance schemes as well as engineering development efforts:

	Millions
Low cost data link	$2.5
CONDOR	10.2
Advanced mid-course terminal and IR guidance (Navy)	3.7
HARPOON	57.7
Modular weapons	5.6
Conventional weapons guidance	10.4
MGGB II (EO and DME guidance on both MK–84 and SUU–54 warheads)	11.7
Mid-course guidance (Air Force)	4.5
PELSS and ALSS	25.1
MAVERICK (laser and EO)	20.0
Total	151.4

All of these developments are closely monitored in order to assure that we do not start needlessly duplicative developments, but at the same time, maintain a variety of guidance schemes to provide options for introduction into the inventory.

FULL PRECISION DELIVERY WEAPON SYSTEMS

Chairman MCCLELLAN. Can this nation afford to convert to full precision delivery weapon systems?

Dr. CURRIE. In the area of air-to-surface ordnance, the answer is no. Based on our understanding today, for the foreseeable future we will require a mix of precision weapons and unguided weapons in our inventory. We will use the precision weapons to create an environment that will permit the use of other weapons where appropriate.

Chairman MCCLELLAN. Proceed.

REMOTELY PILOTED VEHICLES

Dr. CURRIE. We are extremely interested in remotely piloted vehicles (RPVs) and feel that this technology can be widely exploited to increase the effectiveness of our tactical forces. Due to the emerging nature of this technology, we have but a few engineering developments, several advanced development demonstrations, and a considerable number of studies. Indeed, the publicity given to existing drone efforts and studies leaves an impression that the amount of activity in this area is much larger than an objective evaluation shows.

Our plans for the near future will be to first upgrade our existing drone fleet to incorporate needed improvements to command the use in reconnaissance and electronic warfare and, to the degree capable, weapons delivery. Our advanced development efforts will demonstrate the critical hardware performance necessary to accomplish those roles shown useful by the study effort. These are such programs as improved control system (CRDS), COMPASS COPE, and the Air Force effort on mini-RPVs for launch from tactical fighters for electronic warfare and anti-radiation missiles. The Army mini-RPV (RPAODS) effort is to develop ground-launched, small, simple vehicles similar to model airplanes with small cameras or other sensors for selected reconnaissance missions.

The following lists the major hardware development projects in both advanced and engineering development (study programs are not shown):

	Millions
Army remotely piloted vehicles (RPAODS)	$5.5
COMPASS COPE	6.0
Advanced data link	3.1
Drone Avionics System Update and Updated Controls, Including Modifications for Multi-Mission RPV and Mini-RPV	18.0
Total	32.6

PAVE STRIKE Programs

Because of the increased emphasis on conducting precision air-to-ground strikes, the Air Force has chosen to identify a group of programs which, collectively, will be identified and emphasized to increase capability in this area. The program, called PAVE STRIKE, includes many developments mentioned earlier that are receiving special management emphasis with the objective of improving our conventional war fighting capabilities in the near future. In the case of each program, particular emphasis will be given to an expeditious development leading to an early IOC consistent with adequate test and evaluation. The management visibility will assure that these important programs will have sufficient funds to meet these goals. In FY 1975 we plan a total of approximately $40.0 million for the programs in this group.

This program includes:

Modular Guided Glide Bomb II
EO Glide Bomb—EOGB II (incorporation of modifications to HOBO Kit)
DME Guided SUU–54 Dispenser
Precision Emitter Location and Strike System (PELSS)
Deployable Data Base (ability to put DME coordinates on photographs)
Airborne Locator and Strike System (ALSS)
EF–111A (Manned Support Jammer Aircraft)
Advanced Development efforts on Imaging IR guidance
Laser Guided MAVERICK
PAVE TACK Pod (FLIR and laser target designator pod for F–4 and F–111)
Multi-Mission RPV

Tactical Nuclear Weapons

Although general purpose forces are primarily conventional, appropriate tactical nuclear forces are required to help deter conventional, appropriate tactical nuclear attack and, if necessary, to be used in combat by allowing the selected application of nuclear weapons where such weapons could significantly and favorably alter the local military outcome.

DoD planning for development and acquisition of tactical nuclear weapons may be expressed as follows:

U.S. conventional forces (together with allied conventional forces) should alone provide a credible deterrent and defense aaginst conventional attacks under likely assumptions about the threat, mobilization, and other critical factors affecting the war outcome. A combined use of nuclear and conventional forces should provide the credible deterrent and defense in considerably worse than likely circumstances of conventional attacks or against nuclear attacks.

To implement this policy, tactical nuclear forces should be designed to meet the following criteria: They should have the capability to deny the enemy his military objectives by attacking military targets which support the enemy's campaign. They should be of such a nature that the minimum number of weapons with the lowest possible yields should produce the desired military effect. They should be capable of dispersing quickly and be survivable under conventional (overt or covert) or nuclear attack. Their associated target acquisition systems should be compatible with the weapons themselves. Their associated tactical command, control and communications (TC^3) systems should permit selective use under NCA control. They should produce the minimum possible collateral damage to civilian populations.

Various programs will be initiated to achieve low yield, low collateral damage, precision delivered nuclear weapons.

Target acquisition and reconnaissance improvements being made for conventional forces, also, will aid in acquiring targets for nuclear attack.

Improvements are being made in tactical command, control and communications.

A thorough reassessment of nuclear artillery projectiles, which is underway, points to a requirement for a new eight-inch projectile. Engineering development of the new projectile is planned. Funds are requested for this effort.

An extensive effort is underway to demonstrate the technology which can give an option for major upgrading of the Pershing IA missile system. The objective is to demonstrate through flight test a substantial improvement in delivery accuracy to permit the use of lower yield warheads having minimal collateral damage.

The major components will be demonstrated in captive flight test in high performance aircraft during FY 1975. Design and fabrication will be initiated in FY 1975. Total budget request for this program is $22.3 million.

Telecommunications and Command and Control

Objectives

Reliable survivable, secure and cost-effective telecommunications and command and control systems are of overriding importance to the implementation of national policy. They provide the total DoD structure: the forces—land, sea and aerospace—their support and the command links within and between these individual elements and the links for the National Command Authority.

The command and control function requires that all of the individual parts be coordinated to insure that the diverse elements of military power can be brought to bear on a crisis or war situation in precise response to and under the positive control of the proper national authorities. A key is interoperable systems capable of providing rapid and secure communications between a variety of levels of command, between forces of the various Services and between the United States and its allies.

The acceptable level of telecommunications and command and control system reliability and survivability should be balanced with the relability and survivability of the forces or functions served. It is hard to justify communications with a military force, be it an infantry platoon or a Poseidon submarine, that is far more or far less survivable than the platoon or submarine itself.

The acceptable level of security depends on the application and the enemy's capabilities.

Maintenance of appropriate voice security while achieving interoperability between telecommunications systems is a prime objective of developments in both the Defense Communications System and the tri-Service tactical Communications System (TRI-TAC) program. A related need is to insure that our satellite communications systems, which must provide the long-range transmission path to bridge the gap between widely dispersed forces, also permit interoperation in the secure mode.

Developments in areas that support command and control of our nuclear forces are addressing improvements in survivability commensurate with the change in capabilities of potential enemies that have occurred over the last ten years. In addition, the command and control systems must support new flexible options which have been requested by the President in his foreign policy statements and emphasized by the Secretary of Defense in this year's testimonies before the Congress.

WWMCCS

The operational direction and administrative support of U.S. military forces world-wide is conducted through the World-Wide Military Command and Control System (WWMCCS). The national level elements of this system, the National Military Command System (NMCS), include the National Military Command Center (NMCC) in the Pentagon and two alternate command facilities designed to enhance survivability. The President, at the White House, Camp David, San Clemente, Key Biscayne, or airborne in the Presidential aircraft, is always kept in continuous communications with the NMCS and, through it, with the subordinate commands and the military forces. These national military command centers are linked to the subordinate commands and the military forces world-wide by a variety of transmission means—land lines, underwater cables, VLF, LF, HF, UHF, radio, satellite relay systems, etc.

During the next few years, we propose to increase significantly our efforts to improve WWMCCS communications, particularly that portion designated as the Minimum Essential Emergency Communication Network (MEECN). MEECN is the basic system for communicating executive orders to our forces, particularly

in wartime. This is why the Defense Department has proposed, in addition to the improvements in the existing communications networks, the continued development and deployment of the Air Force Satellite Communications System (AFSATCOM), the Advanced Airborne Command Post (AABNCP) aircraft and the SANGUINE extremely low frequency (ELF) radio relay system. These three programs offer the best prospects, at this time, for a substantial advance in the survivability and effectiveness of our national command and control system under nuclear attack.

AFSATCOM

The Air Force Satellite Communcations (AFSATCOM) System will provide greater survivability in relaying essential NCA instructions to the forces and will also allow the forces to report back the data necessary to maintain control and permit execution of a variety of nuclear options. In addition, we are also developing the necessary technology to further improve communications satellite survivability. This technology will eventually lead to a system we have called the Survivable Satellite Communications (SURVSATCOM) System. The RDT&E requirement in FY 1975 is $10.0 million.

AABNCP

The Advanced Airborne Command Post (AABNCP) program is being developed in several increments to take advantage of our growing understanding of the command and control problems in a nuclear war environment. The aircraft (the Boeing 747, now designated the E–4) will carry the equipment and people needed for flexibility of national policies and control of forces. The aircraft should have a useful life of about 20 to 25 years, and during that period, we anticipate re-equipping them as new technology is developed and available and as national policy changes the missions of the strategic forces.

Due to the anticipated changes in command and control technology, the AABNCP program is divided into "blocks." Block I is the currently approved configuration of the AABNCP, and is further divided into three phases (A, B, and C).

Phase IA will provide an interim National Emergency Air Force Command Post (NEACP) for the NMCS. The first three operational aircraft will be equipped with the existing C^3 package to be transferred from the three existing EC–135s.

Phase IB provides for development of the C^3 package with one E–4A R&D aircraft, which was funded in FY 1973 Budget, and acquisition of three operational E–4As complete with the new C^3 package. The resources requested in the FY 1975 Budget, will continue the development of the C^3 package, provide for construction of required new facilities for the E–4A aircraft and alert crews and fund the initial increment of the Block II program. The RDT&E portion of Phase IB is $67.7 million in FY 1975. The three operational aircraft with the new Block I C^3 package are programmed for acquisition in FY 1976.

Phase IC of the Block I program consists of retrofitting the first three E–4A aircraft with the new Block I C^3 package for the Strategic Air Command. This portion of the program would be funded in FY 1977 and FY 1978. The new C^3 package, in addition to antennas and terminals for satellite communication, will provide a computer terminal through which the E–4A can connect directly into the WWMCCS ground-based Automatic Data Processing (ADP) system. In addition, the Block I C^3 equipment will greatly enhance the survivability of Airborne Command Post communications both by providing more powerful communications to overcome the degradation experience in the nuclear environment or under jamming conditions and by providing interface with the AFSATCOM satellite and the Defense Satellite Communications System (DSCS). These communications will also enhance the survivability of the aircraft itself by permitting greater flexibility in which the plane can fly while maintaining reliable communications. This new C^3 package along with greater available space, longer endurance, shorter takeoff and other features of the E–4A aircraft will greatly enhance our command and control capabilities under nuclear attack, compared with the existing EC–135s.

The total cost of the Block I program is estimated to be about $550 million.

Block II has yet to be fully defined. The initial increment to be funded in FY 1975 will be used to define the airborne ADP system and provide for other improvements in the communications capabilities of the E–4A that are technically feasible, desirable and cost effective.

The problems involved in an airborne ADP system have not been sufficiently resolved. We are now modernizing and standardizing the ground-based WWMCCS ADP system. The equipment used in the ground-based system cannot be transferred one-for-one into the aircraft since the equipment has not been designed for an aircraft environment. Further research is also required on shielding the computer against nuclear effects in an airborne mode.

SANGUINE

The SANGUINE transmission system is an effective means of providing a survivable communications link with our ballistic missile submarines while they operate at depth and speed. The SANGUINE transmitter sites would be less vulnerable to nuclear attack and the signals would be less susceptible to atmospheric disturbances and enemy jamming than other known (and used) communications systems. Also, contrary to current popular fears, the SANGUINE system would pose no significant environmental, ecological or biological dangers to the area in which installed.

The effective command and control of our SLBM force, the element of our strategic offensive forces which is the least vulnerable to sudden nuclear attack, is of major importance. At the present time, the communications links from the NCA to the individual ballistic submarines are much less survivable than the submarines themselves. Therefore, reliable and survivable communications links must be maintained with these forces.

Four years of experience at the Wisconsin test site has demonstrated the operational and technical feasibility of the SANGUINE System. We need to continue system development prototype testing and, at the same time, conduct comparative tests of potential sites for final site determination. Site analysis will be accomplished before the operational system is ready for deployment. Since there are no better known alternatives for effective SLBM command and control, we strongly urge support of the SANGUINE System. The FY 1975 RDT&E request for SANGUINE is $13.2 million.

Other Telecommunications Programs

Our goal is to achieve user-to-user security for DoD communications. This is most practical and economical in systems employing digital communications techniques. In addition, digital techniques promise to be more reliable. Thus, as we modernize our radios, switches, transmission and associated equipment, we should, at the same time, acquire COMSEC and digital communications. Even in those cases where availability of resources may preclude acquisition of COMSEC equipment for end-to-end secure communications, modernization of communications facilities will be oriented toward digital systems to remove technical barriers of future COMSEC upgrades.

Since most of our current communications facilities are analog, the degree and rate of security we achieve will depend in large part on the rate at which we achieve transition to digital communications facilities. Civil communications networks are starting to introduce these facilities, and it is estmated that in the mid to late 1980s, digital communications will be widespread in these nets. This will ease our problems in transitioning our systems employing leased circuits. The availability of satellite communications in both the civil and DoD communities will also help at an early date.

Satellites provide a medium which could be basic to the solution of many of the telecommunications problems of DoD. Our stress on reliability, survivability and security of telecommunications and on matching communications to the flexibility and mobility demanded of our forces leads to general agreement that satellite communications must be a vital element in our mix of communications capability. As a result, we have planned for both a satellite service for fixed and transportable ground and large ship applications, and a service for more highly mobile user application.

The following sections address some of our more important programs in these areas.

Tri-Service Tactical Communications Program (TRI-TAC)

The TRI-TAC program was established in May 1971 as a joint Army, Navy, Marine Corps and Air Force program to achieve interoperability among tactical communications systems, avoid duplication among the Services in the develop-

ment of equipment, reduce proliferation of different types of equipment, and place in the field, in a timely manner, new tactical communications equipment required by the Armed Forces.

The Joint Tactical Communications (TRI-TAC) Office is charged with development of a system "architecture" to insure that the many sub-elements fit together and efficiently serve military requirements and national policy. A Land-Based Plan and a Naval-Based Plan for TRI-TAC for the post-1980 period have been completed. Transitional plans which take into account each of the Services' existing inventories are being prepared.

Our objective is to provide compatible equipment to support Service needs and joint operations of the U.S. combat forces in the early 1980s. The tactical equipment must interconnect with the Defense Communications System (DCS) and have the capability to interface satisfactorily with our allies, particularly NATO. The latter capability is to be achieved through coordination rather than through joint development.

A major part of the TRI-TAC program involves multi-channel tactical communications systems for trunking and switching of both voice and record communications and of data transmission for computerized weapons systems.

An increased utilization of digital techniques will permit the economic achievement of a high degree of communications security in addition to improved reliability and maintainability, faster transfer of information, and reduced size and weight. Initial designs will accommodate analog signals to permit operation with large existing equipment inventories of ourselves and our allies during the transition.

The Director, Joint Tactical Communications (TRI-TAC), has overall responsibility for the program and provides the plans and system design concept. He monitors the development and procurement of equipment which is accomplished by the Services as assigned by the Director, Telecommunications and Command and Control Systems. In general, a single Service is tasked to develop each equipment for utilization by all the Services. The Army, for example, is developing the circuit and message switch, the Air Force, the technical control, the Navy a facsimile terminal, etc.

The validation phase contracts for the AN/TTC–39 family of automatic switches and for the associated secure voice terminals have been completed. The switch development qualifies as a major system, and a DSARC will be held in April 1974 prior to proceeding into engineering development. Contract awards are planned in FY 1975 for the development of tropo-radios, facsimile terminal, data terminal and technical control devices.

Additional current TRI-TAC developments include the secure speech terminal, digital facsimile, technical control, tropospheric radio, short-range wide-band radio, unit-level switches, digital input terminals and mobile subscriber access equipment. The FY 1975 request for all Services for the TRI–TAC Program is $70.6 million.

Fleet Satellite Communications Systems (FLTSATCOM)

The FLTSATCOM system will provide reliable beyond-the-horizon communications for shipboard, airborne and shorebased fleet units. Additionally, the FLT SATs are host to Air Force Satellite Communicatons Systems (AFSATCOM) transponders. The FLTSATCOM system supports the command, control and communications of Naval Fleet units. The AFSATCOM mission supports the command and control of strategic nuclear forces.

The $19.2 million requested in the FY 1975 RDT&E budget completes the spacecraft development, initiates efforts on modulation subsystems to more effectively utilize FLTSAT channels and continues development of information exchange systems (IXS) for automated message handling.

The Navy is the executive service for FLTSATCOM. The space segment is procured through the USAF Space and Missile System Organization (SAMSO). SAMSO awarded TRW a development contract in November 1972. Weight problems required a reduction in payload capability in August 1973 which reduced the risk in the program. First launches are currently scheduled for spring CY 1976.

Communications Security (COMSEC)

The DoD COMSEC provides the means to prevent unauthorized persons from obtaining informaton through the interception of electrical transmission on telecommunications circuits. It is a continuing program involving: (1) the research,

development, procurement, maintenance and operation of cryptographic devices; and (2) the supervision and monitoring of DoD telecommunications to assure an acceptable level of communications security.

The major additional effort in FY 1975 is to complete development of the COM SEC equipment to be used with the joint tactical automatic switch being developed under the direction of the Joint Tactical Communications Office (TRI–TAC).

Equipment developed for TRI–TAC can and will be used in portion of the Defense Communications System (DCS) network that are largely digital. However, much of the DCS will remain analog until the mid or late 1980s. Prior to that time, a system for greatly increasing the availability of secure voice communications within the DCS is needed. The alternatives of restricting this capability to a small number of users possessing digital equipment compatible with those to be used in the late 1980s and 1990s is unacceptable. Thus, we are preparing to implement an interim system (AUTOSEVOCOM Phase II), but are doing so in a manner which we hope will minimize the replacement problem in the 1980s. We believe this approach will lead to a lower cost for secure voice service over a twenty-year program than other possibilities which have been considered.

To support this interim system, as well as a number of other long-term special problems where wide-band digital transmission will not be available, we are vigorously pursuing development of narrow band 2–8 kilobit/second voice processing equipment. The technology of large-scale integrated circuits is key to the economic implementation of the relatively complicated voice processing algorithms needed in this application. A Secure Voice Consortium, with representation from all parties involved, coordinates the programs to avoid duplication and maximize the opportunity for early success.

Billion-Bits Per Second Techniques

Chairman McClellan. Please explain "billion-bits per second" communication techniques.

Dr. Currie. Billion-bits-per-second communication technique refers to wide band communication channels. For example one television channel requires about ten million bits per second, so a billion bit per second communication channel would accommodate up to one hundred television channels. Defense applications for wide channels include transmission of surveillance imagery in real time and secure communications.

The only methods available now for transmitting such wide band information are lasers and millimeter wave links. Both are being evaluated but laser techniques are the most advanced at this time.

Chairman McClellan. Proceed.

INTELLIGENCE

General

Maintaining a current and detailed understanding of Soviet Union and Peoples Republic of China military-related technology advances, weapons systems capabilities and operational deployment (order-of-battle) is a continuing and basic imperative. This intelligence is fundamental to U.S. weapons design, the choice of weapons to be acquired to maintain the balance of forces which we hope will deter large wars, the capability to employ our weapons with the greatest impact and verification of nuclear and strategic arms treaties.

Obtaining this intelligence from closed societies like the Soviet Union and the Peoples Republic of China is difficult and requires major technical investments to improve our intelligence collection systems to keep pace with the increasing technological sophistication of weaponry, the increased number of weapons being developed and the geographically remote and dispersed areas in which developmental activities occur.

For example, last year we informed you of our concern that the Soviets would develop MIRV capabilities. We now know that the Soviets are testing four new ICBM systems, three of which have demonstrated MIRVs. Simultaneously and on different test ranges, the Soviets are testing new and improved SLBM systems, new anti-ship missile systems, both fighter and aircraft systems and SAM systems.

New Soviet ICBM and SLBM Programs

Chairman McClellan. Describe for us the 4 new Soviet ICBM systems and SLBM programs.

Dr. Currie. The SS–X–16 is a solid propulsion missile which is believed to be a follow-on to the SS–13. It has a guidance computer [deleted]. It appears to have all the characteristics of a mobile ICBM. The SS–X–17 and the SS–X–19 are liquid propulsion missiles which appear to be competing follow-ons for the SS–11. They have guidance computers and are MIRVed [deleted]. The SS–X–18 is a large liquid propulsion missile which we believe to be a follow-on to the SS–9. It has improved guidance using a guidance computer and is MIRVed. The SSN–8 is a new SLBM with a range in excess of 4000 nautical miles. We have not observed any MIRV tests of this missile.

Chairman McClellan. Proceed.

Objectives

Dr. Currie. As our collection targets become more complex, we must improve our data processing and analysis systems to handle more technically sophisticated data.

Concurrently, we find that the technological lead time that we have enjoyed in the past, relative to the Soviets, is reducing; due both to the acceleration that all technology is now experiencing and the additional press for improvement by the Soviets in this effort to surpass the United States. The danger of technological surprise is therefore increasing and, consequently, increasing ones need for more timely and complete technical intelligence.

We are improving our methods for discerning indication of hostile preparations and intent. These capabilities are basic to both strategic warning of attack upon the U.S. and preserving the greatest number of options for the National Command Authority. Improvements will include analytic tools, methodology, data processing, communications and display systems.

The DoD intelligence structure has undergone major manpower reductions in an attempt to hold down the cost of intelligence, despite the increasing dollar cost of manpower caused by inflation and the volunteer service. Unfortunately, intelligence is dependent on the reasoning and judgment of people in all phases of the process. To minimize the impact of the manpower reductions, we are developing and encouraging initiatives to modernize and automate the routine and repetitive tasks inherent in the processing of large quantities of data. We believe these modernization programs will facilitate the increased focus of human resource on the analysis of the processed data to produce finished intelligence. I believe that advances in this area will improve the intelligence product, decrease our dependency upon manpower and increase the motivation of the personnel involved in analysis.

RDT&E funds are requested for intelligence and intelligence-related activities. These funds approved by the Congress for projects designed to enhance our intelligence posture are then distributed through the Military Departments, the National Security Agency and Defense Intelligence operations. I feel it inappropriate to provide specific details at this time. Dr. Albert C. Hall, the Assistant Secretary of Defense (Intelligence) will appear before you to provide additional testimony at a level of detail you mutually deem appropriate.

THE TECHNOLOGY BASE

Introduction

From the technology base arise the ideas and capacity for innovation as well as the means to achieve current military capabilities at lower cost or with lesser demands on limited military manpower. Also from the technology base flows our ability to interpret technical intelligence data and to assess our technological stance vis-a-vis that of our potential adversaries. In view of its fundamental and pervasive importance and its historical records of high return on investment, the spending on the technology base has been relatively modest. This year, through increased focus on projects directed specifically towards identified future system needs, we have been able to maintain our request

for 6.1 and 6.2 funds at essentially the same dollar level as that which the Congress approved for FY 1974. This situation, however, will probably not be repeated in FY 1976, because essential new projects will demand additional funding in order to be productive.

The technology base supports—but is not part of—systems development aimed at a specific operational need. It includes research, exploratory development and some advanced development. A major change in the makeup of the technology base is the inclusion of certain projects in advanced development that are not directed at specific formally identified operational requirements. Rather, they are stimulated by new technological developments that appear to offer better approaches to operational needs. These programs are intended to culminate in brassboard demonstrations, not operational systems. To distinguish this kind of 6.3 program from those directed at specific, identified system needs and intended to go on to 6.4 and beyond, I will refer to them as Advanced Technology Development (ATD) projects.

This change is taking place, in part, because the increased emphasis on design-to-cost of systems undergoing full scale development will reduce, deliberately, technological innovation during 6.4 and beyond work. Consequently, it will be necessary to increase the amount of effort that we put into 6.3 projects directed toward brassboard demonstration of new capabilities.

For example, there is a well-recognized military need for low light level sensing devices. This need has been and continues to be met by the use of a well-develop image intensifier technology. However, one of the most promising developments in recent years is that of charge coupled devices (CCD). These may offer a much simpler and less costly means of low light level imaging. There are many fabrication problems still to be solved and incorporation into actual systems for the first time will undoubtedly involve a substantial technical risk as problems in an operational environment are surfaced. It would be unreasonable to expect a contractor to assume this risk in a design-to-cost competition for a new low light level system. There are many instances of this sort. In fact, they are typical. Consequently, we must modify the structure of the technology base to include high-risk, high-payoff ATD projects with testing under realistic operational conditions of their products.

ATD projects are generally large in comparison to other technology base efforts, quite well-defined in their objectives and time scale and usually identifiable with a general operational need but not necessarily a specific one.

This new category adds still further to the diversity which characterizes the technology base. This diversity is an inevitable consequence of the fact that the DoD technology base, concert with those of other government agencies, industry and other countries, must form the foundation for all types of systems developments. This diversity of needs, coupled with the dynamics of worldwide technological change, makes it necessary for the technology base to be managed and not just monitored.

The technology base management problems are challenging and demanding. They include: (1) stimulating new activities in response to emerging needs for technical developments; (2) reducing needless duplication; and (3) insuring the transfer of technology-based-derived information to systems use at the appropriate time. Over the past several years, we have evolved techniques which handle these problems reasonably well, and we hope to demonstrate that fact to the Congress by examples to be presented in this statement. We have also worked to reduce the technology base management overhead in the Services to an absolute minimum consistent with doing the job well.

We cannot assert too strongly the importance of the technology base to the long-term health of our defense program. It is clear that our survival as a great nation is dependent in no small way on our innovative success in military technology. The remainder of this chapter will elaborate on the specifics of what we have accomplished, on what we are doing, and where we intend to place our focus during fiscal year 1975.

Budget Percentage Devoted to Basic Technology

Chairman McClellan. What percentage of an R&D budget should be devoted to basic technology?

Dr. Currie. The FY–1975 RDT&E budget contains $1,439.3 million for research and exploratory development. This is approximately 15.5% of the total Department of Defense RDT&E budget. I consider this amount to be the minimum

amount required to maintain an effective technology base. These two categories will probably require additional funding in FY 1976 because essential new work will be required to develop a sufficient number of technical options for future systems and equipments.

Chairman McCLELLAN. Proceed.

SPONSORING ORGANIZATIONS OF TECHNOLOGY PROGRAMS

Dr. CURRIE. Five components of the Department of Defense execute the technology base programs: the Departments of the Army, Navy and Air Force, the Defense Nuclear Agency (DNA), and the Defense Advanced Research Projects Agency (DARPA).

The Military Departments' technology base programs are directed toward technological needs and opportunities in areas determined by the mission responsibilities of each Service and are closely integrated into the total RDT&E planning and management organization. This arrangement is essential for the coupling and transfer of the technological effort to subsequent development uses.

The two Defense Agencies' programs are inherently dissimilar to each other and to those of the Services. However, since the end product of the Defense Agencies' efforts must meet projected needs of all or several of the Services, a high level of Service participation is maintained within these efforts.

The DNA technology budget is directed exclusively toward the technologies associated with nuclear weapons testing and the effects of nuclear detonations. Because of the intimate relationship of the DNA technology effort to our strategic systems research and development, discussion of that program is in Chapter 2 of this report which describes strategic systems.

Essentially all of the DARPA programs are part of the technology base, since this agency was created to stimulate and conduct high-risk technology programs over a wide variety of fields related to defense problems. Generally, the DARPA program is directed at exploring the technical feasibility and the potential military utility of new scientific discoveries and emerging technology. When DARPA-sponsored research has demonstrated the viability of a concept, the technical and fiscal responsibility for whatever further specialized developmental work may be required is transferred to a military service or other operational agency. Generally, this occurs after a period of from three to six years, so that there is a continual turnover of projects within the Agency. I depend on DARPA to provide the mechanism to explore and evaluate those advanced areas of technology where the risk may be too high to justify early inclusion in a Service Budget or in which a study of applications is necessary to determine the eventual Service roles.

Because of the special interest of the DARPA programs, I have devoted a separate section of this report to them.

MANAGEMENT OF TECHNOLOGY PROGRAM

The objective of the technology base is clear cut: to provide the supporting research, exploratory development and advanced development necessary to enable us (1) to develop new systems for the military with a minimum of technological risk and the maximum of confidence that the development will be achieved within time and money constraints, and (2) to assess the technological progress of our adversaries. Research and development for its own sake is not an acceptable DoD pursuit. Neither is non-essential duplication of technical effort—no matter how interesting the field. Our need and our intent are to make every dollar spent on exploratory and advanced development a productive dollar, prospectively applicable to present and future military requirements. To this end, DDR&E recognizes that the technology base is a common asset of all three Services and consequently should be managed on a tri-Service basis. This places a heavy but necessary obligation on ODDR&E, since its vantage point provides a unique perspective over all the Services. Furthermore, we also incur the responsibility to coordinate DoD efforts with the technology base efforts of other government departments and with the efforts of our allies through our cooperative programs.

While our objectives and goals are clearly to concentrate our efforts in those areas of technology that are both directly applicable to military systems and not unknowingly duplicative of other work, it must be recognized that our crystal ball is imperfect. We cannot at the outset always predict the end utility of the multitude of technology base endeavors. The most stringent test we can

apply to work in the research and exploratory development phase is often that of asking the question, "*If* it is successful, will it make a positive contribution to military needs?" In addition, there is always the difficult decision of when competitive undertakings are likely to be sufficiently productive to justify their cost. These are basically judgmental issues which, while taken seriously by DDR&E, must be recognized to have an associated error rate. The ultimate measure of our success can and should be a satisfactory rate of stimulation of new devices and methods of operation that result in more efficient and less costly military forces.

Management Accomplishments

The following summarize some of the specific management innovations that were either introduced this year or have reached significant new levels of performance.

Technology Coordinating Paper (TCP)

Last year, Dr. Foster presented in some detail a relatively new technique, the Technology Coordinating Paper (TCP), which promised some real help in managing and coordinating our applied research and advanced technology programs. We are happy to report that the TCPs are proving productive.

All of the eleven TCPs originally planned have been written. Six have been published, and the remainder are in various stages of coordination with Service management. As expected, the preparation of the TCPs has had a dramatic impact on technology base program planning in every area affected (more than 80 percent of our total technology base program is directly involved). The TCP planning process has sharpened the appreciation by the Service laboratories and the staff management of our real needs and their priorities.

It has, in several instances, induced major changes in program emphasis and goals. Significantly, I think, the TCP concept—originally resisted strongly by many Service managers who at first feared that it might be only more "paperwork"—is now enthusiastically supported by virtually all of the advanced technology managers who have experienced it. We are in the process of making much of the TCP guidance available to industry through briefings and seminars to aid the industrial R&D management in their IR&D planning. These efforts to date have been received enthusiastically.

Single Program Element Funding (SPEF)

In the past we have found in some instances that an excessive degree of the "fine structure" management direction of Exploratory Development work in the Service laboratories was being applied by headquarters middle management. The ideal management of technology are those closest to both technology and to the operational needs—in our opinion, the Laboratory Directors. Under the SPEF policy, a laboratory is given a single Program Element to support its Exploratory Development work; and the laboratory management is given a broad option, within its total SPEF budget, to adjust its support for the various approved Exploratory Development tasks underway or to be undertaken—whether in-house or on contract—and to be quickly responsive to new information and needs as they arise. While broad guidance about Service needs and priorities is given to the laboratory management, fine structure, detailed direction is not. Careful evaluation is made of laboratory accomplishments, through program and topical reviews. The findings of these reviews strongly influence the Single Program Element Funding approved for the next year. They also have a strong impact on laboratory management assignments.

This kind of laboratory management practice has proved most effective in industry. It clearly fixes responsibility, makes rewards commensurate with accomplishments and eliminates unneeded bureaucracy. We believe it will have the same effects in the Defense Department. The Army has now completed a two-year test at the Missile Command Laboratories in Huntsville, Alabama, of Single Program Element Funding (SPEF) which showed the concept to work as we had hoped. This year the Army is extending the concept to several other laboratories. The Air Force has utilized a similar management practice for many years.

Detailed Reviews

Program and topical reviews, conducted in great depth by specialists on my staff, on-site at the DoD laboratories and at the plants of our contractors, bring together the technical experts in a particular field from all three Services and

the Defense Agencies and provide a comprehensive picture of the work actually being conducted. These specialists review their work and work plans before their counterparts—the most critical audience it is possible to find. Reviews of this kind immediately expose weaknesses and duplications of effort. Equally important, they illuminate the most promising technical paths toward meeting our objectives. We have also instituted technology assessment meetings involving experts from DoD laboratories, universities and industry to review the potential impact of new technological missions.

In the Electronics area, for example, reviews have thus far been held on such technologies as improved detectors, charge-coupled devices, large scale integrated circuits, and new types of computer memories. The impact of these reviews on the complex, very fast-moving electronics area has been enormous. In some instances as much as 25 percent of the work underway has been given new emphasis, discontinued or reoriented. Reviews have also been held in the areas of aircraft engine technology, missiles and space vehicles propulsion, and some aspects of explosives and gun technology. Tri-Service reviews will be conducted during this coming year in several more areas.

Relationships With Non-DoD Technology Sources

The Research and Advanced Technology (R&AT) organization has long maintained close relationships with non-DoD government departments through membership in the Federal Council on Science and Technology (FCST), the Aeronautics and Astronautics Coordinating Board, the Interdepartmental Committee on Atmospheric Sciences (ICAS), the Joint Army, Navy, NASA, Air Force (JANNAF) propulsion coordinating group and others. We maintain contact with the R&D efforts of our allies through The Technical Cooperation Program (TTCP) and the NATO Defense Research Group (DRG). This participation pervades the entire R&AT organization, with participation at all levels. These relationships have been strengthened further and made more specific as to their objectives.

Assessment of Soviet R&D

An intensive relationship between the Research and Advanced Technology staff and the DIA has helped greatly in producing a more complete and understandable evaluation of the U.S. technology base, vis-a-vis the capabilities of Warsaw Pact and Western European nations.

Organizational Changes

With the end of U.S. combat activities in Southeast Asia, a reexamination of the role of the Army Land Warfare Laboratory (LWL) was made which resulted in a decision to disestablish LWL. Its functions which remain essential will be distributed as appropriate among other Army laboratories.

Budgetary Control

Budgetary control is, of course, the ultimate tool for management direction of any kind of work. We exercise it as necessary. The presently available DoD mechanisms for budgetary control, however, do not work well (except in a very broad sense) as tools for the management of research and advanced technology work. This is because typical work units involve small funding levels compared to typical Program Element levels. We have, therefore, instituted a reporting system whereby the Services will advise us quarterly on the exact distribution of technology base program funds. Through this mechanism, we hope to improve our real-time visibility of the technology base program's implementation. During this coming year we will evaluate other improvements in our budgetary management practices.

Management Plans

During FY 1975 we plan to continue our efforts in the technology base toward the cardinal goal of focussing the work on meeting the real military needs projected for the future. In doing so, we will be continuing the work towards this end begun by Dr. Foster and Dr. Dorough. We intend to further couple our technology base work and knowledge to our systems planning and development activities—both to assure that desirable new technology is in fact utilized and to assure that unready technology is not adopted with its concomitant risks of schedule and cost overruns. We are laying great stress on close management coopera-

tion between the DDR&E and the Assistant Secretaries (Research and Development) of the Services. We will insist upon equally close cooperation between the key members of the ODDR&E technical staff and their Service counterparts.

In addition to the realization of these general management principles, we plan intensive activity on several more specific technology base matters discussed in later sections of this report.

Selected Military Department Programs

The FY 1975 funding which is proposed for the technology base is presented in Table 7.1, which covers Research (6.1) and Exploratory Development (6.2). Table 7.2 covers the technology base portion of our Advanced Development program (6.3). The funding proposed for the 6.1/6.2 categories is substantially the same as that in the FY 1974 budget. This does not mean that the same work is being done or that the individual work tasks within these budget categories are "level funded." They are not. But we are satisfied that for this coming year an *overall* level of effort in these research and exploratory development categories similar to that now in progress will be acceptable. The technology base portion of the Advanced Development (6.3) budget category, on the other hand, has been increased relative to the FY 1974 level. We have already indicated our reason for considering these Advanced Technology Development (ATD) projects important, productive, and ultimately, cost-saving.

In the following paragraphs we will give you a representative, though small, sample of the projects which comprise the technology base activities within the Military Departments. This year, we have divided these examples into two categories: Accomplishments and Plans. Many of the examples are extracted from multiyear projects, and the decision to stress an "accomplishment" rather than a "plan" for any specific example was an arbitrary one. We did want to highlight the projects separately, however, as we believe that, treated in this manner, they will provide a better understanding of what we do and how we do it.

It should be noted that the very nature of the technology base makes it difficult to incontrovertibly assign significant accomplishments to a particular year. It is often difficult even in retrospect to fix a precise date on the birth of a new technology since it is usually the aggregation of several lesser accomplishments that leads over a period of many years to a substantive advance in a particular area.

For example, over a period of many years, stimulated by both military needs and potential commercial applications, the electronics industry has developed the so-called complementary metal-oxide semiconductor (CMOS) technology. The very low power consumption of CMOS, compared to other types of integrated circuits, has made this technology particularly attractive for spaceborne applications and for applications where the power must be obtained through the use of batteries, such as in field communication equipment. Perhaps the most familiar example of the revolutionary impact of this technology is seen daily in the electronic watch. Less evident are the applications to spaceborne, airborne and even landbased military electronics. Having helped nurture this technology from its infancy, work in the DoD technology base is now focused principally on attempting to make these devices radiation-hard to permit their use, for example, in survivable satellites.

There are examples of the past year's specific activities to which we can point with pride and some of them are outlined in the following section. We have tried, where possible, to give examples of the efforts yielding the high ratio of potential payoff to investment that characterizes the successful endeavors of the technology base and which, we feel, more than offset the recognized fact that a substantial number of technology base undertakings inevitably will lead to dead ends.

Current Accomplishments

Weapons

A major portion of our technology base funds ($275 million in FY 1975) is directed toward improving the capabilities and effectiveness of our future weapons. Examples of acomplishments are:

FAST Seeker Program

This project is to develop a low-cost, all-weather radar seeker for direct application to short-range air-to-air missiles. This missile would be complementary to PHOENIX, dealing with short-range targets at much lower cost. To achieve

the low-cost goal, the seeker uses an all-solid-state transmitter, plastic gimbals, a stripline antenna and a doppler processor without crystal filters.

Breadboard development was successfully completed by NAVAIR during FY 1972–1973 and an Air Force funded flight test of the breadboard successfully completed during FY 1974. A joint Navy/Air Force program was initiated to develop a form-fit brassboard seeker; flight test of this brassboard is scheduled for late FY 1975.

This technical area (funded at $294 million in FY 1975) continues to be the fastest growing. It is comprised of six subareas: Electron Devices; Communications, Command and Control; Countermeasures; Search; Target Exploitation; and Information Processing and Display. Large contributions to the civilian sector invariably come from many of the technology departments in this area.

Examples of recent accomplishments are:

Forward Looking Infrared (FLIR)

A tri-Service Committee was formed during FY 1974 to stop the proliferation of different forward looking infrared (FLIR) equipment by reviewing all new FLIR procurement and research and development. The joint strategy stresses equipment commonality, modularity, and interdependency and already has resulted in the savings of several million of R&D dollars. The Army calculates that this strategy is likely to result in life-cycle cost savings of approximately $100 million, just for Army equipment. A goal for FY 1975 is commonality among all Service FLIR developments and procurements.

Infrared Imaging Sensors

Chairman McClellan. What steps have you taken to correct what appears to be a duplication of effort in the development of infrared imaging sensors?

Dr. Currie. We have established a Joint Technical Coordinating Committee for Infrared imaging devices. They function with the Services and also report to OSD. Their work has been instrumental in helping us understand what programs can be combined. We are gaining tighter control of the development process to eliminate duplication and you may expect to see our programs in the future to display more commonality. Specifically, we are interested in applying a modular concept to the FLIR systems whereby standard sets of components can be assembled to meet a variety of requirements.

Chairman McClellan. Proceed.

Integrated Circuits

Dr. Currie. A program was initiated in FY 1974 to lower the cost of the high reliability, integrated circuits (ICs) required for military systems. Currently, high reliability ICs are costly because reliability is "tested in" rather than "designed in."

DARPA has undertaken a project with the DoD laboratories, industry and the National Bureau of Standards which will define the process control measures needed to assure military levels of IC reliability. A second study, requested by the Joint Logistics Commanders, addresses the problem of DoD procurement policies for these items. This study was completed in December 1973 by a DoD committee. A series of recommended actions ranging from new R&D projects to revisions in current procurement rules are being implemented.

Charge Coupled Devices (CCDs)

Last year a program to exploit the imagery applications of CCDs was announced by the Navy with Army and Air Force technical participation. The expected impact is a marked reduction in cost and complexity of low light level imagers. This program has produced a 10,000-element CCD camera the size of a large cigarette pack. The current program goal includes a 250,000-element camera (equivalent to home TV image quality) which will operate at low light level.

CCDs also have potentially important applications to computer memories and signal processing. The use of CCDs for these functions results in extensive circuit simplifications with commensurate savings in cost and weight. For example, a conventional convolution filter for a radar or sonar system costs about $4,000 and

dissipates 45 watts of power. The CCD approach would cost an estimated $56 and dissipate only .6 watts.

Mobility

Mobility—land, sea and air—at high speed, over rugged terrain, on the open seas and under adverse weather conditions is a continuing problem of any modern military establishment. Its value was demonstrated during the recent Middle East conflict. We plan to expend $274 million on mobility technology in FY 1975.

Examples of significant recent accomplishments in this relatively mature technology area are:

Helicopter Sling-Load Stabilization

Approximately 75 percent of helicopter cargo loads are carried externally on slings beneath the aircraft. Due to the wide variety of payload shapes, atmospheric gusts, and aircraft motion inputs, load stabilization has been a serious problem. Aircraft speeds have been restricted, increasing combat vulnerability; in many instances payloads have had to be jettisoned as a result of instabilities. The Army developed a system which senses sling-load movements and provides compensation so that we expect that aircraft speeds with sling-loads can be increased some 30 to 50 percent with the system. A full-scale system is being designed and fabricated. Subsequently, it will be installed in a CH–54 for flight test.

Integrated Propulsion Control System

As the speed and maneuverability of aircraft has been increased, the need for better propulsion control techniques has become apparent. They are essential to maintain engine performance and efficiency over rapidly changing speeds and altitudes and to minimize hazards of engine stalls. To accommodate these control techniques, the propulsion hardware must incorporate the ability to vary the geometry of the engine inlet and the compressor guidevanes.

The design, development and flight evaluation of an Integrated Propulsion Control System (IPCS) was initiated in FY 1974 as a joint AF/NASA project. The system will automatically regulate all the functions of an inlet-engine-exhaust nozzle system. An F–111E will be used for the flight demonstration. The all-digital control is being installed and will be calibrated at sea level and at (simulated) altitude during FY 1974. Actual flight test is planned for FY 1975.

Military Personnel

Our technology efforts in the area of military personnel are devoted to improving the well-being, the effectiveness and the retention of our fighting men. Of our proposed FY 1975 budget, $186.0 million is applied toward these ends.

It is gratifying to discuss accomplishments in the field of medicine. For example:

Shock Prevention

Treating or preventing shock in seriously injured people before arrival at field hospitals is difficult but can save many lives. The Army Aeromedical Research Laboratory has developed an anti-shock trouser which airmen or ambulance attendants can easily put on the legs of seriously wounded people. The trouser applies pressure in a way which improves blood pressure and circulation. Cooperative evaluation with the University of Miami and the City of Miami rescue service showed the system to be extremely useful in the early care of accident victims, some of whom had gunshot wounds—saving 12 of 14 critically injured persons.

Supporting Science and Technology

Some technological areas are so broad in their applications that they are not easily placed in one of the four technical categories previously discussed. Our technology base activities in materials and structures, environmental sciences, physical sciences research and numerous smaller programs are of this type and are termed "supporting science and technology."

The Materials and Structures Technology Base program includes work by all Military Departments, DARPA, and DNA. The total funding requested for the Military Departments' portion of the Technology Base in FY 1975 is $86.0 million. The activities in these areas are well coordinated and integrated as a

result of guidance provided during the last two and one-half years by two relevant TCPs.

Viewed as a total program, almost 40 percent of the funding is dedicated to aircraft applications. The second largest portion of the materials and structures budget, is expanded in the strategic missile area and concerns needs related to both ABM (Army) and offensive weapons (Navy and AF). These strategic missile projects receive the top priority within this technology area. The remaining funds are balanced between applications for ships and submarine (Navy); ordnance, combat vehicles, and armor (Army); and a multitude of other areas. The key problem in the strategic missile area is the development of erosion-resistant nose tip materials to insure that our future strategic missile systems have an all-weather capability. In FY 1974 we are embarked upon the development of new materials potentially able to withstand extremely hostile environments.

Defense-related basic and applied research is performed in a wide diversity of generic fields, e.g., mathematics, physics, and chemistry. Typical examples include:

Control Theory

Rapid aircraft engine thrust response is required in a number of air situations including the use of V/STOL aircraft and carrier waveoffs. A synthesis procedure for the control of nonlinear multi-variant dynamics systems was developed and applied to a model of the F–401 advanced technology turbofan engine. A computer simulation of the optimal controller demonstrated its ability to increase thrust from 80 percent to 100 percent, twice as fast as the conventional controller and without exceeding engine stability, temperature, or control constraints.

Lithium Cell

Lightweight, high power, electro-chemical cells have been developed as a direct outgrowth of research studies of the electrolytic properties of inorganic liquids. These new batteries have many desirable features: five times the energy density of zinc-air batteries, long shelf life, operation over a wide temperature range and a high constant voltage per cell. The new cells will find military application in undersea mines, communications, submarines and missiles.

Tuneable IR Laser

A tuneable infrared laser source has been devised. It continuously covers a very wide radiation region (2 to 24 microns). This is done by mixing two dye-laser beams in a cell containing alkali metal vapor. Since the nonlinear element is a gas, it may be operated at high power and high temperature. Fabrication will also be inexpensive. Tuneable lasers are applicable to illuminators and communications systems and to countermeasure resistant laser designators and rangefinders.

Programs Planned

The following highlighted areas combine recognized needs and new opportunities as a result of recent technology developments.

Weapons

Advanced Low Volume Ramjet (ALVRJ)—The intrinsic performance capabilities provided by this advanced ramjet engine design are necessary for the future development of advanced, supersonic cruise missiles. No other means of propulsion offer the potential benefits of range, speed and low cost inherent to the ALVRJ class.

During this fiscal year, "connected pipe" and wind-tunnel testing of the ALVRJ design concept engine were completed. The results were highly satisfactory. Consequently, during FY 1975 the Navy will test the ALVRJ engine in a free-flight vehicle. These free-flight tests will demonstrate the concept and the ALVRJ design will be fully proven.

Anti-Armor Gun

Anti-armor weapons are always in the minds of our military planners because of European scenarios and Mid-East experience. In recent times major reliance has been placed on guided missile systems; however, the production unit cost of the expendable components of these missile systems is high, and many of their

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essential capabilities can be derived from less expensive artillery projectiles incorporating advanced technological capabilities. In FY 1975, we plan to complete the design and breadboard fabrication of an exceedingly high performance, smoothbore gun. This automatic gun system will have the capability of firing a high effectiveness penetrator. If its performance parameters can be successfully and practically achieved, this gun concept will have important anti-tank applications. This is an example of an advanced development program aimed at demonstrating the applicability of new technology to a long-recognized operational requirement.

Mobile Submarine Simulator (MOSS)

In FY 1975, in-water demonstrations of a Mobile Submarine Simulator will be performed to validate the usefulness and practicability of the external mounting concept.

Electronics

Software Technology—A major revolution has taken place in the defense establishment, and, in fact, in the entire nation. Computers, information handling, signal processing, data automation, etc., have come of age. Our present military establishment is deeply dependent on computers and is rapidly increasing its dependence as is the entire nation. This is a well recognized phenomenon. Less well recognized is the growing impact of software as opposed to hardware. As little as ten years ago, the major cost in any computer system was the hardware itself, and the software, the programs that tell the computer what to do, was something of an add-on. This picture has reversed entirely. The cost of computer hardware has gone down dramatically. Large-scale integration allows us to produce economically items which ten years ago could only be called science fiction. The hand-held electronic calculator is a prime example of this technology. Speed of computers has increased enormously. What we did not anticipate was that the software cost, the cost of instructing such computers, would come to completely dominate the systems' cost.

At the present time, software costs are approximately three times that of the hardware. The Department of Defense is certainly no worse off in this area than is the commercial world; in fact, we are better off with greater experience in many areas. Nevertheless, the cost of software is high, running to several billion dollars a year, just for the Department of Defense. We are now planning programs in an attempt to reverse this trend and reduce the high cost of software. It will be a long and difficult task since we must first convert what is now essentially a handcraft or art into a production line technology.

Microwave Tubes

The U.S. technology base in microwave tubes eroded in recent years as a result of the anticipation that solid-state devices would eventually replace them. This anticipation has gone unfulfilled. As a result, there are serious problems in some very critical applications. Hence, steps were taken to increase microwave tube development efforts in all three Services during FY 1974; this will continue in FY 1975. Much of this support is to revitalize industry design teams while, at the same time, provide badly needed tubes.

A tangible, early result is a Navy program for development of an octave bandwidth traveling wave tube (TWT).

Mobility

Advanced Fighter Technology Integration (AFTI)—The integration of advanced technology into new fighter aircraft systems has been slow in the past. A major contributor to this problem has been the low confidence level in data derived from wind tunnel and model research related to critical design decisions.

To establish a reliable data base for such decisions, the Air Force initiated a program to integrate a number of the more promising technological advances into a flying prototype, i.e., the Advanced Fighter Technology Integration (AFTI) program. The first milestone is the completion of contractor studies regarding the technologies to be incorporated in the flight vehicle. Proposed vehicle designs will be submitted in late FY 1975 with the selection of the winning design scheduled for the end of that fiscal year.

High Mobility Tactical Vehicles

This project initiates the development of a totally integrated, high mobility, tactical truck family ranging from ½ to five tons. These efforts are aimed at introducing new high mobility vehicles to reduce the soldier's logistic burden which has resulted from increased sophistication and firepower. The Army Wheels Study produced sweeping recommendations, now being implemented, for the exploitation of commercial technology such as frame articulation, independent wheel suspension, low pressure tires, high power/weight ratio and automatic transmissions.

The planned efforts during FY 1975 include total fleet concept definition and planning, cost effectiveness trade-off studies, and experimental mobility assessments.

Flight Simulators

There is a major thrust to develop, test and evaluate simulators in order to improve training while reducing aircraft procurement, flying time and fuel costs. The Air Force is developing an Advanced Simulator for Undergraduate Pilot Training (ASUPT) scheduled for acceptance during FY 1975. This device, a full mission simulator for taxi, take-off, approach, landing, formation flying and acrobatic operations will be located at an Air Force pilot training wing and used as both a mission trainer and an R&D tool. The ASUPT will be used to determine the level of simulation fidelity required for optimum transfer of training, to determine criteria for trade-off studies between simulator time and flight time and to determine the design of future simulators.

Supporting Research and Technology

Laser Protection—Certain items of military equipment and personnel protective equipment could be vulnerable to laser radiation. Due to the long-lead time for materials development, a program is being initiated in FY 1975 to evolve materials hardening techniques. This tri-Service program was planned during FY 1974 under ODDR&E direction.

New Semiconductor Materials Technology

Silicon is the material which currently dominates the semiconductor industry. Silicon, however, has limitations in performance which limits its usefulness in critical areas such as ultra-high speed computations, signal processing and electro-optical devices. A tri-Service and DARPA program on gallium arsenide, a promising semiconductor material for countering the above-mentioned limitations, has been initiated. This program will characterize the properties and develop the data base for gallium arsenide. These data are needed to support a major electron device program for applications of this material.

Performers of Defense Technology Base Efforts

The breadth and diversity of the Technology Base effort is reflected in the diversity of organizational structures involved in its execution. Among the ingredients vital to a strong Technology Base program are:

Highly trained, innovative and productive personnel.

Organizational flexibility to facilitate undertaking new technical opportunities and curtailing those whose time is past.

Thorough knowledge of military problems and needs and good coupling to and from the operational elements of the Services.

A broad contemporary overview of entire fields of technology on a world-wide basis to preclude undesirable duplication with current efforts.

An historical overview of entire fields of technology to preclude "reinventing the wheel."

Selective use of deliberate competition when the end benefits justify the duplication.

No single type of organization has yet been found that can provide all these ingredients on a scale required by the DoD, so the Technology Base is presently executed by a mix of industrial labs, government labs, universities and Federal Contract Research Centers (FCRC's), each of which received in fiscal year 1974

the portion of the RDT&E and the Technology Base funding shown in Table 7.3. Each of these types of organizations has its strengths and weaknesses, and the historic reasons for this mix appear sound. However, the dynamic nature of the Technology Base, coupled with the fact that the organizations themselves gradually change and evolve, makes it necessary to subject this mix to continual scrutiny.

Recognizing the inherent risks in generalization, we believe that the salient strengths and weaknesses of the major performers of the Technology Base effort can be summarized in the sections which follow.

Industrial Laboratories—The strength of the industrial laboratories in the R&D process is due in the main to the technical competence and flexibility they offer. They represent a large pool of highly competent talent in most (but not all) areas of military interest that is accessible by contract. Our dealings with industry can be quite flexibile, since the government has no obligation to maintain any particular level of work at any industrial laboratory. While the contractual process with industry is more involved than with other performers, on balance the industrial laboratories represent our best agents for a dynamic program with a substantial turnover from year to year in R&D areas of high interest.

An extreme position on Technology Base structure would be that all work should be performed by private industry, with only the program structuring, supervision and evaluation done by other than industrial employees. This concept flounders on a basic fact: One cannot effectively supervise technical work without having, either within his own head or those of well-calibrated and trusted subordinates, a reasonably current knowledge of technology. Consequently, a means must be found of keeping the non-industrial supervisors of industry technically current. Furthermore, there is a real and legitimate need for a pool of technically current, bright people without substantial vested interest, to advise the Services and occasionally to provide quick reaction capability when problems suddenly arise. These people must obviously have continual access to what is generally regarded as privileged information.

At a more mundane, but equally important level with respect to the Technology Base, the competition among industrial firms often is a substantial impediment to information flow and to continuity of effort, due to reluctance of industries losing contracts to fully inform the winners of their past problems and solutions. Thus, there must be a technically competent group with a degree of information access which is inconsistent with the competitive nature of private industry.

In-House Laboratories—The government laboratories are certainly the most closely coupled of all the Technology Base components and to the ultimate Technology Base users. They perform a variety of functions in monitoring and supervising the Technology Base; they help the Services plan, contract and monitor industrial work, provide technical advice for policy decisions, respond to quick-reaction requests and provide a continuity and historical memory function that is vital. To maintain their technical competence, we believe that it is vital that they do "in-house" R&D. If their sole functions were those cited above, only a relatively small in-house program would be required, focused on *keeping up* with technology. The overall size of the DoD laboratory staffs could be somewhat smaller than it is. In fact, however, the laboratories are major participants in the detailed work of the Technology Base and are staffed and funded on the basis of being *leaders* in critical technology areas.

To be a true technology leader requires that any organization be able to attract and hold a cadre of bright, innovative and productive people that are, at least in the aggregate, well grounded in both technology and military problems. Although there are individuals and groups in some of our laboratories who are clearly technology leaders, we do not believe that their technical competence, on the average, exceeds that of other organizations. The government laboratories have made a major effort to upgrade their professional personnel, but their success waxes and wanes with the vagaries of government policies that affect Civil Service, and the results have not been as successful in recent years as hoped.

One of the current criticisms of the DoD laboratories is the contention that they have maintained an essentially constant level of effort in the face of declining Technology Base level of effort. The data of Table 7.4 support this contention for the years since fiscal year 1971. This trend is motivated in part by the recognition that reducing the level of effort in the laboratories translates directly and immediately into reductions in force (RIF). The RIF procedures of Civil Service are such that those who are lost are usually the younger people upon whom the system depends for its infusion of new trends in technology and much of its vigor.

DoD In-house and Contract Research

Chairman McClellan. What is the present ratio between in-house and contract research performed by DoD?

Dr. Currie. Based on the requested fiscal year 1975 RDT&E budget of $9,322.5 million, it is estimated that approximately $2,391.4 million (25.7%) will be performed in-house. The remainder will be performed by industrial, non-profit organizations and universities.

Chairman McClellan. Proceed.

Dr. Currie. Meanwhile, other forces are at work to add to the laboratories' problems. At the time of the most recent intensive studies * of the laboratories, there was cause for optimism. Civil Service salaries were then comparable with those of industry in a declining industrial job market. There were signs of a recognition of the over-regulation of the laboratories. Thus, while giving consideration to changes in laboratory operation, including a drastic change to the government-owned, contractor-operated (GOCO) form of operation (typified by the AEC laboratories and in essence, by some of our own FCRCs), the studies concluded that the trend was positive and recommended a "wait and see" approach.

Three years later the positive trends are largely reversed. Most of the laboratories continue to operate under excessive controls which, coupled with the current salary ceiling, make it difficult to attract outstanding senior managers. At the other end of the spectrum, our entry salaries are now behind those of industry (by about $1,500 per year for a new B.S. in Engineering in Spring of 1973) due to an upswing in demand for engineers and physical scientists in industry. Many of the bright young people we were able to attract two or three years ago are leaving due to this upsurge in the job market plus the slowing of promotions in Civil Service due to recently instituted average grade controls.

In summary, we find the portion of the Technology Base going into the in-house laboratories to be increasing somewhat at a time when forces are at work that may diminish their capabilities. It seems clear, then, that we should take effective steps to restore the upward trend in laboratory staff quality or accept a more limited role for the government labs and staff and fund them accordingly.

Universities

Most DoD-sponsored university research is funded by the Defense Research Sciences budget elements of the 6.1 budget category. The funding level proposed for work at universities remains essentially constant at about $200 million. This level now accounts for only an estimated 10 percent of the total Federal support for university research, down from almost 75 percent twenty years ago. Although no longer the major source of support for university research, DoD remains a major supporter of certain types of work, especially in the physical sciences.

It is clear that the principal strength of the universities resides in the generally outstanding technical competence and high degree of innovation of their research staffs. Contracting is relatively easy and there need be no implication of extended support to attract university researchers to most DoD problems. The benefits to DoD of university participation are several:

It provides us with new science and technology potentially relevant to national security needs.

It fills some of our needs for basic but relevant research on current operational problems.

It provides us with independent consultants—some of the best scientific talent in this country—who have an awareness of the technical aspects of military problems.

It helps provide training for young scientists and engineers who later can move efficiently into DoD work in industrial or government organizations.

The major shortcoming of the universities has been their lack of close involvement with the operating parts of the Services, which has limited their ability to bring their innovativeness into full application.

While there is no question of the intrinsic value of our university research, there are differing schools of thought about how to extract the maximum benefit from it. There are those who contend that the most effective interaction results from identifying those researchers of high competence in relevant fields and funding them on an essentially continuing basis, with only minimal guidance.

*Report of Task Group on Defense In-House Laboratories, July 1971, which includes as an appendix the "Report of the JASON Group on Visits to Selected Laboratories."

This method of operation is based upon the belief that highly innovative solutions to problems are most likely to arise from the efforts of a few bright people with a general understanding of the problem but with considerable latitude to pursue new or unconventional approaches. At the opposite end of the spectrum, there are those who contend that university research should conform to the same precepts used in formulating and executing most of the rest of the R&D program: a well defined set of objectives, an understood finite duration and insistence on—and funding for—an adequate level of effort to enable substantive achievements. In essence, this is the same method of operation employed in our Exploratory Development programs, but with the increased flexibility that must be an inherent part of basic research.

Both of these styles of operation are present in our program now. We are not sure that the amount of work in each is optimum but, as will be indicated, we expect to make this a continuing subject for examination.

Federal Contract Research Centers (FCRCs)

The FCRCs can be viewed as an attempt to reap the best features of both universities and government laboratories. Organizationally they are essentially the same as the AEC laboratories. By avoiding the regimentation of the Civil Service system, the FCRCs have been able to attract more good people than the in-house laboratories. By avoiding commercial ties, they have been able to acquire a degree of access to privileged information similar to that held by the laboratories and have capitalized upon this access to develop close ties with operational parts of the Services. By maintaining communication paths outside the Service chains-of-command, they have also been able, in many cases, to maintain a degree of independence from their principal Service sponsor that gives their advice extra credibility.

The FCRCs have been the subject of much Congressional concern throughout most of their existence. Most of this concern has focused upon their potential competition with for-profit industry, and this has led to Congressionally-imposed ceilings upon their total size and to increased management control by the DoD, including a set of carefully structured "appropriateness criteria" for guidance in assigning new programs to them.

Most of the FCRC organizations have developed unique fields of expertise which make it appropriate, from a DoD standpoint, to assign them work across service boundaries. These capabilities have met with a high degree of favor with the Services and there is continual pressure to make even greater use of them. The FY 1975 program has been subjected to stringent screening for appropriateness and prioritization in order to maintain essentially the same aggregate level as that submitted for FY 1974. We can cope with the increasing demand for FCRC support only by the tight prioritization which we have imposed. However, we find it very difficult to accommodate the Congressionally imposed dollar ceilings which make no provisions for flexibility in response to changing requirements and priorities which occur *during* the year.

Since the new DoD policy for the management of FCRCs was implemented two years ago, three institutions—RAC, HumRRO, and APL (University of Washington)—have been dropped from FCRC status. The nine remaining organizations, which consume less than three percent of our total RDT&E budget, are those which we consider vital in carrying out our mission without major revisions in our in-house laboratory structure.

Points To Be Further Examined

The preceding discussion indicates several reasons why a re-examination of the magnitude and nature of the several types of organizations involved in the Technology Base is needed. During FY 1975, we intend to conduct an extensive review of this subject with the help and participation of the Services. Specific points to be addressed include:

(1) To what extent should the governmental laboratories be producers of technology as well as monitors?

(2) How should the work be apportioned among all the organizational components, bearing in mind the practical problems of adjustments in government laboratory personnel ceilings?

(3) What changes in management freedoms and personnel practices are needed? Which of these can DoD implement itself? Which depend upon external authorization (e.g., Civil Service Commission)? And in these cases, how can we

initiate the necessary changes in the interest of upgrading the laboratories?

(4) Can we find a way to reap more benefits from our university research while maintaining the best points of its unique nature? Specifically, what is the proper proportion of university participation in the Technology Base and how should this be subdivided between the two modes of using universities described previously?

(5) What is the continuing role of FCRCs and how can their use be regulated to effect the maximum productivity without causing legitimate concern about their impact on for-profit industry?

DoD Energy Research

During FY 1975, the DoD will use 2.5 to 3 percent of the total U.S. energy consumption with 72.5 percent of that being petroleum-related products. The DoD is the largest single user of petroleum products. The Director of Energy within the OASD(I&L) is the voice of DoD energy policy. ODDR&E is responsible for planning and implementing the R&D work required.

All DoD elements have been provided with guidelines for their participation in energy R&D. The energy usage areas covered are:

(1) Aircraft Operations (accounting for 63.7 percent of DoD petroleum needs). The Air Force will coordinate effort in this area.

(2) Ship Operations (14.9 percent of petroleum needs). The Navy is lead coordinating Service.

(3) Ground Operations (6.8 percent of petroleum needs). The Army is lead coordinator.

(4) Installations and Building (14.6 percent of DoD petroleum needs). This will be a Joint Service coordination. Studies are needed in this area primarily to determine how developing technologies from industry and other government agencies (improved insulation, solar heating and cooling, total energy concepts) should be applied to DoD buildings and installations.

Our present efforts at energy conservation are, for the most part, measures that we were involved in before the "Energy Crisis." For example, using less fuel has long been a need of military vehicles because of the criticality of range and payload requirements. Developments in the energy picture over the last two years have, however, made it necessary for us to re-examine our R&D efforts to determine if our existing plans and directions are consistent with the probable energy environment over the next several decades. As a first cut at the problem, the Defense Energy Task Group, established in September 1973 to define the DoD's energy-related problems and recommend courses of action, conducted an initial review of existing DoD energy-related R&D and developed a set of energy R&D goals and identified major technical areas of prime importance to the DoD.

Working with the Director for Energy within OASD(I&L), we are constructing an R&D program in energy conservation and utilization that will be appropriate to DoD needs and contribute to national needs in areas where DoD has special talents and facilities.

Some specific R&D areas include:

Use of liquified coal as fuel for ships.

Use of aircraft simulators to save some of the fuel now used in training.

Efficient magnetohydrodynamic (MHD) electrical generating equipment for possible shipboard and military base uses.

Superconducting electrical generators, motors and transmission lines for more compact and efficient ship propulsion.

A brief view of our present plans for each of these potential energy-saving technical R&D areas is as follows:

Use of Liquid Fuel Derived From Coal

A Navy evaluation of coal-derived liquid fuels is being carried out in cooperation with related national programs to insure the availability of marine fuels for present and future Navy systems.

Research on coal liquifaction processes and techniques is sponsored by the Official of Coal Research, the Bureau of Mines and by private industry.

In November 1973, the USS Johnston (DD 821) was successfully operated on sustained runs from 30 to 108 percent full power, using a liquid fuel derived from coal. The test established that such fuels can be used to replace Navy

distillate fuel for ship propulsion with minor changes in equipment. The fuel, provided by the Office of Coal Research, had an undesirably low flash point and high pour point. Both of these properties appear to be controllable for Navy requirements in production operations. Future Navy plans include continued interaction with the Office of Coal Research and with industry to achieve earliest possible production capacity and to test and evaluate synthetic fuel properties.

Flight Simulators

Some DoD missions, such as those performed by the Military Airlift Command, can be simulated using technology demonstrated by the airlines. Simulators for the C–5A and C–141 have been developed to capitalize on this technology. In other missions such as air-to-air combat and undergraduate pilot training, the technology demonstrated by the airlines is not adequate. Most Air Force simulators currently used for these missions are primarily cockpit procedures and instrument trainers, not full-mission simulators. These devices lack the ability to simulate motion and have limited or no visual simulation capability. On-going programs in visual simulation could extend simulator use into training areas in which currently only airplanes are used. Recent developments in display technology may provide techniques for visually simulating the detail, brightness and field-of-view required for DoD missions.

Three advanced simulators, currently under development for use in both training and R&D, will be in operation by late CY 1975. These simulators will be used to define the degree of simulation fidelity required to permit maximum transfer of training and to provide a data base for future simulator designs.

Increased use of simulators based upon advanced technology may provide numerous benefits including a reduction in the number of actual aircraft flight hours required for training. This reduction would have a significant cost reduction impact upon training expenditures as well as reducing fuel usage.

Superconductive Propulsion Machinery

The application of cryogenic, superconducting techniques to the components of electric propulsion systems may provide an attractive replacement option for conventional turbine-gear drive systems for ships. Superconducting electric systems offer significant reductions in size and weight, as well as other operational and design advantages—e.g., electric drives for surface ships that provide greater freedom in ship arrangements and flexibility in operating configurations. In addition, these systems offer large savings in fuel utilization.

Under an advanced development program, the Navy is developing the engineering capability required to build such propulsion systems and, subsequently, to demonstrate their feasibility with small size systems. Contracts have been awarded for the preliminary design of 40,000 horsepower systems and for the fabrication of a 3,000 horsepower model to be utilized for the laboratory and shipboard feasibility evaluation. Concurrently, cryogenic refrigeration machinery and materials suitable for superconducting shipboard systems are being developed. Future plans include construction of 40,000 horsepower systems for operational evaluation.

Magnetohydrodynamics (MHD) Research

The Office of Naval Research is supporting research in two aspects of closed cycle magnetohydrodynamic generation of electricity. The nonequilibrium plasma magnetohydrodynamic electrical generator is based on the ionization of cesium-argon mixtures in which the magnetic field causes the electron temperature to be greater than that of the remainder of the working fluid. In experiments to date, thermal efficiencies of over 12 percent have been realized. Ultimately, efficiencies of 20 percent are anticipated, compared with a typical efficiency of 15 percent in military power plants. The experimental generator has produced 2,000 kw of electrical energy. Still at the laboratory bench scale, the equilibrium metal-gas test generator has produced a power output of 5 kw and a thermal efficiency of 30 percent. The efficiency of the conversion of kinetic energy to electricity confirmed the theoretical prediction.

These systems are potentially more efficient and compact than current military energy conversion plants and should have lower maintenance and reduced noise output. They can be fired with either fossil or nuclear heat sources. They are of added interest in that they can furnish electrical power directly for promising superconducting systems.

Table 7.1 6.1 and 6.2 Portion of the DoD Technology Base
(By Technical Area)
(In $ Millions)

Technical Area	OSD Review Mechanism*	FY 1975 Funding Total	A	N	AF	DARPA	DNA
Weapons Technology							
Conventional Weapons	TCP	167	60	68	17	22	--
Missile Propulsion	TCP	38	5	11	22	-	--
Nuclear Weapons Effects	SCM	118	--	--	10	-	108
Advanced Weapons	ACP/	55	22	--	10	23	--
Subtotals		378	87	79	59	45	108
Electronics							
Electronics (Other than Devices)	TCP//	154	10	47	89	8	--
Electron Devices	TCP	84	29	31	12	12	--
Subtotals		238	39	78	101	20	--
Mobility							
Aeronautical Vehicles	TCP	74	17	12	45	--	--
Aircraft Propulsion	TCP	25	3	4	18	--	--
Surface Vehicle Technology	TCP	48	16	32	--	--	--
Nuclear Propulsion (Naval Vessels)	SCM	25	--	25	--	--	--
Subtotals		172.	36	73	63	--	--
Support for Military Personnel							
Medical & Biological Science	TCP	99	61	17	21	--	--
Human Resources	TCP	38	9	12	7	10	--
Military Food Program	SCM	12	12	--	--	--	--
Subtotals		149	82	29	28	10	--
Supporting Science and Technology							
Materials and Structures	2 TCPs	74	14	13	27	13	7
Strategic Studies, Nuclear Monitoring, Other Special Programs	SCM	96	--	--	--	96	--
Environmental Sciences	TCP	114	15	56	32	3	8
Basic Physical Sciences Research	SR	46	9	24	13	--	--
Independent Lab Research	SR	42	11	26	5	--	--
Chemical/Biological Defense	SCM	18	18	--	--	--	--
Miscellaneous Small Programs (E.g., Civil Engineering)	SCM	112	20	34	32	26	--
Subtotals		502	87	153	109	138	15
TOTALS		1439	331	412	360	213	123

NOTES: *TCP--Technical Coordinating Paper
SCM--Single Component Management
ACP--Area Coordinating Paper
SR---Special Review
(See text for discussion of these terms.)
/The ACP is a mission-oriented document. ($ shown are tech base only)
//Planned for FY 1975

Table 7.2

6.3 PORTION OF THE DoD TECHNOLOGY BASE
($ in millions)

	Total	Army	Navy	Air Force
Weapons Technology				
Conventional Weapons	50	26	24	0
Missile Propulsion	-	-	-	-
	50	26	24	-
Electronics	76	31	10	35
Mobility				
Aeronautical Vehicles	44	28	3	13
Aircraft Propulsion	38	2	21	15
Surface Vehicles	20	9	11	-
	102	39	35	28
Support for Military Personnel				
Medical & Biological Sciences	23	-	13	10
Human Resources	24	8	10	6
	47	8	23	16
Supporting Science & Technology				
Materials and Structures	32	-	-	32
Environmental Sciences	3	-	3	-
Chemical & Biological Defense	4	4	-	-
	39	4	3	32
TOTALS	314	108	95	111

Table 7.3

ESTIMATED DIVISION OF RDT&E
BY PERFORMER--FY 1974
(Millions)

Performer	Total RDT&E FY-1974	Percent of Total	6.1 & 6.2 FY-1974	Percent of Total
Industry	$ 5,548	66	$ 482	35
Government	2,380	29	683	48
Universities	197	2.5	197	14
FCRCs	208	2.5	41	3
TOTAL	$ 8,333	100	$ 1,403	100

TABLE 7.4

RDT&E EXPENDITURES IN IN-HOUSE LABORATORIES

	FISCAL YEAR			
	1971	1972	1973	1974
Defense RDT&E				
o Total RDT&E	7190	7584	8016	8333
o RDT&E Spend In-house	968	1080	1111	--
o % of Total RDT&E Spent In-house	13%	14%	14%	--
Technology Base				
o Total 6.1 and 6.2	1282	1430	1375	1403
o 6.1 and 6.2 Spent In-house	564	537	561	605
o % of 6.1 and 6.2 Spent In-house	44%	38%	41%	43%
Manpower				
o Civilian and Military Manpower (Thousands)	65.1	65.2	64.9	65

THE HIGH ENERGY LASER PROGRAM

Introduction

Dr. Currie. Let us turn now to one of our technology programs, the High Energy Laser program. The basic objective of this program is to develop the technology. We have made progress along the road toward this goal in the past few years and this summary is intended to bring the Congress up to date on where we stand today, where we are headed and when we can expect to get a return on our investment in this technology.

Program Background

About five years ago our exploratory development program produced the first gas laser. Since that time, in addition to developing new lasers, we have performed experiments with these developmental lasers. From tests and from our recent laser developments, we are continuing to study problems which have developed. As a result, we are then able to better focus our advanced development efforts on meeting the physical and operational necessities of realistic applications.

Some properties of lasers will limit their application. A signficant effort is being made to understand the nature and extent of such limitations in our current program.

Propagation and Damage Effects

High-power lasers emit infrared radiation which is not visible to the human eye. Yet its effects on the atmosphere, where it is partially absorbed, can affect the beam and degrade laser performance. This degradation is called thermal blooming

High Energy Laser Program Structure and Funding

The High Energy Laser program involves activity in all three Services and at DARPA. ODDR&E has taken a strong role in coordinating this activity within DoD in three different ways: (1) by direct contact between ODDR&E staff and the program managers from each of the elements; (2) by the normal planning, programming and budgeting cycle; and (3) through a special advisory body called the High Energy Laser Review Group (HELRG) which was constituted last year and reports directly to the DDR&E. This group is a formal advisory body which meets quarterly. It is chaired by an Assistant Director from ODDR&E, includes the four laser program managers and also includes four scientists and engineers chosen from the scientific community for their knowledge in this field. The line diagram on page 7–48 shows this program structure.

We have requested funds in the President's FY 1975 budget to continue these activities.

Soviet Laser Activities

The Soviet Union has an extraordinarily large and vigorous laser scientific community. Two Soviet physicists shared the Nobel Physics Prize with Dr. Charles Townes of the United States in the late 1950's for discovery of the laser. Part of the Soviet laser activity is energy production research into laser-initiated fusion reactions. Laser fusion has occupied as large a scientific effort in the Soviet Union as the similar AEC-sponsored programs have in this country. All of that work is unclassified.

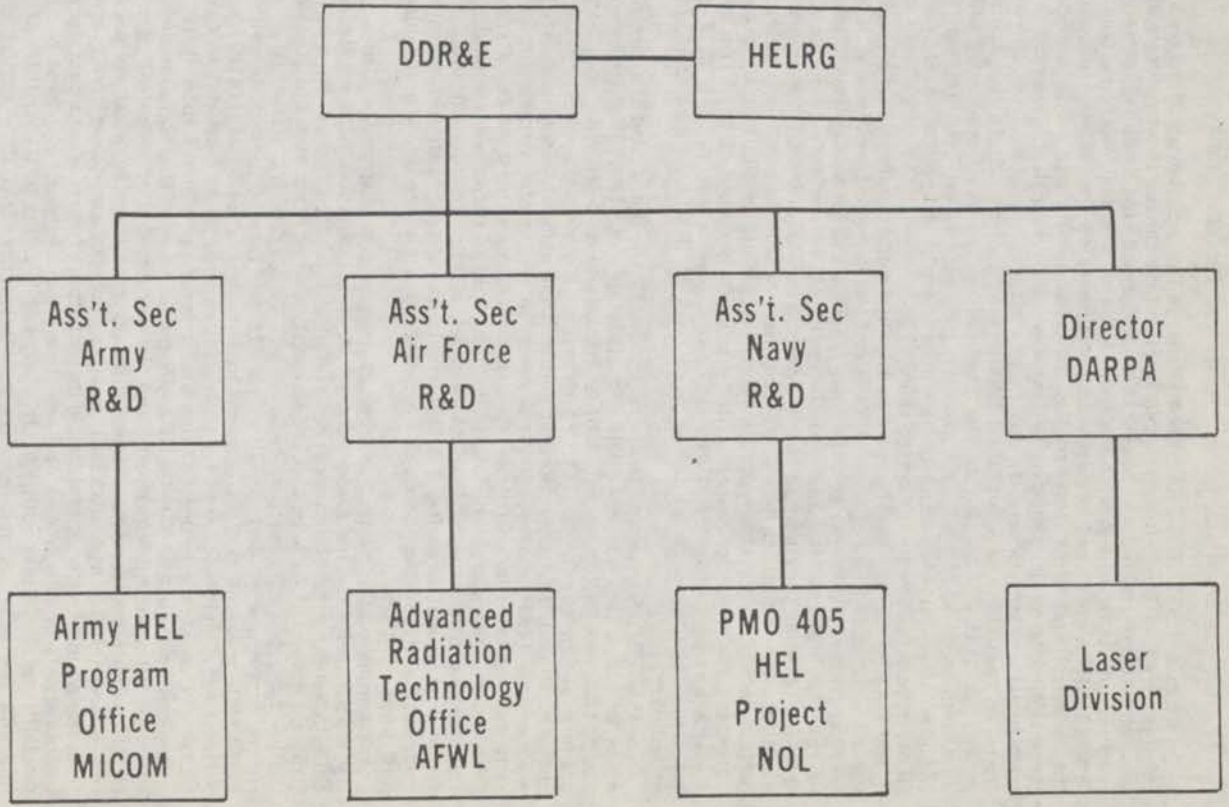
Laser Fusion

Partly due to the energy shortage, AEC activity in laser fusion research has doubled in size over the past two years. It is likely that this growth will continue. Although the goals of AEC laser research are basically different from those of the DoD, the programs are beginning to interact in two important ways. One is people. The two programs are beginning to compete for the laser scientific talent which exists in limited supply in this country. The other is the need, which is now perceived in the AEC program, for large, efficient gas lasers. We are intensifying our efforts to cooperate in these two areas as well as others to insure that the nation receives the highest return overall on its laser R&D dollar investment.

Conclusion

DDR&E intends to maintain close supervision over developments in the High Energy Laser program—particularly for the coordination of the technology effort which is spread among the four individual programs.

HIGH ENERGY LASER R&D PROGRAM MANAGEMENT



Defense Advanced Research Projects Agency

Dr. Currie. The Defense Advanced Research Projects Agency manages a diversified program of Basic Research and Exploratory Development projects directed generally at determining the technical feasibility and applicability as well as the potential military utility of new scientific discoveries and emerging technology. When DARPA-sponsored research has demonstrated the viability of a concept, the technical and fiscal responsibility for whatever further specialized developmental work may be required is transferred to a Military Service or other operational agency. Generally, this occurs after a period of from three to six years, so that there is a continual turnover of projects within the Agency. We depend on DARPA to provide the mechanism to explore and evaluate those advanced areas of technology where the risk may be too high to justify early inclusion in a Service budget or in which a study of applications is necessary to determine the eventual Service roles.

The DARPA management approach is sound and is composed of a small number of extremely high-caliber professionals who manage advanced and complex programs. We benefit greatly from DARPA and its management techniques of funding high-risk programs to the point of demonstration and subsequent transfer of such programs to the Services. The DARPA also demonstrates the management strength to terminate programs which do not meet technical expectations and apply its resources to other technically challenging areas with important Defense applications. This capability is due in part to the fact that DARPA has no in-house facilities or laboratories to support, but it does have the freedom to arrange for the support from all RDT&E performers, in-house or industry.

The DARPA projects may be characterized by the four broad Defense problem areas to which they are responding: maintaining our technological superiority, anticipating technological capabilities, maintaining deterrents, and extending military resources. In the DARPA program, individual research projects are managed to be mutually supporting and to bring sufficient fiscal and intellectual resources to bear on these problem areas so that real progress can be made. It is noteworthy that the Basic Research element, as well as the Exploratory Development work, reflects this philosophy and is organized to maximize the transfer and utilization of DARPA research results. To this end, besides transfer to operational agencies, DARPA conducts internal transfer, as rapidly as warranted, introducing the results of basic research into its own developmental programs.

A vigorous and persistent technology assessment program is also a part of the DARPA effort. This assessment effort in combination with applications of DARPA research results in security-related technologies, preservation of flexible strategic deterrent options, and the strengthening of command and control capabilities for crisis management represents a comprehensive structuring of R&D efforts supportive of detente objectives. In the face of increasing evidence of broad-scale research and development by potential adversaries, DARPA's contribution to the maintenance of technological superiority is essential to the credibility of U.S. strategic negotiations and related operational capabilities.

One major thrust of the DARPA program concerns the maintenance of our national technological superiority and the anticipation of technical capabilities of our potential adversaries. Broad military problem areas such as ocean control, space activity and advanced weapon concepts are exhaustively examined from the point of view of systematic introduction of current and next generation technology. It is this process and selective exploratory development to evaluate feasibility and military utility which keeps this nation in its position of leadership and prevents serious technological imbalance. DARPA's earlier development in the fields of reentry physics, radar technology, infrared sensing, and nuclear test detection are examples of that type of prevention of technological imbalance which have enabled our current leadership.

Maintaining the credibility of the U.S. strategic deterrent in this period of increasing Soviet capabilities is a fundamental aspect of national security policy. With the rapid pace of scientific and technical advances related to deterrent capabilities, it is obvious that research and development programs must be responsive to increasingly complex demands for innovation and improvement of existing capabilities. These demands on research and development cover the entire span of our war fighting capabilities which is the foundation of deterrence. Thus, while DARPA's program gives very high priority to

enhancing the survivability of the components of the strategic deterrent, strong emphasis also is placed on the future tactical capabilities which fill out the lower intensity range of the deterrence spectrum.

The range of elements in the structure of deterrence provides numerous opportunities for the application of research and development initiatives and problem solving. DARPA's unique competence in selecting and mobilizing scientific and technical resources to advance the state of U.S. defense technology is a key asset in the maintenance of a viable deterrence posture.

The cost of operations and hardware in the Department of Defense is an ever-present problem, and one to which a great deal of attention is devoted. While a number of actions are underway in DoD to implement the design-to-cost philosophy, emphasize fly-before-buy, and to utilize the system analysis approach to allocation of funds, it is also important that DARPA has numerous projects which will provide a basis for large cost savings in the future. The Defense budget is strongly affected by the continued introduction of high technology in the quest for superior performance as well as by rising manpower costs which now account for over half of the Defense budget. Thus, since cost is a major defense problem it is vital that DARPA pursue its program and assess other developments in technology with a view to increasing the efficiency of the application of DoD resources.

The following pages will give some of the highlights of the DARPA program and point out, as appropriate, operational or cost advantages which may accrue from the research. You will see that substantial benefit can be derived from these projects. Yet we must recognize that large efforts will be necessary in many areas to assure that those benefits which *can* occur actually *do* occur. The timely adoption of research results by the operational elements of the Department of Defense is a necessary component of research management and one to which we in the Office of the Director of Defense Research and Engineering devote a significant portion of our time.

We will continue to rely very heavily on DARPA to indicate the most fruitful management alternatives and areas of advanced technology, using the capabilities of DARPA as a scout and forerunner in important areas of Defense research. DARPA therefore needs sufficient freedom to explore such avenues at an adequate funding level.

Work in the technology base does not stand alone; only when it has proven itself by successful demonstration do we count it completely useful. Here are some examples of DARPA's work in high priority Defense areas.

For several years, DARPA has been spearheading the technology of advanced surface-to-air and surface-to-surface missiles which obtain their trajectory information by flying along a laser beam pointed at the target. This development has made it possible for us to consider this technique for a radically new low-cost, man-portable air defense missile system.

DARPA continues to develop small, inexpensive, remotely piloted vehicle (RPV) technology with application to missions in all three Services. DARPA has already demonstrated that these small RPV's, with production cost of under $10,000 each, can acquire tactical targets and designate laser guided ordnance with pinpoint precision. This year, programs to demonstrate other lightweight and inexpensive sensors are being pursued.

An important new element has been initiated, at DDR&E's request, to develop new concepts for the detection and destruction of types of hostile weapons. This problem has eluded solution for many years; however, advances in inexpensive sensor technology, both ground-emplaced and airborne, the emergence of small inexpensive RPVs for use as forward based airborne platforms, and precise electromagnetic direction finding and navigation may make new and potentially cost-effective techniques possible.

With the emergence of electro-optical devices as a crucial element of advanced weapons systems, it is extremely important that we understand that countermeasures to these systems might be developed. DARPA is spearheading this effort with Service participation, evaluating the effects of countermeasures on electro-optical weapons systems performance, and working with the Services on appropriate fixes to be incorporated in next generation devices.

DARPA is working on an important development to improve the accuracy and effectiveness of anti-armor and anti-aircraft weapons. Accuracy depends on the precision of the direction in which the projectile leaves the gun, and this factor is addressed through improved mount and barrel design which is expected to reduce the projectile dispersion angle by a factor of ten. Next, to bring the ab-

solute aim point under control, a laser radar will be used to track the projectiles in flight. This, in effect, makes each round as visible as a tracer bullet so that the gun can be kept on the target by a control system. It is easy to see that miss distance will increase with the projectile time of flight. To minimize time of flight, a very high velocity round is being developed. Finally, the effectiveness of a projectile on an armor target is proportioned to its weight times the square of the impact velocity, so that increasing the speed permits a smaller round to be utilized effectively. This, in turn, permits a smaller gun, mount, turret, etc., which can result in large overall size, weight, and cost savings. Firing tests of an experimental 75 mm liquid propellant high-velocity gun will begin soon, using a fin-stabilized projectile, and the other elements of the system are under active development.

DARPA is supporting a broad research program for the development of window materials and mirrors. The program has shown that processing techniques can be developed for making large, strong highly transparent windows from single crystals. The results of DARPA's research are well coupled in with Service needs and applied programs.

There have also been several important developments in the area of structural materials. A new tool material for machining superalloys has been developed which has a sixteen-fold greater life than tungsten carbide; an ultra high carbon steel has been developed which combines, for the first time, ductility and high strength, and a large gas turbine has run at a turbine inlet temperature of 2200° F using silicon nitride inlet guide vanes. This last is an important demonstration of progress in the DARPA ceramic turbine program, as the tests to date show that even at this high temperature there is no corrosion or cracking of the ceramic parts. DARPA expects that the ceramic turbines can be run 500° F, hotter than alloy steel machines leading to a doubled power to size ratio and an efficiency gain of 20 percent, a factor of considerable importance from the standpoint of fuel economy.

A DARPA project with a large potential for reducing the cost of operations in the Defense Department concerns the development of techniques which will permit computers to write and validate their own progress. The importance of this effort derives from the fact that in computer systems operations the costs of software are approximately three times the cost of hardware. The highly specialized nature of DoD computer applications, as well as their breadth and complexity demands our priority attention to this problem. Research efforts in this field are absolutely necessary to increase the efficiency of operations. This DARPA project should lay the groundwork for the wider scale use of computer technology in the future. Progress towards the goal is exemplified by newly developed software for an inventory control system applicable to logistics problems which can create its own programs to generate reports given a description of the report that is required. Another experimental system is able, in restricted cases, to search its library to evaluate and combine existing programs so as to achieve a new or extended capability.

In the area of computer communication networks, there have been several significant technical advances. Among these, a successful experimental prototype digital message processor has been shown capable of handling information at a rate twenty times as fast as existing equipment. In practice this will mean that computer networks can handle speech, pictures, and significantly large data bases. Further, certain limiting problems in the inter-connection of high and low data rate systems have been solved so that it has been possible to incorporate a low speed seismic data link into the higher speed ARPANET. Also, satellite links to Hawaii and Europe have been brought into the ARPANET. These three advances represent important steps toward the technology base necessary for an integrated world command, control and communications system.

Nuclear Test Monitoring Research experimental work has proved operationally useful since a substantial saving in aircraft operating time for debris sample collection has resulted from the accurate real time tracking information provided by a DARPA spectrometer. These results show progress toward a long-lived high resolution system which may eventually have diagnostic capabilities competitive with radiochemical laboratory analysis of nuclear debris.

Seismic array signal data processing techniques developed for nuclear explosion monitoring are being applied to the problems of submarine detection and location by acoustic arrays. This technological capability is being transferred to the Naval Electronics Systems Command. Data links and hardware to do this type of analysis continuously in real time are being assembled for further acoustic signal processing research in FY 1975.

Another example of the DARPA ability to address a significant interdisciplinary problem in a short time is the DARPA work on DoD energy problems. In 1973, DARPA began investigation of the possible impact on the DoD of the looming energy crisis and began research and development that in FY 1974 was instrumental in supporting the Defense Energy Task Force and the Defense Energy Office when the anticipated crisis became a grim fact.

Total energy systems, which can provide electric power, heating, cooling, and waste disposal, offer promising approaches to energy conservation on military bases, particularly where solar, geothermal, or nuclear energy can be used in place of fossil fuels as the primary energy source. DARPA and the Army's Corp of Engineers, working with the Department of Housing and Urban Development, initiated in FY 1974, the design of an experimental total energy system to be installed to service a part of a new military housing project at Fort Belvoir.

In the area of unconventional energy sources it was determined, in FY 1974, that at least 35 military installations in the United States have nearby sources of geothermal energy. As a consequence, DARPA and the Energy and Natural Resources Research and Development Office of the Navy have begun a cooperative research program to explore the geothermal source at China Lake, California, and to begin engineering studies that will lead to the utilization of the deep geothermal energy at that installation. The work will lead to a reduction in demand on energy resources in that area of California and serve as a test facility to develop the means of using the geothermal resources that are near other military installations.

DARPA's Advanced Training Technology program has introduced the PLATO system to all three Services for research and experimentation on Advanced computer-aided instruction (CAI). Forty-nine terminals have been delivered to research and operational training sites in the Army, Navy and Air Force; seventy-three curriculum authors have received training in the use of the system. Curriculum material has been developed, primarily at operational training sites in the fields of electronics, auto mechanics, and machine shops, and course planning has begun for training paramedical specialists. These courses will be delivered to students at operational training sites providing valuable research data on the effectiveness of the media and on learning behavior in a CAI environment. The curriculum development effort will also provide a cadre of curriculum development specialists trained in the use of CAI.

DARPA and the Services have launched a jointly funded collaborative research program focusing on some of the key issues in CAI, including research on structuring test items specific to a student's individual needs, semantic networks to use in constructing artificially intelligent CAI systems capable of interacting with individual students in much the same way as a tutor would, and the effects of individual student differences on the design requirements for lessons and for CAI systems.

A cross-Service advisory group and a cross-Service PLATO technical user group have been formed in conjunction with DARPA. These groups, coupled with direct work by Service personnel on a common system have resulted in exchange of ideas, procedures, and special hardware that solve problems common to the three Services.

In the strategic technology program, DARPA has pioneered and developed laser technology. The current DARPA laser programs are directed toward establishing the fundamental physics and engineering limitations of the more difficult applications of advanced technology lasers. High risk technology currently under development by DARPA would be used in subsequent Service programs only after successful demonstration.

These have been but a few of the highlights of the DARPA program, yet they are items which I feel you will find of significant technical interest. In his separate testimony, Dr. Lukasik will discuss the DARPA program in fuller detail.

Test and Evaluation

Background and Progress

I consider it essential that we use aggressively the major tool of Test and Evaluation (T&E) in our management of each new system acquisition. To this end T&E should be started as early in the process as it can be useful and be conducted in phases as necessary throughout the acquisition period. The objectives of effective T&E are: to assist in determining which systems have enough promise to enter heavily into development; to minimize the technical risks, early and

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progressively, by use of Development Test and Evaluation (DT&E); and, by use of independent Operational Test and Evaluation (OT&E) to insure before production that the system will be operationally as effective and suitable as required.

In recent years the Department of Defense has taken strong measures to insure that its T&E programs will achieve these objectives. I fully support the improvements already made, and I plan to take further steps to use T&E results more vigorously to evaluate and, if necessary, redirect program development and production plants, stimualted multi-service testing, bring more foreign-developed systems into our testing programs and increase the realism of our operational testing.

Recent substantial reforms in T&E include:

The Secretary of Defense has issued policy T&E instructions applicable to all major and lesser acquisition programs. These instructions stress the necessity to minimize concurrency and do thorough test and evaluation as early as possible. Most importantly, they specify, first, that prior to the first major production decision, DT&E should be completed to insure that all significant design problems are identified and in hand; second, that adequate OT&E should be conducted to provide a valid estimate of the system's expected operational effectiveness and suitability; and, third, that OT&E must be accomplished with equipment in the hands of typical military people and in realistic simulation of the actual combat environment. These instructions are now well understood throughout the DoD and are being followed.

For all major acquisition programs, full review by the Defense Systems Acquisition Review Council (DSARC) is conducted at each key decision point to determine the adequacy of the testing, the test results and the true readiness of the system to enter the next phase of development or production. When the DSARC first considers starting advanced development of a system (at DSARC I), all questions and issues, technical and operation, which require testing for their resolution must be identified. Milestone schedules must be established for accomplishing that testing. Also, we determine at DSARC I those systems or subsystems which should be tested in competition with ones already available and which may serve a need of more than one Service and therefore should be subjected to multi-Service testing. Thereafter, at each milestone and particularly before the first major production milestone, the DSARC carefully reviews test accomplishments. In this manner, we are able to evaluate whether the system is encountering significant problems and whether, if procured, it will be what is needed to meet a mission requirement.

A full-time OSD-level test and evaluation organization—the Office of the Deputy Director (Test and Evaluation), ODDR&E—was established nearly three year ago. The DD(T&E) continuously reviews test and evaluation policy and advises the Secretary of Defense directly of changes required. For all major acquisition programs and such lesser programs as he believes necessary, he monitors T&E plans and progress. At each DSARC milestone review, he reports his evaluation of the adequacy of the test plans and test results to the DSARC and directly to the Secretary of Defense. He monitors joint testing undertaken by the Services and initiates additional joint operational tests (JOT) as required, administering the special RDT&E appropriation, "Director of Test and Evaluation, Defense," for the latter purpose. He is responsible for reviewing and overseeing for OSD the major T&E facilities which constitute our T&E Facility Base. This office is most effective in carrying out these missions.

Establishment of the Office of Director of Test & Evaluation

Senator Young. Has the establishment of the Office of the Director of Test and Evaluation demonstrated, so far, that the original objectives of the office can be met?

Dr. Currie. Those objectives can be met and they are being met.

As background, in the late 1960's serious difficulties occurred in the acquisition of many new programs. These difficulties involved major cost increases, schedule slips and often shortfalls over predicted performance. In the very early 1970's the Blue Ribbon Defense Panel and other organizations studied Defense acquisition practices. They generally found that testing was not accomplished early or thoroughly enough, particularly what is termed "Operational Testing." Operational testing is testing by user-oriented representatives, employing typical military personnel and in a combat-like environment.

The Office of the Deputy Director, Test and Evaluation (DDT&E), was created to remedy test deficiencies. It was to be, and is, an organization made up of

experts responsible only for insuring that systems are adequately tested, that the results of those tests are impartially analyzed to determine what they proved, and that the appropriate senior decision individuals are informed of test plans and results prior to key decisions. His charter calls upon him to have "across-the-board responsibility for the Office of the Secretary of Defense in test and evaluation matters." He recommends directly to the Secretary of Defense changes in DoD test and evaluation policies and procedures if required; monitors closely all major T&E programs; reports directly to the Defense Systems Acquisition Review Council (DSARC) and to the Secretary of Defense for major programs his assessment as to the adequacy of T&E to support the recommended decision; initiates and coordinates joint multi-Service testing as necessary, and performs OSD's responsibilities for the National and major Service test facilities.

His office was rapidly organized to its full strength in late 1971 and early 1972. He has had the full support of the Secretary of Defense and the DSARC. As a result, major programs and most lesser programs meet the requirements that there be adequate testing (to include adequate operational testing) with successful test results as key milestones for governing the rate of acquisition of systems. In other words, a program must "prove through test as it goes." Particularly there must be satisfactory and sufficient development testing and operational testing before programs enter heavily into procurement.

Most in Defense, in OSD, and the Services alike are convinced that their acquisitions are now on a much sounder basis as a result. We should have in the future substantially fewer difficulties such as those we encountered in the 1960's.

Manning Strengths of T&E Office

Senator Young. Has the Office of Test and Evaluation reached its full intended manning?

Dr. Currie. Yes, it has assigned its full strength of 33 personnel. This includes: 9 senior civilian professionals; 15 senior and highly experienced military officers, and 9 administrative stenographic assistants. There are no plans to increase the size of the DD(T&E) office.

Chairman. McClellan. Proceed.

Dr. Currie. The Army and Navy have each established strong full-time OT&E field organizations to conduct OT&E on all major programs and selected lesser ones. The Air Force is currently establishing a similar organization which will be fully operational on 1 July 1974. These organizations function independently of both the developing and using commands and at key points, report to the Chief of Service on the system's operational effectiveness, operational suitability and necessity for modifications. A phase of their OT&E is keyed to certain DSARC milestones. Their reports are available to, and most useful to, the DD(T&E) and to the DSARC, particularly for the production decision.

Increased emphasis has been given to rejuvenating Joint Operational Test and Evaluation (JOT&E)—test involving the assets of more than one Service to determine the system's real worth in a combined Service environment. I shall describe this further in Section 6.3 below.

Increased emphasis is being placed on improving the effectiveness and economy of operation of our major T&E facilities. The Secretary of Defense has designated 26 of the largest to constitute the DoD's "T&E Facility Base." These are being closely monitored and reviewed by the DD(T&E). We conducted this year, as last, an overall OSD budget review of the 26 to insure operation at minimum cost and also to improve their capability to meet more demanding future test requirements. Typical of the modernizations that have been made is one at the Air Force Flight Test Center at Edwards AFB. At Edwards, there is being established this year a real-time read-out capability for test instrumentation installed in aircraft during test flights. This permits rapid evaluation of test data and the completion of tests in one sortie that earlier would have required several sorties. This additional capability will be available to all programs and Services using the Edwards AFB. In FY 1975, a new funding policy takes effect to charge users uniformly for the direct costs of test support at 18 of the 26 major T&E facilities. This should result in more economical operation and promote increased multi-Service use.

Operation of Office of Test and Evaluation

Senator Young. Does your office conduct tests or monitor and supervise tests conducted by the Services?

General STARBIRD. As Dr. Currie explained, I as the Deputy Director, Test and Evaluation (DDT&E) of ODDR&E am charged with monitoring closely all major programs and such lesser programs as I think necessary. Strictly speaking then, the answer is that of monitoring rather than conducting tests. Factually though, that monitorship consists of: guiding what tests will be planned for each program and how to be executed; observing to the degree of success the test has shown; and advising Service decision-makers, the DSARC and the SecDef directly as to whether or not results support decisions recommended.

In one area only do we lap over into the "conduct" of tests. That is in the area of accomplishing any necessary joint operational tests. By joint operational tests I mean ones that employ the assets of two or more Services,—for example, Army AA against an Air Force aircraft. For such tests we are responsible for: developing the test criteria and test plan; supervising the organizing of the test force; insuring the proper conduct of the tests; and having prepared an independent evaluation of the results.

TEST EVALUATIONS ON NEW WEAPONS SYSTEMS

Senator YOUNG. How does your staff receive and evaluate the tests that are conducted on new weapons systems?

General STARBIRD. For each of the 77 major programs and for the sizeable number of less than major programs that we routinely monitor, we carry out a series of steps.

a. In August 1971, new policies relative to test and evaluation were established. They called for completing prior to major production obligation early scheduling of T&E, sufficient development testing to prove the design, and sufficient operational testing to prove suitability and effectiveness. For all then on-going major programs, my staff and I conducted a series of reviews with Service senior development and operational test representatives to become familiar with each program's test plans and progress to that date. I then advised the appropriate Service representatives as to what changes were required to meet Defense's new test policies.

b. For each new major program later initiated we have made similar reviews before the DSARC I to go over the plans and modify them prior to the DSARC I which initiates formal advanced development.

c. Thereafter my people continually monitor each of the programs. Each of my project officers has a very few programs for which he is directly responsible to me. For each, he consults continually with the Program Managers and testers. He examines any changes in design contemplated, reviews changes in the test plan, and the like. In addition, he makes visits to the field agencies, the contractors, the development test organizations and the operational test organizations. Where changes appear appropriate, he informs me and I arrange these with the Services.

d. Before each DSARC, I review in depth again with the Program Manager, senior Service individuals, and the Service operational test organization the status and results of testing to that time. I make my assessment as to whether the test accomplishment and degree of success achieved adequately support the decisions recommended to the DSARC. Where they do not I inform the DSARC. In each DSARC meeting I must give orally my assessment.

e. In the DSARC's memo to the Secretary giving its recommendations appears my indication as to whether or not the test and evaluation results adequately support the recommendation to the Secretary. If special instructions are needed relative to T&E to the Service, I incorporate these in the draft of the memo from the Secretary to the Military Department Secretary concerned.

f. Throughout this period, my people and I have a right and do call frequently for the detailed written test plans. We review those called for and where changes are appropriate we recommend these to the Service usually in writing. In cases of the lesser than major programs which we monitor, that is those that do not come formally before the DSARC, we handle them with the Service Secretariat much in the same manner as we handle the major programs with the DSARC and Secretary.

Chairman MCCLELLAN. Proceed.

AREAS WHERE INCREASED EMPHASIS IS INTENDED

Dr. CURRIE. As I stated earlier, my experience has shown that the policy, organizational and review steps taken to date have contributed substantially to im-

proving our acquisition process. Nevertheless, I believe added emphasis is needed in certain areas, and I shall press to see that this is done.

a. I wish to make sure we optimize our use of test and evaluation to redirect, if necessary, as early as possible, program development/production plans. Since establishing the new DoD T&E policies, testing has been concentrated most heavily on answering before production the question, "Is the program truly ready to enter production?" This is valuable, but now we should also emphasize the earliest possible testing to answer critical questions of technical risk and to determine thereby the direction and pace of development which should follow. To this end, we shall identify and list in the DSARC I "Development Concept Paper" (DCP), the critical risk questions and establish test schedules and milestones for their answer. We intend to use the DSARC as the primary means for implementing this new emphasis for the "Major Acquisition Programs." Since I became DDR&E, we have reviewed thoroughly the T&E aspects of 14 of the identified major acquisition programs and have already started giving them this additional attention. During the next year, we would expect to review at least 24 more. Meantime, the DD(T&E) reviews all of the 78 identified DCP/DSARC programs and advises the Services on how to reorient them. In his reviews, the DD(T&E) will cover this additional area of emphasis but will also continue to focus on T&E as a tool to determine whether the program is ready for production. Also, he will extend his area of continuous monitoring beyond the "Major Acquisition Programs" to include 30 large but "Less than Major Acquisition Programs."

b. There must be more multi-Service testing of possible new systems to determine their potential for use by more than one Service, the Secretary of Defense and the DSARC are stressing joint use, where feasible, rather than the proliferation of different systems for each Service. One key to success in accomplishing this is the early conduct of multi-Service testing to insure that the new acquisition will meet multi-Service needs and to determine what modifications are necessary to make multi-Service use a reality. Already planned or underway are multi-Service tests of the SPARROW Missile (AIM–7F), Improved SIDEWINDER Missile (AIM–9L), BULLDOG Missile, Tri-Service Tactical Communications Systems Switch (TRI–TAC), Integrated Target Control System (ITCS), Radar Course Directing Central (AN/TPQ–27), Tactical Air Control System/Tactical Air Direction System (TACS/TADS) and the Cannon Launch Guided Projectile (CLGP). Recently the DSARC took action to call for further joint tests of the CONDOR and the NAVSTAR Global Positioning System to insure their usefulness as multi-Service weapons. We shall continue this emphasis.

c. We should use T&E to the maximum to assist in our evaluation of potential allied systems or subsystems for U.S. application. In the case of the XM–1 New Main Battle Tank, we recently decided to test foreign guns alongside our candidates. Also, a German propulsion and track rig will be tested by the United States to examine its advantages. We are examining, with our allies, candidate foreign SHORAD systems—reviewing the testing they have accomplished to date and examining the possibility of further cooperative tests to secure added information.

d. We must continue to increase the realism of our operational testing (OT) to include more actual or simulated enemy systems. We have lagged particularly in the development of realistic air, ground and ocean targets and the capability to portray real combat conditions. We are pressing forward with the development of a Continental Operating Range which is to have an initial capability in FY 1975 and where we can conduct wing-size air-to-air and air-to-ground operational tests and training. We are adding at the Pacific Missile Range and the Atlantic Fleet Weapons Range, means to test realistically anti-ship missile defenses of our surface ships. Anti-Ship Missile Defense Test Range (ASMD) capability is being established incrementally. Prior year efforts have been directed toward concept formulation, development of an Anti-Ship Missile (ASM) test platform and target radar augmentation. A terminal defense test capability will be available in FY 1975 at the Pacific Missile Range. Wider area tracking and control systems for large fleet readiness operations with ASMD weapons are being developed for initial use in FY 1978. We are giving particular emphasis to the development of high Mach maneuverable air target drones and to mobile surface targets against which we can fire actual rounds. Our first high Mach, high G full scale drone, the QF–4B, became available in January 1974 for test support. Development will be initiated in FY 1975 to provide this drone with an all-attitude maneuvering capability for full threat realisms. This development

is planned for completion in early FY 1976. In the interim, the QF–86 provides all-attitude but not high Mach capability. These targets have been designed for multi-Service rather than single-Service use, and this concept will be followed in development of their successors. A few improved maneuvering surface targets have become available recently but additional targets are being pressed for use in the early future.

JOINT OPERATIONAL TEST AND EVALUATION FINANCED FROM THE RDT&E APPROPRIATION, "DIRECTOR OF TEST AND EVALUATION, DEFENSE"

During the late 1960's JOT&E of weapons systems was largely abandoned. However, for some systems normally used in the combined environment—those already available and new ones being developed—such JOT&E is critical to an understanding of how effective the system will be and why. In 1971, the Secretary of Defense directed that appropriate JOT&E should be reinstituted with a first pilot JOT&E to be conducted by mid-CY 1973. The test was that of the air-delivered MAVERICK System against armored/AA field units. It was completed on time, and it demonstrated the high worth of such JOT&E.

In the FY 1973 budget submission, the Secretary of Defense proposed an RDT&E line item, PE 65804D, for certain specific activities to improve our OT&E as a whole and particularly to support JOT&Es. This line item was to be administered by the DD(T&E) and would pay only for the extraordinary costs brought upon the Services for such things as test planning, test headquarters operation, special instrumentation, special travel and data collection and analyses. Normal Service appropriations would pay for the costs of the operating forces, their equipment and the like.

In FY 1973, the Congress established for this new activity a special RDT&E Appropriation entitled, "Director of Test and Evaluation, Defense" and appropriated $27 million for the overall improvements, of which $19.9 million was for the initiation and preparations for 7 JOT&Es, 6 of which will be completed in FY 1975. These included: (1) an Electronic Warfare Joint Test to determine the best tactics and aircraft mix for penetration of SAM defended areas and the degree of success to be expected; (2) a Hit Probability Joint Test to determine Soviet AA gun success against various types of U.S. close air-support attacking aircraft; (3) a Laser Guided Weapons Countermeasure Joint Test to establish our LGW limitations in a countermeasure environment and determine which countermeasures were operationally practical and how effective; (4) the Airborne Target Acquisition Joint Test to establish our ability to acquire air-to-ground targets in operational situations by both aided and unaided visual acquisition; (5) an Air-to-Air Weapons Effectiveness Joint Test to secure realistic operational terminal guidance information on our primary radar and infrared guided air-to-air missiles, the AIM–7 and AIM–9 families; (6) the Radar Bombing Accuracy Joint Test to determine in a realistic operations situation the all-weather, low-level accuracies to be expected of our air delivery systems; and (7) an Aircraft Survivability Joint Test to establish the vulnerability of our current strike aircraft through actual firing into critical aircraft subsystems. Preparations, planning and training, together with certain preliminary testing, for all these test programs have been completed.

In FY 1974, the Congress granted $24.6 million to the appropriation "Director of Test and Evaluation, Defense" of which $22 million is being used for JOT&E. Specifically, it will be used to continue the work on the seven JOT&Es earlier described and to initiate: (1) a Close-Air-Support Command and Control Joint Test to determine more accurately operational command and control capabilities in close-air support; (2) a Laser Guided Weapons in Close-Air-Support Joint Test to identify the density of Laser Guided Weapons (LGWs) that could be used in close-air-support and the command and control problems which might limit their number or effectiveness of use due to interferences; and (3) the A–7D/A–10 fly-off in simulated close-air-support operation.

I am convinced from the results to date that the JOT&E covered by this appropriation will give us essential information available from no other source to let us understand how effective our key present systems are in realistically simulated combat and how best to improve systems. I am requesting, therefore, for FY 1975, $27 million of which $26.3 million is to continue work on 10 JOT&Es earlier initiated but not yet complete and to initiate three others. The DD(T&E), when he testifies to you, will be prepared to go into detail on all of these tests and particularly to discuss the importance of the new ones.

In Summary

I believe that the DoD has achieved much in the last three years. There are some areas where we can and should make further improvement. We have identified these and have started the further action that is necessary.

Management of RDT&E

Systems Acquisition Management

The basic systems acquisition policies set forth in DoD Directive 5000.1 constitute a set of sound management principles which we are evolving into increasingly useful tools for the management of systems development and procurement.

A keystone of these policies is the review of major systems by the Defense Systems Acquisition Review Council (DSARC). We have worked hard during the last year to make the DSARC review process more effective. This effort has focused on early in-depth involvement by the DSARC Principals to identify key issues and resolve these issues by a constructive iterative interaction with the particular Service. We emphasize the need for a complete partnership within the DSARC and with the Services to arrive at major program decisions which will embody the elements of prudent business management and expeditious development of new capability which will work successfully when deployed.

We believe that this process is working. We believe that our programs are being managed better now than ever before.

The next challenge will be to extend this general type of review process to the hundreds of smaller programs which make up our overall development effort. This will be delegated to the Services and will be successful as the depth of program management capabilities is improved and as the success of the DSARC review process on major programs becomes increasingly evident.

During the first half of FY 1974, the DSARC held 11 key milestone reviews on major defense systems and submitted its recommendations to the Secretary of Defense/Deputy Secretary of Defense. As a representative example, the following summaries sum up these DSARC reviews:

TABLE 9.1.—DSARC REVIEWS (1ST HALF FISCAL YEAR 1974)

System	Name	DSARC/SECDEF decision
SOSUS		Approved continuance of program as proposed.
Lamps	Destroyer helicopter	Approved start of MK–III Engineering Development.
Condor	Missile	Approved modified program to provide more options (see below for details).
Active STD missile	do	Approved program as backup to Harpoon pending further tests of that system. Support further development of guidance system having application in Harpoon program.
AWACS	Aircraft	Continued engineering development (see below for details).
Trident missile	Missile	Approved program.
S–3A	Aircraft	Approved lot V production.
EF–111	ECM aircraft	Approved phase IA prototype program.
NAVSTAR	Global position system	Approved combining best features of Navy and Air Force programs (see below for details).
SCS	SEA control ship	Approved design and construction of lead-ship only; return to DSARC to define air complement prior to follow-ship contract award (see below for details).
SES	Surface effects ship	Approved modified program focusing on risk reduction (see below for details).

Management of DOD R. & D. Programs

Chairman McClellan. Some critics believe that the DoD has become overmanaged (specifically the R&D program). Would you comment on this?

Dr. Currie. Yes, Senator. While I believe there was basis of the criticism several years ago, today I feel this is hardly true.

As you know, one of the principal points of DoD policy stated in the DoD Directive 5000.1 is that the Military Departments are responsible for the conduct and management of major systems programs, with review by the Office Secretary of Defense for adherence to policies. The Secretary of Defense makes key decisions that initiate programs, increase program commitments, or cancel pro-

grams. Two basic management tools used to implement this policy for major program acquisitions are the DCP and the DSARC. The DCP will establish a complete summary of a program plan of effort for a specific phase. It will include limits of authority and thresholds on cost, performance and schedule within which the Service will conduct the program without review until the next major commitment is required of the SecDef. The approved DCP is a contract between the SecDef and the Service Secretary.

Many of the above decisions reflect major restructuring of programs which was accomplished during the preparation for and review by the DSARC. The SES (Surface Effects Ship), SCS (Sea Control Ship); AWACS (Airborne Warning and Control System), NAVSTAR (Global Positioning System), and CONDOR (Missile) programs are examples of programs significantly modified by the DSARC review process. The restructuring of these programs is summarized below:

In this manner there are normally three critical decision points in a program (i.e., Program Initiation-entry into the Validation Phase; start of Full-Scale Development; and, release to Production). The DSARC will review the programs at these critical decision points to make recommendations to the SecDef for final decision. In addition to these three critical points there may be DSARC reviews for (a) release of long lead funds prior to a production decision, (b) release of funds for limited initial production to limit exposure until risks have been removed; and (c) release of funds for annual procurement.

Of course, the DSARC will review a program at anytime it gets into trouble and this is reflected in a breach of DCP threshold.

The following illustrates the process:

IN THE AX (A–10) AIRCRAFT PROGRAM

(1) The DSARC I was held on 19 Dec. 1969. DSARC requested further study but approval was granted to proceed through the Validation Phase proposal evaluation.

(2) DSARC met on 17 Dec. 1970 and approved the Prototype Phase.

(3) DSARC met on 17 Jan 1973 and approved the start of Full-Scale Development.

IN THE F–15 AIRCRAFT PROGRAM

(1) First DSARC approved start of full-scale development 19 Dec. 1969.

(2) Next DSARC, 5 Oct 1972 approved release of long lead funds for production.

(3) Next DSARC, 15 Feb 1973 approved proceeding with production with partial allotments to the airframe contractor until the engine qualified.

(4) Next DSARC, 17 Jan 1974 approved procurement of 62 aircraft in FY 1974 and necessary rate tooling.

In these two examples you will note (1) that the A–10 Aircraft Program which has an estimated $2.5 Billion Program Acquisition Cost had only three OSD reviews from Dec 1969 to Jan 1973; and, (2) similarly, the F–15 Aircraft Program estimated at $9.3 Billion Program Acquisition Cost had only four DSARC reviews from the start of Full-Scale Development in Dec 1969 to release of full production Feb 1973. Now, the F–15 engine program did require several Air Force/OSD meetings when the engine experienced a series of failures during qualification testing. I can't see these programs as being overmanaged.

From another, and a bit more statistical, approach I might mention that since the start of the DSARC system in September 1969 to date, we have had 98 DSARC reviews which relate to 67 different programs; an average of about 1.5 DSARC reviews per program in four and one-half years. In the array 3 programs had 4 reviews, 6 had 3 reviews and 11 had 2 reviews. Certainly I don't see any overmanagement in this track record. We are restricting our presence in the program management of major systems to the critical decision points, the points of significant commitment and to times when the programs appear to be headed for trouble. These points all need SecDef decisions.

WEAPON SYSTEM SERVICE RIVALRY

Chairman MCCLELLAN. What have you done to end the Tri-Service rivalry with regard to weapon systems, i.e., specifically missile and aircraft?

Dr. CURRIE. The entire acquisition management process in DoD is designed to walk the fine line between Service rivalry that results in duplication and waste; and healthy, constructive competition in the development of alternative

equipments to best meet Defense needs. As a part of this process, the Area (and trial Mission) Coordinating Papers are prepared to encompass a broad perspective of current and future development programs in specific mission areas. In addition, the DoD management process (DCP/DSARC) for major programs provides a further restraint or review where possible conflicts are always examined carefully. Another method that is used to reduce Tri-Service rivalry is for my office to sponsor joint programs in areas where there is multi-service interest. Examples of these are:

HARM, a joint Navy/Air Force program to acquire an anti-radiation missile.

SIDEWINDER (AIM-9L), a joint Navy/Air Force air-to-air missile improvement program.

A joint Army/Marine Corps Infantry Weapons program that includes such items as DRAGON and product improvement to the M60A1 Tank.

A joint Army/Navy/Air Force/DARPA High Energy Laser program is investigating possible applications of this technology for the DoD.

Management Changes by the DOD and the Congress

Chairman McClellan. You use as an example of improved DoD management, the SAM-D program, the SES program and the B-1 restructuring. In fact, weren't there changes dictated by implausable and uncontrollable DoD management and/or at the direct or indirect direction of Congress?

Dr. Currie. Senator, I believe that in these specific programs, the decisions and related program changes were the result of the DoD management process. While there was certainly some degree of Congressional concern about each, there was no specific legislative or committee direction. I wish to comment on each of the programs you have mentioned, as follows:

SAM-D.—The SAM-D program has been under continuous review by the Department of Defense since its inception. Critical reviews have been briefed to the Congress, GAO, and other staff personnel. The latest DoD review was directed by the Secretary of Defense and resulted in a restructured program designed to validate the SAM-D guidance scheme with a minimum of funding obligation.

SES.—In the case of the SES there was a divergence of views on the severity of the technical risk and, to a lesser extent, on the degree of urgency attached to the operational needs. The Navy feels that the SES has revolutionary potential in Naval warfare and that, in the light of the lack of major technical stumbling blocks encountered to date, risks are not excessive. However, the DSARC, after very extensive review, concluded that total system risk remained substantial and that further development and test at the subsystem level was needed to ensure orderly and efficient development of the SES as a whole. We received guidance from Congress on both sides of the question; some Members urged one course and others the opposite course with equal conviction.

B-1.—The B-1 program restructuring was a management decision resulting from the independent review of the program directed by the Secretary of the Air Force and which was conducted by a group of technical and management experts under Dr. Raymond Bisplinghoff. The restructuring involved schedule adjustments and the procurement of two additional aircraft with RDT&E funds to provide the necessary continuity to the contractor's planned efforts that will be conducted during the transition from development to production. The decision was reached after a complete assessment of the program.

SES—Surface Effects Ships

In the SES program the Navy's preferred alternative was to proceed with the ship system phase of detailed design of the two 2000-ton ships and full-scale development of long-lead subsystems. In view of the significant risks in the programs, the DSARC recommended and the Deputy Secretary of Defense approved a more prudent alternative, wherein a risk reducing development and test program will be carried out prior to seeking DSARC/Secretary of Defense approval to enter detailed design and full-scale development.

SCS—Sea Control Ship

Before DSARC, the Navy wanted production release for a full 8-ship program and did not favor consideration of the air complement discussed beyond that for the lead-ship. The DSARC/Secretary of Defense approved design and production

of the lead-ship but required the Navy to come back to DSARC before follow-ships contract award and define the air complement for the follow-on ships.

AWACS (Airborne Warning and Control System)

In August 1973, the Secretary of Defense removed the AWACS from the Strategic CONUS Air Defense Forces and assigned it to the General Purpose Forces. Based on currently emerging assessments of the potential of a "tactical AWACS"—stimulated by prototype demonstrations in Europe (April 1973) and the USA (June–October 1973) and by statements from the Army and Navy at the DSARC IIB review (27 September 1973) which indicated a need for the mutual support offered by an AWACS in joint operations—it was evident to the DSARC Principals that a more capable configuration than the "CORE" AWACS is essential to support the General Purpose Forces. On 2 November 1973, based on the recommendations of the DSARC, the Deputy Secretary of Defense authorized the USAF to continue the AWACS engineering development program while accommodating the need to expand from the previously approved "CORE" configuration. In considering production, the USAF was directed to plan for the procurement of 12 AWACS per year starting in FY 1975, at a delivery rate of one aircraft per month.

The configuration of each annual buy (or block) would evolve as necessary with improvements (or enhancement items) to meet the evolving needs of the General Purpose Forces. The first block has been defined as the CORE configuration plus a self-defense subsystem and an Air Force satellite communications terminal. Funds were included to preserve options for the installation of additional enhancement items in Block II and Block III aircraft for improvements in C^3 and survivability, a Special IFF system and increased support to the other Services. Thus, at DSARC IIB, the configuration and production planning for the AWACS programs were significantly changed.

AWACS Use for CONUS Defense

Chairman McClellan. Do you believe that there will be adequate testing of AWACS before a particular production decision will be made?

Dr. Currie. The AWACS test and evaluation program has been carefully structured to provide test results before critical decisions are made throughout the entire span of the AWACS program. In December of this year—when we will make our production recommendation to the Deputy Secretary of Defense—we will analyze test results from the following three sources: (1) over 1400 hours of flight test time from the "brassboard" aircraft and the System Integration Demonstration (SID) aircraft; (2) the Avionics Integration Laboratory (AIL) and the Software Development Laboratory (SDL) which use the same mission avionics equipment as in the SID aircraft; and (3) the performance, qualification, and acceptance testing of the subsystems (i.e. radar, IFF, communications, data processor, data displays, navigation, etc.) accumulated to date.

The flight test program is integrated with the AIL ground test system so that those factors which cannot be adequately tested in the air (such as the full target tracking capacity and maximum target capability) will be tested in the AIL exactly as if derived from the airborne radar system. The AWACS test and evaluation program is a "test-before-buy" program and, in our judgment, will provide solid evidence of system performance in a decently "beefed-up" test environment prior to the production decision.

Chairman McClellan. Explain when each of the beginning aircraft will be available and exactly what equipment they will carry.

Dr. Currie. Based upon current plans to procure the AWACS aircraft in three separate, annual blocks (i.e. procure twelve Block I production aircraft in FY 75, twelve Block II aircraft in FY 76, and seven Block III aircraft in FY 77), then the first Block I production aircraft will be delivered in April 76, the first Block II aircraft in September 77, and the first Block III aircraft in August 78. The Block I aircraft will be configured with the "CORE" equipment, an AFSATCOM terminal, and a self-defense system. The term CORE is defined as baseline configuration of the aircraft consisting of the radar, communications, data processor, data displays, identification, navigation, and on-board test monitor and maintenance functions groups. Block II and III aircraft will carry all of the Block I

equipment and, in addition, may include more command and control equipment, [deleted] and possibly a time division multiple access digital data link system. The configuration of the Block II and III aircraft will be addressed at the June 74 Program Review after careful consideration of additional studies, the evolving threat, etc.

Chairman McClellan. Isn't this system being primarily developed for use in the European environment?

Dr. Currie. The AWACS system is being developed to support the General Purpose Forces wherever they may be deployed and to support CONUS defense on a crisis basis. However, we are adding a few special "black boxes" to the aircraft which provide it with additional capability in the NATO central European area which we presently regard as the most aggressive air threat environment.

AWACS Use for CONUS Defense

Chairman McClellan. How many AWACS do you intend to use for CONUS defense?

Dr. Currie. Air Force studies indicate that the use of AWACS in the continental air defense mission would require a minimum of [deleted] aircraft to continuously man [deleted] peripheral stations surrounding the United States for a threat which exceeds [deleted] hours. Lower numbers of AWACS would result in correspondingly fewer stations and less coverage. Due to program costs and fiscal priorities, however, only 34 total AWACS are now programmed. These interchangeable aircraft have been considered by the Air Force since 1963 as dual purpose assets. The judicious use of 34 aircraft will provide the minimal capability needed for both CONUS defense and worldwide tactical/defensive applications. The recent Secretary of Defense guidance reduced the emphasis on defense against bomber attacks and transferred AWACS funding from the strategic to the general purpose forces program element. This action, however, does not alter the requirement for AWACS to be able to perform in a variety of tactical, strategic, and special mission applications. Since the requirement for AWACS is a function of the nature of the conflict environment, any advance allocation of specific numbers of aircraft to any mission curtails the managerial flexibility of this important national asset.

Chairman McClellan. What airplanes will be primarily used for the intercept and destruct mission?

Dr. Currie. The primary interceptor aircraft that will be used with AWACS will be the F–106 and F–101. In addition, General Purpose F–4 and F–15 aircraft will also be used to augment CONUS air defense forces in time of crises.

Chairman McClellan. What missile system do you intend to use for CONUS defense?

Dr. Currie. If a missile system is required for CONUS defense, the Army would deploy SAM–D when developed.

Chairman McClellan. Proceed.

NAVSTAR (Global Positioning System)

During the initial phase of the 9-month period of preparation for the NAVSTAR GPS DSARC, competing Air Force and Navy approaches were reviewed in depth by DDR&E. It was evident that the optional solution was a combination of the best elements from both programs into an evolutionary positioning system development. This direction was given 5 months before DSARC. Both Services worked diligently to define the new composite system and to provide factual schedules for development, test and evaluation. The necessary schedules of staffing and coordination for DSARC among the Services resulted in a program that is both balanced and responsive to the needs of all three Services.

NAVSTAR

Chairman McClellan. What systems will specifically be replaced by NAVSTAR? What personnel will be saved?

Dr. Currie. When the NAVSTAR concept is validated and its cost and performance objectives are met, it will replace most of the DoD external (radio signal) navigation and positioning systems. However, the specific systems to be replaced have not yet been identified. I have recently established a DoD Position-

ing and Navigation Review Committee to review all DoD programs in the positioning and navigation area on a periodic basis and to provide specific recommendations on cost avoidance or phaseout of systems who need becomes questionable in view of NAVSTAR capabilities as they develop. A major objective of the NAVSTAR program is to significantly reduce the number of navigation and positioning user equipments. Candidates for phase-out may change, depending on the ability demonstrated by NAVSTAR, but at this time the major candidate operational systems are LORAN, TRANSIT and possibly OMEGA and TACAN. The NAVSTAR program has not developed to the point where assessment of personnel savings is feasible.

Chairman McClellan. Will the development of NAVSTAR do away with navigators?

Dr. Currie. No. I believe that navigators will continue to be needed, however, there will probably be many instances wherein the dedicated navigation position may be eliminated or combined with another position.

Chairman McClellan. Proceed.

CONDOR Missile

Dr. Currie. The CONDOR DSARC recommended restructuring of the CONDOR Program in order to provide more options to utilize the features of this missile. In particular, direction to incorporate a low-cost non-secure data link and a dual-mode (active radar and electro-optical) seeker was given by the Deputy Secretary of Defense. The low-cost data link would be common to the data link utilized by the Navy WALLEYE and Air Force MGGB glide weapons.

Efforts will continue to strengthen the DCP/DSARC process to make sure that new defense systems acquisitions are initiated with a properly structured development and test and evaluation program. Ongoing programs will receive critical reviews at the DSARC checkpoints to assure that the accomplishment of achievement milestones dictate the program pace rather than a projected IOC or deployment date. Through the DCP/DSARC process the major weapon systems, which account for such a large share of our defense resources, will be rigorously examined in order to achieve an adequate return on the U.S. taxpayer's investment. At this point in time approximately 66% of the FY 1975 development dollars are for programs on which there are Development Concept Papers (or equivalent documents) and subject to DSARC review.

While the policies of DoD Directive 5000.1 are directed to major systems acquisition, they are equally applicable to lesser programs. Each of the Military Departments have estabilshed internal procedures for these lesser programs. However, the DSARC has from time to time selectively reviewed these programs.

Cost Controls

Control of the total costs of our weapon systems (development, procurement, operation and maintenance) is probably still the most difficult management problem. While a small percentage of this total cost is spent during development, a large fraction of the cost of ownership relates directly to the design approach taken during the early stages of a program. This leverage must be exploited to reduce the downstream costs by properly structuring the development programs. Weapon systems must have affordable production costs, high reliability, low maintenance and be capable of operation by the minimum number of low skill level personnel. This is a large order and at best the DoD can only expect to approach the optimum solution. Several of the critical ingredients to the solution are good cost estimating, the establishment of difficult but achievable cost goals (design-to-cost), minimum detailed system requirements and the proper consideration of the key factors that influence downstream costs.

The Deputy Secretary of Defense recognizes the need to better address the down-stream costs (i.e., maintenance and support) and to more effectively manage their related resources. On 25 January 1974 he directed the establishment of an OSD/Tri-Service task group that will in the next four months develop a recommneded phased implementation plan for providing visibility of these costs by weapon/support system and the means for more cost-effective management and accounting of these costs.

Relative to good cost estimating, the establishment of an independent cost-estimating function within each of the Military Departments and the Cost

Analysis Improvement Group (CAIG) within OSD has vastly improved the quality of both original and underway program cost estimates. The DSARC now has at each key program milestone review an independent Service cost estimate to compare with that of the program manager. During 1973 the CAIG reviewed all Service independent cost estimates for the DSARC and on 8 programs presented their own separate independent estimates. It is believed that this will result in a significant reduction in cost overruns for the defense systems started in the past two years because of this added emphasis on independent cost estimates, which is producing more realistic original program cost estimates.

We are emphasizing cost control and weapon effectiveness in many cases by attempting to upgrade our weapons and increase their capabilities through modification rather than development of new weapons.

The list of programs that are the subject of modernization through modification is long. Such modifications not only improve the capability of a weapon to perform its original mission but may extend its capabilities into other areas as well. Examples include the EF–111 version of the F–111; the COBRA armed with TOW; the A–6 and A–7 TRAM programs, another step in the continuing modernization of SIDEWINDER; modification of the STANDARD missile (the SM–2 version); efforts to develop a dual mode seeker for CONDOR and REDEYE while still utilizing the airframe and warhead; a laser-guided version of the originally electro-optical guided MAVERICK; the CHE–53E improvement program; the SPARROW missile modification program; the COD replacement program and the BQQ–5 sonar modifications to name but a few.

It is now standard practice, when considering development of a new system, to consider the modernization of an existing system as an alternative approach.

Factors Determining Cost Effectiveness

Chairman McClellan. What major factors are taken into consideration when you review the cost effectiveness of a program?

Dr. Currie. Cost effectiveness analyses are conducted to determine the most efficient method (or program) for accomplishing a stated task. DoD cost effectiveness reviews thus involve consideration of: the objective or mission to be performed and the need for it; the enemy threat that will be encountered; the quantitative and qualitative "effectiveness measures" by which success in this mission area should be judged; the demonstrated or projected performance of competitive systems (stated in terms of the appropriate effectiveness measures) in conjunction with other complementary portions of our total forces; the risk that new systems will not perform as advertised; and the life cycle costs of all competing systems. These factors provide analytical insight to managers and decision makers as one input to resource allocation considerations.

Chairman McClellan. Proceed.

Long Range Planning and Affordability

Dr. Currie. Increased competition with other National priorities has severely constrained the resources available to the Defense Department. This requires greater efficiencies in the management of defense systems acquisition to ensure the availability to our forces of field-worthy equipment which meets realistic performance requirements reliably at least cost. As a first step, a longer range and more thorough planning process has been initiated to identify our needs and relate them to the variety of force and capability options which might be provided within specifically limited fiscal resources.

Because the length of the cycle from development to initial operational capability (IOC) ranges from 5 to 8 years, we need to identify *now* what our new and replacement inventory requirements will be in the mid to late 1980's. We must commence now to define all alternatives of system configuration based on circumstances of use, capabilities, and cost. What will be the environment in which forces will be expected to perform—conditions of employment, postulated missions, force mixes, performance capabilities, manpower and support requirements of the possible forces—will we be able to acquire and support those force options; can we afford them? All events of the Programming, Planning and Budgeting System must be tied together—making them interdependent and mutually reinforcing to ensure that the ultimate objective, a strong, efficient, operative defense structure, is achievable within fiscal restraints.

Lead Time—Start Up and IOC

Chairman McClellan. What is the normal lead time between start-up and IOC for an R&D program?

Dr. Currie. It is very difficult to state a "normal" lead time between start-up and IOC for an R&D program. The time is dependent on the complexity of the program, the degree of success in eliminating the risk areas during advanced development, and the funding available during the development process. For example, the time estimated between start-up and IOC for the B–1 program is 10 years while for a less complex program such as the CH–53E, it is 5½ years. A recent look at a variety of programs indicated that the average time is about 80–90 months between approval for Advanced Development by the Secretary of Defense and IOC (defined as the first item delivered for inventory).

Chairman McClellan. Proceed.

Dr. Currie. We have given greater emphasis to key areas of the PPBS, for instance the Joint Research and Development Objectives Document, which now better reflects the relationship of needs, priorities and availability of technological resources. We have discarded, or made drastic changes in, less effective tools; for example, Mission Concept Papers (MCPs) will soon replace Area Coordinating Papers (ACPs) in defining the functional relationship of candidate materiel (including systems) capabilities with respect to defense needs. MCPs will address developing force implications and alternatives in terms of resource availability and the effects of its allocation and consumption rates, capability comparisons of current inventory with proposed new systems, developmental priorities and considerations which must be shown to the trades and balance between "quality vs. quantity" of individual force elements with a common mission objective; and it will focus on the seriousness of the cost implications of the various combinations of force mix.

During this past year the Secretary of Defense requested the Military Departments to prepare, as a pilot effort, an "Extended Planning Annex", i.e., projections of planned force structure for the period FY 1980–1989 based on fixed assumptions of budget availability and threat scenario. The objective here was to assess our capability of providing some insight into how procurement "bow-waves" might be avoided and ensure that procurements resulting from programs about to enter development could be afforded. We anticipate that this kind of projection will highlight areas where development, procurement, force and resources alternatives must be studied in greater depth. Another substantial contribution of this pilot effort will accrue in its having established a base from which to orient future studies of "affordability".

Totality of Programs

Chairman McClellan. Would you provide the committee with a sampling of how you look at the "totality of programs." (i.e., missiles, planes, ships, etc.)

Dr. Currie. I believe the method of analyzing our total defense requirements employed by the current DOD management team represents a major evolutionary step forward in the achievement of management visibility of our programs in context. Instead of attempting to rationalize, line item by line item, the requirement for all systems within a "family of commodity types", (ships, planes, missiles, radars, etc.) on their individual merits, we have inserted a critical prerequisite step into the RDT&E program planning process—a mission area analysis. We feel that, initially, the "commodity type" is secondary to the overriding considerations of mission area needs, or objectives, which must be satisfied in order to achieve an acceptable level of force capability and effectiveness. Let me explain.

We first must identify all the essential functions required to be performed by military offensive/defensive/support forces throughout the full spectrum of realistic strategic and tactical scenarios. These functions are then grouped by common or directly related purpose into what we call mission areas. Itemized within each mission area are all the RDT&E programs, current and planned, which functionally will contribute to the attainment of defined mission area objectives. These projects are individually and collectively analyzed and evaluated with respect to their planned capabilities in light of *assessed U.S. deficiencies, qualitative and quantitative force posture* relative to potential adversaries, observed *adversary progress, critical intelligence* requirements, *critical technology* needs, *current inventory* capabilities, etc. The mission area analysis usually will result in a mix of candidate systems whose capabilities are oriented to similar

mission objectives, either individually or in a complementary manner. The analysis might result in the establishment of a new program (or combination of programs) conceived to fill an important capability void. It can also result in the cancellation of a project whose capabilities are excess to requirements, or whose performance is inadequate to meet specifications, or whose contribution is insufficient in view of cost and/or technical risk factors.

It is following the mission area review that we can commence to aggregate projects by commodity type. This "phase" of program review is focused on achieving the cleanest, simplest, least-cost force structure which will serve our legitimate defense needs. We may learn during this phase, for example, that in our examination of *all* fixed wing aircraft configurations or adaptations, one aircraft can serve several mission areas. Or it may seem practical and cost effective to adapt a given missile configuration to several mission areas' needs. But, with each proposed system adaptation, it is necessary to return to the mission area review process and assess the impact of that change on the item's ability to perform its original mission function, and, we must examine the implications of support logistics, the effect on interaction with other systems, etc. The entire process is reiterative, complex, and continuous. At no point in time is either our RDT&E program, or the force structure it supports, static.

Chairman McCLELLAN. Proceed.

Dr. CURRIE. Looking further ahead in defense planning will give us the required confidence that decisions made in the immediate future will be based on the best choices available; it will provide greater assurance that future procurements and system deployments will provide the necessary return on our National investments.

ESTIMATED PROGRAM RISKS

Chairman McCLELLAN. How do you estimate the risks involved in a program? Discuss what you consider a "high" or "low" risk effort.

Dr. CURRIE. Risk assessment is a very difficult and crucial area especially in new complex system developments. First of all we must recognize that we must of necessity consider not only technical risk but cost and schedule program risks.

With respect to technical risk we consider past performance and experience with the technology involved. We will consider known failure modes and mechanisms, and past field experience. With new technology we review the results of feasibility efforts in exploratory and advanced development and the results of prototype testing when available. In all major programs the Deputy, DDR&E (Test and Evaluation) makes an independent assessment of test results at hand, and the testing planned to give an indication of technical risk inherent to the decision to go ahead with the development. In later phases the Deputy, DDR&E (T&E) will review results of all testing including Development Testing, Initial Operational Testing and final Operational Testing to assess whether there is proof the risks have been eliminated, and to assess the system's suitability and its readiness to enter production. DoD Directive 5000.3 requires this risk assessment by analysis of test data and test plans.

In an analysis of the adequacy of future test plans you realize that DoD Directive 5000.3 will also impact on assessment of schedule risk. In conformance with it Dep DDR&E(T&E) and the DSARC will analyze any concurrency aspect of testing, the adequacy of the amount of testing that will provide sufficient confidence in the design, the time allotted for testing and the time needed for redesign to remedy detected failure. A tight test schedule which is "success oriented" poses a potential program schedule risk. Experience with past similar programs will guide us in this area. By DoD Directive 5000.3 the Dep DDR&E (T&E) will report to the SecDef and to the DSARC his independent assessment of the program readiness to proceed to the next phase at each critical decision point in the program as a basis for SecDef decision.

Another type of program and schedule risk may relate to the proposed contractor's workload capacity, the interaction of other program deliveries on the new program being introduced. Schedule risks may also relate to possible union activities and strikes, energy shortages that can impact on production and deliveries and the impact of possible late delivery of subcontractor or government furnished material to the prime contractor. We must consider all of these factors.

Another factor which impacts program schedule risk relates to budget cuts dictated internally within the DoD or by the Congress as a result of reordering of priorities. This may cause the program to be stretched in schedule due to the reduced funding.

The other basic risk is cost risk which is directly related to the technical and schedule risks as well as many other factors. We must consider inflation, variations in business base and its impact on overhead, budget reductions which may cause lower production rates or quantities and therefore higher unit production costs. In assessment of cost risk the DoD has in the past several years required that the Service submit a Program Manager's cost estimate and additonally an Independent Cost Estimate relying heavily on parametric cost estimating. DoD Directive 5000.4 requires that the OSD Cost Analysis Improvement Group analyze the Service Cost estimates and report their evaluation to the DSARC at each critical program review point as part of the information needed for the SecDef decision.

Senator, it is virtually impossible to give a complete but brief answer on how to estimate risk. I assure you that it is probably our most important consideration at every DSARC review and decision point. How well we are able to assess the risk depends largely on how much data we have to make these judgments i.e., experience with the technology, cost data base, adequacy of projections on business base, etc.

To answer the second part of your question I would consider a "low-risk" program one where the technology needed represents state-of-the-art, where through prototyping in advanced development we can validate the design, and the degree of prototyping and test of components and subsystems. Cost and schedule risks are low in systems of low-complexity, in an area of good cost data base and production experience. The A–10 program might be labelled "low-risk." A "high-risk" program is one of high complexity and with new technology to achieve a new plateau of performance in a very innovative area. Past accomplishments might be limited to test results on scaled down advanced technology prototypes. Cost estimates are difficult lacking a good data base for this new technology. We might label the SES Surface Effects 2000 Ton design one of high-risk needing further advanced development and testing of the components prior to approval of design and construction of the full-scale ship.

Chairman McClellan. Proceed.

Weapons System Evaluation Group

Dr. Currie. As pointed out earlier, we will continue to strengthen the DCP/DSARC process to ensure that new acquisitions are initiated with a properly structured development and test and evaluation program. To this end we are relying more and more on the Weapons Systems Evaluation Group (WSEG) with assistance from the Institute for Defense Analyses (IDA), and, to a lesser extent, private contractors, to provide independent inputs to the DSARC process. These inputs are developed by a team comprised of personnel from WSEG and from IDA. The military personnel from WSEG provide a broad background of military operational experience from all Services, and IDA civilians provide the scientific and analytical expertise.

Insofar as practical, WSEG conducts independent and objective evaluations of the weapons and weapon systems proposed by the Military Services before a major new phase in its acquisition process begins. WSEG also designs critical tests for the conduct of operational evaluations either by unilateral or joint Service forces. Three examples are the Electronic Warfare Evaluation; the A–7/A–10 "Fly-off"; and the validation of Close Air Support Command and Control concepts.

WSEG is engaged in making assessments of the relative effectiveness of "Blue" and "Red" forces in particular theaters—like the Central Front in Europe. Better computer models are being developed to capture the essentials of the dynamics of ground and air warfare in Central Europe. WSEG/IDA also has undertaken to demonstrate a methodology using static measures that would allow one to evaluate the overall strength of opposing ground and air forces. These static measures attempt to capture the meaning not only of the effect of quantity (force levels) but the effect of quality (technical performance) as well.

WSEG will be actively engaged in mission area analyses where critical deficiencies are identified and new concepts—involving better tactics, techniques, weapons and equipment—to alleviate these deficiencies are described and evaluated. The WSEG/IDA analyses will (1) describe a menu of promising concepts; (2) provide illumination on the attributes and limitations of each concept; and (3) provide estimates of the anticipated life cycle costs associated with each concept.

NET TECHNICAL ASSESSMENT

The objective of Net Technical Assessment is to help the DDR&E's and the Secretary of Defense's understanding of the technology equilibrium with the Soviet Union and other countries and to indicate areas of deficiency and opportunity on the U.S. side.

This analytic aproach has developed to the point where it can be used advantageously across a broad spectrum of DDR&E's functional responsibilities. Specifically, by highlighting areas where this equilibrium must be adjusted, it can help us determine our best investment strategies and also contribute to a more comprehensive understanding of return on investment of RDT&E for defense purposes. Our particular focus is on gaining a U.S. advantage in resources expended and the maintenance or exploitation of technology in a sufficient number of those mission areas which have national security significance.

Net Technical Assessment is now a stable program of over $7 million annually. Emphasis has been on technical analyses of U.S. and foreign weapons, weapons systems and technologies relative to current strategic problems. Additional emphasis is now being placed, in an overview context, on the total aspects of the military contribution to the Department of Defense. With the U.S.S.R.'s achievement of rough parity in strategic forces with the United States, as demonstrated, for example, through the initial SAL agreements, the importance of tactical systems in maintaining an adequate deterrent posture will increase over the next decade, and consequently added assessments in this area are being undertaken.

During the past year, our technical analyses in the strategic area included: identification of potential deficiencies over the long-term in our confidence in the penetration of Soviet air defenses by U.S. strategic bombers; technical analysis of the impact of newly tested Soviet weapons on our strategic posture; and technical studies of such naval problems as warning for our bombers of the SLBM attack, trailing of our POLARIS/POSEIDON fleet, cruise missile penetration of our carrier task forces, and anti-ship missiles. In the tactical area, we have identified deficiencies in target acquisition and detection systems and have currently underway assessments of the tank/antitank and air defense problems as identified in the Mid East war. We are examining the technical aspects of tactical air attack against close-in and deep targets, comparing battlefield air defense systems with emphasis on control of forces and weapons on the battlefield and assessing electro-optical devices for tactical battlefield use. In addition, we are examining key technology areas to determine deficiencies and/or opportunities to strengthen our RDT&E programs. Finally, we are continuing our technical assessment of the trends in Soviet development of their RDT&E program relative to motivation manpower, facilities, and technoloy base.

The NTA major assessment areas are: (I) Strategic; (II) Tactical; and (III) Overview/Support.

STRATEGIC AREA

Major emphasis is placed in the strategic area with emphasis toward the mid to long term. We have expanded our assessments in the following mission areas; (a) anti-ballistic missile defense, (b) air defense (including bomber survivability and penetration capability), (c) strategic long-range missiles, and (d) strategic sea-based (and anti-submarine) systems. In these strategic areas, we need a comprehensive estimate of the relative technical effectiveness in combat of future U.S. forces versus those of potential adversaries (i.e., face-to-face assessments); and of the relative technical quality of future U.S. forces versus similar forces of other nations (i.e., side-by-side assessments). Further, we need to identify likely critical operational deficiencies that might result if current R&D programs are not redirected; and those areas where much better information on the forces of potential adversaries would significantly improve the design, effectiveness, or economy of our forces (this assists in determining technical intelligence needs).

TACTICAL WARFARE

The next major functional area is tactical warfare. In the past, we have had some effort oriented to examining the tactical aspects of Navy Warfare; however, we have expended our assessments in the following tactical mission areas, for the near and mid-term; (a) tank/anti-tank, (b) target acquisition, (c) fire support, (d) battlefield logistic support, (e) air defense of the battlefield, and

(f) sea control missions with emphasis on cruise missiles and Soviet ASW. As described under strategic above, these assessments are face-to-face, side-by-side and provide identification of potential U.S. operational deficiencies and the need for improved technical intelligence.

OVERVIEW/SUPPORT

The third major functional area provides overview analyses which identify those critical components of DoD's total RDT&E program in comparison with our adversaries, in order to assist DDR&E's program and budget decisions. These analyses compare U.S. with Soviet; U.S. and NATO with Soviet and Warsaw Pact to determine the total financial resources and professional manpower committed to military R&D; the number, type and capability of technical support facilities; and finally, the total technology base of each country. These assessments provide important insights into the unique ways in which potential adversaries manage, stimulate and apply new technology; and assist us in determining and weighting asymmetries in key technology areas.

Net Technical Assessment is an important analytic tool which will assist all RDT&E managers, strengthen joint program developments, and provide a better base for discussions of cooperative R&D with our Allies. In effect, the application of such in-depth comparative assessments provided early in the decision process and related to the commitment of major funds in Advanced Development and Procurement will increase our confidence in the weapon systems to be available in the future.

This NTA program will assist DoD managers by providing: Integration of detailed technical analyses of the Soviet/foreign threat together with developing U.S. programs. Improved new concepts. Improved application of technology to requirements. Better technology alternatives. Identification of critical weaknesses in technical intelligence collection.

DESIGN TO-COST

Having a good cost estimate is not enough; there must be the discipline to follow-up with good, hard-nosed cost management.

Design-to-Cost, as directed by the Deputy Secretary of Defense in June of 1973, shows promise of becoming a key factor in keeping acquisition costs in line. Design-to-Cost goals should, in most cases, represent difficult but achievable average unit "flyaway" cost goals that are established as early as practical during the developing phase. This cost goal becomes a basic design parameter of the system, equal with performance, and must be tracked throughout the acquisition cycle. Continuous tradeoffs should be made between cost, performance and schedule to achieve a proper balance within affordable costs that are above the required operational performance floor and achieved in time to fulfill the operational requirement. If and when influences outside the control of the Program Manager push costs above the goal, keeping within the range of performance and/or schedule tradeoffs allowable, the design-to-cost goal may be revised upward, but only after DSARC review and with Secretary of Defense approval. There is one very important tradeoff that cannot be made: *Design-to-Cost is not a license to tradeoff downstream costs (operating and maintenance) for reduced acquisition costs.* To enforce this, thresholds are established in the Development Concept Papers on those factors that influence downstream costs the most, i.e., reliability, maintainability, maintenance hours per hour of operation, maximum crew size and support requirements. The breach of such a threshold related to operation or maintenance is considered equally as serious as the breach in a performance or cost-related threshold; all require notification of the Secretary of Defense and in most cases a special DSARC review is held.

DESIGN-TO-COST

Senator YOUNG. Can the Design-to-Cost concept be employed in all developments or is its use restricted to certain types of equipment?

Dr. CURRIE. The concept of Design-to-Cost is not restricted to certain types of equipment, but its use may not be applicable or appropriate for certain development programs. Only six of the fifty-five major defense programs (DCP/DSARC) currently in development are planned for exemption from the establishment of Design-to-Cost goals. They will still receive constant review and evaluation based on the cost thresholds established under the DCP/DSARC process and

will be managed in accordance with applicable Design-to-Cost concepts. These six programs, and the reasons for exemption, are as follows:

Air Acoustic Sensors (N).—Is a program name applied to approximately 9 individual projects which range from the early formulative stage to production. As such, an overall DTC goal is impractical; however, individual projects which are susceptible to DTC will have goals established at the appropriate time.

Continental Operations Range (COR) (AF).—This program will provide a single fully integrated test range for improved OT&E. It includes consolidation of existing facilities and equipment and isolated procurements of peculiar range instrumentation. DTC is not applicable on a total program basis; however, DTC goals will be established for individual hardware procurements wherever possible. The program is being managed within the cost threshold established in the DCP/DSARC review cycle.

Sanguine (N).—Is a low frequency inground transmitter to be built by the Navy for submarine communication. Site selection has been a problem. It is expected that the program will be managed through cost thresholds established in the DCP/DSARC process, since it is a one of a kind operation and not appropriate for DTC.

FLT SAT COM (N).—The Navy's fleet satellite communication system, including shipboard and ground station equipment and the satellites, is in the late stages of design and DTC goals are not applicable.

SOSUS (IMPR) (N).—An old program name which covers many projects. It has been exempted from the requirements of DTC.

Tacfire (A).—The initial procurement for this program was under a Total Package Procurement (TPP) concept and the new development contract covers only the remainder of the development effort. So much of the hardware design was performed under the TPP that the remaining software refinement is unlikely to influence system production costs.

Chairman McClellan. Proceed.

Dr. Currie. The added emphasis on test and evaluation in recent years gives us a good look at the measured system performance, plus actual test results on operation, maintenance, and training requirements, prior to making major production commitments. Termination will be recommended during R&D of those programs that cannot meet their planned total program costs.

One example of applying Design-to-a-Cost to DoD programs is the A–X Close-Support Aircraft, now the A–10. The target cost was set early in the conceptual effort, reconfirmed at the program initiation decision and reconfirmed again with the decision to enter full-scale development. The Design-to-a-Cost is $1.5 million, average "flyaway" unit cost, in FY 1970 dollars for 600 aircraft at a maximum rate of 20 per month.

The validation phase of the program was a competitive development where each of two companies designed, built and tested two each prototype airplanes. Proposals for the full-scale development phase and a small production buy were submited to the Air Force, along with the estimated production costs for a buy of 600 airplanes. From evaluation of the prototype flight test programs and the contractor's proposals, the A–10 was selected. The full-scale development contract is cost plus incentive fee, with the schedule geared to the accomplishment of achievement milestones. Since the A–10 program is considered low risk, the contract includes a ceiling price production option on a fixed price incentive basis for 48 airplanes ±50 percent.

Some other examples of Design-to-a-Cost program are:

AAH—Advanced Attack Helicopter—$1.7 million in FY 1972 dollars for approximately 475 units. This program has completed source selection.

Major Weapons Systems Under Design-to-Cost Concept

Senator Young. What major weapons systems other than the A–10 and AAH are presently being developed under the Design-to-Cost concept?

Dr. Currie. A complete listing of the programs, along with detailed explanations concerning each, presently being developed under the Design-to-Cost concept was furnished on 4 April 1974 by DepSecDef Clements in response to an inquiry from Senator Eagleton. Copies were also furnished to Senators Stennis, McClellan, and McIntyre. Other than the A–10 and the AAH, the following major defense systems were listed as having unit "flyaway" Design-to-Cost goals established:

SYSTEM (SERVICE)

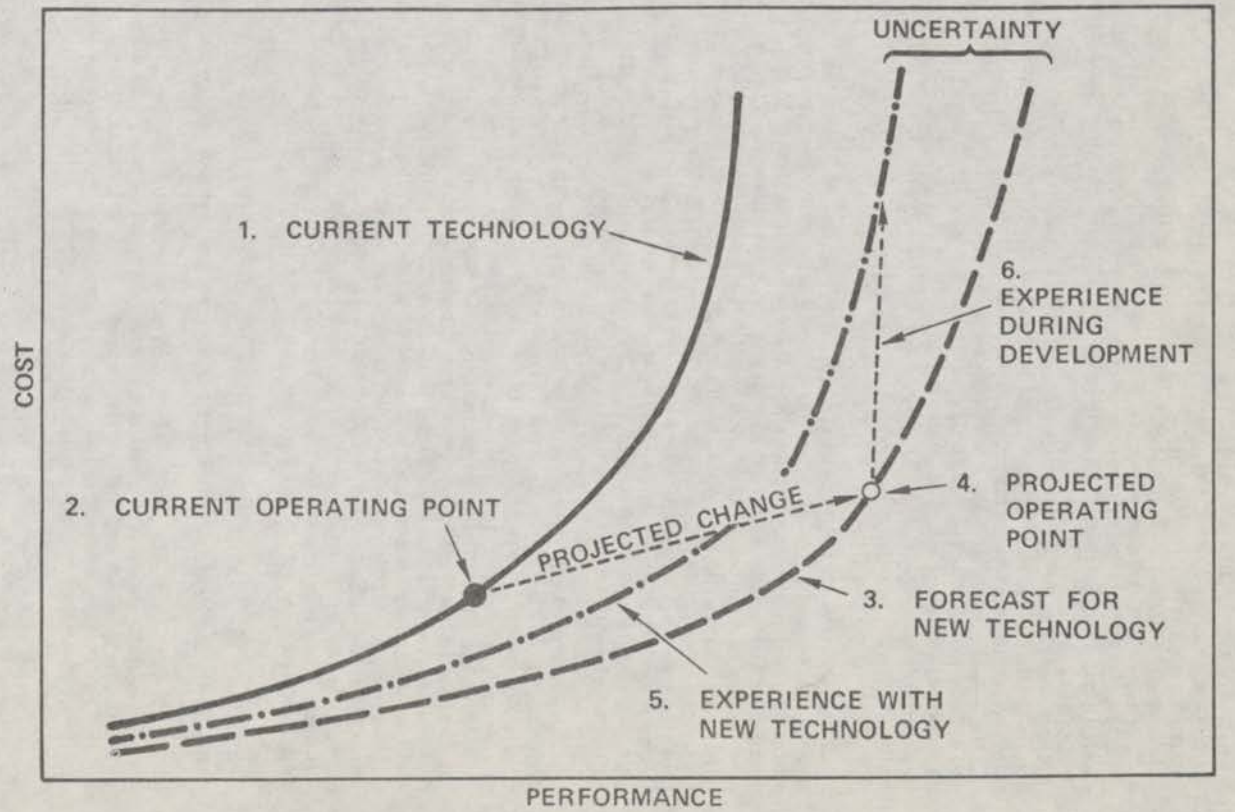
ARSV(SCOUT) (A)
B–1 (Defensive Avionics) (AF)
CH–53E (N)
CONDOR (N)
EF–111 (AF)
HARPOON (N)
Lightweight Fighter (AF)
Low Cost EW Suite (N)
MICV (A)
MAN P/ADS (STINGER) (A)
Patrol Frigate (PF) (N)
Patrol Hydrofoil Ship (PHM) (N)
PHALANX CIWS (N)
SAM–D (A)
SCS (N)
SIDEWINDER (IMPR) (AIM–9L) (N)
SPARROW Missile (AIM–7F) (N)
STANDARD SSM (Active Std) (N)
UTTAS (Airframe) (A)
XM–1 (new MBT) (A)

Also, two additional programs have or will have total program Design-to-Cost goals established:

Advanced Airborne Command Post (AABNCP) (AF)
Airborne Warning and Control System (AWACS) (AF)

There are, in addition to the above, twenty-five major DCP/DSARC programs that do not currently have SecDef approved Design-to-Cost goals, but it is expected that they will have prior to the Milestone II (Full-scale Development) decision in each case.

IMPACT OF UNCERTAINTY ON SYSTEMS ACQUISITION COSTS AND PERFORMANCE



Chairman McClellan. Proceed.

Dr. Currie. *PF*—Patrol Frigate—$45 to $50 million per ship in FY 1973 dollars for approximately 50 ships.

New Main Battle Tank—(XM–1)—Just over $500 thousand each in FY 1972 dollars for over 3,000 tanks, less GFE armament.

Lightweight Fighter—Further development of prototype configuration is to result in an average cost of $3 million in FY 1972 dollars for 300 airplanes at 100 per year.

Navy Low Cost EW Suite—$0.3, $0.5 and $1.4 million design-to-cost goals have been established for each of three configurations of EW suites. The system performance requirements are different for each configuration.

AMST—Advanced Medium Short Take-Off Transport—This program has resulted in new concepts for design of military cargo (and eventually commercial) aircraft with lower costs and improved performance. The program has a goal of $7.2 million average unit flyaway, in FY 1972 dollars for 300 production articles.

Defense Science Board

Dr. Currie. The Defense Science Board's Electronics Management Task Force studied the impact of uncertainty on systems acquisition cost and performance recently. From the accompanying Chart 9.1, it is obvious that we must be willing to trade off performance for cost in order to avoid cost growth. When we design a new system to a projected operating point (the design-to-cost goal) on the new technology curve, the resolution of uncertainty will result in somewhat lower performance, as found along the curve of Experience With New Technology, if we hold this cost goal. Our experience with development while holding performance constant, rather than cost, results in excessively higher costs. For example, based on best estimates of cost and performance (from quality/quantity trades within total available mission dollars), a design projected operating point (4) is chosen at the "knee" of the new technology curve. If, as frequently occurs, the actual versus predicted cost versus performance results in a curve (5) of lesser performance, cost growth will occur unless performance goals area reduced. The growth occurs on the steep slope of the curve. The avoidance of such excessive cost growth entails allowing performance flexibility. In the past we've allowed only cost flexibility. Thus, performance flexibility is an inherent feature of our design-to-a-cost methodology. Chart 9.1 graphically illustrates techniques that can be used to attain a high-low force mix. The low portion of the mix could be developed by dropping vertically from the current operating point (2) to attain approximately the same performance by using new technology to lower cost. Other possibilities involve the use of new technology to produce a modest increase in performance at a reduced cost by dropping down to the right from point (2) and operating in the "safe" (relatively flat) portion of the new technology curves below the "knee" where cost starts to rise rapidly.

Calculations of Design-to-Cost

Chairman McClellan. Procedurally, how do you achieve a "Design-to-Cost" dollar figure?

Dr. Currie. As mentioned in my prepared statement, Design-to-Cost procedures have to be kept flexible and tailored to best achieve good cost management on each individual system. As for the procedures for setting the "Design-to-Cost dollar figure," they will naturally vary, not only with the characteristics of a particular program, but also with phase of development. For instance, during the advanced development of sophisticated weapon systems, the "Design-to-Cost dollar figure" would be set as an objective, based to a large extent on the anticipated available funds and required quantities of weapons in a particular mission area. There would be continuous tradeoff iteration between costs, schedules, quantities, and effectiveness as the configuration of the weapon system matures. Once the minimum acceptable performance (capability) has been established, primary especifications can be written and estimates made of the acquisition, operation, and support costs, including appropriate tradeoff between these costs. By this time, which will always be before the Milestone II decision point (start of full-scale development), reasonable cost estimates can be made for the system and compared with other alternatives. At this point, cost estimates by the program manager, along with independent cost estimates, will be submitted to the DSARC. Based on these "most likely" estimates of costs, and any other information bearing upon pertinent management issues, the DSARC

will recommend a difficult but achievable goal to the SecDef/DepSecDef as the firm Design-to-Cost goal for the program. The SecDef/DepSecDef will approve or modify this Design-to-Cost goal as a part of his decision authorizing continuation of the program into full-scale engineering development. This is not necessarily the exact procedure that will be followed on all major defense systems; however, it does represent a typical program.

Chairman McCLELLAN. Proceed.

USE OF COMPETITION

Dr. CURRIE. By far, the strongest motivation in the defense system acquisition process is competition. The ultimate in competition is where there are two or more viable system alternatives to fill a particular mission requirement. "Winning the program" is the greatest motivation of all, be it country vs. country, service vs. service or company vs. company. It all reduces to *individual motivation* to excel—which call for the finest innovation and dedication to fulfilling a tough goal. As a general rule the added development efforts for competitive prototype shoot-offs more than pay their way in advanced development programs, but, usually are too expensive to continue through full-scale development. Then there are the very large programs and most ship programs where full system competition is not cost effective at all. Such programs, however, should be reviewed very carefully for possible subsystem competition. Reducing technical risk and achieving the best balance between cost and capability are the primary factors considered in determining the role and extent of competition in a new program. More cost reduction has been achieved (both acquisition and ownership), in our newer systems, with head-to-head shoot-off hardware competition will be continued at all levels, from the black boxes up through the major defense system prime contract.

Chairman McCLELLAN. Isn't prototype competition in many cases very expensive? What do we receive from the losing bidder?

Dr. CURRIE. DoD has always advocated competition as a means of obtaining required hardware at the lowest reasonable cost to the Government. There are no exact statistics on the amount of money saved by our prototype competitions, however, it is believed that these competitions will be more than paid for not only in actual cost savings in production but also in the increased technical innovations that result from two competitors. The additional cost of conducting prototype competition is estimated at between 3% and 5% of acquisition cost based on the following procurements.

	Contractor (millions)		Government support (millions)	Acquisition cost (billions)
	A	B		
A-10	$29	$41	$14	$2.1
AAH	45	70	[1] 20	1.8
UTTAS	62	91	[1] 20	2.2
XM-1	68	87	[1] 20	3.0

[1] Rough order of magnitude estimates.

Since DoD would still have an advanced development prototype built and tested even if only one contractor were selected, the assumption has been made that only half of the Government support could be saved if only one contractor were selected. Based on this assumption the following represents an estimate of the additional cost of competition (or possible savings if there were no competition) on the four programs. The Government support cost have been divided equally between the two contractors for the purpose of this estimate.

	Percen
A-10—Between $36,000,000 and $48,000,000 of $2,100,000,000	2.0-2.5
AAH—Between $55,000,000 and $80,000,000 of $1,800,000,000	3.3-4.6
UTTAS—Between $72,000,000 and $101,000,000 of $2,200,000,000	3.3-4.6
XM-1—Between $78,000,000 and $97,000,000 of $3,000,000,000	2.8-3.5
Total—Between $241,000,000 and $326,000,000 of $9,100,000,000	2.7-3.6

This averages out to about 3.2% of the acquisition cost on these programs. These are believed to be reasonable expeditures that will be recouped in production cost savings resulting from the competition.

Although the benefit received is obviously not comparable to the expenditure it is worth noting that the A–9 (the loser to the A–10) is being used by NASA to support their test programs (see page 18 of Aviation Week and Space Technology April 22, 1974).

It is extremely difficult to quantify the savings in production because of the prototype competition. DoD feels confident that up to 5% of acquisition cost for competition is a good investment. How much that percentage could be increased and still represent a good investment is not known. But it is hoped that as the actual procurement cost data on these competitive prototype programs become available some acceptable general guidelines can be supported by the actual data. Until that time DoD will be hesitant to approve competitive prototypes where the cost seems high as in the cases of the MICV and HLH programs.

Chairman McCLELLAN. Proceed.

COMMERCIAL PRACTICES

Dr. CURRIE. Efforts are continuing to evaluate proven management techniques from the commercial world in order to improve the defense system acquisition management. Design-to-cost is a good example of borrowing from commercial practice in order to improve cost performance on DoD programs. While there will continue to be unique constraints on defense systems, there are many "lessons learned" from the commercial sector that will be evaluated.

The following are a few that show a great deal of promise:

Limit specifications to a few "end-item" performance requirements.—This is being tried on several major defense systems and the early prime contractor and Government program manager response is good. It is expected that competing contractors will identify some significant cost savings on these design-to-cost programs as a result of this increased cost vs. specification tradeoff flexibility.

Scrub excessive Request for Proposal and contract requirements.—At the request of the Deputy Secretary of Defense each of the Military Departments has established a special review procedure which increased attention to the elimination of excessive requirements on all development RFP's and contracts in excess of $2 million and production contracts in excess of $10 million.

Continue to emphasize accomplishment of adequate Test and Evaluation during all phases of development and early production of each new system to insure that it will perform as required. Also, just as product improvement keeps commercial product lines competitive with new entries into the market so do component improvement programs improve the effectiveness of our existing weapon systems. Such product improvements, therefore, must be subject to earliest test and evaluation before being incorporated into existing systems.

PROGRAM MANAGER OPERATIONS

Continuing emphasis is being placed on the careful selection of program managers, their training and their operations. After selection, the program managers are given appropriate authority commensurate with their responsibility. Flag and General Officers now are assigned as necessary to manage the most important and costly programs (e.g., F–15, SAFEGUARD, AWACS, TRIDENT). Program management career fields are being established in the Services and efforts are being made to make program manager assignment equivalent to command assignments for promotion.

The Services have continually directed their efforts to early identification of potential program managers, their training and assignment control. Only through these efforts can they assure a cadre of proven individuals who have been carefully chosen, nurtured and motivated for the responsibilities of managing programs in the future. Our young officers and civil servants entering the system acquisition management area are training within their military departments at schools that emphasize logistics, procurement, and research and development where they are given specialized training in these elements of the acquisition process. Later in their careers individuals are carefully selected for training at the Defense Systems Management School (DSMS) and upon their graduation are placed in key positions in the system acquisition offices.

The Defense Systems Management School, at Fort Belvoir, conducts an academic program consisting of two courses for professional development of military officers and career civil servants as well as special short courses. To date there have been 700 officers and civilians graduated from the Defense Systems Management School as shown in Table 9.2.

TABLE 9.2.—DSMS STUDENT OUTPUT, JULY 1, 1973–DECEMBER 1973

Course	Course length	Number of classes	Number of graduates
Program management course	20 weeks	5	297
Executive refresher course	3 weeks	9	167
Cost/Schedule control:			
Systems criteria course for functional managers	5 days	10	155
For program managers	2½ days	10	69
Orientation in defense systems acquisition course	3½ days	1	12
Total			700

Top management attention is provided in program manager training, selection and motivation. Guiding the DSMS operations is the DSMS Policy Guidance Council comprised of the Assistant Secretaries of Defense (Installations and Logistics, Comptroller, Manpower and Reserve Affairs and Program Analysis and Evaluation); the Service Materiel Commanders and the Service Assistant Secretaries (Research and Development). As Chairman of this council, the DDR&E approves all major decisions and policies related to the school. We are most gratified with the school's progress in improving our management by training our program managers and providing a vehicle for rapid dissemination of defense systems acquisition policy. When possible we permit one or two DSMS faculty members or students to attend DSARC reviews.

Deputy Secretary Clements has taken an intense personal interest in our Program Managers. From time to time he has had discussions with Program Managers in his office to obtain first hand information concerning the adequacy of our current policies for efficient conduct of programs. Certainly, it must be recognized that the development, training and motivation of good program managers is probably our most important investment leading to efficient management of multimillion dollar programs resulting in effective weapons and tremendous savings to the nation.

Subsystems Management

In the constant search for ways to reduce cost and improve reliability, an in-depth review is being conducted of the management of the acquisition of subsystems. Many times these lower cost subsystems individually do not have the management visibility or efforts devoted to them that major systems do. However, taken as a whole, subsystems account for a significant portion of the R&D dollars and current plans are to focus on them.

Initial efforts toward improving subsystem management are in the electronics field where there have been several recent important studies by the Defense Science Board and others, co-sponsored between ASD(I&L) and DDR&E. These studies have indicated that over one-third of the acquisition budget (R&D and Procurement) and a major portion of the O&M budget are devoted to electronics. Additionally, they point out that major electronic subsystems which are subsumed in major weapons systems, and independently developed electronic subsystems intended for future major weapons systems, account for a large portion of the current DoD electronics RDT&E and procurement budget. Because of this, plans are to focus management attention within the Services on the subsystem area. Concern is not only with R&D costs but with total life cycle cost, including production, operational and support costs. The additional emphasis on subsystem management will concentrate on implementing Design-to-a-Cost techniques, improving reliability, reducing product proliferation, increasing competition and reducing support requirements. Plans also include close scrutiny of increased independent subsystem developments to have these subsystems ready for weapons systems without the high risk (and usually high cost) of simultaneous development of high technology equipment and weapon systems.

R.D.T. & E. Efforts for Cost Reductions

Last July Deputy Secretary of Defense Clements asked the DDR&E to take steps necessary to increase both visibility and the amount of RDT&E effort devoted to reduction of acquisition and ownership costs. Secretary Clements was specifically interested in initiating advanced development programs or projects to demonstrate the potential for significant cost reduction in both electronic and propulsion systems; and, where possible to establish component programs which could eventually provide lower cost alternatives for some of the major systems now in development.

As a first step, the Military Departments were asked to identify those projects contained in the FY 1974 and FY 1975 programs which address the Secretary's objectives. The responses resulted in a total of 205 projects which amount to $269.6 million in FY 1974 and $286.4 million in FY 1975. In this array 140 projects are technology efforts and 65 are efforts oriented directly to improvement in systems or equipment.

The next step will be to monitor the progress and achievements resulting from these efforts. These types of efforts have the potential for significant savings; they represent excellent RDT&E investments. Secretary Clements' objectives form a positive approach and DDR&E will encourage the Military Departments to pursue more of these types of efforts. However, it may be necessary to ask the Congress for additional funds to support these RDT&E projects.

Also, Secretary Clements suggested that an identification be made in our Technology Base of those programs wherein the primary objective is to provide lower cost technology; plans are to do this in future revisions of the Technology Coordinating Papers.

Joint Service Programs

Another avenue of attack to achieve a greater return on investment is the conduct of Joint Service/Joint Agency programs. Efforts have continued to establish more joint DoD efforts with one of the Services (or Defense Agencies) assigned the lead responsibility. These joint programs have many obvious advantages; which include reduced duplication of RDT&E effort and greater standardization which result in cost savings in RDT&E, acquisition, operation and support. There are currently 42 joint programs as well as others wherein multi-Service interests are growing. These joint programs range from full systems programs, subsystem/component developments, feasibility studies and research. This represents approximately twice the number last year. Several joint programs are listed as follows; there will be increased emphasis in this area during the coming year.

Table 9.3 Example of joint R.D.T. & E. programs

Program	*Participants (lead organization italic)*
NAVSTAR, global positioning	A, N, *AF*
Multiservice laser seeker	A, N, *AF*
V/STOL propulsion technology	*N*, AF
Armor materials	*A*, N, AF
Drug-detection research	*A*, N, AF
Navigation system demonstration for cruise missiles	*N*, AF
Data link for standoff weapons	*N*, AF
Joint service explosives program (JSEXP)	*A*, N, AF
Training technology	A, N, AF, *DARPA*
AIM 9–1 missile	*N*, AF
AIM 7–F missile	*N*, AF
TACS/TADS	A, *N*, AF

There are further areas of opportunity in Joint Service Programs in the fields of: Precision air-to-ground munitions; Propulsion—of all types; Target acquisition.

We will continue to seek areas where Joint Service Programs will concentrate Service Technology to solving problems of mutual concern to more than one Service.

International Cooperative R. & D.

We are continually looking at ways to improve the efficiency and investment return of our R&D dollars in our dealings with our Allies. For some time there has been three concerns about the international aspects of our R&D program:

The United States is shouldering a disproportionately large share of the military R&D burden of the Alliance. There is significant unnecessary duplication in military R&D among the United States and its Allies. The United States is not recovering enough of our R&D investment when our military systems with their advanced and expensive technology are made available to our Allies.

Indeed the ratio of military R&D to GNP is considerably larger for the United States than for any of its NATO Allies and Japan individually and also much larger than the combined Allied R&D vs. GNP. The problem is aggravated by the fact that many of Europe's developments are duplicative with each other and with those of the United States. Europe's technology capability has risen sharply in the past decade, resulting in their ability to develop systems in many areas as good as, or even better than, U.S. systems. (Main Battle Tanks, Low Altitude Air Defense Systems, Helicopters, Gun Systems, etc.) Some studies indicate as much as $1 billion yearly of duplicative R&D among the United States and its Allies.

DoD has underway a policy of Interdependent Cooperative R&D, designed to have our Allies carry a greater share of the R&D burden, and reduce duplication to get more effective results for our collective R&D dollar. Achievement of these results, if properly implemented, should have no adverse effect on U.S. balance of trade, defense employment industrial base and independence from foreign sources for important military systems. Complete elimination of the $1 billion of duplicative R&D is neither possible nor even desirable. Certain overlap is necessary for prudent management and risk-taking. However, planned and coordinated reduction of this duplication could result not only in some overall R&D savings within the Alliance, but even greater savings in common logistics support, and in the vastly increased operational effectiveness of commonality.

A major tenet of our policy of Interdependent Cooperative R&D is that the United States will not initiate development of an item that already exists with our Allies and which meets our military need; and the same principle holds true in reverse for our Allies. When we adopt an Allied system in this manner, the system is produced here in the United States, thus injecting European-funded technology into our industrial base for a fraction of the cost of a new development, with an earlier IOC, and with no adverse impact upon our employment base. In the event an Ally chooses a U.S. system for its requirement, it can either produce the system in-country or buy off a U.S. production line—in either case refunding a fair share of R&D costs to the United States.

The United States currently has initiatives in both European-developed systems of interest to the United States and U.S.-developed systems of interest to our Allies. Some examples are:

Three European-developed Short Range Air Defense Systems (UK's RAPIER, FRG's ROLAND, and France's CROTALE) are under serious consideration this year to meet a U.S. need in lieu of initiating a new and costly U.S. development.

In the V/STOL area, the United States is considering a joint development with the UK for an Improved HARRIER, to be built in the United States.

Our Allies have participated in the U.S. program for development of a Hydrofoil Missile Craft.

There is a major thrust to have NATO adopt AWACS to provide critically-needed upgrading of Western European air defense in lieu of their piecemeal national developments.

There is an agreement with the UK and FRG toward selection of a common main gun for future main battle tanks, which should greatly aid commonality and logistics costs in NATO.

U.S. and NATO Requirements

Chairman McClellan. How do we communicate with our allies in order that we recognize each others needs?

Dr. Currie. Our efforts have been focused at three levels, namely the NATO level through my position on the NATO Conference of National Armaments Directors; at the Four-Power (US/UK/FR/FRG) level, and bilaterally with each of our Allies. For example, since its inception in 1970, this Four-Power group has had a beneficial effect on cooperation at the NATO level and has also led to a greater understanding of the problems and promises of R&D cooperation. As the group matures and more confidence builds up among its members, opportunities for expansion in the numbers and range of cooperative endeavors will grow. In addition, there are many informal meetings that occur at the Secretary of Defense level and at the R&D Directors level. The purpose of these meetings is

to improve cooperation, and thereby enable each country to utilize their research and development, or procurement dollar to the best advantage.

Chairman McCLELLAN. Proceed.

Dr. CURRIE. Finally, we have recently revised DoD policy to provide for a significantly greater dollar return to the United States of our R&D investment when our military systems with their advanced and expensive technologies, are sold to our Allies. In this way we replenish to some extent the national coffers with an equitable and business-like return from foreign countries for our costly development investment.

SYSTEMS DEVELOPMENT OF ALLIES

Chairman McCLELLAN. What consideration is given to the systems being developed by our allies when considering initiating a similar system?

Dr. CURRIE. The Development Concept Paper (DCP) and the Defense Systems Acquisition Review Council (DSARC) have both been formally changed to require mandatory consideration of pertinent foreign developments prior to initiating a similar U.S. development. In addition, the R&D Directors of the US/UK/FR/FRG meet informally and regularly for the purpose of improving cooperation among themselves and using their good offices to increase cooperation in NATO. Some measure of success has been achieved. In practical terms, some of the efforts of the group to date are: Cancellation of two (UK and FRG) of the four IR air-to-air missiles under development for similar requirements; driving toward standardization of much of the family of ground-based air defense missile systems, especially on the Central Front (REDEYE/STINGER, SHORADS, IMPROVED HAWK, and SAM–D); pressing for introduction of AWACS to upgrade the NATO Early Warning and Command and Control Network (NADGE), and for common main armament on future main battle tanks; completion of two-sided testing of Four-Nation candidate anti-tank weapons to support additional deployment doctrine in NATO, and evolve cooperation on next generation anti-tank weapons. The group regularly exchanges operational requirements to assure that no member nation starts a development project without having the opportunity to cooperate rather than start an independent project. Some additional examples presently being considered for possible U.S. use are the Advanced Harrier, [deleted], and several European surface-to-air gun systems. Examples of U.S. release of our most advanced technology for systems for NATO use are US/FRG SLAR, Smart Weapons and Advanced ECM.

Chairman McCLELLAN. Proceed.

INDEPENDENT RESEARCH AND DEVELOPMENT (I.R. & D.)

Dr. CURRIE. IR&D is an essential and effective means to provide the United States with a superior technology base to meet our government's requirements. The Congress is strongly urged to give it full support.

Industrial firms, particularly those in the higher technology areas, must engage in technical efforts whose objectives include: Increasing their base of fundamental knowledge. Advancing technology in their current product areas. Identifying and exploring innovative concepts. Full utilization of technical and scientific talent. Developing innovative concepts into saleable products. Offering innovative, unsolicited proposals. Responding to requests for proposals.

Part of the effort to attain these objectives may be directly funded by customer contracts. The balance must be considered a necessary cost of doing business, and these costs must be either expensed during the period in which incurred or capitalized for amortization in the future sales price of the specific product.

DoD has permitted defense contractors to expense such costs as overhead charges on defense contracts since 1959. The rational and the ground rules for such allowance have been the subject of continuing and extensive review and analysis both within DoD and within the Executive Branch. The IR&D program represents the best combination of initiative, competition and innovation which characterize our free enterprise system. In the past, it has resulted in major advances in technology directly useful to our defense and space objectives.

It has significantly compressed the time scale in which these developments would otherwise have occurred. It has also been abused—unwisely managed or diverted to less relevant objectives. The abuses, however, constitute only a small fraction of the total effort. Clearly, IR&D must continue to be focused on the creation of technology directly applicable to future systems and on demonstrations that prove that new concepts are ready for application. Over the years, Congress

has critized both the rationale and the administration of the IR&D/B&P program. In recent years, Congress has imposed constraints on IR&D particularly on the relevancy of the effort to the DoD mission (Section 203, Public Law 91–441). A further constraint on total dollars allowed on the aggregate of DoD contracts has been threatened.

DoD's policy continues to recognize IR&D and B&P as normal costs of doing business and therefore allowable charges to a contractor's overhead subject to certain restrictions concerning relevancy and amount of dollars allowed. DCP 90 now incorporated in the ASPR details the contractural ground rules for IR&D and B&P allowance while DoD Instruction 5100.66 establishes the procedures for technical evaluation and relevancy and technical quality via both annual, technical plan reviews and bi-annual, on-site evaluations by tri-Service groups of technical specialists.

Currently, the GAO in response to requests from certain members of Congress is conducting a comprehensive study of IR&D/B&P with a report due to the Congress on 1 April 1974. To support GAO and to supplement its efforts, DDR&E has chartered a Defense Science Board study while the DoD Technical Evaluation Group has under review the effectiveness of the technical evaluation process. Industrial firms through three associations, National Security Industrial Association (NSIA), Electronics Industries Association (EIA) and Aerospace Industries Association (AIA), have established a comprehensive study effort whose output will be available to the GAO, Congress and the Executive Branch. The findings, conclusions and recommendations of these various efforts will be agenda topics before the DoD IR&D Policy Council during 1974.

Commission on Government Procurement on Major Systems Acquisition (COGP)

The DoD was assigned by the OMB as the Lead Executive Branch Agency for review and implementation of the Commission's twelve recommendations on the acquisition of major systems. Because of the significance of these recommendations, a DoD Steering Group and Task Force and a corresponding Interagency Steering Group and Task Force were established to accomplish this task.

DoD and Interagency representatives (AEC, DOT, NASA and NSF) have developed a Proposed Executive Branch Position. This position was submitted to OMB and GSA on 10 January 1974. The position represents a coordinated position among the representatives involved and is not the official position of the Agency Heads. OMB and GSA will be formally coordinating the "proposed" position to arrive at a "final" Executive Branch position in the months ahead.

The statement made by the agency representatives that "the collective policy 'framework' postulated by the recommendations represents a valuable reference against which all agencies, each in their own context, can continuously examine their major systems acquisition activity" is on target. With regard to a preliminary DoD position, the recommendations reflect current and evolving DoD acquisition policies and practices. This does not mean that there is not room for improvement—efforts must continue to improve the acquisition process and the competency of personnel.

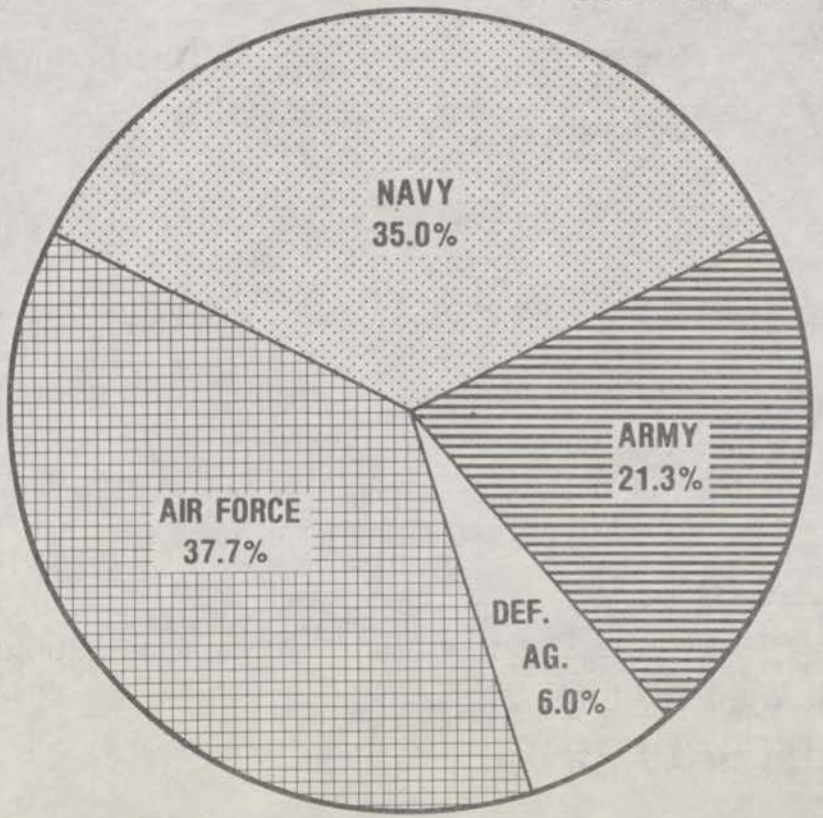
It is believed that the majority of the acquisition of major systems recommendations can be implemented by making minor revisions to the current and in-process policies. Adoption of the COGP recommendations, C–2 and C–5, regarding a "mission" oriented budgeting approach, will require further study by the DoD and its OMB and Congressional Committees' counterparts.

APPENDIX

BUDGET ACTIVITY	FY 1973	FY 1974	FY 1975
Military Sciences	425.2	435.8	441.1
Acft & Rel Eqpt	1,799.4	1,681.7	1,829.5
Msle & Rel Eqpt	2,118.5	2,124.9	2,353.0
Astronautics	406.7	593.9	527.2
Ships & Sml Craft	620.2	635.1	727.4
Ord Combat Veh & Rel Eqpt	382.8	471.0	512.7
Other Equipment	1,566.8	1,664.0	2,095.6
Mgt Support	696.4	726.6	836.0
Total RDT&E	8,016.0	8,333.0	9,322.5

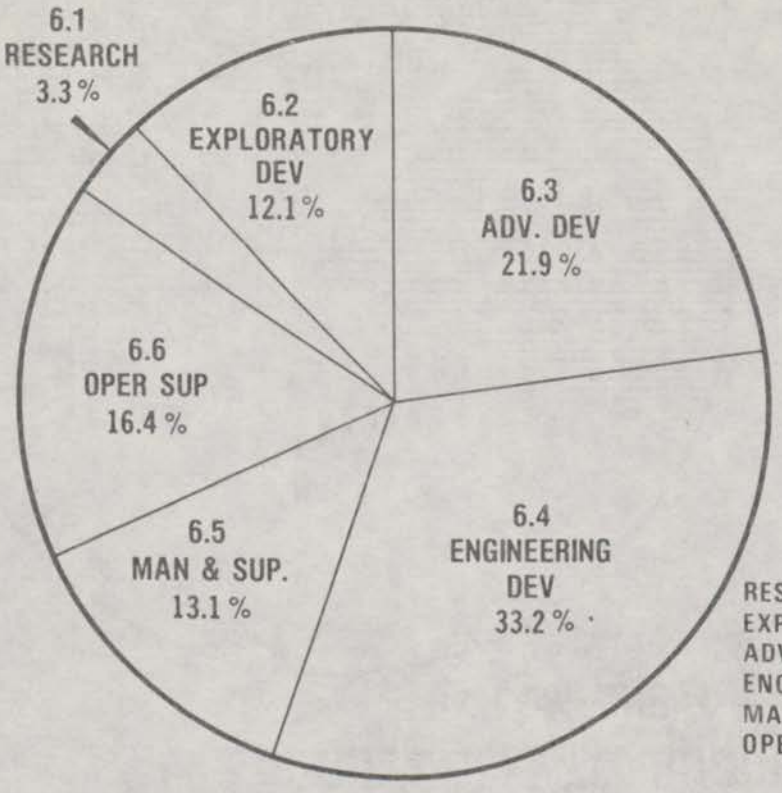
RDT&E FY75 BUDGET

BY COMPONENT



	(MILLIONS)
ARMY	$1,986
NAVY	3,262
AIR FORCE	3,519
DEFENSE AGENCIES	556
TOTAL	$9,323

RDT&E FY75 BUDGET
BY TYPE OF WORK



	(MILLIONS)
RESEARCH	$ 309.4
EXPLORATORY DEV.	1,129.9
ADVANCED DEV.	2,043.1
ENGINEERING DEV.	3,087.0
MANAGEMENT & SUPPORT	1,223.2
OPERATIONAL SYS DEV	1,529.9
TOTAL	$9,322.5

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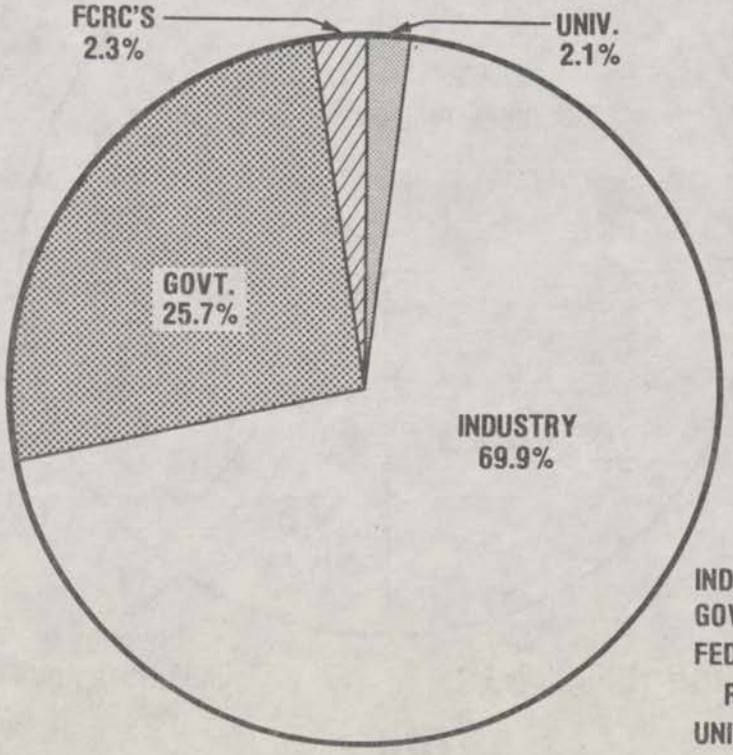
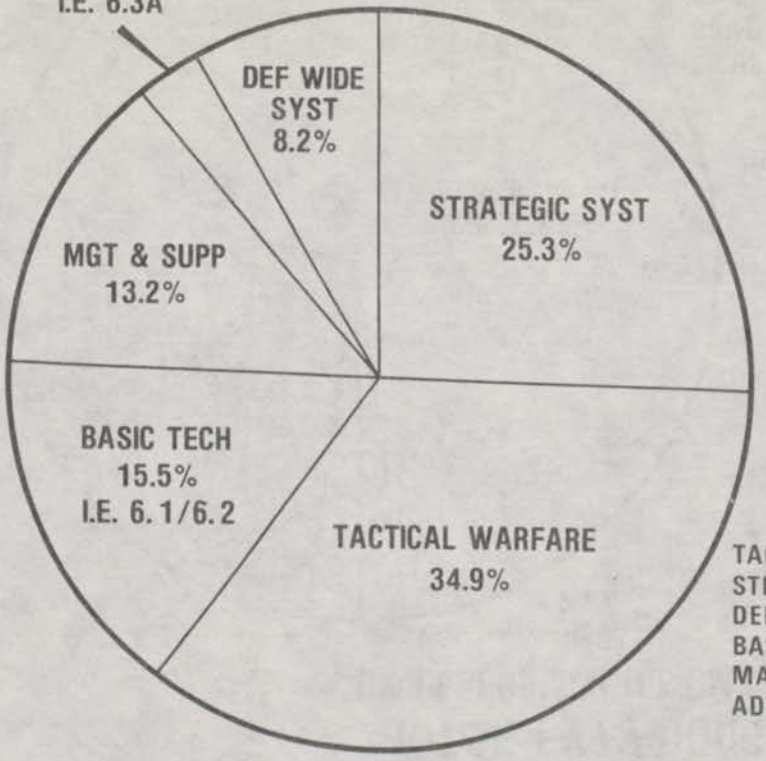
RDT&E FY75 BUDGET
BY PERFORMER (ESTIMATED)



	(MILLIONS)
INDUSTRY	$6,516.4
GOVT. IN-HOUSE	2,391.4
FEDERAL CONTRACT RESEARCH CENTERS (FCRC'S)	215.2
UNIVERSITIES	199.5
TOTAL	$9,322.5

RDT&E FY75 BUDGET

BY MISSION AREA



	(MILLIONS)
TACTICAL WARFARE	3,254.3
STRATEGIC SYSTEMS	2,358.0
DEFENSE-WIDE SYSTEMS	764.5
BASIC TECHNOLOGY	1,447.7
MANAGEMENT & SUPPORT	1,235.7
ADV TECH DEV	262.3
	$9,322.5

FY 1975 RDT&E PROGRAM ELEMENTS

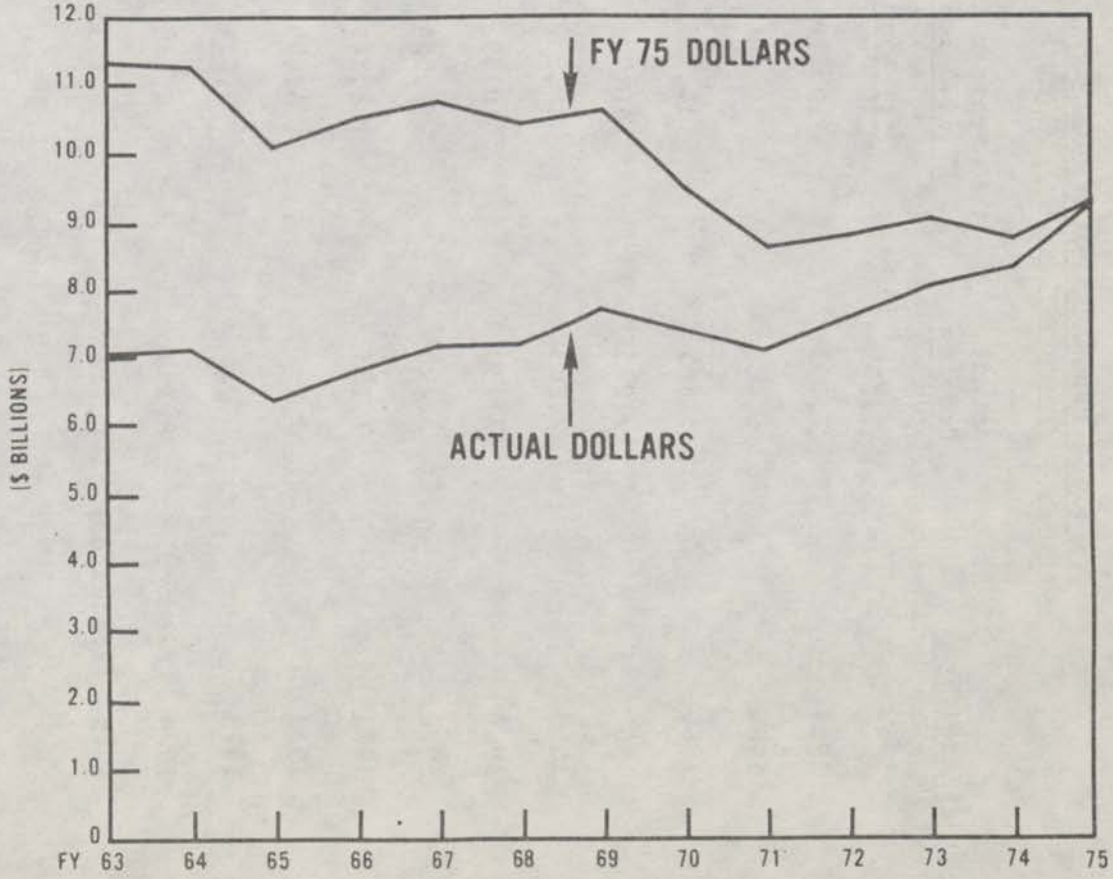
WHICH INCREASED $20.0M or MORE over FY 1974
($ Millions)

P.E. No.	Title	FY 74	INCREASE	FY 75
ARMY				
63301A	Adv Fwd Area AD Sys	13.4	31.3	44.7
63304A	Advanced BMD	61.8	29.6	91.4
63308A	Site Defense	110.1	49.9	160.0
	Transfers from Other Appro.	0	13.2	13.2
NAVY				
63361N	Strategic Cruise Missile	2.6	42.4	45.0
64263N	Fighter Prototype	-	34.0	34.0
64303N	AEGIS	40.2	26.8	67.0
64363N	TRIDENT MISSILE SYS (ENG)	527.7	121.1	648.8
64567N	Ship Development	-	29.4	29.4
11221N	FBM System	14.3	32.4	46.7
	Transfers from Other Appro.	23.2	84.6	114.2
AIR FORCE				
63211F	Aerospace Structural Materials	14.5	20.8	35.3
63236F	Adv Medium STOL	25.0	30.8	55.8
63305F	Adv ICBM Technology	4.2	33.1	37.3
63311F	ABRES	90.0	30.0	120.0
64214F	Adv Tanker		20.0	20.0
64215F	B-1	448.5	50.5	499.0
64220F	EF-111A	15.0	21.7	36.7
64229F	Air Combat Fighter		36.0	36.0
64361F	Cruise Missile	11.0	69.0	80.0
64723F	Adv Airborne Command Post	17.3	50.4	67.7
64744F	AWACS	155.8	63.9	219.7
11213F	Minuteman	99.7	43.2	142.9
	Transfers from Other Appro.	0	120.4	120.4

Increases to RDT&E Appropriations
Resulting from Transfers from Other Accounts

	($ Millions)
ARMY	
AMC - 236 civilians transferred from O&M to R&D	+4.7
Test and Evaluation funding realignment	+8.5
TOTAL - ARMY	+13.2
NAVY	
MK 48 Torpedo - FY 75 impact of Congress directed FY 74 transfer from Procurement to R&D	+5.4
CAPTOR - Testing transferred from Procurement to R&D	+3.5
CIWS(PHALANX) - Change of ground rules in requiring systems for OT&E	+23.1
Naval Air Station - Lakehurst closing required assumption of additional R&D costs	+4.8
Alterations for AG-153 (R&D ship	+1.4
SM-2 T&E missiles transfer from Procurement to R&D for test of AEGIS	+17.0
5"54 Ammo - High fragmentation projectile MOD II transfer from Procurement to R&D	+2.5
A-4 - T&E for two improved light attack delivery systems transfer from Procurement to R&D	+ .6
Ship Contract Design - transfer from Procurement to R&D	+29.4
Pre-production Shelters - T&E efforts	+1.5
Test & Evaluation funding realignment	+25.0
TOTAL - NAVY	+114.2
AIR FORCE	
CIP for F-15 and A-10 - Component Improvement Programs transfer to R&D	+95.6
Congressional Funding Direction on Defense Support Program, transfer from Procurement to R&D	+24.8
TOTAL - AIR FORCE	+120.4
TOTAL INCREASES to RDT&E	+247.8

DOD RDT&E IN FY 75 DOLLARS



DoD RDT&E PROGRAM HISTORY TABLE

Fiscal Year	Actual Program	Program in FY 1975 Dollars
1963	$7,028	$11,327
1964	7,053	11,219
1965	6,433	10,046
1966	6,885	10,525
1967	7,225	10,705
1968	7,263	10,392
1969	7,730	10,598
1970	7,400	9,554
1971	7,123	8,710
1972	7,584	8,899
1973	8,016	9,054
1974 (Planned)	8,333	8,848
1975 (Requested)	9,323	9,323

BUDGET REQUEST

Dr. CURRIE. Mr. Chairman, I am privileged to be here to present the overall Defense research and development budget for the fiscal year 1975. As you know, we are requesting a total of $9.3 billion.

Chairman MCCLELLAN. $9.3 billion?

Dr. CURRIE. Yes, sir.

Chairman MCCLELLAN. That covers all of the military research?

Dr. CURRIE. Yes, sir.

Chairman MCCLELLAN. In every agency and department?

Dr. CURRIE. Yes, sir, everything in the Department of Defense pertaining to research, development, test, and evaluation.

Chairman MCCLELLAN. Does all of this come under your jurisdiction?

Dr. CURRIE. That is correct.

Chairman MCCLELLAN. You are the chief of all research?

R.D.T. & E. PROGRAM

Dr. CURRIE. Research, development, test, and evaluation; the whole spectrum of our activities from basic research through engineering and prototype production, but not including production.

Chairman MCCLELLAN. You have nothing to do with production other than to test the prototypes.

Dr. CURRIE. I will bring that out later, if I may, sir, and explain how this process works and my relationship, how General Starbird fits in, and our DSARC process which transitions our program from the engineering stage to production.

Senator YOUNG. Is your responsibility the same as Dr. Foster's was, or has there been some change?

Dr. CURRIE. No, sir it is exactly the same. I am Dr. Foster's successor.

Chairman MCCLELLAN. You may proceed.

Dr. CURRIE. This $9.3 billion compares with an appropriated amount of $8.1 billion for the current fiscal year.

Chairman MCCLELLAN. This is an increase of $1.2 billion.

Dr. CURRIE. Yes, sir. It is an increase of $1.2 billion.

I would like to point out that of that $1.2 billion, approximately $500 million of that is inflation, about another $225 million represents transfers in from other accounts; that is, programs that have been traditionally carried in procurement.

Chairman MCCLELLAN. How much?

Dr. CURRIE. $225 million.

Chairman MCCLELLAN. Proceed.

Dr. CURRIE. So that, even after accounting for inflation and accounting for these differences in the bookkeeping, it does represent a real growth of some 3 or 4 percent over the current fiscal year so that we are proposing in real buying power that this budget be increased.

Chairman MCCLELLAN. $560 million over and above inflation that you are asking for?

Dr. CURRIE. That is correct. I would like to now view this budget in its entirety and explain why I feel that this is important to do.

Chairman MCCLELLAN. Very well.

Dr. CURRIE. This request results from a deliberate decision on our part after much discussion.

Chairman MCCELLAN. You mean the increase?

Dr. CURRIE. Yes, sir, the real increase to halt and reverse the downward trend in research and development that has occurred over the last decade. Now, the specific detailed programs are outlined and contained in my long posture statement, and all I will do is highlight certain areas here. I would like in my opening remarks to address the total amount of this budget so that we can see that in some kind of perspective. I feel very strongly that the time has come to halt and to reverse the erosion which has taken place in R.D.T. & E. in the last 10 years and with it some of the technological leadership that, in my view, we must have. We do retain a technical margin today. I don't want to minimize that margin.

But we are witnessing a very resolute Soviet progress. I would like to point out that the technological balance could begin to shift to our disadvantage within the leadtime of the R. & D. programs that we are making decisions on today. These are decisions we are making today but they will fundamentally affect our posture 3, 4, 5 years from now.

So, the real question is, Mr. Chairman: In this world of some years hence when you and your colleagues and the executives are making the crucial decisions for our country, what kind of world will we find ourselves in then? Will the Soviets display restraint? Will they display prudence in their activities? Will there be a third major power that must be critically taken into account in the overall balance?

Chairman MCCLELLAN. Do you think anyone knows the answers to those questions right now?

Dr. CURRIE. No, sir; we don't know the answers. That is my very point.

Without knowing the answers, however, we can take reasonable steps right now in terms of the R. & D. program that can posture us for positions of strength and flexibility in the years ahead as the events of the world unwind.

GOALS

So, this is our goal and I feel that a very strong vital R. & D. program is the mechanism to achieve this goal.

Now, during this past year, there has been a confluence of some very important events in the world, as we all know. In my view, this places us at a very crucial juncture in our history perhaps more crucial than we realize right now, which will only be seen clearly in retrospect in future years.

I think that this begins to cast new light on our perception of our role in the world. I think it is casting new light, I hope so, on the perception of the American public at large, on the role of national security and even on the central role that technology plays in bringing about this security.

These events that I am speaking of, of course, include, first, what I believe to be a very impressive and broad Soviet display of an ability to upset the strategic nuclear deterrence. We are coping with this right now.

Certainly this is a demonstration of this resolute progress they are making in technology.

A second event is simply the hard fact that [deleted].

A third event, of course, has been the Middle East conflict and with it many disquieting implications, not only in a military security sense but I believe in a broader economic sense.

Senator YOUNG. You mentioned a while ago that the public is more conscious of the need for a stronger defense?

Dr. CURRIE. I believe these events of the last year which have received wide publicity throughout the country, and continuing publicity, have caused the American public at large to become more aware of the need for a strong defense.

Senator YOUNG. I wish you were right. But after every war there is a letdown.

Dr. CURRIE. Perhaps I am. Maybe I am being naively hopeful. I hope that we are beginning to sense at least an increased awareness. When one drives up to the gas station and has to wait a half hour in line for gas, this begins to hit the average American where he hurts most and he, through this process, can develop a greater awareness of the underlying reasons for that.

Chairman MCCLELLAN. Has it ever occurred to you that the average citizen may blame the military posture for that situation?

Dr. CURRIE. I imagine there is some of that; yes, sir.

Chairman MCCLELLAN. This is not directed at you, but one of the troubles with the defense establishment is that it does not have what I regard as a credible and effective public relations program.

Dr. CURRIE. Yes, sir.

Chairman MCCLELLAN. The Department of Defense seems to fail in that area which I think is important for public understanding.

I am doing everything in my power to point out to the public that the increased cost of Government over the past several years is not primarily caused by the military establishment. But I do not believe the Defense Department is making an adequate effort to give the public this information through their publications and otherwise.

Dr. CURRIE. That is correct, sir.

Chairman MCCLELLAN. It is these other programs, such as the human resource programs, that account for the terrific upsurge in the cost of Government and contributes to inflation. I don't think the military departments inform the public of these facts in any way.

Dr. CURRIE. I think we need to do a much better job—it is a very difficult job, as you know—without seeming too self-serving.

I am presenting to you a request now for $9.3 billion for technology and R. & D. that will continue to make our position strong and secure. It is very difficult for me to present that without seeming to be self-serving.

R. & D. MANAGEMENT

I would like to address that here as we go along.

Taken in the large and now going back to the R. & D. program, I firmly believe that a well-conceived program and a well-managed program, and I would like to stress the management of it, in research and development and for the strategy that we use for research and development, really constitutes the most powerful mechanism we have for insuring our security.

Having come from a business background, I would like to put this in very simple business terms.

What I am talking about is a high-leveraged investment, that is, an investment whose return in terms of national well-being, admittedly national well-being is very difficult to quantify in regard to dollar terms, but I firmly believe that the return in security and well-being of our Nation is infinitely greater than the original investment in dollars.

That is what I term a highly leveraged investment, when you can invest a little bit and get a lot back.

So, the real question, I think, and one that I am sure you grope with on a daily basis, is to sit back and ask ourselves how the future historians will perceive us. People who write the history of the 1980's will look back to 1974 and will they see us then as a people who failed to appreciate this resource, who failed to act at this crucial juncture of our history, or will they see us as a people who did express their will and their strength? I believe that the commitment to the R. & D. program is one very powerful way of expressing this.

Chairman McCLELLAN. I care very little about what they write. What I am concerned about is what strength we will have. So, I am concerned that what we will have that will control what history records. You said it one way. I am expressing it my way. I want the realities of it, not what the historians will say about it. I don't want us to get into such a rut of indifference and lack of vision and fortitude to meet the situation that they will ever have a chance to write like that.

I believe that there could be a definite danger in downgrading our defense. In my opinion we are today placing too great an emphasis on having the Government do as much as possible for everyone rather than having them do things for themselves. Certainly this approach has a strong political appeal, at least momentarily. But frequently the argument is advanced to find the funds for these projects by reducing our defenses, which I think is unwise. At the same time, I want to hold this defense budget down to the very minimum because of the heavy burden the Government is trying to carry today.

Dr. CURRIE. You have a very delicate balance between needs to weigh, and I don't envy your position.

Chairman McCLELLAN. It is delicate and it is difficult.

We go on the floor of the Senate with a defense bill. Whatever, we recommend, there we will be a number of people who will want to slash it. I would be glad to cut it in half if we could do so safely.

Our problem is to find out the truth about what will make us safe. We have to rely on you witnesses, to a great extent, to tell us the facts. Many people today have a questioning attitude toward both the administration and the Congress. A lack of credibility also seems to extend to the actions of the Defense Department. Many Americans have voiced the opinion that they have been misled by the information they derive from the military establishment. Some Members of the Congress share this view.

I think it behooves all of us to ascertain the cold facts. We may not like it, but if you can come and give us the cold facts—and I am talking about all the defense witnesses—then if we don't provide the proper funding, it is not your fault.

Sometimes we find the Army, Navy, and Air Force in competition for weapons and funds. I suppose it is only natural that each should feel that his particular weapons systems are most important.

But in my judgment, it is the job of the Department of Defense—the Secretary of Defense and his assistants—to balance these requests against what are determined to be the known needs, and to present to the Congress the priorities that have been determined which will provide the country with the highest order of deterrence possible with the funds requested.

Dr. CURRIE. I do consider that my responsibility.

You know, we have an interesting situation in some of these programs, Senator McClellan, and I have seen this more and more in my tenure so far.

Our military services are based on an esprit; they are based on a deep dedication, as you know, to their missions and to the security of the Nation, and an absolute loyalty.

Now, when one talks about programs and programs between services, we just can't have it both ways. We can't have a cadre of professional dedicated loyal men who don't exhibit that same intrinsic loyalty and dedication to their feeling about particular programs.

It is the responsibility of the Defense Department, therefore, to internally weight these different routes to solving the same kind of military problems, but, I think, to present to you gentlemen the trade-offs.

Now, it is an uncertain world. No decision is absolute in the sense that the facts dictate one way to go or another. You are always working in a gray area. But I believe that we have a responsibility to you to express to you what our uncertainties are and what the trade-offs are. My intent is to do just that.

Chairman MCCLELLAN. I would think in your position you would represent the Defense Department; not any particular service as such.

Dr. CURRIE. That is how I view it.

Chairman MCCLELLAN. The research in each of the services comes also under your jurisdiction; am I correct?

Dr. CURRIE. Yes, sir.

Chairman MCCLELLAN. And any request that comes from the Army, Navy or Air Force, has your approval?

Dr. CURRIE. Yes, sir.

Chairman MCCLELLAN. And you present the overall request for all of them. Now, please handle it your own way, but I give you this thought:

I would like you to dwell in some detail upon the most essential research areas—what Russia is doing, has done and is doing, in those areas, and the important or compelling necessity for us to devote greater effort with respect to these particular fields of scientific, technological progress and development.

Dr. CURRIE. Let me approach it in this way, Mr. Chairman. I would like to talk about two broad areas. One is the strategic area, and the other is the conventional area.

In talking about the conventional area, I will come back to your request to comment on the perceptions gained from the Mideast conflict and how they affect our thinking and our programs.

Senator YOUNG. I know our people are proud people. Our people want to believe that we have the best in the world of everything—

military equipment and so on. I think this Mideast situation has demonstrated that in some areas we don't have the best in the world. We should admit that and get it across to the people.

The Russians are spending a tremendous amount of money on research and development and they have been doing better in some areas than we have.

Dr. CURRIE. They certainly have.

There has been one interesting myth that was pretty much dispelled in my mind by the Mideast conflict and that myth is that the Soviets have a way of producing very inexpensive equipment and then proliferating it. The fact of the matter is [deleted] their armored personel carrier and the Quad 23 millimeter air defense gun; these are not inexpensive weapon systems. They are very expensive weapons systems and they are still proliferated.

I think that has been an interesting perception that has come out of the war.

STRATEGIC AREA

Now let me talk a little bit about the strategic area.

Chairman MCCLELLAN. First, for the record, you had better describe the difference between strategic and conventional warfare.

Dr. CURRIE. What I am talking about in strategic areas is largely our nuclear deterrence, heavy bombers, ICBM's, and the submarine-launched ballistic missiles.

Our concern here, of course, is the new Soviet weapon demonstrations of the past year. I might comment that as the story unfolds on the new capabilities that the Soviets have underway, the size and scope of the Soviet developmental programs is far greater than we had projected earlier, and the potential implications are of serious concern.

Now what this represents is just the visible demonstration of an effort that started a number of years ago. It is indicative to me of a depth and a breadth of effort that was initiated 5, 6, 7 years ago, just like the programs that we are considering this morning will have an effect on our posture 5 or 6 years from now.

Now, our counter to this comes in two forms: One is in the form of two large weapons system programs that we have under development right now. What I am speaking about is the Trident program and the B–1 program. These two programs together constitute more than 13 percent of my request before you here this morning.

But, in addition to these programs which are well understood programs—incidentally, we have restructured the B–1 program and I can discuss that later, if you would like—these are our engineering programs.

In addition, we are proposing in this budget a set of what we term strategic R. & D. initiatives. These have received a lot of attention lately in discussions in the press. Secretary Schlesinger has described these before the Congress.

Chairman MCCLELLAN. Are these new research developments?

Dr. CURRIE. These are what I call advanced technology programs.

Secretary Schlesinger has made absolutely clear they in no way involve a decision to carry through the full engineering development and deployment of these systems.

We are distinguishing between systems that are manufactured and deployed, on the one hand, and then, on the other hand, having, so to speak, in the laboratory the demonstration of a set of technologies which are available to deploy at some later point in time. They create the technical base for your decision at some later point in time, depending on how the world events work out.

One of these strategic options have to do, for example, with the accuracy of the Trident system, improving that accuracy. There is one having to do with studying, on paper, and laying the technological groundwork for different basing modes for our ICBM's.

What I am talking about here is that our present ICBM's are in fixed silos. There may come a day when, if the Soviets continue to deploy their newly demonstrated capabilities, that this force will become vulnerable. So, we must have in our hip pocket a set of technologies and concepts which could be brought into being for the protection of the ICBM forces. That would involve basing them in a different way, either air-basing or mobile-land-basing.

Chairman McClellan. Are you saying that these fixed land-based missile launching sites have become more or less sitting ducks, so to speak?

Dr. Currie. They are not now. But if one took the throw weight that the Soviets have available to them now or still increased throw weight in their new development, the SSX–18 and 19 missiles and if they employ their full MIRV capability, they will have [deleted], the ability by the early to late 1980's to make our land-based ICBM's vulnerable.

So, in a fairly modest research and development effort we have to, with prudence, I believe, lay the groundwork for this eventuality.

Senator Young. You mentioned air-based missiles.

What did you mean by that?

Dr. Currie. This means that currently our ICBM's are, as you know, in fixed silos.

Now, if one made these ICBM's mobile in some form, that is, by, let us say, in a simplified case a truck that could move between shelters around the countryside or in a 747-type-sized aircraft, if one could move them around, then the opposition would have trouble finding them and targeting them.

So that, we are studying from an economic effectiveness and technical feasibility point of view other ways of basing our missile fleet.

Senator Young. You mean putting them in 747-type aircraft?

Dr. Currie. Yes, sir.

Senator Young. Would you have to do that if the Trident is approved?

Dr. Currie. The existence of the Trident certainly postpones in time the point at which we have to make that decision.

All I am saying is that in a very uncertain world of rapid technological progress, we have to have in our hip pocket certain options in the future and this is one of them.

Another one of these options is what we call the air-launched cruise missile. Now, this missile is something that would be carried in the SRAM racks, in the bomb bays, so to speak, in either the B–52's or the B–1. It is a very small air-breathing penetrator. It is a small airplane, so to speak.

Its wings fold out and it can come in low for perhaps [deleted] nautical miles; it can come in at [deleted]. It will have a nuclear warhead in it and will achieve reasonable accuracy.

The reason this is important is because, as you know, the Soviets have a very extensive net of radars around the Soviet Union. It involves an enormous investment on their part. In order to penetrate this net of radars one has to come in at very low altitude.

These are able to come in at [deleted] and these radars are [deleted]. This air-launched missile will improve our ability to penetrate air defenses through proliferation.

In order to counter that, the Soviets would have to spend tens of millions of dollars equivalent to fill up all these gaps in their radar system. That is another kind of initiative.

Another initiative that has received a little bit of attention and which I should clarify is the maneuvering reentry vehicle. Currently in ballistic missiles the reentry vehicle follows a perfect ballistic path which is very highly predictable. If you can make this reentry vehicle maneuver a little bit you probably lose in accuracy but should the Soviets abrogate the ABM Treaty at some point in the next several years and proliferate their ABM defenses, and I have to say that they have a very intensive R. & D. program on the new ABM system, then this would be our counter to it.

The existence of an R. & D. program in this area now will, let me say, encourage the Soviets not to abrogate that ABM Treaty.

So that, we have this set of what I call R. & D. initiatives, and I would like to stress again and this is by the policy of Secretary Schlesinger and Secretary Clements, that by constant management choice in this R. & D. program we are creating a number of options which create a position of strength in negotiations and a flexible platform for decisions in the future.

But these in no way imply multimillion-dollar development programs just because one creates the technological feasibility of these approaches.

Now, in the strategic area, also, I have mentioned the maneuvering reentry vehicle programs and the air-launched new type missiles.

SPACE AREA

In space we are giving very considered attention to the whole field of communication command and control. This involves completing the satellite communication systems we need for assured communications. They will be hardened against [deleted], so that we have in the national command authority a much improved and survivable command and control system.

Also in space, and just in passing I will mention a new program, again this is a triservice program; this is a DOD program with the Air Force as the lead service, which we have just initiated and for which we are asking funds, called the NAVSTAR global positioning system.

It will ultimately, in the 1980's, evolve into a constellation of satellites which is able to pinpoint, even for anybody, military or civilian, on the face of the Earth within tens of feet of accuracy. It will enable him to locate his position not only in geographic coordinates but also

in height. This will have, in my view, very significant strategic implications in the 1980's.

I have talked about our strategic programs and tried to highlight them a little bit.

TACTICAL WARFARE AREA

Let me turn now to our nonnuclear tactical warfare area.

I think there has been a remarkable series of developments over the last few years which are tantamount to a revolution in tactical warfare. I think we will see them in that light as the next few years unfold. Some of these ideas were demonstrated in a certain model T stage in Vietnam and certainly more recently in the Middle East conflict.

Let me mention just a couple of concepts here because I think it is important to understand at least much of the main thrust of our thinking.

One of these is the whole range of precision-guided weapons. The model here is what I call first-shot kill, that is, to have a weapon and at a large standoff distance, [deleted], have the ability with surety to launch that weapon and get first-shot kill, to have that kind of precision not only in the daytime—but also at night and possibly during adverse weather.

Chairman McCLELLAN. Against what target?

Dr. CURRIE. The thing that has made this a particularly important area for focus, Mr. Chairman, in the Mideast war, as you know, the Egyptians had a very, very widely dispersed and deployed air defense system, SA–6's and SA–7's.

Now, in order for one to be effective against a defense like that one has to suppress that defense. One needs to get in there from a large stand-off distance and with absolute precision get those radars and get those missiles so that your close support aircraft can get in there and fight the battle.

Chairman McCLELLAN. What is the range of the missiles they had there?

Dr. CURRIE. Right now, the only missile they had was our Maverick missile. It has a nominal range of relatively few miles.

Chairman McCLELLAN. I am talking about the Egyptians.

Dr. CURRIE. They didn't have anything like this. They had surface-to-air missiles.

Chairman McCLELLAN. What is the range of those?

Dr. CURRIE. The range of those is perhaps a matter of [deleted].

Chairman McCLELLAN. They were able to knock down some planes with them.

Dr. CURRIE. Yes, sir.

Chairman McCLELLAN. I thought that was what you were talking about, knocking out those capabilities.

Dr. CURRIE. I am talking about the ability to stand off outside the range of those surface-to-air missiles and kill them with precision.

Chairman McCLELLAN. You referred to a range of [deleted] a while ago.

Dr. CURRIE. Yes, sir.

Chairman McCLELLAN. You were talking about a counterweapon to knock out those close-in kill potentials of the enemy?

Dr. CURRIE. Yes, sir.

Chairman MCCLELLAN. That is, to hit planes as they approach?

Dr. CURRIE. No; hit ground targets and to do it at a stand-off distance so that you are not vulnerable.

Chairman MCCLELLAN. Will this apply to tanks?

Dr. CURRIE. It will apply to tanks.

Chairman MCCLELLAN. I mean their capability against tanks.

Dr. CURRIE. Yes, sir; it will apply in a generic kind of way although when I am killing a tank it maybe costs the enemy $1 million, I have to be careful how much I expend from an economic point of view in doing that. So that, I see two classes of weapons that technology is really making possible now and we are having part of our development devoted to this thrust.

One is a thrust that will come in and kill the surface-to-air missiles. You can afford to spend quite a bit of money doing that.

Then a second class of weapons which do not have as much range but have the same precision characteristics against tanks and armored vehicles and fixed points of value.

Chairman MCCLELLAN. Would this weapon, which is to knock out the anti-aircraft missile potential of the enemy, be launched from airplanes?

Dr. CURRIE. Yes, sir.

Chairman MCCLELLAN. It would not be stationary?

Dr. CURRIE. It would be primarily aircraft although versions of this type of weapon could be surface-to surface, also.

Chairman MCCLELLAN. It would be launched from tanks?

Dr. CURRIE. No; it would probably be launched from a point in back of the lines.

Chairman MCCLELLAN. Those battle lines change and fluctuate. How could you be equipped to do that?

Dr. CURRIE. That is part of the problem.

One would ordinarily launch this ordnance from behind the lines and have the forward observers, [deleted] into the battle so that they [deleted] out the targets.

Now, along with this whole thrust of precision weapons, another emerging area of very great importance is the coupling of real time intelligence to tactical command and control. Ordinarily, one thinks of intelligence as that function which gathers information about the enemy and then it is processed and it takes a long time to get that information back to the command loops and digested and the photographs analyzed and so on.

Increasingly, we are finding ways to do that classical intelligence function in real time and we are seeking means of communicating that intelligence to the tactical commander so that he can pick targets and make his force application far more effective.

I think the whole command and control function in the use of intelligence is being re-examined and we are providing the technical framework for much closer liaison between these functions.

Senator YOUNG. [Deleted.]

How much is this in miles?

Dr. CURRIE. [Deleted.]

Chairman MCCLELLAN. That is the antiaircraft missile?

Dr. CURRIE. Yes.

Chairman McClellan. That they used in Egypt?

Dr. Currie. That they used in Egypt; yes.

I think probably I have understated that a little bit. It is more like [deleted].

Incidentally, another perception from the Mideast conflict is the whole area of air defense. The Egyptians using the Soviet equipment had very [deleted] widely dispersed air defense and we are re-thinking our own air defense system to reflect that capability.

Senator Young. The war did bring on a serious situation. The Egyptians destroyed [deleted].

Dr. Currie. In the first several days of the conflict, the Israelis lost, as I recall, [deleted] percent of their airplanes. But, as the war progressed, after the first several days, the Israelis learned how to take out those surface-to-air missile sites [deleted].

So, that has led to our refocusing of our thinking in this whole defense suppression area I talked about.

Senator Young. What changes did the Israelis make to knock out the Egyptian surface-to-air missile sites?

Dr. Currie. [Deleted.]

Senator Young. I don't quite understand yet.

Were they able to knock out the SA–6's?

Dr. Currie. [Deleted.]

Chairman McClellan. There is one thing that I would like your comment on.

You develop a potential in technology, that is, you develop a weapons system. You speak about moving these missiles around. If you develop it to where you can do that, you are not going to have time for production if you don't produce the weapon until the enemy strikes.

Dr. Currie. That is correct.

Chairman McClellan. That is the trouble with lack of production. Once you discover you can do something, you either have to put in production or your discovery really has been useless if a strike comes.

Dr. Currie. I think we have two unacceptable alternatives. I would like to dwell on that just a minute.

Chairman McClellan. You know what I mean.

Knowing how to manufacture it and not doing so is not a defense.

Dr. Currie. In the past, part of our problem has been, on the one hand, trying to do everything, responding to every possible military requirement, and that is just too expensive. We cannot afford to carry on everything in parallel.

On the other hand, we could get into the situation you described where we do the technology, so to speak, but then we have to react in panic to an urgent military need and we don't have time to do that.

So, how we are facing this problem is by the following strategy:

We are making a very concerted effort to demonstrate the technological feasibility, demonstrate prototypes of a wide variety of systems that will fulfill anticipated needs.

Now, this is relatively inexpensive because this does not involve, to this stage that I am describing, the full engineering for production. It is those large engineering programs that comprise most of our budget.

So that, we develop what we call demonstrated prototype options and then along with that we have the management selection process which says we will select from these options and go forward with a certain number of these programs, having demonstrated the technical feasibility and having weighed the military need.

So, what we end up with is fewer programs in engineering development but we will do those programs better.

Senator YOUNG. Along the line of the chairman's argument, there is the SAM missile.

We learned from experience in Vietnam that the Russians had a very good antiaircraft missile. It will be 2 years before our own is ready for production; is that right?

Dr. CURRIE. We have HAWK which the Israelis used successfully and improved HAWK will replace it shortly. Our new system, SAM–D, is several years away from production.

Chairman MCCLELLAN. That is the chairman's argument. It takes a long time to develop a new weapon.

Dr. CURRIE. That is right.

Let me talk, since you are expressing a particular interest in this area of what our program is in the surface-to-air missile area.

We have three programs:

One is in production now and it is called the Improved HAWK.

The Improved HAWK does not have as much [deleted] as the SA–6 but it has [deleted] than the SA–6. So, you could say in the near term we have a deployed capability in production which is more or less equivalent. Now, we are going to improve that system and give it more mobility and faster reaction time.

We have another program called SAM–D, which involves a totaly new technology which, if successful, will lift this whole surface-to-air missile area into a new plateau of capability but it takes many years to bring a system like that into being. And we are in the middle of that program right now.

The third program is really a new start in fiscal year 1975. Its aim is to get a relatively inexpensive, highly mobile system, which we can procure in quantity and which can be very widely dispersed over the battlefield.

So, these systems, in my view, will complement each other.

NATO ALLIES

That system will in all probability be based on an American version of developments taking place in Europe. It will be selected from programs for which the NATO countries paid the R. & D.

Senator YOUNG. The NATO countries paid R. & D.?

Dr. CURRIE. The NATO countries have invested a considerable amount of R. & D. in three systems:

One is the French system called CROATALE.

Another is a British system called RAPIER.

And a third, a German-French system called ROLAND.

Each one of these has been produced in limited quantity. There is a considerable body of test experience. They are low-altitude systems, all-weather, ground-to-air missiles.

Our general plan is to try to build on these systems with U.S. licensees so that we can shorten this development time and make use

of the R. & D. money that our NATO allies have invested in these systems.

Senator YOUNG. What they have learned will be useful in the development of the SAM–D?

Dr. CURRIE. No; it will be useful in the development of what we call our SHORAD system.

I think we can probably save upwards of several hundred million dollars in R. & D. by doing it in this way.

I would concur with your general feelings, Mr. Chairman, that you have expressed in the past, that we should make use of some of the R. & D. invested by our allies.

Chairman MCCLELLAN. Do they participate in any of this work we are doing? Do they make any contribution? We are doing it for their good, too.

Dr. CURRIE. Yes, sir.

This is an attempt to make use of their R. & D. expenditures for our good.

As nearly as I can tell, in Western Europe their gross economy, their GNP, so to speak, is roughly equivalent to ours. They account for their R. & D. dollars differently than we do but, roughly speaking, they spend $2½ to $3 billion in R. & D. each year and that would compare with perhaps $5½ to $6 billion of our expenditures after you take out our strategic systems, our nuclear systems, which they are not concerned with.

So, they have a considerable effort. We meet with them regularly. In fact, I will be meeting with them in London next Monday to discover ways that we can cooperate to our mutual benefit. By "mutual", I mean that we can get something back, too.

Chairman MCCLELLAN. They get the benefit of our research?

Dr. CURRIE. Yes, sir.

Chairman MCCLELLAN. And everything that we do in the nuclear field?

Dr. CURRIE. Not in the nuclear field.

Chairman MCCLELLAN. Well, they get the indirect benefit of it because it serves as a deterrent.

Dr. CURRIE. In that sense, you are right.

Chairman MCCLELLAN. They get all the benefits we get from the nuclear capability that we possess.

Dr. CURRIE. In essence, we are acting as the nuclear umbrella; that is correct.

Chairman MCCLELLAN. We provide the nuclear umbrella.

I am perfectly willing for us to take the whole responsibility for nuclear development.

When we get down to the conventional weapons, such as the HAWK system—a weapon that is absolutely essential to them in the event of an invasion or an attack by an enemy—I cannot become reconciled with the idea that we should do all of that research without their contributing to it. In fact, I think they should contribute at least half of it. We are doing it for them. They are going to get as much benefit out of that as we do.

Dr. CURRIE. Defense policy calls for inclusion of Department of Defense nonrecurring costs associated with the research, development, and production of major defense equipment. The calculated pro rata

share of such costs is included in the sales price quoted to the foreign buyer.

Chairman McClellan. I would certainly hope that we include the R. & D. cost in the sale price.

Dr. Currie. Pricing policies call for uniform Department of Defense applications of pricing and cost criteria for foreign military sales of defense articles and services.

Chairman McClellan. It seems to me that if NATO is to be genuine in its aspirations, it is a necessity for all NATO countries to cooperate. Then the cost of the weapons that we are developing primarily to serve NATO should be shared among those countries and us. I don't know whether we are getting that kind of cooperation from NATO or not.

If we develop something like the HAWK—I want to ask you another question or two about it in a minute—and deploy it in Europe, I don't see why they should not pay a substantial part of the cost. Or perhaps it should sell to them all that are used there, at least.

Dr. Currie. Right now, the NATO countries over there, and it is distributed among several of them, have an order in for several hundred million dollars' worth of HAWK's. So, they pay for those missiles.

What I am saying, in addition to the price of the missiles, we are adding by conscious policy a surcharge in an attempt to at least recoup part of the research and development that has gone into them.

Chairman McClellan. I would hope that would be true and it is very gratifying to know that you are doing that because I think we have been carrying entirely too much of the burden. I think we must let them know in no uncertain terms that they do have a heavier obligation than they have assumed so far.

That is why I favor bringing troops home from Europe. I am going to do what I can to bring some of our troops home and jar our NATO allies into a realization that this is a partnership and not a one-way street.

I don't know just what effect this will have on the attitude of the Soviets. They may reason that, if the position of NATO is weakened, they should take advantage of it in some way. Perhaps they will; perhaps not.

However, if the action I suggest doesn't jar our allies in Europe into a realization that it is imperative for them to help carry a heavier part of the load than they have been, then, soonor or later, in my judgment, NATO will break up anyway. I am absolutely disgusted with the way France has acted.

Dr. Currie. Our position, and Secretary Schlesinger's position, is that we feel our security does depend on our having those troops over there, but we also are coming down hard on having them pick up a fair share of the total costs, and we are moving to do this.

Chairman McClellan. If the NATO countries will do that, I would be willing to let our troops stay there. But, I repeat, I just don't think those countries have been bearing their share of the burden. I am very unhappy about it. If it takes a kind of breach to make them realize it, let us have it. Otherwise, our mutual agreement will crack up in a few years regardless, and we will be just throwing that much money away.

Senator YOUNG. Of deeper concern to me, from the information I have, is that the drug problem with our troops in Germany is getting worse instead of better.

Chairman MCCLELLAN. I don't know how bad that is. I guess they try to help us on that, don't they?

Senator YOUNG. I think they are trying.

Chairman MCCLELLAN. You may proceed.

MANAGEMENT PRINCIPLES

Dr. CURRIE. I have talked about the highlights of some of our efforts in the strategic area and in the conventional area. I would like to stress one thing.

I believe that you hit the nail on the head when you talked about credibility. I won't take the time here, unless you wish me to, to describe the management initiatives we are taking, but in return for this budget, I think that we owe you the sense of responsibility and accountability in judgment that we must have, and we have a number of management principles which we are putting into effect and developing.

These principles are commonly and explicitly shared by Secretary Schlesinger, Deputy Secretary Clements, the three Assistant Secretaries for R. & D. in the services, and the military chiefs, and together, we are going to go forward with these. I have described some of these in the posture statement.

But in the end, I want to come here and build the confidence of Congress that we are managing these programs well. These programs are not simple to manage, but I am convinced we can do an increasingly better job.

Senator YOUNG. Our problem will be on the floor of the Senate if we should allow the full amount requested for R. & D. I am inclined to go along with most of, because this is a very essential part of military preparedness.

Couldn't you prepare a comparatively short statement in case someone raises a question on the Senate floor, a short statement about why research and development is important, to establish additional credibility?

You can put it in the record.

Dr. CURRIE. I certainly will.

[The statement follows:]

IMPORTANCE OF R. & D. IN ESTABLISHING CREDIBILITY

In brief, defense research and development is insurance against future weapons breakthroughs by potential enemies or unanticipated failures in our own systems.

The present is provided for—by past research and development. But the future depends on wise and prudent decisions on today's R. & D.

The future is always uncertain. We do know, from intelligence and from war experience, that Soviet weapons are approaching ours in quality. In some limited areas, they now equal or surpass our systems. And we know the Soviets are working hard to improve their weapons.

It is widely agreed, I believe, that we must have at least equivalence in quality of arms, and I believe that because our weapons are sometimes matched against superior numbers, we must in fact have compensating advantages in quality.

We must, therefore, maintain a research and development program that will continue to provide adequate quality. But what is adequate?

Since we cannot determine the exact future deployments of adversary weapons, we cannot provide an exact answer. We must hedge in a number of

ways under general guidelines. The general guidelines for strategic and tactical weapons are these:

In strategic weapons research and development, we must seek a substantial margin of safety. This is because the consequences of a failure in judgment could be truly terrible—could be, in fact, the destruction of our society and the loss of our lives. I would emphasize that the judgment of adequacy of our strategic weaponry—numbers and quality—lies ultimately in the Kremlin. Therefore, we must determine what kind of U.S. systems will beyond doubt deter the Kremlin leaders from any of the various possible "uses" of strategic weapons—blackmail, crises threats, small and controlled attacks, and all-out assault.

So we seek a research and development program which will truly insure that the Soviets will not, in the future, perceive any advantage in any use of their strategic weapons against us or our allies, whatever numbers and quality they acquire. Also, we carefully tailor our strategic research and development to preserve the strategic arms agreements already reached and to encourage further mutually beneficial agreements.

In tactical research and development, we can permit a lesser hedge, a narrower margin of security. Here, the cost to us of a misjuudgment is substantially less. In tactical weaponry we seek a "competitive" posture—in quality and numbers. That is, our future weapons must be in the same class as future Soviet weapons—or sufficiently better to compensate for possible inferiorities in numbers.

A competitive posture in tactical systems should provide adequate deterrence and combat capability.

Remember, our weapons have been used in combat against Soviet-built weapons even when American troops were not involved. The recent Middle East war is an example of such use—and a confirmation of the research and development directions we have been following.

Successful strategic and tactical research and development depend on a third kind of R. & D.—the work in the technology base. The technology base programs turn new science and promising technology into proven devices and techniques that can be used, if necessary, to develop specific systems. Our technology base programs are designed to provide a steady flow of matured technology into approved engineering development programs. Without this flow, we could not hope to achieve a wide margin of deterrence in strategic weaponry nor a competitive posture in tactical systems.

The investment in research and development—in future quality—is an economical one. In business terms, it is a highly leveraged investment. Relatively small present investments, if managed well, will pay off enormously in future security.

The Congress and the public deserve assurance that the investment is being managed well. Management of defense research and development is improving significantly, and new management approaches are outlined in my full statement to the Congress.

But in brief, we are highly selective in our approval of candidate programs, and we are improving the process of selectivity; we are bringing costs under control; and we are buying only the improvements which we believe will be truly needed for deterrence or on the battlefield.

Again, in business terms, we are instilling a consciousness of return on investment throughout the defense research and development community.

I believe that a research and development program with these objectives, carefully managed, has high value and deserves the solid support of the Congress and of the public we serve.

Dr. CURRIE. In the end, Senator Young, I think there has to be an element of vision. That is very difficult to express sometimes but I think it has to be put across in those terms.

Science and technology have really been the wellspring, so to speak, of our present strength in the world. It is absolutely fundamental; it has been fundamental in the past half century to our whole standard of living, our whole economic position, as well as our military security.

Those qualities, those elements that have built this foundation for the present we have to accept partly on faith that these will be just as important in the future.

Now, the Soviet Union has this commitment to science and technology. They have witnessed remarkable progress of this country and they are trying to emulate us.

Senator YOUNG. They are continuing to support their research. The Russians were the first in space. They spent a lot of money, and wisely. They have received a lot of spinoff benefits. We tend to relax afterwards, but the Russians don't.

Dr. CURRIE. Now is the time to have that sense of vision to learn from these experiences in the past.

I would like to say that I think it is a very inexpensive form of insurance not only for our military security but for our economic security in the future.

One thing I could do is go on and describe how Dr. Lukasik and General Starbird and I interrelate.

Chairman MCCLELLAN. Proceed. We may want to come back to some of this. Describe their function and how it correlates with yours.

TEST AND EVALUATION

Dr. CURRIE. Let me begin with General Starbird. General Starbird's official title is deputy. He is one of my principal deputies.

Chairman MCCLELLAN. He is your deputy?

Dr. CURRIE. My deputy for test and evaluation.

I should go on to describe that he occupies a very unique role in the Defense Department because he has not only a responsibility to me as part of the overall R. & D. and test and evaluation program but he has a direct responsibility to the Secretary.

In all of our management decisions on programs as it relates to test and evaluation—which is General Starbird's charter and his responsibility—he provides a report and recommendation not only to me but directly to the Secretary. The reason for that is because one thing we need more than anything else is, as we develop these programs, an objective and rigorous test of this equipment not only to demonstrate its performance but to demonstrate its military utility before we go into production.

So, General Starbird, on the test and evaluation end of the spectrum of our activities, occupies this central role.

I might just take the present opportunity to say that he has had an enormous influence on all of our programs in the last couple of years since this role has been created. He is a very strong support for me and for the Secretary in examining these programs for their overall integrity.

The one thing that we cannot tolerate is to go into production on systems and then have years of problems with them because they really don't represent fighting capability. So, General Starbird has this central role.

DARPA

Now, Dr. Lukasik is the Director of the Advanced Research Projects Agency.

If I could characterize that, in a very large company where you have autonomous divisions with their own product lines and their own engineering teams, those would be the services by analogy, and Dr. Lukasik heads what I regard as our corporate research laboratory.

The Advanced Research Projects Agency has the freedom to initiate new areas of research. Some of them are very speculative but they can have enormous influence on our future. They are areas that the services with their more immediate needs sometimes have problems initiating on their own. So, Dr. Lukasik initiates these programs and then as they progress, depending on their success, they are transferred to the services.

ARPA was created as a result of Sputnik. It was the agency by which we developed our initial satellite capability in this Nation. They were at the forefront more recently of the whole ballistic missile defense technology. Most recently, one large area that they initiated several years ago was the high-energy laser activity.

Senator YOUNG. Was the computer a spin-off from the space program, or was it a separate development.

Dr. CURRIE. I would rather say the computer, itself, has been more a product of our commercial industry than strictly military.

Chairman MCCLELLAN. Dr. Lukasic develops programs under the supervision and with the approval of you and the Secretary, doesn't he?

Dr. CURRIE. That is correct.

Chairman MCCLELLAN. He launches no programs without your approval?

Dr. CURRIE. That is right. I review annually his programs. The secretary's office, including myself, has the freedom to initiate programs in ARPA. I think the analogy of being the corporate research laboratory is fairly accurate in that sense.

B–1 TEST & EVALUATION

Chairman MCCLELLAN. While we have you here, since you, General, are in charge of test and evaluation, tell us what has happened to the B–1 that caused such a tremendous increase in cost since we last had testimony on the B–1.

General STARBIRD. The B–1 program is one which was reoriented lately and basically the reorientation was one to give additional testing, additional proof of the system, before it went into production. There were various causes why that slippage to get the additional testing was necessary. We have followed closely the program and the lead aircraft now is nearing the time of flight.

Chairman MCCLELLAN. When will that time be?

General STARBIRD. It will be in or a little later of this current year. Probably a bit later than September. We have followed carefully by visiting the plant, reviewing the plans of the various managers for the program, reviewing the contract plans, the progress that has been made to date. There has been real progress and good progress, but it became evident about July of last year that additional time was necessary prior to the time a major production decision was made. So, basically, that is the reason for the changes in the program.

Chairman MCCLELLAN. Why would delaying it cost a billion and a half dollars?

General STARBIRD. I am not an expert on the cost side, sir. However, in connection with that delay, there was the normal additional escalation that was involved by further delay. Also, a decision was made to

procure for research and development and test one more aircraft than was originally contemplated at the time of the last review you made.

Chairman McClellan. Is that included in the $1.5 billion?

General Starbird. That is a part of it.

Chairman McClellan. Another prototype?

General Starbird. And there may be two more of these prototypes, two more than were discussed with you a year ago.

Chairman McClellan. Why didn't we foresee that we needed more than one prototype? These are the things that I referred to previously, in part, at least. It is an element in this question of credibility. We have to rely on you people. As a result of testimony by responsible officials, we have thought that only three prototype was necessary. Now it is four. Perhaps next year you may decide we ought to have five. I don't doubt that the situation changes as you make changes and scientific breakthroughs and so forth, but this does give us a problem in trying to make our decisions and in trying to be fair and trying to do what is necessary.

General Starbird. Senator McClellan, the policies on test and evaluation now being followed, the ones that Dr. Currie just referred to, are ones that came into being after that program was started. The program really got started first with the intention of having five prototypes. Then it was reduced to three. When it was reduced to three it was believed that the necessary testing could be gotten on those three.

Now, it was also contemplated, however, that the amount of testing gotten before you made a production decision would be substantially less than we would be requiring right now before production. I think it is a wise policy that we do require that.

Chairman McClellan. You found that you needed to do much more testing than originally contemplated?

General Starbird. That is right. That is one cause.

Chairman McClellan. To make certain of sucessful development before you go into production.

General Starbird. Yes, sir. That is one cause. Now, the second cause is that it was found by the contractors and by the management of the program that the actual developmental work that was concerned with building these prototypes was more complex than originally thought. Unfortunately, that is a trend that normally happens with a program. You normally are more optimistic and you don't see some of the difficulties that actually occur. I am not trying to explain it but I am trying to say that is something that was found, that it took more work to get the first aircraft to fly.

Senator Young. Will the second one be different than the first one? Will there be new things added to the second one that were not on the first prototype?

General Starbird. There will be a difference but not major things added initially.

Senator Young. What is the major reason for two or three?

General Starbird. We initially contemplated a year ago, and going back to two and a half years ago, that there would be three prototypes, not just one. In the first place, you want more than one in case you have difficulties with one. But it was believed that you could get the necessary testing done that was then required with three. Then when

the policy changed to become more rigid we prolonged, we stretched out the program to a degree. This was done about a year and a half ago. It was still believed you could get enough testing to meet the new policy with those three aircraft.

The program was reviewed extensively during the summer and fall of this year and the problems, not major, but the problems that had occurred made it evident that it would be a longer period of time before you were ready to fly the first aircraft, and before the improvements in the first three aircraft could be in and tested.

Therefore, it was decided to add a fourth aircraft and probably a fifth aircraft to get additional testing and also to bridge the gap in a way for continuing to build during this period when the essential preproduction testing was gotten.

Now, if you don't bridge that gap and produce three aircraft or four aircraft or five aircraft, and then you close your line down and you open up a line all over again, the costs are very, very great. In addition to that, the new line may not produce exactly the same thing you were producing before. So you may not really have the aircraft coming off the production line that you have tested in the test period on the prototypes.

To be more specific, though, sir, aircraft No. 4 will have certain changes in the aircraft as compared with aircraft Nos. 1, 2, and 3.

Chairman McClellan. Are those basic engineering changes?

General Starbird. They are basic engineering changes, Senator McClellan, that you learn about through the early period of building and fabrication and by the examination of the tests.

Chairman McClellan. Will these changes improve it?

General Starbird. Would improve it but these are basically to improve the production, to make the production more simple and less costly than would occur if you followed the old procedure. That is basically the change which has occurred, sir, since a year ago. I have also touched on the change really that has occurred since 1971 when the program was started.

Chairman McClellan. This gets us back to that area of credibility. The plane was to cost about $45 million a unit to begin with. Now the estimated cost is up to over $60.1 million. Is that correct?

General Starbird. I can't state exactly on the cost, sir. I can get the information for the record.

Dr. Currie. Senator McClellan, that is essentially correct. I would like to just make two comments.

Chairman McClellan. I will be glad to hear what you have to say, but the point I am making here is that when we go before the full committee and on the floor and try to present these appropriation requests that we approve in subcommittee, we may well be faced with the statement: "Look, the request was initially $45 million a unit. It is now up to $60 million. It may go up to $75 million or $80 million before we get through."

I know you run into problems. I know you run into trouble areas where changes have to be made, and thus the cost goes up sometimes in making improvements. Such costs to improve the model must be paid for. But it makes it hard to sell to the skeptics and to the public.

Dr. Currie. I agree with you, Senator.

Chairman McClellan. That is our problem. We are trying to be helpful, but we run into these problems.

Dr. CURRIE. I will take the following position, and it is my policy that the programs we lay out for consideration by the Congress I want to be laid out realistically with enough time and enough money in them from the very beginning and even be accepted or rejected at that point. We have gotten into too many positions in the past 15 years or so where programs are inadequately laid out and funded from the beginning. Let me say just a little something about the cost of the B–1 airplane.

Chairman MCCLELLAN. Critics can argue that we are given low estimates in order to get the program started. I understand you to be saying it is your policy to try to give us as much as possibly can be known about the program.

Dr. CURRIE. Yes, sir.

Chairman MCCLELLAN. So as not to have this wide gap in estimates.

Dr. CURRIE. That is why in terms of the B–1 program we are restructuring it at this time. We are putting enough prudent engineering conservatism in the program so that you have a reasonable expectation of seeing the whole program before you right now. We are purposefully extending the test time so that before Congress is asked to make a decision on the production of that airplane we will have a solid basis of factual objective testing on the whole system for your consideration.

Chairman MCCLELLAN. Can you give us a cost estimate that is reliable, one that we can depend upon?

Dr. CURRIE. That is what we will have.

Now, let me put that cost into a little perspective. The B–1 airplane is almost identically the same takeoff gross weight as the Anglo-French Concorde, that supersonic commercial aircraft. It is about 395,000 pounds. That airplane, if one takes the R. & D. which was approximately $3 billion supplied by the two governments together, its current sales price is about $55 million to $60 million for the airplane.

Chairman MCCLELLAN. That is the Concorde.

Dr. CURRIE. Yes, sir. So it should be really no surprise that, taken as a whole, with the R. & D. and everything put in, the B–1 should be in that same ballpark. So I believe that that is a realistic way of viewing the B–1. It would be unrealistic to come in here and say that we can provide something for nothing.

Chairman MCCLELLAN. You could not even say now that the $61.5 million is going to be the program unit cost of the B–1 if it goes into production.

Dr. CURRIE. I feel that will amortize all the R. & D. I feel that before you are asked to make the decision on the production you will have a firm number. Now that $60 million represents all of the R. & D., which is about $3.5 billion, amortized over 244 airplanes, plus the unit production cost expressed in 1975 dollars. I feel that that will be pretty close to the final number, Senator McClellan.

Chairman MCCLELLAN. In other words, you think we are pretty safe in saying the ultimate unit cost for 244 B–1's will be around $60 million to $65 million each?

Dr. CURRIE. I would say that is conservative. Now, that does not have any future year inflation in it because I like to state things in this year's dollars because I don't have a very clear crystal ball on what is going to happen in the future.

Chairman MCCLELLAN. That is based on this year's dollar?

Dr. CURRIE. 1975 dollars. If we are paying 50 cents for a cup of coffee when the plane is produced, the cost of the aircraft will go up proportionately. In real value in this year's dollars, taken over the whole B–1 program, including all of the R. & D. which is about $3.5 billion, that in my best view is a pretty good accurate cost of this airplane.

Senator YOUNG. Is this a negotiated contract? Or is it a bid, or is it a cost-plus contract?

Dr. CURRIE. The production contract will be given to the developer, which is Rockwell International, and in a program of this size and complexity we have not found any viable way to introduce competition.

Chairman MCCLELLAN. You have to negotiate.

Dr. CURRIE. We have to negotiate.

Chairman MCCLELLAN. I don't suppose that can be done in any other way. When you start a program, you don't know yourself exactly what you are going to have when you get through.

Dr. CURRIE. That is right.

Chairman MCCLELLAN. You could not write out the specifications?

Dr. CURRIE. We had a request for proposal and the industry did bid. Of course when you have a program of this magnitude things do change during the course of that program, as you get into the engineering program.

Senator YOUNG. The reason I ask this is that so many people complain about everything in the military being on a cost-plus basis.

ABM T. & E. CONTRACT

Dr. CURRIE. That is correct. We have many programs on a fixed price basis; firm fixed price, not cost-plus.

Senator YOUNG. What type of contract was the ABM developed under?

General STARBIRD. That was a cost-plus.

Senator YOUNG. It had to be because it is the only one built in the world outside of the Soviet Union.

General STARBIRD. There has been quite a change in focus in the Department of Defense to try to get more on a fixed price. We did try on the ABM to get fixed components and such things on a fixed price.

Senator YOUNG. On a bid basis?

General STARBIRD. On a bid basis for the components coming in. It was not, as you would determine it, on a bid basis against a fixed price for the whole system. It was a cost-plus system.

Senator YOUNG. A lot of the components were on a bid basis.

General STARBIRD. Had it gone on to the full 17 sites, somewhere down the line an attempt would probably have been made to negotiate a fixed price. That was the program where you were designing as you went along with building the first of them.

Chairman MCCLELLAN. Let's get back to the problem. Dr. Currie, tell us very succinctly what kind of research this extra $475 million will be spent for. You said the increase of $1.2 billion over last year was made up of $500 million in inflation and $225 million in research transferred from other accounts.

Dr. CURRIE. That is work that has traditionally been carried in the procurement account.

Chairman MCCLELLAN. That leaves $475 million, if I add it correctly. That is in addition to what you had last year for new research.

Dr. CURRIE. Yes.

Chairman MCCLELLAN. This is not inflation; this is something new. What are the elements of that?

TRIDENT T. & E. PROGRAM

Dr. CURRIE. The TRIDENT and the B–1 program have grown, just because of their size. So that occupies some of it. There is about $300 million in these strategic initiatives, the work in laying the groundwork for possible future nuclear strategic systems that I spoke about earlier.

Chairman MCCLELLAN. Would that be included in the groundwork for moving the silos?

Dr. CURRIE. Yes, sir. For example, there is $37 million for that and there is $33 million for increased accuracy of the TRIDENT system as a special activity. There is approximately $20 million added to a program called ABRES. It is a technology program which will deal with these maneuvering reentry vehicles. Sixteen million dollars for a small submarine, the preliminary design of that which could be a replacement later on for the large TRIDENT submarines. There is $80 million for the Air Launched Cruise Missile I spoke about earlier.

There is a list of these strategic programs which add up to several hundred million dollars. Then in the conventional warfare area there is a long list of programs having to do with improving our field army air defense, these new surface-to-air missiles I referred to, based on foreign developments.

We have a collection of programs totaling some $60 to $80 million in the precision guided weapons that I talked about and in electronic warfare. Another way to defeat the enemy and to suppress these radars is by countermeasures. We have a program in that area.

Now, not all these programs are additive because we have taken money from last year to accommodate all of these. But generally it is in those areas.

Chairman MCCLELLAN. It is to increase the activity in those areas?

Dr. CURRIE. To give emphasis to those areas. [Deleted.]

Chairman MCCLELLAN. As I understand it, you spoke about the maneuverability of reentry vehicles. Is there no maneuverability of them now?

Dr. CURRIE. No.

Chairman MCCLELLAN. How do you provide for the MIRV warheads to land on the different targets if there is not maneuverability?

Dr. CURRIE. The MIRV's are separated while the vehicle is still in space, so to speak, and then they follow a predictable ballistic trajectory to their target.

Chairman MCCLELLAN. In other words, once they are launched from the primary missile, so to speak, they have no maneuverability?

Dr. CURRIE. That is correct.

Chairman MCCLELLAN. Instead they are set to a different launch time.

Dr. CURRIE. Yes, sir. So this bus dumps them off at various points and they follow a very predictable trajectory from that point on.

Chairman MCCLELLAN. Is progress being made now in developing a guided missile that can be maneuvered by remote control once it is launched?

Dr. CURRIE. Yes, sir. There are two types of maneuvering reentry vehicles. I must stress it is a long development program, it is a difficult technological feat. There are two kinds. One kind is a simple maneuvering vehicle which would follow a sort of maneuvering [deleted] path and preclude the enemy from being able to predict trajectory. When you do that you probably [deleted] but the existence of something like that encourages the Soviets not to abrogate the ABM treaty, because if they abrogated the treaty and deployed new antiballistic missile systems, this kind of reentry vehicle would defeat that defense. So, if we have it in our hip pocket it will encourage them not to renew their efforts in antiballistic missile defense.

The second type of maneuvering reentry vehicle is a very long range program in which we will have some kind of terminal guidance on it, for example, a radar that will actually look at the ground and see where the target is and then guide the vehicle in. Now, this is a conceptual possibility at this time. It is an extraordinarily difficult technological problem but we feel we must start efforts in this area so that eventually some day we will at least have the option of having that technology available for development should events with the Soviet Union dictate that.

PROCEDURES FOR NEW RESEARCH PROGRAM

Chairman MCCLELLAN. Doctor Currie, under current procedures and current capabilities in the starting of new research programs, what percentage of their cost turns out to be complete waste, where you abandon the program when it does not pay off? Could you give us any idea about that?

Dr. CURRIE. It is hard for me to pin an exact number on it.

Chairman MCCLELLAN. I know. I just want to get an idea.

Dr. CURRIE. I would like to make the following point, though, that sometimes in technology turning a program off because it has not met its initial objectives should not be regarded as a failure because one has to try a number of things to find out which one will work.

Now, where it becomes a waste is letting these programs go on too long after it is clear that they won't meet their objectives.

Chairman MCCLELLAN. Waste is probably not the right word. As you point out, you may have to try four or five approaches before you finally succeed. All of that effort was necessary from the standpoint of starting from scratch. You didn't know which method was going to prove itself.

One of the four or five may succeed, but there are four out of the five, perhaps, that do not succeed. Had you known in the beginning how to proceed, you would not have had to spend that money.

Would you say $1 out of every $5 in research ultimately pays off, or $1 out of $10?

Dr. CURRIE. Let me put it in a slightly different way.

Chairman MCCLELLAN. I am just trying to get some rough concept of it.

Dr. CURRIE. I come from commercial business where we have very complex markets to serve. I developed in our division technological capability and we would start new products that were aimed for these markets. I considered my batting average very good—now this was in our commercial business where we had our own company money on these projects—if we had a real winner of 1 in 5.

Now, a big company like the 3M Co. has published what they consider 1 in 20 a winner is good. One of the tricks of management, and it is the essence of management, is to be able to recognize the four losers early in the game before you put much money on them. So that our whole attention now in DOD is focused on developing the management strength and the guts to be able to do this, to be able to have alternatives to choose from but then to be able to make that choice and decide which one is going to be the winner, and cut the others off. That does not answer your question in dollars but it comes close.

Chairman MCCLELLAN. Senator Case has come in during the questioning.

Senator Case?

Senator CASE. I think I will just sit by for now. I am sorry I could not be here before. It is the usual problem of having two or three meetings at the same time.

Senator YOUNG. [Deleted.] Is that correct?

Dr. CURRIE. [Deleted.]

Senator YOUNG. [Deleted.]

Dr. CURRIE. [Deleted.]

[Deleted.]

Senator YOUNG. [Deleted.]

Dr. CURRIE. [Deleted.]

Chairman MCCLELLAN. [Deleted].

Dr. CURRIE. [Deleted].

SATELLITE LAUNCH PROGRAM

This last year their overall launch program for peaceful purposes, as well as for military, they had [deleted] the number of launches and for military satellites they had [deleted] the number of launches that we did. Now that represents a very, very significant overall application of resources. We are able to get by with fewer launches and fewer satellites because, frankly, I think in this area that is the strength of our technological advantage. It involves very sophisticated electronics and communications, reliable launch vehicles, and we have that capability.

We are learning how to make satellites that last quite a long time. [Deleted.]

Chairman MCCLELLAN. How are you able to tell the difference between a military launch and a scientific launch?

Dr. CURRIE. Of course there are launches that go to Venus or Mars, those are obviously not military. [Deleted.]

Chairman MCCLELLAN. Just as our Moon shots were not military in objective.

Dr. CURRIE. That is correct.

Chairman McCLELLAN. There is no way, as I see it for us to ever stop spending a tremendous amount of our resources for national defense, unless we can negotiate a kind of world treaty or some international authority with power to properly supervise activities so as to protect the world from any surprise attack. If we can't negotiate these SALT treaties successfully, I don't know how we can ever hope to be optimistic about any world disarmament.

Dr. CURRIE. We don't want an arms race. As Secretary Schlesinger has pointed out, our goal in the Defense Department is to create a situation whereby hopefully one can create a climate in which the forces can be pulled down on both sides.

Chairman McCLELLAN. That is it. How can we do it?

Dr. CURRIE. We have to do it from a position of strength. It depends upon negotiations.

Chairman McCLELLAN. Both sides are trying to develop that position of strength from which to negotiate. I am wondering if the Russians will ever be content to reduce armaments until they feel they are the superpower.

Dr. CURRIE. That is a good question.

Chairman McCLELLAN. Sometimes I think the most logical conclusion to be drawn from their policies and attitude is that they intend to become the super world power at whatever cost and in whatever length of time it takes them to do it.

Dr. CURRIE. Much of their literature would indicate just this.

Chairman McCLELLAN. That is why I keep urging our NATO allies to cooperate. I do not think that we alone can long continue to bear the whole burden of building the deterrence necessary without this country becoming insolvent.

I think it must be done cooperatively. In other words, several countries should not try to develop similar weapons for similar purposes, each going off at different tangents. It seems to me there must be developed some way of coordinating, pooling and consolidating the efforts of the free world in military research and development.

Dr. CURRIE. That is exactly, Senator McClellan, why I said earlier that I feel that this is a very important juncture in history. Now I make the analog with the stock market. The price we pay for stocks on the market now really is based on our expectations of the future. The whole thrust here is to create a set of research and development initiatives which will not only create the base of flexibility for the future but which the world can perceive as an expression of will. The world does not look at those initiatives as they exist. They look at that capability they would represent 5, 6, and 7 years from now if we went ahead with everything.

The Soviets have what I regard as a set of initiatives. They certainly have been spectacular this last year, to say the least. I would expect that part of our view of our overall R. & D. program would be seen in that context, that these things we do this year and in fiscal 1975 in R. & D. really give us a platform for the future which the Soviets can perceive. I think it is important now because if ever we are going to reach an agreement and if ever we are going to get into a mode with the Soviets in which we can eventually pull down the forces it

has to be in the near term before they go ahead with major new developments.

Chairman McClellan. Otherwise we are in an all-out arms race indefinitely.

Dr. Currie. That is right. That is where the cost really skyrockets, when we get into these huge new programs.

Chairman McClellan. Do you think the American people will stand for it?

Dr. Currie. Well, if it is a matter of survival; yes, sir.

Chairman McClellan. Can you sell them that such a course is absolutely imperative? That is not a popular theme today politically.

Dr. Currie. It is not popular but, you know, if all of the developments of the Soviets continue to be deployed, and I am not just talking their strategic missiles, I am talking of their nuclear submarines which they are building at three times the rate we are right now, and their conventional forces, the proliferation of what amounts to sophisticated equipment, I think this will be perceived by the American public. It has to.

Chairman McClellan. I am thinking politically. It is not very popular to tell our people we are going to have to do this. You can't get elected on that kind of platform.

Dr. Currie. I understand. You have a problem there.

Chairman McClellan. You can't get elected on that kind of platform. Now, where are we? How can we get the message across?

I am being realistic, not an alarmist. But we must get reality thrown on the screen so that we can see the situation for what it is. Those are the things that give me concern. I don't mind spending money for defense, but I don't want to spend any more than we have to. However, we will have a job selling the American people on the potential danger that confronts us if we fail to negotiate SALT agreements of a type that will give us assurance that we need not engage in an unlimited arms race.

Senator Young. I have a problem in the next few months educating my opponent.

Chairman McClellan. That is what I am talking about. I am for the American people being the masters of their own destiny. If we cannot convince them of the necessity of a strong military establishment, if they can't see the light, if they won't, through their vote, elect people who see the need to fully protect America, there is little that can be done. I am not criticizing those who may honestly disagree with this conviction. But the problem remains. If this threat is real and if our potential adversaries pursue their avowed goals, it is obvious that we cannot procure off the shelf the necessary weapons to defend ourselves if we never develop them and produce them.

Dr. Currie. It is too late then.

Chairman McClellan. It is the terrible dilemma of our modern civilization that civilized people, civilized governments, can't get together and forestall this catastrophic calamity that confronts the world.

Senator Case. I would like to take this chance, and again this is perhaps a little bit off the beam but not in a broad sense.

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In your statement, Dr. Lukasik, in regard to the comparative capability of the Soviet Union and ours, you point out they have certain notable deficiencies especially in the area of computers and supporting infrastructure of computer oriented operations. They have a great need for this in certain types of modern technology. Of course this is very much before us in considering proposals for large-scale commercial transactions between our countries.

One of the things they want to get, as you indicate here, is the whole computer operation and technology and probably the machinery too. Suppose we take a fairly hard line about this, to what extent will they still be able, as they claim, to go somewhere else and get it?

Dr. LUKASIK. The Soviets, of course, have a manufacturing capability for computers. Their computers are a number of years behind ours. It is not even necessarily a question of their going elsewhere. The issue is rather one of time. That is, given enough time they will develop this capability, themselves, if they go outside they can increase their capability quickly. They can take a jump ahead. I think that there are other countries that will sell the Soviets computers. But recognize that the American computer industry is preeminent around the world and therefore other countries do not necessarily have the large industrial base that could potentially supply the needs of the Soviet Union.

However, there is no question that other contries will be able to sell them computers, especially of the size that the Soviets need, which tend to be medium-sized computers for management functions as opposed to the massive computational devices that are important for the most highly advanced technology.

Senator CASE. Those are things they want in the medium capability range would primarily be used in their civilian economy. Isn't that right?

Dr. LUKASIK. That is correct.

Senator CASE. To try to satisfy the need for meeting the consumer demand for goods, et cetera.

Dr. LUKASIK. It is very difficult to separate the military and civilian parts of the economy of the Soviet Union. We, of course, put a great deal of effort into that question in order to discern what their military budget is and what the trends are and how it is spent.

We recognize that the Soviet Union is a centrally managed economy where everything must be planned, all manufacturing, and of course basic industries such as steel and aircraft and electronics and so on fundamentally support both a military as well as a civilian function.

So that one can't make an easy identification of computers that will assist their civilian sector but that would not otherwise impact on their military sector.

Senator CASE. To what extent would restrictions in our supply of these things, including software, be a good thing? Would it have the tendency, as I think you have suggested, to stimulate them to develop their own operations in this area and thereby to do what they did for us in SPUTNIK.

Dr. LUKASIK. You can't have it both ways. They need computers to manage a large industrialized country. If they don't get them from

us they will get them from some other source; but they clearly will get them at some point.

As I say, the issue I think is really the time delay or the degree to which the United States can maintain its lead for some continued period of time.

Senator CASE. You can speculate this way down the line.

To what extent do they need to open their society in order to keep their scientists happy, in order to have their scientists produce the computers that they can't get from us?

This is another argument of course that is made, that we should hold back here so that they would have to open their society. Now, is this valid or is this just daydreaming on the part of people who urge this?

Dr. LUKASIK. These are issues that clearly transcend purely technological problems.

Senator CASE. Of course it is. You are a human being and you have a good brain. I would like to hear what you have to say about it.

Dr. LUKASIK. I think this is a matter of total trade policy.

Senator CASE. You also are in contact with people of this sort. I have just been wondering, are people who are good at these fantastic things you engage in a peculiar breed, or are they normal human beings for the most part, affected by the same motivations?

Dr. LUKASIK. I think scientists and engineers see themselves as normal human beings trained in a special area just as everyone is trained in his special area. On the national policy issue, it is clear that there is a potential for trade in this area as well as others, and we are looking into it, trying to assess the pros and cons from a defense standpoint.

The Defense Department is one of many agencies of the U.S. Government that is called upon to take positions or comment on proposed trade arrangements and release the technology.

We have been attempting to assist the Secretary and particularly Dr. Currie, who is the focal point for the military technological issues within the Defense Department, to give guidance as to what the ultimate national security impact would be. Clearly there are political advantages to trade, there are economic advantages to trade, there are, in some areas military disadvantages. In the final analysis that decision must be made, weighing the military disadvantages against the economic and political advantages that may accrue.

The point of our work is to clarify what these military disadvantages will be, assessing the relative state of technologies, the degree to which markets might develop and the ways in which this new technology might impact most directly on the Soviet military capability.

Senator CASE. Thank you, Mr. Chairman.

Chairman MCCLELLAN. Are there any further questions?

General Starbird, did you want to make a statement?

PREPARED STATEMENTS

General STARBIRD. I have a statement, sir, that may be placed in the record.

Chairman McClellan. Let's have your statement for the record. Do you have one also?

Mr. Lukasik. Yes.

Chairman McClellan. Your statements will appear in the record at this point.

[The statements follow:]

STATEMENT OF GENERAL ALFRED D. STARBIRD, USA (Ret)

Mr. Chairman and Members of the Committee:

I thank you for this chance to describe the emphasis Defense now places on test and evaluation in the acquisition of new systems, and to the need for the requested FY 1975 appropriation for the Title V Appropriation, "Director of Test and Evaluation, Defense."

I. DOD Policies and Organizational Arrangements.

Last year, I described in some detail the new Defense test and evaluation (T&E) policies and organizational arrangements and what had been achieved by them. Today I shall:

o Remind you of the more important of these policies and arrangements;

o Describe how they have been placed in effect; and

o Explain the need for the FY 1975 appropriation for Joint Operational Test and Evaluation (JOT&E).

From 1971 to late 1972, Secretary of Defense (SecDef) instructions directed decisive steps to improve our test and evaluation. In January 1973, he strengthened these and consolidated them into instructions of DoD Directive 5000.3, entitled, "Test and Evaluation."

a. For acquisition programs, a new weapon system must be given earliest feasible testing. There must be adequate testing of the all-up items before any heavy production. Before such production:

(1) The Developer must complete sufficient Development Test and Evaluation (DT&E) to insure that the engineering was reasonably complete, design problems were identified, and solutions were in hand.

(2) An Independent Test Organization must complete satisfactorily sufficient Operational Test and Evaluation (OT&E) to provide a valid estimate of the system's operational effectiveness and operational suitability when stressed in an operating environment. Major operational test commands for the accomplishment of this OT&E were to be established.

b. The Defense Systems Acquisition Review Council (DSARC), at each major milestone decision point must review the test plans and accomplishment, and advise the SecDef as to their adequacy to support a decision.

c. My office, organized in late 1971, would be the full time, Office of Secretary of Defense (OSD) level T&E overseeing agent for Defense. My staff and I would monitor continuously all major acquisition programs and lesser programs as I believed necessary. I was to inform the DSARC and SecDef at each major decision point of the adequacy of the test plans and results. In addition, I was to: (1) recommend directly to SecDef changes in T&E policy and procedures; (2) oversee for OSD the major ranges and test facilities; and (3) coordinate the accomplishment of required Joint tests. Joint tests are those where the assets of more than one Service are used, - for example, Army anti-aircraft against Air Force aircraft.

II. Progress to Date.

I do now oversee continuously T&E plans and results for all "major acquisition programs" and a fair sampling of "less than major." Based on these reviews, I am convinced that the policies and organizational arrangements directed are sound, are being followed, and are improving greatly our acquisitions.

a. Major systems now are subject, prior to production, to early and extensive DT&E to prove that the significant technical and production risks have been eliminated. Also, before production, realistic OT&E is accomplished. It is key in this regard that: strong independent organizations do the OT&E; and that their evaluations flow directly to the Service Chiefs. By a year ago, steps had already been taken to increase the capability of the Navy's independent OT&E agency, - the Operational Test and Evaluation Force. Army's Operational Test and Evaluation Agency, a year ago in its early stages of formation, has become a strong independent OT&E command. The Air Force, which until now

used its Continental Commands for OT&E, recently directed the establishment of the Air Force Test and Evaluation Center which will be fully operational 1 July this year. These agencies have responsibility for OT&E of the major acquisition programs and many "less than major" acquisitions.

b. The DSARC has continuously increased its emphasis and insistence on adequate DT&E and OT&E to support the major milestone decisions. Lately, too, the DSARC has become more insistent on: thorough, early testing during advanced development of risk subsystems; multi-Service testing of systems of possible use to more than one Service; and testing of foreign developments of possible U. S. interest. There are currently identified 77 "major weapons acquisition programs" which are controlled through the DSARC process. During this last year the DSARC considered at key points 24 of these. In its reports to the Secretary, the DSARC commented as to the adequacy of test plans and whether test accomplishment supported the recommended decision. The DSARC expects to review at least 24 additional programs this next year.

c. My office monitors continuously all T&E for the 77 major acquisition programs. These have been restructured to the degree possible to meet the new T&E policies. For such major acquisitions, I give my personal assessment at each DSARC meeting on T&E adequacy. Following the review, my appraisal for the DSARC recommended decision is transmitted to SecDef. I have periodically reviewed and restructured as necessary many "less than major" programs. This coming year I intend to pick up for <u>continuous</u> monitoring 32 additional programs.

d. The conduct of joint operational test and evaluation (JOT&E) has now been aggressively started as I shall explain in Section III.

e. As to my responsibility to oversee the operation and improvement of our major test facilities, 26 such installations (those listed on Chart 1) are now identified as the "DoD Test Facility Base." They vary from large, multi-purpose facilities like the Eastern Test

Range (Cape Kennedy) to smaller more specialized facilities such as a National Parachute Test Range in El Centro, California. All possess assets which are for the most part irreplaceable in our present environment. My office continuously monitors these to insure that they provide at minimum cost, the required capabilities, but are improved as necessary to meet present and early future test needs.

(1) In the interest of economy, two major steps have recently been taken. Beginning last year, we started an annual review of the programs and budgets for each of these facilities aimed at cutting away things we no longer needed. In the FY 1975 budget, DoD placed in force for the 18 facilities which have major capability for multi-Service use (those marked with an asterisk on Chart 1) a new funding policy. This policy charges uniformly to users the test direct costs, while institutionally funding the indirect costs. By such a uniform funding approach we shall screen out unnecessary testing, and promote the user's going for test to the facility which gives him best test results.

(2) In the area of range and test facility improvements, we are being discriminating. In some respects, however, our facilities have not kept pace with increased needs. During the last three years, we have initiated steps to remedy the serious deficiencies. For example:

Our existing ranges for air-to-air and air-to-ground testing were generally limited in enemy-like threat and could handle only one-on-one engagements. The Air Force under our guidance plans to convert existing Government areas and airspace in the lesser populated Southwest into a Continental Operations Range (COR) to handle wing-size engagements. Anti-ship missile defense is a difficult capability to test but one vital to survival of our ships. The Navy's budgets for FY 1974 and FY 1975 includes line items for installation of equipment on the Pacific Missile Range (PMR) and the Atlantic Fleet Weapons Range (AFWR) to provide test (and training) for Anti-Ship Missile Defense systems in the threat environment.

CHART 1

MAJOR ELEMENTS
OF THE
DOD TEST & EVALUATION FACILITY BASE

ARMY

Arctic Test Center, Fort Greely, Alaska
Tropic Test Center, Fort Clayton, Canal Zone
*Yuma Proving Ground, Yuma, Arizona
Jefferson Proving Ground, Madison, Indiana
*White Sands Missile Range, White Sands Missile Range, New Mexico
*Kwajalein Missile Range, Marshall Islands, Trust Territory Pacific Islands
*Electronics Proving Ground, Fort Huachuca, Arizona
*Dugway Proving Ground, Salt Lake City, Utah
*Aberdeen Proving Ground, Aberdeen, Maryland

NAVY

*Pacific Missile Range, Point Mugu, California
Atlantic Undersea T&E Center, Andros Island, Bahamas
*Naval Air Test Center, Patuxent River, Maryland
*Naval Air Propulsion Test Center, Trenton, New Jersey
Naval Air Test Facility, Lakehurst, New Jersey
*National Parachute Test Range, El Centro, California
*Naval Weapons Center (T&E portion only) China Lake, California
Atlantic Fleet Weapons Range, Roosevelt Roads, Puerto Rico

AIR FORCE

*Space & Missile Test Center, Vandenberg AFB, California
*Eastern Test Range, Patrick AFB, Florida
Satellite Control Facility, Sunnyvale, California
*Arnold Engineering Development Center, Tullahoma, Tennessee
*Flight Test Center, Edwards AFB, California
*Armament Development & Test Center, Eglin AFB, Florida
Air Defense Weapons Center, Tyndall AFB, Florida
*Special Weapons Center, Kirtland AFB, New Mexico
*Tactical Fighter Weapons Center, Nellis AFB, Nevada

*Facilities under uniform funding policy commencing FY 75.

III. RDT&E Appropriation "Director of Test and Evaluation, Defense."

In the FY 1973 budget submission, the SecDef proposed a new RDT&E line item, PE 65804D. Funds from this PE, to be administered by me, were to strengthen OT&E and particularly Joint Operational Testing (JOT&E). Approximately 25 per cent was requested to give one-year support to the new independent Service OT&E commands. The other 75 per cent was to support needed JOT&Es. For some systems, of course, which directly interface in a "joint battlefield," JOT&E is necessary to establish how effective the system will be.

In FY 1973, the Congress established this new activity as an RDT&E appropriation entitled "Director of Test and Evaluation, Defense." It appropriated $27 million, the major portion of which was used for support of Joint Operational Test and Evaluation (JOT&Es). This portion was used only for the extraordinary test costs caused by the tests, - for such things as test definition, test planning, test headquarters operation, special instrumentation, data collection, and the like. Normal appropriations to the Services for equipment, pay, and maintenance, paid for the other costs involved. A breakout as to how this appropriation was used in FY 1973 (and in later years) is as shown on Chart 2.

In summary, in FY 1974, the Congress granted the $24.6 million requested by DoD for this new appropriation. We are requesting for FY 1975 $27 million to continue work on the JOT&Es earlier started and to initiate three additional.

In brief, SecDef in CY 1971 had directed a first "pilot" JOT&E to be conducted in early FY 1973, a test of the air-delivered MAVERICK System against armored/AA operational defenders. The test was completed in mid-CY-1973 and showed the high value of such JOT&E. In FY 1973, we initiated preparations for seven additional JOT&Es. In FY 1974, we initiated three additional. In FY 1975, we shall complete six of those earlier started and start three additional.

CHART 2

ACTIVITIES FUNDED BY APPROPRIATION "DIRECTOR OF TEST AND EVALUATION, DEFENSE"
(in thousands of dollars)

	FY 73 Appn	FY 74 Appn	FY 75 Request
I. Improvement of OT&E Capability	6,191	-	-
II. Joint Test Activities			
1. MAVERICK Joint Test	77	-	-
2. Electronic Warfare Joint Test	4,226	2,000	2,700
3. Hit Probability Joint Test	5,157	2,900	3,100
4. Laser Guided Weapon Countermeasure	633	3,000	2,200
5. Airborne Target Acquisition Test	1,842	1,400	3,400
6. Air-to-Air Weapon Effectiveness Test	2,596	2,100	600
7. Radar Bombing Accuracy Test	2,326	2,300	800
8. Aircraft Survivability Test	3,096	3,300	3,600
9. Continental Operations Range	477	2,000	-
10. Close Air Support Command and Control Test	-	1,800	2,400
11. Laser Guided Weapons in Close Support Operation	-	1,200	4,200
12. A-7D/A-10 Flyoff Test	-	2,000	200
13. Forward Area Air Defense Joint Test	-	-	1,000
14. Operational Resupply Joint Test	-	-	1,000
15. Multiple Air-to-Air Combat Joint Test	-	-	1,100
III. Other	379	600	700
	27,000	24,600	27,000

Joint Operational Tests Initiated in FY 1973.

a. The Electronic Warfare (EW) Joint Test. Recent combat experience has demonstrated that the ability of attacking aircraft to operate through a heavy surface-to-air (SAM) defense is dependent on the capability and tactics of our air-carried, electronic countermeasures (ECM). From the EW Joint Test we shall determine the best tactics and aircraft/ECM mix for such penetration, and the degree of success that can be expected. A sizeable number of formations of Air Force and Navy aircraft will fly against ground complexes of SAM and AA radar simulators, with the results accurately measured. Check tests to prove the data gathering and instrumentation were completed in mid-1973. The main test will be completed and the results available in FY 1975.

b. Hit Probability Joint Test. Combat in Southeast Asia showed that anti-aircraft extracted much heavier aircraft losses than earlier expected. Our estimates of effectiveness now, however, are based on mathematical models unsubstantiated by realistic, measured test results. In this test, highly instrumented guns which best represent USSR weapons, will fire nonlethal ammunition at maneuvering aircraft in various operational type situations and results will be accurately measured. The check test is being accomplished now and the main test will be completed by early fall 1974.

c. Laser Guided Weapons (LGW) Countermeasures Joint Test. We have and are developing several highly effective, LGW systems to be used by our air and ground combat units. Their advantage is very great but technically there are means to countermeasure such systems. We do not know, however, how operationally feasible such countermeasuring could be. The objective of this test started in CY 1973 is to determine the effectiveness of our LGWs in an ECM environment and what countermeasures are operationally effective. Limited testing is underway, check-out of a mobile instrumentation facility will be accomplished this summer, and a first phase of field testing will be completed during FY 1975.

d. Airborne Target Acquisition Test. Serious questions still exist as to how effective air crews in Close Air Support can be in detecting and maneuvering for attack into position to attack ground targets. The Airborne Target Acquisition Joint Test will determine ability to acquire such air-to-ground targets from our various aircraft both when the crews are unaided optically and when assisted by our target acquisition systems. To minimize the number of flights, physical simulators are being used to reduce the number of variables tested. Simulator tests are well underway. The situations which need flight test will be then flown in late Spring 1975 with testing completed by late FY 1975.

e. Air-to-Air Weapons Effectiveness Joint Test. In combat, kills from our air-to-air primary weapons, - radar and infrared, homing missiles (the AIM-7 and AIM-9 families), - were substantially less than expected. This test, started in FY 1973, will give realistic operational performance information, to improve the definition of the tactical launch envelopes, and to improve our future weapon developments. Preparation of instrumentation and its check-out has been completed. Flight testing is underway and will be completed in FY 1975.

f. Radar Bombing Accuracy Joint Test. This FY 1973 initiated JOT&E will determine in realistic operational situations the accuracies to be expected from our radar air-to-ground delivery systems. New, very accurate measuring instrumentation has been developed and is now in a check-out. Operational flight tests in various locations will be flown between July 1974 and February 1975 with the test completed and results available in FY 1975.

g. Aircraft Survivability Joint Test. This JOT&E is an extensive one to establish through analysis and actual firings into critical aircraft subsystems their vulnerability. Investigation and test is being made on three basic types of aircraft, - the A-7 single engine attack jet, the F-4 twin engine fighter, and the AH-1G helicopter. A major portion of the analysis has been completed; test firings are underway. The tests will be completed in FY 1975.

Joint Operational Tests Initiated in FY 1974.

a. Close Air Support (CAS) Command and Control Joint Test. The CAS Command and Control test, whose planning started in FY 1974, is a DepSecDef directed test resulting from his study and conclusions on Close Air Support. He directed that testing be conducted to establish more accurately the operational capabilities and limitations of our command and control system for CAS. The JCS were assigned the test and I was to approve the plans and provide extraordinary financial support. Normal U. S. Unified Command exercises will be used with a first scheduled in

June 1974. By the end of FY 1975, there will be several such tests and results will be available.

b. Laser Guided Weapons (LGW) in Close Air Support. This 1974 started test will identify the density of LGWs which may be used without unacceptable interference or saturation of command and control. Plans have been started and a joint test force is being formed. The tests will be completed in FY 1976.

c. A-7D/A-10 Fly-Off. This test, called for by the Congress, is a JOT&E with Joint Forces. WSEG/IDA developed criteria for the test. After my approval, I sent it to the Air Force, the executive agent for the test. Detailed plans are being prepared by a joint test force. The test will be completed in FY 1974.

New Joint Tests to be Initiated in FY 1975. Working with the Services, we have identified three other joint operational tests which should be started in FY 1975. These are:

a. Forward Area Air Defense Joint Test. This test is to determine the overall effectiveness in operations of typical air defense deployments in Close Air Support. It is planned that the Army, Marine Corps and Air Force will participate and, when possible, scheduled Unified Command exercises will be used. Planning for the test will be initiated in FY 1974, and preparations in FY 1975 with the conduct expected to be mainly in FY 1976 and 1977.

b. An Operational Resupply Joint Test. By 1976, the U. S. Flag Merchant Fleet will be more than 50%, by tonnage capacity, dedicated exclusively to containerized cargo. Over-the-beach resupply from these types of ships presents a different and more difficult problem than we have had before because of the greater size and weight of the containers. In this joint operational test we shall determine the effectiveness of such over-the-beach resupply and the interfacing ship-to-shore lighterage and beach handling systems. Definition of the test and the means for

accomplishing are starting now. Testing will start in FY 1975 with FY 1976 the largest test year.

c. Multiple Air-to-Air Combat Joint Test. Estimates of the effectiveness and losses in air-to-air combat to date have been based generally on one-on-one aircraft engagements, extrapolated by mathematical models to evaluate the more frequent multiple-on-multiple, situations. There are real questions as to the validity of such extrapolation. This test's objective is to obtain measured test data on typical multiple-on-multiple combats. Test planning and early preparation will be completed in FY 1975 with the testing accomplished in FY 1976 and 1977.

Feasibility Studies for Future Joint Operational Tests and T&E Facility Base/Instrumentation Studies.

As in prior years, certain special analyses and studies will be accomplished in FY 1975 at a total estimated cost of $700,000. Approximately two-thirds of this will be for the accomplishment of definition studies to definitize possible other JOT&Es to begin in FY 1976. $260,000 is requested to continue FY 1974 special analyses and studies related to improving and making more economical our major range and test facilities.

I appreciate this opportunity to present my statement. I shall try to answer the questions you may have.

STATEMENT OF DR. STEPHEN J. LUKASIK

INTRODUCTION

The Advanced Research Projects Agency (ARPA) plays a special role in defense research and development. This role has been described as that of a balance wheel, a gap-filler, a mechanism for encouraging innovation, or a central research organization for work that is not uniquely identified with a military service.

There is an element of truth in each of these descriptions. But none of them is complete nor do they serve to determine uniquely the ARPA program. It is better, instead, to characterize our program in terms of what the Secretary of Defense has directed us to do and for which the Congress in the past has authorized and appropriated funds.

ROLE OF ARPA

Our first task was to overcome the enormous technological lead demonstrated by the Soviet Union when they placed their first satellite in orbit in September 1957. ARPA did this and within eighteen months the space programs we organized and funded were transferred to the newly established National Aeronautics and Space Administration and the military services. This single example illustrates a number of essential characteristics of the Agency. The task was national in scope and of major concern from the standpoint of national security. The threat was of a totally new sort and its nature was not understood. Rapid response was required. The management of the task demanded the identification of the best talent in the country and its organization into a team. The subject involved technology of the most advanced sort. And the program, once started, was transferred to another organization for its continuation.

It was recognized that the organization created to do this could continue to play a vital role in the management of research and develop-

ment for national security. Consequently ARPA was retained and it was given new assignments designed to keep the United States in the forefront of defense technology. These included, for example, the problems of defense against intercontinental ballistic missiles, the fostering of an interdisciplinary attack on materials science problems, and the elucidation of questions related to the verification of treaties banning nuclear testing.

Early fears of many that ARPA would become the sole developer of major new weapon systems have not been realized. That task is clearly the responsibility of the military services. But ARPA does conduct studies and experiments and undertakes feasibility demonstrations of new weapon concepts. ARPA also manages research of a high risk nature that the military services are not able to undertake yet which, from an overall security standpoint, are potentially of great importance. Finally, because ARPA does not perform specific military operations nor is it involved in the full range of system development, it serves as a neutral organization to evaluate technical concepts that might not otherwise survive in the heat of inter- and intra-service competition.

ARPA's responsiveness is enhanced by keeping the agency small. The technical programs are managed by a staff of fifty-five technical people. ARPA has no laboratories or facilities to defend or expand. It does not have a contract-writing capability, and it derives a major part of its administrative and technical support from other organizations.

RELATION OF ARPA TO THE MILITARY SERVICES

The directive establishing ARPA requires that we "make full use of established facilities in the Office of the Secretary of Defense, other DoD components, and other government agencies rather than unnecessarily duplicating such facilities." Another part of our charter requires that we

inform "the Director of Defense Research and Engineering, the military departments, the Joint Chiefs of Staff, and other DoD agencies...on significant new developments...within assigned projects...in order to facilitate early operational assignment."

The effect of these requirements is to foster the closest possible relationship between ARPA and the military services. The bulk of our funds goes to the services for tasks specified by ARPA. The contracts with performing organizations both in and out of government are written by the services, and the work is monitored by service personnel. Often service laboratory and test facilities are employed or other service assets such as ships and aircraft are provided. Joint planning and coordination groups are formed as required. Thus, since most of the ARPA work is undertaken within a military environment, its relation to service programs is clear and duplication of effort is avoided. Even more important, though, is the fact that the services are aware of the objectives and results of the ARPA program from its earliest stages. Thus they are prepared to incorporate the successful resluts of the program into service plans in a timely manner. Equally important, they help guide the ARPA program by virtue of their military insights and understanding of operational constraints. Finally, these contacts with the services are enhanced by the use in ARPA of highly qualified military personnel as technical program managers. More than a third of the fifty-five technical people in ARPA are military officers. ARPA also maintains small units at the headquarters of the European and Pacific Commands to enhance the coupling of the ARPA program to real-world U.S. force needs.

FORMULATION OF THE ARPA PROGRAM

Further understanding of ARPA can be gained by seeing how the ARPA program, such as the one presented here, is formulated. The

capability of ARPA to foster advanced technology and the need for innovative approaches to problems that span the entire range of national security concerns has resulted in an ARPA program of greater breadth than our initial assignment in space technology.

The ARPA program is a weaving together of many diverse inputs. I consider it an important part of my job to maintain conditions under which the widest variety of inputs can be achieved. One of the most important sources of ideas comes from the ARPA staff itself. Direct requests come from the Secretary of Defense. A close relationship is maintained with the Director of Defense Research and Engineering and his staff. Parts of the Office of the Secretary of Defense, particularly International Security Affairs, Manpower and Reserve Affairs, Intelligence, Telecommunications, Atomic Energy, and Net Assessment are informed and consulted frequently. Many ideas come from the Joint Staff and from the military departments. Outside advisory groups such as the Defense Science Board are utilized both as a primary source as well as for evaluations of other ideas. The independent research and development programs in industry provide a valuable set of ideas and concepts. The Federal Contract Research Centers provide inputs and guidance. Finally current and prospective contractors provide us with valuable concepts.

The question then, is not how are ideas generated but rather how are they weighed and measured, put in order of priority and selected. One must understand, of course, that one can never really have a zero base budget, totally unrelated to last year's program. Many of last year's good ideas are still worth funding and so the program evolves, replacing each year's completed, terminated, or transferred programs with the best of the new ideas. This program turnover is unusually rapid in ARPA; on the average a program is funded by ARPA for about five years. Hence

each year about 20 percent of the ARPA program is either new or represents expansions of some of the previous year's programs.

In deciding what to fund, the criterion of relevance must be satisfied. The next criterion that ARPA applies is to address the "Why ARPA, why not agency X or Y or Z?" question. Since ARPA is less than 3 percent of the Defense RDT&E budget, it is not surprising that much of the time we decide that it is inappropriate for ARPA to fund the idea. The reason can be one of several: the idea is purely a service responsibility, it is evolutionary rather than innovative in nature, it does not address a new or unusual threat, it is better pursued by an agency outside the Defense Department, or there is lack of confidence in the proposed investigator.

Ideas that satisfy these criteria become candidates for consideration. The most stringent criterion is the degree to which they address major Defense needs or hold the possibility of a significant new operational capability.

The final stage of program formulation involves tailoring the funding levels to the minimum needed for the next fiscal year in view of the time phasing of the program, contract dates, adherence to fiscal year funding guidance, and the elimination of all but the most critical tasks.

RECENT ACCOMPLISHMENTS

It is appropriate to review some of the accomplishments achieved in ARPA programs during the past year. Major achievements are clear only from the perspective of a number of years, of course, but in terms of the past year, I would like to call your attention to just a few of our achievements:

- Existing high energy gas dynamic lasers are being used for propagation studies. A complete understanding of the physical processes that determine the expansion of the beam and its bending due to atmospheric absorption has been achieved.

o Uncooled silicon nitride ceramic guidevanes have been successfully demonstrated for use in gas turbines at 2200° F. This high temperature technology represents a breakthrough that offers the possibility of a major improvement in the efficiency of gas turbines.

o A computer system has been demonstrated that is capable of understanding speech and acting on the substantive content of the speech. This will open up entirely new ways for people to interact with devices and control systems of all types.

o The analysis of electroencephalograph signals has been refined to the point where a computer can discern which of a limited set of commands a user is thinking. This research also holds promise of adding a significant new capability to the linkage of man and machine.

o A signal processing experiment was undertaken using the outputs of several SOSUS arrays to track a submarine. This kind of capability will have a major impact on both the detection and the localization capability of our installed SOSUS arrays.

o Another possible major improvement in our anti-submarine capability is implied by the latest results from our long towed acoustic array experiment. It was found that low frequency acoustic signals can propagate over long distance and still retain their spatial coherence.

o The technology of an electronic camera has been demonstrated that provides an alternative to photographic film. This new

technology offers the possibility of higher speeds and higher resolution thereby opening up a new generation of visible light sensors.

o The wideband radar imaging capability being developed by ARPA was exercised last year to assist NASA in the analysis of the launch mishap on SKYLAB. Data were provided within a few days of launch that revealed the state of solar paddle deployment and the absence of debris that could interfere with the rigging of the sunshade by the astronauts.

o On the basis of the results from ARPA's seismic identification research, a program to upgrade seismic data acquisition facilities has been initiated. Broadband seismometers with digital recording equipment are being installed in a number of cooperating countries.

o A minimum drag laminar flow shape has been demonstrated in wind tunnel tests. This highly optimized form is expected to make possible a number of new capabilities in underwater weaponry, surveillance, and communication.

o Computer models have been developed to enable the DoD to project its future energy needs as a function of alternate force structures and for determining the energy impact of defense industries. On a shorter term basis, a Defense Energy Information System has been established for the DoD Energy Office to assist in the allocation of petroleum products.

o A satellite-borne spectrometer operated successfully thereby establishing the feasibility of making measurements from space platforms.

o Analyses of eight technology categories on the commodity control list have been used to develop a general method for

determining the impact on national security should such advanced technologies be released to the Soviet Union.

LONG-TERM TECHNOLOGY TRENDS

ARPA is in an unusually good position to assess military technology trends both in the U.S. as well as in other countries. The analysis of these trends are crucial for the program formulation process. I would like to take this opportunity to comment on what these trends portend for the future. My time horizon is the ten to thirty year period.

Computers are getting smaller, faster, and cheaper. This will continue, with the result that computing capability in all sizes and shapes will be widely distributed. At the same time, software will come under control and increased capability, reliability, and security can be expected at lower cost.

Lasers will increase considerably in their military utility.

We are approaching a state where radio and microwave emitters can be precisely located as soon as they come on the air with the result that a variety of countermeasures will be pursued. Mobility will offer one form of protection. Covert communication and covert radar surveillance techniques will be implemented, and the optical and infrared region will be increasingly utilized to avoid the problems of detection and location. The same approaches will be applied in the underwater regime to covert tactical communications and covert sonars.

The tactical world will be dominated by systems that are cheap and widely distributed: man-portable anti-tank and anti-aircraft weapons, unmanned remotely-piloted vehicles, and unattended ground sensors directly coupled to weapon systems.

Accuracies of conventional munitions will increase thereby greatly changing the nature of warfare and its accompanying logistics. This, in turn, will modify the support structure and the problems of forward basing, rapid deployment, and ocean control.

Space will become an increasingly contested area as our major assets for navigation, communication, and surveillance will become high value targets subject to attack.

We will have to view the problems of critical materials broadly, developing new approaches to military needs for the storage, transmission, and conservation of energy in all forms, as well as other areas where deficiencies can have major impacts on alliance structures.

In the area of anti-submarine warfare, I see no near-term breakthrough in sight that will render extremely quiet submarines easy to find but this is still an open question to which our resources, as well as those of others, are being applied.

Finally, we will be able, I believe, to develop a quantitative methodology to deal with such problems as international relations, determination of intent, communication of uncertainty, and understanding the organizational factors bearing on innovation, decision-making, and crisis management.

The Soviet Union is, of course, our most significant competitor in military technology and it is natural to use them as a yardstick against which to measure our own efforts. The picture is mixed as one would expect since the perceptions and needs of the two countries differ.

We observe in the Soviet Union technologically sophisticated development programs in missiles and reentry systems, surface and subsurface ships, and equipment across the board for general purpose forces. In many areas their science is first-rate. They have a vigorous aerodynamic

research program and they have made great strides in deploying electro-optical devices several years ahead of the U.S. While their manned space flight achievements have not equaled ours, they have aggressively pursued space activities.

On the other hand, the Soviet Union has notable deficiencies, especially in the area of computers and the supporting infrastructure of computer-oriented operations. They have a great need for this and certain other types of modern technology. Furthermore, a major problem of the Soviet system is their difficulty in introducing innovation and coupling their science to their technology; the problem exists to a greater extend in the non-military than in the military sector. Nevertheless, it is a problem that exists to some extent throughout their system.

PROPOSED FY75 PROGRAM

In response to our view of technology trends and the future needs of national security, the ARPA program for FY75 has been structured as shown in the following table. This table is taken from the volume of Descriptive Summaries which has been provided to the Committee and which forms an integral part of this budget request. I would also like to submit, for the record, a statement that shows, in more detail, the relation between specific items in the proposed ARPA program and long-term Defense needs.

TABLE I
ARPA PROJECT SUMMARY

Program Element Code	Title	(Dollars in Thousands) FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
61 E	DEFENSE RESEARCH SCIENCES	$34,708	$34,869	$39,100
	Materials Sciences			
	Power Systems Materials	4,481	6,528	7,123
	Laser Component Materials	4,134	2,824	3,677
	Structural Materials	2,465	2,810	2,853
	Photoelectronic Materials	5,176	6,717	7,603
	Other Materials	647	425	444
	Human Resources Research			
	Analysis of Complex Systems	1,300	0	0
	Strategic Gaming and Simulation	400	680	720
	Human Performance	2,210	2,185	2,450
	Information Processing Techniques			
	Automatic Programming	3,160	2,689	3,560
	Picture Processing	2,507	2,711	2,813
	Intelligent Systems	4,534	3,538	4,347
	Speech Understanding	3,694	3,762	3,480
62101E	TECHNICAL STUDIES	$ 3,271	$ 3,704	$ 2,000
62301E	STRATEGIC TECHNOLOGY	$73,982	$69,304	$75,000
	Advanced Strategic Concepts and Strategic Technical Analysis	4,605	4,300	4,500
	Space Surveillance	14,926	11,100	8,200
	High Energy Laser Technology	20,525	16,904	23,400
	Strategic Deterrent	7,537	11,300	8,300
	Air Vehicles	0	0	2,000
	Warning Technology	9,979	7,200	6,700
	Special Applications Technology	4,679	2,700	3,700
	Space Object Identification	11,731	15,800	18,200
62701E	NUCLEAR MONITORING RESEARCH	$24,282	$16,959	$19,200
	Seismic Verification	10,084	8,900	8,923
	Evasion Research	1,067	1,213	1,375
	Nuclear Diagnostic Techniques	3,549	2,479	2,150
	Acoustic Array Signal Processing	4,375	3,899	5,290
	Defense Resource Technology	2,049	468	900
	Military Systems Survivability	3,158	0	0
	Geodesy and Gravitational	0	0	562

Program Element Code	Title	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
62702E	TACTICAL TECHNOLOGY	$30,725	$33,180	$36,300
	Target Acquisition and Identification	7,700	12,837	14,932
	Weapon Technology and Concepts	4,900	5,290	7,387
	Ocean Monitoring and Control	10,000	9,344	10,313
	Tactical Analysis	3,000	3,642	3,668
	Balloon Technology	2,100	2,067	0
	Tactical Security Concepts	2,225	0	0
	Stabilized Floating Platforms	100	0	0
	Counterpart Development	400	0	0
	Small Independent Action Forces	300	0	0
62706E	DISTRIBUTED INFORMATION SYS	$19,874	$19,160	$18,000
	Parallel Processing Applications	4,155	4,098	3[illegible]0
	Distributed Networks	7,521	7,588	6,621
	Climate Dynamics	3,341	3,420	3,537
	Secure Systems	2,202	2,049	1,973
	Advanced Computer Development	702	0	0
	Signal Processing Technology	434	435	0
	Secure Voice Compression Techniques	1,519	1,570	2,566
	Management Systems Technology	0	0	2,743
62708E	ADVANCED COMMAND, CONTROL AND COMMUNICATIONS TECHNOLOGY	$ 4,292	$ 6,764	$11,500
	Satellite Packet Technology	1,406	1,183	2,[illegible]22
	Ground Radio Packet Technology	1,636	2,460	3,[illegible]37
	Integrated Command & Control Sys Sec	1,250	1,632	3,013
	Special Communications Technology	0	1,489	2,[illegible]00
62709E	TRAINING, FORECASTING, AND DECISION TECHNOLOGY	$ 3,825	$ 5,440	$ 6,600
	Forecasting and Decision Technology	1,300	2,048	2,924
	Advanced Training Technology	2,000	2,737	2,801
	Manpower Research	525	655	875
62711E	TECHNOLOGY ASSESSMENTS	$ 1,394	$ 4,807	$ 5,200
	Assessments	265	2,400	1,660
	Energy and Materials	879	1,615	2,655
	Technology Exchange	0	562	885
	Strategic Arms Limitation	250	230	0
65803E	PROJECT MANAGEMENT SUPPORT	$ 3,390	$ 3,603	$ 3,900
	TOTAL -- ARPA	$199,743	$197,790	$216,800

CHAIRMAN'S OBSERVATION

Chairman McCLELLAN. I don't know that we are through, gentlemen. We may want more testimony from you before we mark up this defense bill. Let me make this observation. I have made it to other witnesses who have been before us so far. I would ask you to review your request very carefully with the hope and expectation that you may find some area where you can reduce it for this year.

I don't like to indulge in an across-the-board slash or a meat-ax operation. We are under the compelling urgency, as I see it, to try to hold down expenditures, not only in the defense area but in other areas. I don't believe this Government can go on indefinitely piling up $10 billion and $12 billion deficits without some day having inflation bursting into a real flame.

I am hopeful that we can provide some restraint in all areas of public expenditures. I have commented on several other aspects of the military program. The committee will search out every area where we can possibly make a reduction without jeopardizing our defense posture. I don't know where all of it is, but you gentlemen are the experts. You were talking about the B–1 a little while ago, and you said that you need to review and make changes here and there. I am hopeful that you will now continue to review this entire research budget. If you find any area at all where we can reduce it, let us know. We may want you to come back.

Is there anything else? Thank you very much.

JUSTIFICATION

Chairman McCLELLAN. At this point, there will appear in the record certain information from the justifications, including a table showing the funding request by agency of the total research, development, test, and evaluation program of the Defense agencies, and certain information on the Federal Contract Research Centers.

[The justification follows:]

Justification

TOA SUMMARY BY DEFNESE AGENCY		(IN THOUSANDS OF DOLLARS) FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Defense Advanced Research Projects Agency	(DARPA)	199,743	194,228	216,800
Pay Increase Supplemental		-	162	-
Program Supplemental		-	3,400	-
Defense Communications Agency	(DCA)	[Deleted]	[Deleted]	[Deleted]
Pay Increase Supplemental				
Defense Nuclear Agency	(DNA)	123,514	115,398	123,000
Pay Increase Supplemental		-	2,069	-
Defense Intelligence Agency	(DIA)	1,594	4,761	7,300
Pay Increase Supplemental		-	25	-
Defense Mapping Agency	(DMA)	10,985	11,286	14,500
Pay Increase Supplemental		-	317	-
Defense Supply Agency	(DSA)	12,337	12,500	14,500
Pay Increase Supplemental		-	566	-
Program Supplemental		-	36	-
National Security Agency	(NSA)	[Deleted]	[Deleted]	[Deleted]
Pay Increase Supplemental				
Program Supplemental				
OSD/JCS Technical Support	(OSD/JCS)	14,355	15,558	18,800
Pay Increase Supplemental		-	30	-
Program Supplemental		-	1,425	-
TOTAL RDT&E, PROGRAM		[Deleted]	[Deleted]	[Deleted]
Pay Increase Supplemental				
Program Supplemental				
Director, Test & Evaluation, Defense	(DT&E)	27,000	24,600	27,000
GRAND TOTAL		[Deleted]	[Deleted]	[Deleted]

DEPARTMENT OF DEFENSE - MILITARY
DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, DEFENSE AGENCIES
INSTALLATION ANALYSIS - IN HOUSE

Installation & Location	FY	TOA ($ in Thousands) RDT&E Mgt. Bureau	Funds Other DARPA	Other DoD	All Other Funds	Subtotal	Mil Pers R&D	Mil Pers Other	Total	Personnel (Man-Years) Civil Service Paid From DARPA RDT&E	Paid From Other RDT&E	Paid From Other	Contractor Paid From RDT&E	Contractor Paid From Other	Mil Pers. In RDT&E Work	Mil Pers. Other	Total
Mt. Hale-akala	73	4,150	-	-	-	4,150	-	-	4,150	-	-	-	74	-	-	-	74
(AMOS) Maui,	74	4,000	-	-	-	4,000	-	-	4,000	-	-	-	70	-	-	-	70
Hawaii	75	3,900	-	-	-	3,900	-	-	3,900	-	-	-	68	-	-	-	68

DEPARTMENT OF DEFENSE - MILITARY
DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
FEDERAL CONTRACT RESEARCH CENTERS
SUMMARY BY APPROPRIATION AND PROGRAM ELEMENT

(Thousands of Dollars)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Institute for Defense Analyses			
RDT&E, Defense Agencies			
Technical Studies	$ 2,670	$ 2,575	$ 2,700
Strategic Technology	210	300	150
Tactical Technology	120	125	150
TOTAL IDA	$ 3,000*	$ 3,000	$ 3,000
Rand Corporation			
RDT&E, Defense Agencies			
Defense Research Sciences	$ 700	$ 800	$ 1,100
Strategic Technology	325	350	350
Nuclear Monitoring	490	500	400
Technical Studies	300	300	0
Tactical Technology	2,100	2,200	1,500
Distributed Information Systems	1,140	1,150	1,100
Technology Assessments	0	0	1,150
TOTAL RAND	$ 5,055*	$ 5,300	$ 5,600

* Twelve month equivalent. Contracts funded for less than 12 months in FY 1973 as directed by Congressional Committees.

FEDERAL CONTRACT RESEARCH CENTERS

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Lincoln Laboratory			
RDT&E, Defense Agencies			
Internal Operations			
Defense Research Sciences	$ 1,075	$ 950	$ 575
Strategic Technology	6,485	6,550	7,500
Nuclear Monitoring Research	700	650	850
Tactical Technology	0	0	1,050
Distributed Information Systems	0	0	450
TOTAL Internal Operations (Lincoln Laboratory)	$ 8,260*	$ 8,150	$10,425
Applied Physics Laboratory (John Hopkins)			
RDT&E, Defense Agencies			
Strategic Technology	$ 0	$ 100	$ 100
Tactical Technology	555	600	700
Nuclear Monitoring Research	170	150	200
TOTAL APL	$ 725*	$ 850	$ 1,000
Mitre CORP.			
RDT&E, Defense Agencies			
Strategic Technology	$ 460	$ 600	$ 525
Tactical Technology	100	100	175
Distributed Information Systems	57	100	400
Advanced Sensors	350	300	0
TOTAL MITRE	$ 967	$ 1,100	$ 1,100
Aerospace Corporation			
RDT&E, Defense Agencies			
Strategic Technology	$ 808	$ 1,000	$ 1,000
Advanced Engineering	190	0	0
Tactical Technology	0	200	100
Technology Assessments	0	0	200
TOTAL AEROSPACE CORPORATION	$ 998	$ 1,200	$ 1,300
GRAND TOTAL	$19,005	$19,600	$22, 425

DEPARTMENT OF DEFENSE - MILITARY
DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, DEFENSE AGENCIES
INSTALLATION ANALYSIS - FCRC's

FCRC & Location	FY	TOA ($ in Thousands) RDT&E Mgt. Bureau	Funds Other DARPA	Other DoD	All Other Funds	Subtotal	Mil Pers R&D	Mil Pers Other	Total	Personnel Professional Paid From DARPA RDT&E	Professional Paid From Other RDT&E	Professional Paid From Other	Support Paid From RDT&E	Support Paid From Other	Mil Pers. In RDT&E Work	Mil Pers. Other	Total
Institute for Defense Analyses	73	3,000*	-	-	-	3,000*	-	-	3,000*	43*	-	-	-	-	-	-	43*
	74	3,000	-	-	-	3,000	-	-	3,000	43	-	-	-	-	-	-	43
	75	3,000	-	-	-	3,000	-	-	3,000	43	-	-	-	-	-	-	43
Rand Corporation	73	5,055*	-	-	-	5,055*	-	-	5,055*	77*	-	-	-	-	-	-	77*
	74	5,300	-	-	-	5,300	-	-	5,300	80	-	-	-	-	-	-	80
	75	5,600	-	-	-	5,600	-	-	5,600	80	-	-	-	-	-	-	80
Lincoln Laboratory	73	8,260*	-	-	-	8,260*	-	-	8,260*	115*	-	-	-	-	-	-	115*
	74	8,150	-	-	-	8,150	-	-	8,150	115	-	-	-	-	-	-	115
	75	10,425	-	-	-	10,425	-	-	10,425	149	-	-	-	-	-	-	149
Applied Phys. Lab. (Johns Hopkins)	73	725*	-	-	-	725*	-	-	725*	16*	-	-	-	-	-	-	16*
	74	850	-	-	-	850	-	-	850	19	-	-	-	-	-	-	19
	75	1,000	-	-	-	1,000	-	-	1,000	20	-	-	-	-	-	-	20
Mitre Corp.	73	967	-	-	-	967	-	-	967	15	-	-	-	-	-	-	15
	74	1,100	-	-	-	1,100	-	-	1,100	17	-	-	-	-	-	-	17
	75	1,100	-	-	-	1,100	-	-	1,100	17	-	-	-	-	-	-	17
Aerospace Corporation	73	998	-	-	-	998	-	-	998	14	-	-	-	-	-	-	14
	74	1,200	-	-	-	1,200	-	-	1,200	17	-	-	-	-	-	-	17
	75	1,300	-	-	-	1,300	-	-	1,300	18	-	-	-	-	-	-	18

*12 month equivalents

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DEPARTMENT OF DEFENSE - MILITARY
DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, DEFENSE AGENCIES
PROJECT LISTING

Program Element Code	Title	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate	Descriptive Summary Page Numbers
		(In Thousands of Dollars)			
1.	MILITARY SCIENCES				
6.1	RESEARCH				
61101E	DEFENSE RESEARCH SCIENCES	$34,708	$34,869	$39,100	
	MATERIALS SCIENCES				
	Power Systems Materials	4,481	6,528	7,123	40
	Laser Component Materials	4,134	2,824	3,677	44
	Structural Materials	2,465	2,810	2,853	48
	Photoelectronic Materials	5,176	6,717	7,603	51
	Other Materials	647	425	444	
	HUMAN RESOURCES RESEARCH				
	Analysis of Complex Systems	1,300	0	0	
	Strategic Gaming and Simulation	400	680	720	
	Human Performance	2,210	2,185	2,480	55
	INFORMATION PROCESSING TECHNIQUES				
	Automatic Programming	3,160	2,689	3,560	57
	Picture Processing	2,507	2,711	2,813	60
	Intelligent Systems	4,534	3,538	4,347	62
	Speech Understanding	3,694	3,762	3,480	66

Program Element Code	Title	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate	Descriptive Summary Page Numbers
		(In Thousands of Dollars)			
6.2 EXPLORATORY DEVELOPMENT					
62101E	TECHNICAL STUDIES	$ 3,271	$ 3,704	$ 2,000	69
	TOTAL--MILITARY SCIENCES	$37,979	$38,573	$41,100	
3. MISSILES AND RELATED EQUIPMENT					
62301E	STRATEGIC TECHNOLOGY	73,982	69,304	75,000	
	Advanced Strategic Concepts and Strategic Technical Analysis	4,605	4,300	4,500	71
	Space Surveillance	14,926	11,100	8,200	74
	High Energy Laser Technology	20,525	16,904	23,400	77
	Strategic Deterrent	7,537	11,300	8,300	81
	Air Vehicles	0	0	2,000	85
	Warning Technology	9,979	7,200	6,700	87
	Special Applications Technology	4,679	2,700	3,700	90
	Space Object Identification	11,731	15,800	18,200	93

Program Element Code	Title	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate	Descriptive Summary Page Numbers
		(In Thousands of Dollars)			
7.	OTHER EQUIPMENT				
62701E	NUCLEAR MONITORING RESEARCH	$24,282	$16,959	$19,200	
	Seismic Verification	10,084	8,900	8,923	95
	Evasion Research	1,067	1,213	1,375	100
	Nuclear Diagnostic Techniques	3,549	2,479	2,150	103
	Acoustic Array Signal Processing	4,375	3,899	5,290	107
	Defense Resource Technology	2,049	0	900	
	Military Systems Survivability	3,158	0	0	
	Energy Information	0	468	0	
	Geodesy and Gravitational Program	0	0	562	
62702E	TACTICAL TECHNOLOGY	$30,725	$33,180	$36,300	
	Target Acquisition and Identification	7,700	12,837	14,932	111
	Weapon Technology and Concepts	4,900	5,290	7,387	114
	Ocean Monitoring and Control	10,000	9,344	10,313	116
	Tactical Analysis	3,000	3,642	3,668	120
	Balloons	2,100	2,067	0	
	Security/Warfare Concepts	2,225	0	0	
	Stabilized Fleating Platforms	100	0	0	
	Counterpart Development	400	0	0	
	Small Independent Action Forces	300	0	0	

Program Element Code	Title	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate	Descriptive Summary Page Numbers
		(In Thousands of Dollars)			
62706E	DISTRIBUTED INFORMATION SYSTEMS	$19,874	$19,160	$18,000	
	Parallel Processing Applications	4,155	4,098	360	
	Distributed Networks	7,521	7,588	6,821	123
	Climate Dynamics	3,341	3,420	3,537	126
	Secure Systems	2,202	2,049	1,973	128
	Advanced Computer Development	702	0	0	
	Signal Processing Technology	434	435	0	
	Secure Voice Compression Techniques	1,519	1,570	2,566	131
	Management Systems Technology	0	0	2,743	133
62708E	ADVANCED COMMAND, CONTROL AND COMMUNICATIONS TECHNOLOGY	$ 4,292	$ 6,764	$11,500	
	Satellite Packet Technology	1,406	1,183	2,322	135
	Ground Radio Packet Technology	1,636	2,460	3,965	138
	Integrated Command & Control System Security	1,250	1,632	3,013	140
	TEALWING	0	1,489	2,200	143
62709E	TRAINING, FORECASTING, AND DECISION TECHNOLOGY	$ 3,825	$ 5,440	$ 6,600	
	Forecasting and Decision Technology	1,300	2,048	2,924	146
	Advanced Training Technology	2,000	2,737	2,801	149
	Manpower Research	525	655	875	

Program Element Code	Title	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate	Descriptive Summary Page Numbers
		(In Thousands of Dollars)			
62711E	TECHNOLOGY ASSESSMENTS	$ 1,394	$ 4,807	$ 5,200	
	Assessments	265	2,400	1,660	151
	Energy and Materials	879	1,615	2,655	153
	Technology Exchange	0	562	885	
	Strategic Arms Limitation	250	230	0	
	TOTAL -- OTHER EQUIPMENT	$84,392	$86,310	$96,800	
8.	PROGRAMWIDE MANAGEMENT AND SUPPORT				
6.5	MANAGEMENT AND SUPPORT				
65803E	PROJECT MANAGEMENT SUPPORT	$ 3,390	$ 3,603	$ 3,900	155
	TOTAL -- ARPA	$199,743	$197,790	$216,800	

JUSTIFICATION OF ESTIMATES FOR FY 1975

Appropriations: Research, Development, Test and Evaluation, Defense Agencies
Director, Test and Evaluation, Research, Shelter Survey and Marking, Defense Civil Prepardness Agency O&M, Defense Agencies

FEDERAL CONTRACT RESEARCH CENTERS

The Summary of Federal Contract Research Centers (FCRC's) reflects a consolidation of funding requirements for certain contractors who assist the Defense Agencies in the planning, development, and execution of the Research, Development, Test and Evaluation program. These contractors provide specialized technical and scientific support to supplement that available within the Defense Agencies. Following the Summary there is a detailed tabulation listing the amounts provided in FY 1973 or planned to be provided in FY 1974 and FY 1975 to each of the various contractors identified by agency and program source.

The Defense Agencies total FY 1975 estimates for the FCRC's amount to $39,515,000 (excluding subcontacts effort), of which $34,040,000 is in the RDT&E, Defense Agencies appropriation, $200,000 is in the research, shelter survey, and marking (Civil Defense) appropriation, $3,250,000 is in the O&M, Defense Agencies appropriation and $2,025,000 in the DT&E appropriation.

In addition to the consolidated tables shown in this section, there is presentation under the separate Defense Agency tabs of each agencies supporting FCRC detail.

SUMMARY OF FEDERAL CONTRACT RESEARCH CENTERS BY APPROPRIATIONS

(Thousands of Dollars)

	FY 1973 Actual 1/	FY 1974 Estimate	FY 1975 Estimate
Aerospace Corporation			
RDT&E	1,200	1,410	1,565
O&M, Defense Agencies	-	250	700
Analytical Services, Inc.			
O&M Defense Agencies	-	20	-
RDT&E	75	80	125
Applied Physics Laboratory			
RDT&E	1,090	1,390	1,500
O&M Defense Agencies	-	800	500

	(Thousands of Dollars) FY 1973 Actual 1/	FY 1974 Estimate	FY 1975 Estimate
Center for Naval Analyses			
RDT&E	90	-	-
Institute for Defense Analysis			
RDT&E	6,393	8,309	8,435
Director, Test & Evaluation	1,172	1,450	1,765
Research, Shelter Survey & Marking, Civil Defense	320	208	200
O&M, Defense Agencies	240	-	-
Lincoln Laboratories			
RDT&E	8,260	8,450	10,635
Mitre Corporation			
RDT&E	3,781	4,123	4,490
Director, Test & Evaluation	234	250	260
O&M, Defense Agencies	1,536	1,487	1,800
Rand Corporation			
RDT&E	6,158	6,497	7,290
O&M, Defense Agencies	-	200	250
Total Program Summary by Appropriation			
RDT&E	27,047	30,279	34,040
Director, Test & Evaluation	1,406	1,700	2,025
Research, Shelter Survey and Marking, DCPA	320	208	200
O&M, Defense Agencies	1,776	2,737	3,250
Total Federal Contract Research Centers	30,549	34,924	39,515

1/ Amounts for FY 1973 are shown on ceiling basis, or a twelve months equivalent, as a number of institution's contracts were funded for less than twelve months as directed by Congress.

	(Thousands of Dollars) FY 1973 Actual 1/	FY 1974 Estimate	FY 1975 Estimate
Aerospace Corporation			
RDT&E Appropriation			
Supporting Program/Agency:			
Strategic Technology, DARPA	808	1,000	1,000
Advanced Engineering, DARPA	190	-	-
Tactical Technology, DARPA	-	200	100
Technology Assessments, DARPA	-	-	200
Investigations & Prototype Development, DMA	-	-	50
Nuclear Weapons Effects Development, DNA	202	210	215
Total, RDT&E Appropriation	1,200	1,410	1,565
O&M Appropriation			
Supproting Program/Agency:			
Intelligence (ASD (I))	-	250	700
Total O&M Defense Agencies Appropriation	-	250	700
Total Aerospace Corporation	1,200	1,660	2,265
Analytic Services, Inc.			
RDT&E Appropriation			
Supporting Program/Agency:			
Intelligence Management and Support Activities, DIA	75	80	125
O&M Defense Agencies Appropriation			
Supporting Program/Agency:			
Intelligence Management and Support Activities, DIA	-	20	-
Total, Analytic Services, Inc.	75	100	125

	(Thousands of Dollars) FY 1973 Actual 1/	FY 1974 Estimate	FY 1975 Estimate
Applied Physics Laboratory, Johns Hopkins University			
RDT&E Appropriation			
Supporting Program/Agency:			
Strategic Technology, DARPA	-	100	100
Tactical Technology, DARPA	555	600	700
Nuclear Monitoring Research, DARPA	170	150	200
Information Analysis Centers, DSA	290	290	300
Mapping, Charting & Geodesy Investigations & Prototype Development, DMA	75	250	200
Total, RDT&E Appropriations	1,090	1,390	1,500
O&M, Defense Agencies Appropriation			
Supporting Program/Agency:			
Operation of Satellite Tracking Network & Data Reduction, DMA	-	800	500
Total O&M, Defense Agencies Appropriation	-	800	500
Total Applied Physics Laboratory, Johns Hopkins University	1,090	2,190	2,000
Center for Naval Analysis			
RDT&E Appropriation			
Supporting Program/Agency:			
Net Technical Assessment, OSD (DDR&E)	90	-	-
Total Center for Naval Analysis	90	-	-
Institute for Defense Analysis			
RDT&E Appropriation			
Supporting Program/Agency:			

(Thousands of Dollars)

	FY 1973 Actual 1/	FY 1974 Estimate	FY 1975 Estimate
Institute for Defense Analysis			
Technical Studies, DARPA	2,670	2,575	2,700
Strategic Technology, DARPA	210	300	150
Tactical Technology, DARPA	120	125	150
Intelligence Management and Support Activities, DIA	-	75	75
Weapons System Evaluation Group, Studies & Analysis, OSD(WSEG)	2,723	4,327	4,200
Studies and Analysis, OSD, (ASD ISA)	96	85	200
Studies and Analysis, OSD, Systems Analysis (ASD PA&E)	70	182	300
Studies and Analysis, OSD, Telecommunications (DTCC)	-	160	160
Studies and Analysis, OSD, Manpower, (ASD MP&R)	54	-	-
Net Technical Assessment, OSD (DDR&E)	450	480	500
Total, RDT&E Appropriation	6,393	8,309	8,435
O&M, Defense Agencies Appropriation			
Supporting Program/Agency:			
Warsaw Pact, DIA	150	-	-
Warning System Concept, DIA	90	-	-
Total, O&M, Defense Agencies Appropriation	240	-	-
DT&E Appropriation			
Supporting Program/Agency:			
Test and Evaluation (DDR&E)	1,172	1,450	1,765
Total, DT&E Appropriation	1,172	1,450	1,765
Research, Shelter Survey, and Marking Appropriation			
Supporting Program/Agency:			
Research and Development (Civil Defense), Defense Civil Preparedness Agency	320	208	200
Total, Research, Shelter Survey, and Marking Appropriation	320	208	200
Total, Institute for Defense Analysis	8,125	9,967	10,400

	(Thousands of Dollars) FY 1973 Actual 1/	FY 1974 Estimate	FY 1975 Estimate
Lincoln Laboratory			
RDT&E Appropriation			
Supporting Program/Agency:			
Defense Research Sciences, DARPA	1,075	950	575
Strategic Technology, DARPA	6,485	6,550	7,500
Nuclear Monitoring Research, DARPA	700	650	850
Tactical Technology, DARPA	-	-	1,050
Distributed Information Systems, DARPA	-	-	450
Studies and Analysis, OSD, Telecommunications, (DCTCC)	-	300	210
Total, Lincoln Laboratory	8,260	8,450	10,635
Mitre Corporation			
RDT&E Appropriation			
Supporting Program/Agency:			
Tactical Technology, DARPA	100	100	175
Strategic Technology, DARPA	460	600	525
Distributed Information Systems, DARPA	57	100	400
Advanced Sensors, DARPA	350	300	-
National Military Command System-Wide Support, DCA	1,000	1,206	1,590
Minimum Essential Emergency Communications Network, DCA	504	679	800
Joint Technical Support Agency, WWMCCS, DCA	910	432	650
Defense Communications System, DCA	80	556	100
Nuclear Weapons Effects Development, DNA	-	-	100
Net Technical Assessment, OSD, (DDR&E)	150	150	150
Studies and Analysis, OSD, Telecommunications (DTCC)	170	-	-
Total, RDT&E Appropriation	3,781	4,123	4,490

	(Thousands of Dollars) FY 1973 Actual 1/	FY 1974 Estimate	FY 1975 Estimate
Mitre Corporation			
O&M, Defense Agencies Appropriation			
Supporting Program/Agency:			
National Military Command System-Wide Support, DCA.	931	895	1,150
Joint Technical Support Agency, WWMCCS, DCA	25	192	200
Worldwide Military Command & Control System, DIA. .	300	-	-
Intelligence (ASD(I))	280	400	450
Total, O&M, Defense Agencies Appropriation	1,536	1,487	1,800
DT&E Appropriation			
Supporting Program/Agency:			
Test and Evaluation, (DDR&E)	234	250	260
Total DT&E Appropriation	234	250	260
Total Mitre Corporation	5,551	5,860	6,550
Rand Corporation			
RDT&E Appropriation			
Supporting Program/Agency:			
Defense Research Sciences, DARPA	700	800	1,100
Distributed Information Systems, DARPA	1,140	1,150	1,100
Technical Studies, DARPA	300	300	-
Strategic Technology, DARPA	325	350	350
Nuclear Monitoring Research, DARPA	490	500	400
Tactical Technology, DARPA	2,100	2,200	1,500
Technology Assessments, DARPA	-	-	1,150
Soviet Cyternetics Review, DIA	11	22	-
Nuclear Weapons Effects Development, DNA	42	50	50
Joint Technical Support Activity, WWMCCS, DCA . . .	100	200	240
Studies and Analysis, OSD, (ASD ISA)	75	75	40
Studies and Analysis, OSD, (ASD PA&E)	275	250	400

	(Thousands of Dollars) FY 1973 Actual 1/	FY 1974 Estimate	FY 1975 Estimate
Rand Corporation			
Net Technical Assessment	600	600	660
Net Assessment	-	-	300
Total, RDT&E Appropriation	6,158	6,497	7,290
O&M Defense Agencies Appropriation			
Supporting Program/Agency:			
Intelligence (ASD(I))	-	50	250
Net Assessment	-	150	-
Total, O&M Defense Agencies Appropriation	-	200	250
Total, Rand Corporation	6,158	6,697	7,540

1/ Amounts for FY 1973 are shown on ceiling basis or a twelve months equivalent, as a number of institutions's contracts were funded for less than twelve months as directed by Congress.

DEPARTMENT OF DEFENSE - MILITARY
Research, Development, Test and Evaluation
Installation Analysis

INSTITUTE FOR DEFENSE ANALYSES (IDA)

The Institute for Defense Analyses was organized in 1956. Its purpose is to promote the national security, the public welfare, and the advancement of scientific learning by making analyses, evaluations and reports on matters of interest to the United States Government with primary orientation toward matters of national security.

Obligations being reported represent both direct costs and indirect or support costs. Military personnel costs reflect those WSEG personnel assigned to WSEG/IDA study projects. Man-years reported also include supporting personnel as well as those charged directly to the various contracts.

Research, Development, Test and Evaluation
Installation Analysis - FCRC's

Location	FY	TOA ($ in thousands) RDT&E Funds Mgt Bureau Etc.	Other Parent Dept 5	Other DoD	All Other Funds	1/ 2/ Subtotal	Mil Pers	Total	PERSONNEL Professional Paid From Parent Dept RDT&E	From Other RDT&E	Paid From Other	Support 3/ Paid From Parent Dept RDT&E	From Other RDT&E	Paid From Other	Mil Pers Assig. 4/	Total
Institute for Defense Analyses, Washington, D.C.	1973 6/		9,574	320	1,000	10,894	973	11,867	138	6	14	212	9	21	35	435
	1974		11,913	259	1,000	13,172	1,022	14,194	170	5	14	255	8	21	35	508
	1975		12,650	200	1,000	13,850	788	14,638	179	4	14	269	6	21	27	520

1/ Excludes subcontracting effort.

2/ Includes other than direct labor costs, such as travel, computer support, reproduction and graphics, and facilities costs.

3/ Includes Corporate and Division Management (approximately 25 personnel each year) and mission support personnel such as guard force, document control, personnel, finance, reproduction, and other administrative services.

4/ WSEG permanent party assigned for WSEG/IDA study projects (65101D)

5/ Includes funds from classified activities now shown on FCRC exhibit and not a part of the FCRC ceiling.

6/ Represents 10 month period (9/72 - 6/73).

QUESTIONS SUBMITTED BY SENATOR THURMOND

Chairman McCLELLAN. Senator Thurmond was unable to be present at this meeting but has asked that questions he has prepared be answered for the record. They will be included at this point.

[The questions and answers follow:]

XM–1 DEVELOPMENT

Senator THURMOND. What changes are being incorporated in XM–1 Development Program as a result of the lessons learned in the Mideast?

Dr. CURRIE. At the present time no changes have been made in the XM–1 program as a direct result of lessons learned in the Mideast War, but we are investigating a number of the lessons learned with regard to possible changes in the XM–1 tank design and configuration to maximize its combat effectiveness within the constraints of weight, size and cost. These include: selection of a main armament system for the production XM–1 tank which will represent an optimum choice based on performance, size of ammunition rounds as it affects the number of rounds carried, and ammunition stowage arrangement to obtain least vulnerability; reduction of flammability of the hydraulic fluid in the turret drive and main gun recoil systems through use of high flash point hydraulic fluid; possible changes in the secondary armament system and armor protection to enhance survivability.

Senator THURMOND. Can you provide for the record how these changes would impact on the cost restraints on this program?

Dr. CURRIE. At the present time, we do not plan to relax the previously established cost restraints. If we should find that these changes would increase production costs significantly, we expect to make trade-off determinations of other changes to reduce costs which might be required to keep costs within the established goals.

DEVELOPMENT PROTOTYPES

Senator THURMOND. What is the current schedule for development prototypes?

Dr. CURRIE. The current prototype contracts specify completion of construction and initial contractor tests by January 28, 1976 and delivery of the prototypes to the Army for competitive tests beginning in February 1976. Completion of the competitive tests of the prototypes is planned in May 1976.

Senator THURMOND. What is being done to shorten the development time for the XM–1?

Dr. CURRIE. The currently approved development schedule for the XM–1 is considered to be as short as practicable with reasonable allowance for solution of problems normally anticipated in development and for adequate development and operational testing prior to production decisions. Significant shortening of development time has already been incorporated in the present XM–1 schedule by taking advantage of development work previously accomplished on major subsystem candidates for the MBT–70/XM803 tanks which can be utilized for the XM–1, such as engines, suspension systems and technology for high performance main gun ammunition. We do not foresee that further shortening of the XM–1 schedule will be feasible.

MOUNTING OF TOW ON PERSONNEL CARRIERS

Senator THURMOND. Dr. Currie, has any consideration been given to mounting the TOW on personnel carriers so that their crews would have some protection against artillery fire?

Dr. CURRIE. The Army is currently studying several approaches for protection of TOW missile crews against artillery and small arms fire. Included in this study is an evaluation of several possible configurations of a TOW installation on an armored personnel carrier which would provide protection for the crew from artillery fire by allowing the crew to fire and control the weapon from a protected station inside the vehicle.

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HLH Program

Senator Thurmond. I understand the Army requested this year for a change in the HLH program so that there would be two prototypes instead of one. Do you agree with the Army position that this would save money in the long term by enabling Army to go to production early?

Dr. Currie. In the event of loss of the first prototype, for reasons which in themselves would not dictate termination of the program, there would be a substantial savings in having a second prototype built now rather than at a later date at escalated costs. Additionally, it could result in substantial savings by providing additional flight test data which will assist in making future program decisions.

Senator Thurmond. This is an expensive program and I am wondering if you feel the risk alone justifies a second prototype?

Dr. Currie. The expense of the program was closely considered when requesting the second prototype, but the increased program flexibility and possible savings to be realized seem to justify the decision.

UTTAS and AAH Programs

Senator Thurmond. Are you satisfied with the current progress of the UTTAS program? The AAH program?

Dr. Currie. Both programs are proceeding satisfactorily with all schedule milestones being met.

Subcommittee Recess

Chairman McClellan. The subcommittee will recess.

[Whereupon, at 12:15 p.m. Friday, April 5, the subcommittee was recessed, to reconvene at the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

WEDNESDAY, MAY 15, 1974

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10:10 a.m., in room S–126, the Capitol, Hon. Milton R. Young, presiding.

Present: Senator Young.

DEPARTMENT OF DEFENSE

CONGRESSIONAL WITNESSES

OPENING REMARKS

Senator YOUNG. The subcommittee will come to order.

Since the 1st of March, the Subcommittee on Defense Appropriations has been conducting hearings on the proposed Department of Defense budget for fiscal year 1975.

Military and civilian officials from the Department have testified in 18 executive sessions. Tomorrow, those witnesses who have requested to present testimony will be heard in open session.

LETTER OF INVITATION TO TESTIFY

Each Member of the Senate has been invited to submit his views on the pending Defense budget, either through testimony or by way of a written statement. We expect to keep the record open until June 15 for those Senators who desire to submit statements. At this point in the record, I will insert the letter which was written to each Member of the Senate inviting him to present his views to the subcommittee.

[The letter follows:]

U.S. SENATE,
COMMITTEE ON APPROPRIATIONS,
Washington, D.C., April 27,1974.

DEAR SENATOR: The Appropriations Subcommittee on Defense has intensified its efforts to complete hearings on the fiscal year 1975 Budget at the earliest possible date. Accordingly, it now appears that we will have received testimony from all administration witnesses, military and civilian, by May 10.

Following this phase of our hearings, I would like to afford you and every member of the Senate an opportunity to submit your views on the pending Defense budget either through direct testimony or by way of a written statement. Your participation will help us to arrive at a Defense appropriations bill that will be responsive to our military requirements and in keeping with fiscal responsibility.

The Subcommittee welcomes and invites your comments on our national security needs. Accordingly, we have set aside May 14 and 15 for the purpose of receiving testimony from members of the Senate. To facilitate scheduling, please have your office call the Subcommittee staff on extension 57278 and advise which date will be most convenient for you to appear.

With kindest personal regards, I am

Sincerely yours,

JOHN L. MCCLELLAN, *Chairman.*

MISSILE TESTING AND MILITARY RETIREMENT

STATEMENT OF HON. JAMES ABOUREZK, U.S. SENATOR FROM SOUTH DAKOTA

Senator YOUNG. The first witness this morning will be Senator Abourezk of South Dakota.

Senator, the subcommittee welcomes you and we are glad to have your views. You may proceed as you wish.

The Chairman would be here this morning, but he is involved in legislation that is pending on the floor.

Senator ABOUREZK. Mr. Chairman, I am grateful for this opportunity to testify before the Defense Appropriations subcommittee on the request for DOD appropriations for Fiscal 1975. My statement covers two specific areas.

MISSILE TESTING

My first concern, Mr. Chairman, is the Pentagon's request for $29 million for missile testing over the western United States. According to a letter which I received from the Defense Department earlier this year, if congressional approval is obtained, four Minuteman II missiles will be launched during the winter of 1974–75 from Malmstrom AFB, Mont., and a second set of four missiles from another base during the winter of 1975–76.

"Because of its westerly setting," the letter states, "Ellsworth AFB, S. Dak., is a likely candidate as a site for the second series of launches." Presently, a feasibility study is under way to determine precise test location of the second succession of missile firings.

The testing of these missile sites in South Dakota gives pause to consider several aspects of the program, including what effect there will be in the immediate area and what potential hazards exist in the northwestern part of the United States.

The first four launches, as I understand it, would be launched from Montana and routed over northern Idaho and the State of Oregon into the Pacific Ocean. The Air Force contends that it is confident the Minuteman tests can be carried out with a minimum of inconvenience to residents of the areas in the flight path.

My concern with this operation is based primarily on two factors, Mr. Chairman: safety and necessity.

In spite of all the assurances of minimal danger, with two tons of debris falling from the sky, there can be no question that the tests would jeopardize the lives and property of a great number of residents of the Pacific Northwest. If all went well, the site of probable damage would be in national forests and the danger, that of forest fire, would likely be small.

If something went wrong, however, the risks would be far more serious!

If the missile appeared to be going off course within the first minute of flight, the booster, which essentially is a container of high explosives, would be destroyed. In this case, pieces of the missile and explosive propellant would be scattered over a wide area.

Even if the probability of personal injury was still low, the repercussions for domestic attitudes toward the presence of missiles near their homes, for example, would be severe.

In addition, there would be some chance that the missile would veer off course and not be destroyed. In the past, U.S. missiles have crashed in Mexico and Brazil during tests.

The third and most important risk concerns the effect of a series of failures in the tests. About 10 years ago, Minuteman missiles were launched from silos in my State of South Dakota. The top two stages were inert; they were expected only to fly for 7 seconds and land within a few thousand feet of their silos. But the program ended in disgrace after several successive failures.

I fear that a similar experience would erode U.S. confidence in the present nuclear deterrent.

The second factor, Mr. Chairman, is necessity. As you know, Minuteman missiles originating at Vandenburg Air Force Base in California and installed in launching facilities almost identical to their operational sites, the only differences being protection in the silo against the intense heat generated by the rocket motor and replacement of the nuclear warhead by a test package—this was the purpose of Vandenburg.

What, then, would the launches from Montana and South Dakota add to this procedure? Very little. The missiles must still be removed from their silos. The nuclear warhead would be replaced by a test package and the silo would be fireproofed.

The data provided by the tests on the new course could not possibly match that elicited from firings on the heavily instrumented western test range. The eight launches under these conditions can hardly add much to already extensive data on Minuteman's performance and reliability.

Basically, what would be proved was that a missile could be launched from Montana as well as from California. What would be proved?

Mr. Chairman, I am convinced, therefore, that the proposed test program is a poor gamble. The Nation would be accepting a serious risk for very minimal gains. Fortunately, the funds for this project requires the consideration of this committee and others in the Congress. I am thankful for that and urge you to reject the Defense Department's request for $29 million for this redundant program.

One other thing I might say, Senator Young, is that each time a missile is fired, it destroys the launch facility and it has to be rebuilt again. You know the tremendous power that comes out of there.

So the argument given by some people who want this test is, "You need to know whether those launch facilities work or not." It doesn't matter when they are destroyed and have to be rebuilt. You can test them anywhere, it may as well be done over the ocean where danger is minimal.

MILITARY RETIREMENT

There is another element in the Defense Department appropriations which I believe merits committee consideration. This is in regard to

the thousands of Federal employees who are receiving military retirement in addition to their regular salaries.

There are presently over 100,000 military pensioners now holding Federal jobs—all of whom received their fourth pay raise in a year last January 1. While most Federal workers and retired military people got two raises in a year, the estimated 100,000 so-called double dippers got four, because they are on the Federal payroll and military pension at the same time.

I have done some research into this policy in the last few months and I believe that this policy presents four serious problems which desperately need to be rectified.

First is the cost. According to the Defense Department in a letter which I received earlier this year, the average military retiree now receives $5,687 annually. About half of the military pensioners earn the unretired retired—who get paid double while on the Federal payroll.

Taking the current estimate, however, of 100,000 "double dippers," the average pension of $5,700; this Government is spending almost $600 million—over half of a billion dollars—annually, to fatten up the pocketbooks of thousands who no more need their pensions than Howard Hughes needs food stamps.

Like farm subsidies where the farmer gets paid for not farming, the professional Pentagon military now get paid for not retiring. This is creating an entirely new and expensive breed of Federal bureaucrat—the unretired retired—who get paid double while on the Federal payroll.

It is like a reverse Robin Hood. It is not only taxing the poor to aid the rich, it is also like sending them food stamps and extra welfare checks besides.

Mr. Chairman, with an all-time record Federal budget of $304 billion and a possible $22 billion deficit for fiscal year 1975, the continuance of dual compensation for Federal officials is a luxury which this country simply cannot afford.

In addition to cost, there is another serious problem presented by dual compensation. Second, there is a gross inequity in the system. While the 100,000 "double dippers" currently enjoy the $6,000 in additional income, social security retirees, civil service retirees, or unretired veterans of Vietnam, Korea, and World War II are not allowed dual compensation on the Federal payroll.

Mr. Chairman, I believe that this is not just an insult to the American taxpayer, it is also an affront to the 29 million veterans today, 520,000 of whom are unemployed, who have to pay double to support this new breed of civil servant. Not only do civil service and other Government employees forfeit all of their pension if they return to the Federal payroll, they have to shell out additional taxes to pay for the $600 million burden besides.

I am not against hiring retired military in Federal jobs if they are fairly and competitively selected. I am against paying them double when others are not allowed the same opportunity. I am also against stealing Federal jobs through the Pentagon "buddy system" of collusive hiring and promotion.

I am also against loopholes that allow military retirees to raid the civil service retirement fund by pension recomputation after 5 years

on the Federal payroll. This fund has an unfunded liability of over $68 billion. The military retirement fund is even worse off with an unfunded liability of around $137 billion.

The Pentagon "Buddy" system of hiring and promotion has been fueled by the Dual Compensation Act of 1964. It is creating the biggest Federal job spoils system in civil service history.

The National Taxpayers Union estimates that one out of every five Federal job hirings or promotions involving military retirees are done in violation of public laws or civil service regulations. Unfortunately, thousands of unemployed or unretired veterans are among the victims of these lost or stolen Federal job opportunities.

Mr. Chairman, I am convinced that if someone ever took this law to court, it would be thrown out in an instant. I have never seen a more blatant violation of the "equal pay for equal work" provisions of the law. It is patently unfair.

The third problem which this situation presents is in some ways even the most severe of all. Because of the encouragement which dual compensation provides to military personnel to retire after 20 years, the Defense Department is losing thousands of topnotch experts in almost every field to other Federal agencies.

And why not? Why should a military man settle for merely his present salary when he can get a comparable salary plus his military pension besides?

While it is hard to judge just how widespread this practice is, it is no wonder why there is such a concern for the future of the Volunteer Army. If we are losing top quality personnel in the Defense Department because of this incentive to jump to other Federal departments, then I think the incentive ought to be ended.

It is ridiculous to train a person for 20 years and then encourage him to forget the training and come over to another job. There is no question that at least to some extent this practice is weakening our national security.

The fourth and final problem which dual compensation presents is the effect it has on our soaring inflation problem. One reason for our new and alarming double-digit inflation problem is without question the 100,000 "double dippers" currently on the Federal payroll.

Our outdated Federal pay legislation has helped to create an "inflation monster" with the bulging Federal pension and payroll budgets. American business and industry cannot compete with, nor the taxpayer support, a self-pay-raising Federal bureaucracy of 5 million personnel with a payroll cost to the taxpayer of $56 billion a year.

Inflationary programs such as this will prolong this inflationary spiral in unending circles upward. While there is no easy panacea, the only one that will work is to stop this gratuitous policy before it stops us.

Mr. Chairman, for these four reasons, I am convinced that the policy of providing dual compensation for many of our military retirees is too much for the American system to bear. It costs too much. It is grossly unequal. It undercuts the quality of our Armed Forces and it contributes to our inflation problems.

I therefore urge that this committee consider deleting the funds in this bill which provide for the dual compensation program.

I thank you for this time and for allowing me to appear before you today.

EXPENSE OF RETIREMENT SYSTEM

Senator YOUNG. This retirement program has gotten to be very expensive, as you point out in your statement. The average pay of military personnel has increased in the last 5 years from $5,000 a year to $10,000 a year with bonuses and other benefits.

I don't know whether we would be justified in having a dual payment annulment to the appropriations bill or not.

Senator ABOUREZK. I think you could do it as a proviso.

Senator YOUNG. I think our rules would permit it. It would have some effect, I think, on the all volunteer force program and whether it works or not. We have a shortfall now in both the Marines and the Army.

Senator ABOUREZK. The only thing, Mr. Chairman, that I am asking that you do is, if a retiree gets a Federal job, that he not draw the pension at the time he is drawing salary from the Federal job. The pension should be deferred.

Senator YOUNG. Your proposal would only affect Federal jobs?

Senator ABOUREZK. That is right. It should be deferred until he is out of the second Federal job he is in.

MISSILE FAILURES

Senator YOUNG. On another subject, I realize there have been failures on the Minuteman in South Dakota.

Senator ABOUREZK. Yes, they failed up there.

Senator YOUNG. I am sure they found the problem but were a long time in admitting it. They said it related to a simple electronic gadget that deteriorated in a comparatively short period of time.

They have had good success in Vandenburg?

Senator ABOUREZK. Yes.

Senator YOUNG. I thank you for your statement.

STATEMENT OF HON. WILLIAM D. HATHAWAY, U.S. SENATOR FROM MAINE

PAYMENT OF PRICE DIFFERENTIAL ON CONTRACTS

Senator YOUNG. Our next witness is the Honorable Senator William D. Hathaway.

You may proceed, Senator.

Senator HATHAWAY. Mr. Chairman, thank you for this opportunity of appearing before you concerning a certain recurring provision in the Defense Appropriations Act. Specifically, it is that language which provides that no funds shall be used for the payment of a price differential on contracts made for the purpose of relieving economic dislocation.

MAYBANK AMENDMENT

It is my understanding that this language has come to be known popularly as the Maybank amendment for Senator Burnet R. Maybank, who offered it in 1953. I think one of the purposes at that time was to prevent the Defense Department and other governmental agen-

cies from favoring Northern textile mills at that time. A lot were moving South at that time and there was political pressure by Northern Congressman to get the Federal Government to award contracts to the mills that were in the North and it had to be probably at a higher price than what they had to pay for textiles in the Southern mills. That situation, of course, doesn't obtain today.

We have many other programs, such as the Area Redevelopment Act, which was initiated in 1962 and carried on through the Economic Development Act, which does favor areas of high unemployment and does, in effect, in a sense subsidize them at low-interest loans and outright grants made to these areas.

Although the language of the Maybank amendment does not specifically state that it applies to the labor surplus area procurement program, as authorized in Defense Manpower Policy No. 4, it has been interpreted by the procuring agencies, as well as the Comptroller General, to apply to the program.

DMP–4 was issued on February 7, 1952, during the Korean conflict. The primary aim of this policy is to encourage full utilization of existing production facilities and workers in preference to creating new plants or moving workers. It is designed to assist in the maintenance of economic balance and employment stability.

By channeling Government contracts into areas of high unemployment, it helps to preserve management and employee skills, to maintain productive facilities, to improve utilization of the Nation's total manpower and to help assure timely delivery of required goods and services.

UNEMPLOYMENT

In 1951, the national rate of unemployment was 3.3 percent. In 1952, when the labor surplus area program was initiated, unemployment was 3 percent. From the most current data, for April of this year, it is 5 percent.

Unemployment today is more grave than it was when this program was initiated. I would suggest there is even more reason for the program, and it is time to look at the program in terms of giving it new life and direction.

The method by which Government contracts are channeled into the areas of high unemployment under the DMP–4 program is by the use of a procurement device which restricts the firms which may bid on a Government contract, commonly called a set-aside. To comply with the Maybank amendment provision for no economic differential, a partial set-aside is declared for only labor surplus eligible firms.

As an example of the way the partial set-aside works, let us assume I am a contracting officer with instructions to buy 100 widgets for an agency of the Government. Procurement regulations tell me that if a purchase is estimated to exceed $10,000 in value, I must consider the possibility of making a labor surplus area set-aside.

However, the regulations also tell me that, before I can determine to issue an invitation for bids, I must first ascertain two things: the procurement must be severable into two or more economic production runs or reasonable lots; and one or more labor surplus area concerns must be expected to have the technical competency and productive capacity to furnish a severable portion of the procurement at a reasonable price.

Assuming I can satisfy these two requirements, I can proceed to advertise for bids on this procurement. I do this by requesting bids on only one portion of the procurement, say 50 of the widgets, and any firm may bid on that portion. When the bids are received and evaluated, the low bidder is awarded the contract if he is responsive and responsible.

The contract price on that portion is determined to be the market price, which is the price that a labor surplus area firm must meet in order to be awarded the remaining set-aside portion of the contract.

The labor surplus area qualified firms which have bid on the non-set-aside portion of the contract are ranked according to a preference, there being three types of preference under the program. The three categories of preferences are based on whether the firm is in or near an area or section of high unemployment, and whether in two of the three categories the firm hires a certain percentage of disadvantaged persons. This is explained in detail in the definitions of labor surplus areas and disadvantaged persons, in attachment A of my statement.

The bidders are also ranked within a preference on the basis of whether they are a small business or a large business. This ranking gives seven categories. The labor surplus area firm in the first category is given the first opportunity in negotiations to match the price of the contract for the non-set-aside quantity.

As the contracting officer, I would continue my negotiations with firms moving through the categories until a labor surplus area firm agrees to meet the price. If no firm can or will meet that price, the set-aside is dissolved and a new invitation for bids is issued on an unrestricted basis.

There cannot be a total labor surplus area set-aside for firms located in labor surplus areas because of the prohibition as contained annually in Defense Appropriations Acts that no funds shall be used for the payment of a price differential on contracts made for the purpose of relieving economic dislocation.

PROGRAM DIFFICULTY

It is my belief, based on several days of hearings held by my Subcommittee on Government Procurement of the Senate Small Business Committee and two sets of questionnaires sent out by the subcommittee, that the program as it is now being administered is having great difficulty, and this restriction against total labor surplus area set-asides is one of the reasons why the program is not more effective.

The price-matching requirement under the partial set-aside means that a contracting officer is limited in the application of the program to those procurements which are economically divisible. Obviously, a contract for a single large specialized tool, aircraft carrier, et cetera, could not be set aside for the labor surplus area program.

To the extent that the price-matching requirement has confined the use of the program, this has tended to discourage firms located in labor surplus areas.

Our Government Procurement Subcommittee surveyed firms in the program. Of the 78 firms replying to our questionnaire, 13 percent indicated that there were too few contracts awarded under the program. Another 24 percent of the firms either expressly or impliedly stated the

program had been of no benefit to them. This is hardly surprising in light of the actual number of contracts awarded under the program.

LABOR SURPLUS LIMITATIONS

Other evidence of the limitations on the labor surplus area program is found in table 1, attachment B, to my statement, which I submit for our consideration. Calling your attention to the fourth column from the left on table 1, you will find the value of the contracts going to labor surplus area firms under the preference procedures just described in fiscal year 1973.

Although the Department of Defense did not calculate what percentage this value is to total procurement expenditures during fiscal year 1973, the $117,183,000 is 0.3 percent of DOD total expenditures. In fiscal year 1972 it was 0.6 percent, in fiscal year 1971 it was 0.3 percent, and in fiscal year 1970 it was 0.4 percent.

I think it is safe to summarize that the value of contracts awarded under this program has been miniscule compared with total procurement expenditures.

One argument against removing the provision against paying a price differential on labor surplus area contracts is the possibility of increased contract costs to the Government.

SUGGESTION NO. 1

First of all, I would suggest that the statutory requirement of the Maybank amendment for market prices in all cases actually increases the costs of the procurement to a procuring agency in at least two ways—recall, if you will, that this provision requires a partial set-aside for a procurement that could be purchased in one quantity.

First, costs are increased by the Government's not being able to take advantage of greater quantity discounts which could be achieved if the procurement were not split.

Secondly, the costs of contract administration are increased; instead of one contract to award and administer, there are two contracts under the partial set-aside. The time spent by the contracting officer and his supporting personnel on each contract can be considerable and their time is worth money.

SUGGESTION NO. 2

The facts do not indicate that contracts awarded under a total labor surplus area set-aside, now prohibited, would be at substantially higher prices. In a total set-aside that would allow only labor surplus area qualified firms to bid, with the award of contract made only to the lowest bidder, the forces of competition would be at work to assure a reasonably priced contract.

It must be remembered that, since there are so many labor surplus areas scattered throughout the country, a great many companies are involved and competition should be readily obtained.

At this point I would refer to the attached list of areas and sections of high unemployment as identified in the most recent copy of the Department of Labor's "Area Trends." You will find that there are 48 States, plus Puerto Rico, which have areas of substantial or persistent unemployment. All 50 States plus the District of Columbia have sections of concentrated unemployment—this is shown on attachment D to my statement.

Because of the large number of labor surplus areas and their wide dispersal around the country, it is not surprising that there are many contracts awarded to firms in these areas. Compare, if you will, table 1, columns 2 and 3. During fiscal year 1973, out of a total expenditure by the Department of Defense of $32 billion, $12 billion or 37.5 percent in contracts went to firms in high unemployment areas. These contracts were awarded under the usual means of either formal advertising for bids or negotiation.

This would suggest that these firms are fully capable of competing in the marketplace at market prices. In large numbers of these cases, competition has acted naturally upon the contract prices to assure that they are fair and reasonable both to the firm involved and to the taxpayer.

Most importantly, firms in the labor surplus area are not dependent on subsidies. They are fully competitive businesses which should be provided more work to enlarge the employment opportunities for the unemployed in their locality.

With regard to the costs of this program, an interesting fact was developed by the Department of Labor. During hearings held by our Government Procurement Subcommittee, the Department of Labor witness testified that, taking into consideration the costs to that Department, including costs at the State level, the cost per employment of a person under this program is only $40, as compared with $1,000 to several thousands of dollars per individual placement under other job preparation and training programs.[1]

It would seem to me that the savings under this program are most significant from the standpoint of the operation of the program. Not documented would be other savings in unemployment and other welfare payments to those who have become employed because of this program.

As I have already mentioned, statistics in Table 1 reveal that, since fiscal year 1970, the percent of contracts going to firms located in labor surplus areas has drastically increased from 4.4 to 37.8 percent in fiscal year 1973. I think this can largely be explained by the fact that the number of areas and sections of high unemployment have substantially increased during these years.

At the end of fiscal year 1973, there were 863 areas and 504 sections of high unemployment. With the increase in the number of areas and sections of high unemployment, the number of firms capable of Government contracting has increased; therefore, the value of contracts going into these areas and sections has greatly increased.

I realize that it is natural to draw the conclusion from these figures that, if so many contracts are already going to firms in high unemployment areas without regard to the labor surplus area program, why be bothered with it?

However, when we view the statistics in table 2 regarding the value of contracts awarded under the labor surplus area program rather than in open competition, we can readily see the benefits to small business under this program.

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[1] Hearings before the Subcommittee on Government Procurement, Senate Select Committee on Small Business, on selected recommendations of the Commission on Government Procurement and procurement from small business in labor surplus areas, May 17 and 18, 1973, p. 39.

SMALL BUSINESSES

In fiscal year 1973, 73.4 percent of the contracts awarded under the labor surplus area program went to small businesses, with the remaining 26.6 percent going to large business. Compare that, if you will, to the total procurement dollars going to small business in that year—17.1 percent.

In short, this program is a valuable means of placing more contracts with small businesses in areas of high unemployment. I submit that there can be no more worthy goal than that. By helping small businesses in these labor depressed areas to grow through more contract work, we are investing in their long term growth, with attendant new job opportunities.

During the hearings held by my Subcommittee on Government Procurement in May of 1973, we received several comments with respect to the restrictions imposed on the labor surplus area program by the Maybank amendment.

Dr. Henry Hyatt, who is chairman of the Interagency Surplus Manpower Committee, which is responsible for this program, testified that we could expect a major change in the implementation of the program if the price differential prohibition were eliminated.

In answer to my question of whether the lifting of this restrictive language would be of help to labor surplus areas, Mr. William Thybony, Assistant Commissioner of the National Supply Policies and Programs Office, Federal Supply Service, GSA, responded that it would.

May I point out that, while the civilian agencies are not subject to the restrictive language of the Maybank amendment, this requirement has been included in the policy regulations controlling their procurement practices; thus these agencies are also forbidden from paying a differential on labor surplus area contracts.

DEPARTMENT OF DEFENSE POSITION

During these hearings I also questioned Mr. John Malloy, Deputy Assistant Secretary of Defense for Procurement, as to his position on whether the restrictive language of the Maybank amendment should be lifted. At that time, he reported that the Department had not formulated a position, so I am unaware of where the Department of Defense might stand on this question.

Nevertheless, in testifying on the question of the discontinuation of the Maybank amendment restriction, Mr. Malloy did indicate that there would be advantages and disadvantages. Mr. Malloy stated that, while the purpose of removing the restriction would be "to provide a tool for greater assistance in labor surplus areas," he did have some "serious reservations" on whether this objective would be accomplished.

Mr. Malloy's reservation is expressed in the following exception from his testimony:

> We would find ourselves potentially on a collision course with that objective [securing goods needed by the Armed forces] if we were to be developing sources and creating knowhow in a labor surplus area and then have that area suddenly become a nonlabor surplus area. Then we would be precluded from doing business with a company that we just established.[2]

[2] Ibid., pp. 167–168.

Mr. Chairman, I submit that this is a wholly appropriate question to raise, both from the standpoint of the objective of the Department of Defense of securing goods needed by the Armed Forces, as mentioned by Mr. Malloy, and from the standpoint of any detrimental effects to a firm or its employees that would receive contracts under the labor surplus area program and then become disqualified to bid on labor surplus area total set-asides because the area in which the firm is located is no longer a labor surplus area.

Of course, I would imagine that this type of problem exists even in open competition, since the Department of Defense would have no assurance that a firm receiving a contract would necessarily receive other contracts, at least when procurements are awarded competitively. The firm might not even wish always to bid on the Government solicitation because of its own work schedule and other considerations. Therefore, there could never be the assurance of the firm's continued performance unless the Government controlled the firm.

Before closing, I think I should comment on the original arguments for inclusion of the Maybank amendment in the Defense Appropriations Act of 1952. There was much discussion then about taking contracts away from deserving firms. It was characterized as "robbing Peter to pay Paul." [This is described in attachment E.]

One of the chief objections to the labor surplus area program was that the low bidder on a procurement would be denied the contract to which he was entitled, thus destroying the competitive system of contracting. There was even much concern that the program worked against small businesses which were not in the area designated as having high unemployment.

After some 22 years of operation of the labor surplus area program, it has not worked as perceived by the supporters of the Maybank amendment at that early date. The award of contracts to labor surplus area firms has not been on the basis of whim of the contracting officer favoring one business over another. Through the set-aside technique, the firms bid on the contract and receive it based on predetermined criteria.

Furthermore, where high unemployment areas are so widely distributed, no State is eliminated from the program, nor does any one State reap all the benefits of it.

Small business has actually been shown to benefit from the program rather than to be hurt by it. Experience shows that the program can and does operate without "robbing Peter to pay Paul."

DEFENSE MANPOWER POLICY NO. 4

In conclusion, Mr. Chairman, while I realize that the Defense manpower policy No. 4 was promulgated at a time when the country was building up its defenses and was awarding many contracts as part of its war efforts, I submit that the policy is just as needed in this period of peace.

High unemployment is still a problem today. I believe that Government procurement can be used as one of the means to combat high unemployment.

The points I have tried to stress in this presentation are as follows: First, the high unemployment areas are found throughout this country; second, that the firms in these areas are not in need of contracts at inflated prices because they have shown they are fully capable of

winning contracts under standard procurement procedures; and finally, and most importantly, because small businesses are the principal beneficiaries under the program, the labor surplus area program can be and should be expanded as another means of aiding this country's small businesses.

The restrictive language of the Maybank amendment prohibiting the payment of an economic differential does not lead to lower costs but actually can increase them for the Government.

I urge you not to include this restrictive language in the Defense appropriations bill this year so as to unfetter this program. It would be a significant step in putting this program on a more effective and productive footing.

Now, if the Maybank amendment were dropped, we wouldn't need to have the set-aside at all. The Government agency that is procuring whatever material it might be for the Government could award the entire contract to an area of high unemployment and this would go a long way toward helping areas which are economically deprived and probably do considerably more good than some of the other programs, such as the Economic Development Act.

Here you have, the Federal Government is spending, we don't know, probably many of us think too much money, but in any event the Federal Government is spending an awful lot of money every year in procuring various goods; and through a procurement policy that allows the Federal agencies to perhaps pay a slightly higher price in an area that has been economically depressed, we can help out those areas considerably.

If you have questions, I would be glad to try to answer them.

EXCERPT FROM CONGRESSIONAL RECORD

Senator YOUNG. Pursuant to Senator Hathaway's request, there will be inserted at this point in the record, an excerpt from the Congressional Record of 1953 (bound edition, vol. 99, pt. 7) relating to economic dislocations.

[The excerpt follows:]

(ATTACHMENT E)

[Congressional Record, bound edition, vol. 99, pt. 7]

DEPARTMENT OF DEFENSE APPROPRIATIONS, 1954

The Senate resumed the consideration of the bill (H.R. 5969) making appropriations for the Department of Defense and related independent agencies for the fiscal year ending June 30, 1954, and for other purposes.

The PRESIDING OFFICER. The question is on agreeing to the motion of the Senator from Massachusetts [Mr. Saltonstall], to strike out the committee amendment on page 58, between lines 15 and 20. The amendment to which the motion relates will be stated.

The legislative clerk read as follows:

"*Provided further*, That none of the funds appropriated by this act shall be available for expenditure under any contract without regard to the provisions of law relating to the making, performance, amendment, and modification of contracts, for the purpose of correcting or preventing economic dislocations."

Mr. SALTONSTALL. Mr. President, the amendment proposed by my good friend, the senior Senator from South Carolina [Mr. MAYBANK] is—and I say this both sincerely and respectfully—an unfortunate one.

The Senator from South Carolina may regard his amendment as aimed merely at striking down what seems to him undue preference for other parts of the country. In reality, it would strike down every effort by the administration to take into account manpower and unemployment problems, in connection with the allocation of defense expenditures.

The Senator from South Carolina may regard his amendment as no more than a proviso imposing a condition in regard to these expenditures. In reality, it is a far-reaching proposal tacked onto a provision of the bill to which it bears not the slightest relation. The amended provision deals with purchases of food, clothing, cotton, and wool at home. The amendment itself deals, by nullifying them, with efforts to correct or prevent economic dislocation.

Mr. President, the emphasis of the rider of the Senator from South Carolina on preventing any use of Government contracts to prevent or correct economic dislocations raises serious questions as to the applicability of the amendment to other important laws.

The Walsh-Healy Act, for example, was designed to use the leverage of Government contracts to raise the wage level of substandard industries. Are not such industries instances of economic dislocation? If so, does not this rider deny effect, under defense contracts obligating funds appropriated by H.R. 5969, to orders of the Secretary of Labor fixing minimum wages payable by a contractor?

Under section 2(c)(16) of the Armed Services Procurement Act of 1947, contracting officers not infrequently take into account the desirability of locating a new plant in an area remote from the threat of atomic attack. Is the concentration of industrial plants in congested areas of the East an "economic dislocation"?

What of the decision by a contracting officer that the award of a contract to a particular low bidder might so burden that bidder as to prevent fulfillment of the contract? Under section 2()(1) of the Armed Services Procurement Act, there is no doubt that a contracting officer has authority to turn down such a bid and to award the contract, instead, to a higher bidder whose staying power is better established. Would not this rider cast doubt upon the authority of the contracting officer to take such a step in order to avoid the "economic dislocation" of the first bidder?

Section 714(f)(2) of the Defense Production Act, as recently extended, authorizes special treatment of small-business firms in the award of defense contracts. It is the tendency of big business to grow bigger and of small business to become submerged. Is not the purpose of this section to correct a tendency toward "economic dislocation"? It woud certainly seem to be so; no fundamental distinction between the economic decline of the textile industry, the economic decline of a region, and the economic decline of a way of doing business is readily apparent.

How many other serious questions the amendment of the Senator from South Carolina may raise it is impossible at this time to foretell. But the ones I have suggested will at least serve to indicate how damaging its effect may be.

In all fairness, Mr. President, I am bound to say that I know the Senator from South Carolina does not mean to strike so broadly at established contracting procedures. He aims only at curbing the power of the President under existing law so to direct defense spending in such a way as to relieve manpower shortages and to alleviate unemployment. But not even this lesser aim is insignificant or negligible in its harmful effects.

It happens that I come from a State which suffers from the most serious area of unemployment anywhere in the Union. I refer to the city of Lawrence, where today nearly 20 percent of the total labor force is unemployed. When speaking at Lawrence on October 21, 1952, Presidential Candidate Eisenhower pledged the use of defense contracts as a means of alleviating unemployment. On April 1 of this year the President personally conferred with a Lawrence delegation, representing both management and labor, and renewed that pledge in clear and unequivocal terms.

Mr. President, the Senator from South Carolina would make it impossible for President Eisenhower to carry out that pledge. His amendment would eliminate policies now in effect which give bid-matching privileges to business firms in areas of serious unemployment, such as Lawrence and Lowell, Mass.; Providence, R.I.; the Crab Orchard area of Illinois; the Iron Mountain area of Michigan; the Terre Haute and Vincennes areas of Indiana; and a number of areas in Pennsylvania and West Virginia. There are now in all 26 such areas in 11 States—areas certified by the Secretary of Labor as having 6 percent or more of the labor force unemployed. Because of improved employment, in some cases hastened by the bid-matching privilege which this amendment would destroy, 28 other areas, including 6 States other than the 11 mentioned a moment ago, have recently been dropped from their eligible classification.

Mr. President, at this point in my remarks, I ask unanimous consent to have inserted in the RECORD a tabulation of these areas.

The PRESIDING OFFICER. Is there objection?

There being no objection, the tabulation was ordered to be printed in the RECORD, as follows:

LIST OF SURPLUS LABOR AREAS CERTIFIED BY THE DEPARTMENT OF LABOR AND NOTIFIED BY THE OFFICE OF DEFENSE MOBILIZATION UNDER DEFENSE MANPOWER POLICY NO. 4

Area	Date of certification	Approved by ODM	Notification No.
Altoona, Pa. (Blair County)	Feb. 21, 1952	June 6, 1952	40
Asheville, N.C. (Buncombe County)	do	Mar. 13, 1952	5
Atlantic City, N.J. (all of Atlantic County, except towns of Landisville and Minotola and Buena Vista Township (in part): Ocean City and township of Upper, Cape May County)	do	May 13, 1952	36
Cumberland, Md. (Allegany County, Md., Mineral County, W. Va.)	do	Mar. 13, 1952	15
Gloversville, N.Y. (Fulton County)	Mar. 21, 1952	May 3, 1952	31
Herrin, Murphysboro, and West Frankford, Ill. (Franklin, Jackson, Johnson, Perry, Union, and Williamson Counties)	Feb. 21, 1952	Mar. 13, 1952	7
Iron Mountain, Mich. (Dickerson and Iron Counties, Mich.: Florence County, Wis.; Niagara Township, Marinette County, Wis.)	Mar. 4, 1952	do	12
Johnstown, Pa. (Cambria and Somerset Counties)	May 27, 1953	July 1, 1953	59
Lawrence, Mass. (city of Lawrence and towns of Andover, Methuen, and North Andover in Essex County).	Feb. 21, 1952	Mar. 13, 1952	8
Lowell, Mass. (city of Lowell and towns of Billerica, Chelmsford, Dracut, Dunstable, Littleton, Tewksbury, Tyngsborough, and Westford in Middlesex County).	do	do	13
Mayaguez, P.R. (municipality of Mayaguez)	May 21, 1952	June 17, 1952	48
Parkersburg, W. Va. (Wood, Pleasants, Ritchie, Wirt, and Calhoun Counties).	Apr. 21, 1952	May 3, 1952	33
Point Pleasant, W. Va. (Mason, Jackson, and Putnam Counties)	June 18, 1952	July 22, 1952	55
Ponce, P.R. (municipality of Ponce)	May 21, 1952	June 17, 1952	49
Pottsville, Pa. (Schuylkill County, amended Feb. 17, 1953, to include that portion of Carbon County comprising the boroughs of Lansford, Summit Hill, Mauch Chunk, and East Mauch Chunk, and the township of Mauch Chunk (which includes the communities of Nesquehoning and New Columbus).	Feb. 21, 1952	Mar. 13, 1952	9
Providence, R.I. (Bristol County, city of Warwick, and towns of East Greenwich and West Warwick, Kent County; cities of Central Falls, Cranston, Pawtucket, Providence, and Woonsocket, and towns of Cumberland, East Providence, North Smithfield, and Smithfield, Providence County, R.I., town of North Kingstown, Washington County, R.I.; city of Attleboro and Seekonk, Bristol County, Mass. t;owns of Bellingham, Franklin, Plainville, and Wrentham, Norfolk County, Mass.; towns of Blackstone and Millville, Worcester County, Mass.).	do	Mar. 7, 1952	2
Ronceverte and White Sulphur Springs, W. Va. (Greenbriar and Monroe Counties)	Mar. 25, 1952	Apr. 29, 1952	29
San Juan, P.R. (municipalities of Bayamon, Catano, Guaynabo, Rio Piedras, and San Juan).	May 21, 1952	June 17, 1952	50
Scranton, Pa (Lackawanna County)	Feb. 21, 1952	Mar. 7, 1952	4
Sunbury, Shamokin, and Mount Carmel, Pa. (Montour, Northumberland, Snyder, and Union Counties; Centralia Borough, and Conyngham Township, Columbia County).	June 18, 1952	June 27, 1952	52
Tacoma, Wash. (Pierce County)	July 1, 1952	July 22, 1952	54
Terre Haute, Ind. (Vigo County)	Feb. 21, 1952	Mar. 25, 1952	21
Uniontown and Connellsville, Pa. (Fayette County)	do	Mar. 15, 1952	20
Vincennes, Ind. (Knox County)	do	Apr. 12, 1952	28
Wilkes-Barre, Pa. (Luzerne County)	do	Mar. 7, 1952	3
Winston-Salem, N.C.	May 21, 1952	June 21, 1952	51

AREAS IN WHICH NOTIFICATIONS HAVE BEEN REVOKED

Area	Notification No.	Date of revocation
Bay City, Mich	22	June 27, 1952
Biddeford, Maine	42	Oct. 1, 1952
Brockton, Mass	6	Dec. 3, 1952
Connersville, Ind	45	Feb. 6, 1953
Danielson, Conn	25	Do.
Danville, Ill	35	Apr. 10, 1953
Detroit, Mich	1	May 23, 1952
Flint, Mich	14	Do.
Fall River, Mass	11	June 2, 1953
Grand Rapids, Mich	17	May 23, 1952
Ionia, Belding, and Greenville, Mich	18	Dec. 3, 1952
Joplin, Mo	32	Feb. 6, 1953
La Cross, Wis	44	Dec. 3, 1952
Lewiston, Maine	46	Oct. 1, 1952
Manchester, N.H	10	Oct. 1, 1952
Martinsburg, W. Va		July 16, 1953
Milford, Mass	56	Apr. 10, 1953
Muncie, Ind	24	June 27, 1952
Nashua, N.H	26	Oct. 1, 1952
New Bedford, Mass	19	Apr. 10, 1953
New York, N.Y	16	Oct. 1, 1952
Norwich, Conn	47	Feb. 6, 1953
Port Huron, Mich	23	Dec. 23, 1952
Portsmouth, Ohio	34	Aug. 30, 1952
Reading, Pa	37	July 29, 1952
Richmond, Ind	43	Dec. 3, 1952
Taunton, Mass	30	Apr. 10, 1953
Utica and Rome, N.Y	27	June 2, 1953

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The following group IV areas were not approved by ODM due to lack of facilities: Beckley, W. Va.; Clearfield-DuBois, Pa.; Durham, N.C.; Fairmont, W. Va.; Jasper, Ala.; Morgantown, W. Va.; Waynesville, N.C.

Mr. KNOWLAND. Mr. President——

Mr. SALTONSTALL. I yield to the Senator from California.

Mr. KNOWLAND. I wanted to get the floor in my own right. I thought the Senator had yielded the floor. If the Senator will yield to me——

Mr. SALTONSTALL. I yield.

Mr. KNOWLAND. I first wish to make it perfectly clear that I am speaking now in my individual capacity as a Senator, and I purposely moved away from the acting majority leader's desk back to my own desk in the Senate, so that no one would be under any misconception as to my speaking merely as a Member of the Senate, and not as acting majority leader.

Mr. SALTONSTALL. Mr. President, if the Senator is going to make a brief statement in his own time, as an individual Senator, would he permit me to conclude my statement?

Mr. KNOWLAND. Yes, indeed. I thought the Senator had concluded.

Mr. SALTONSTALL. No.

Mr. KNOWLAND. The Senator may go right ahead. I may say I wanted to ask for support of the committee amendment, as against the motion of the Senator from Massachusetts to strike out, and I did not want to do it under any misconception. That is why I moved over to my own desk.

Mr. LANGER. Mr. President, will the Senator from Massachusetts yield for a question?

Mr. SALTONSTALL. I yield to the Senator from North Dakota.

Mr. LANGER. The Senator did not read the tabulation which he placed in the RECORD.

Mr. SALTONSTALL. I shall be glad to do so, if the Senator desires it.

Mr. LANGER. I merely wanted to know whether the list included the State of North Dakota.

Mr. SALTONSTALL. North Dakota is not listed as one of the surplus labor areas.

Mr. LANGER. I thank the Senator.

Mr. SALTONSTALL. But I would also say to the Senator that it is not an absolute classification, for the reason that, as I understand, the surveys are not made in small-business sections. So there could be a small-business section which would not be included in these areas, since the Secretary of Labor did not include them.

A purpose of the present policy, Mr. President, almost as important as the alleviation of unemployment, is that of avoiding the aggravation of labor shortages. Labor shortages cause delays, increase costs, and lead to an influx of new workers whose arrival results in housing emergencies and strains on the schools, the water supply, the sewerage system, and the fire and police departments. The policy which the Senator from South Carolina would defeat is thus one of bringing the work to the workers in order to use manpower resources where they are. It is also, by the same token, a policy of bringing work to existing facilities so as to make the best possible use of available plants and equipment. This policy is not new, and it costs the Government nothing. Ever since World War II, beginning with War Production Board Directive No. 2 of March 1942, the allocation of Government contracts has been guided by labor-supply considerations. Since 1942 successive directives have been aimed at this problem. The most recent, and the one now in effect, is Defense Manpower Policy No. 4, which is based on Executive Order 10193 (December 16, 1950) and section 2(c)(1) of the Armed Services Procurement Act, 1947.

As announced on February 7, 1952, the objectives of Defense Manpower No. 4—and these are the objectives which the amendment of the Senator from South Carolina would defeat—are these:

(*a*) To coordinate conversion from civilian to military production;

(*b*) To minimize strains and dislocations in the economy resulting from such conversion;

(*c*) To preserve employee skills necessary to the fulfillment of Government contracts and purchases;

(*d*) To maintain productive facilities;

(*e*) To assure utilization of the Nation's total manpower potential by making ues of the manpower resources of each area; and

(*f*) To help assure timely delivery of required goods and services by locating procurement where the needed manpower and facilities are fully available.

By way of further explanation of DMP No. 4, the Office of Defense Mobilization issued a bulletin on February 25, 1953, stating:

"A primary aim of Federal manpower policy has been to bring defense work to the workers in preference to moving them. When large numbers of workers move to already tight areas, heavy burdens are placed on community facilities—schools, hospitals, housing, transportation, utilities, etc. If on the other hand, workers do not migrate and unemployment develops in certain areas, unemployment compensation costs increase and plants, tools, and workers' skills remain idle and unable to contribute to our mobilization program."

That is the statement of the Office of Defense Mobilization, explaining the objectives that have just been set forth.

DMP No. 4, as carried out by Munitions Board directives and regulations, provides essentially, as I have already indicated, for bid-matching procedures. In the case of areas having more than 6 percent of their labor force unemployed—called by the Labor Department "Group IV areas" or "labor surplus areas"—two types of situations are covered.

In negotiated procurements over $25,000, DMP No. 4 gives business firms in surplus labor areas the privilege of matching the bid of any firm in an area not classified as a surplus labor area. If the surplus labor area firm is able to match the lowest bid by any other firm, it is awarded the contract. An exception however, is made for the benefit of firms, large or small, in areas too small or remote to be classified by the Department of Labor. Since the loss of a contract by such a firm may cause serious unemployment in its entire area, surplus labor area firms are not permitted to match its bid.

In other words, in small areas where there is one factory, so to speak, not classified by the Department of Labor, this provision for matching bids by surplus labor area firms is not permitted.

The second type of bid-matching procedure employs the use of partial set-asides in connection with procurements which are subject to formal advertising for bids. Instead of awarding the entire procurement on an advertised-bid basis, part of the procurement is set aside for distressed area firms and small firms which submitted bids within 20 percent of the lowest bid. These firms are then given the opportunity to match the low bid on the publicly advertised portion of the procurement; if more than one award is made under the publicly advertised portion, it is the weighted average amount of the successful bids which must be matched. Any firm which thus matches the low bid becomes entitled to participate in the set-aside portion.

I emphasize at that point that the firm, in order to get into that classification and to qualify for a bid, must be within 20 percent of the low bidder, before he is allowed to participate.

The Office of Defense Mobilization has not found it possible, however, in the case of certain industries, to carry out the DMP No. 4 purpose of conserving essential skills and maintaining productive resources on a surplus labor area basis. Some industries have accordingly been exempted from DMP No. 4. In the case of the textile industry, a panel of the Surplus Manpower Committee established by DMP No. 4 found that—

"Some action is in the public interest in order to mitigate the serious production and employment problems in the textile industry as a whole. To the extent that procurement policies can help to stabilize conditions in the textile industry, the panel finds that such assistance to stabilize within the industry will help to maintain the productive facilities and the skilled labor force of the industry in the interest of future contingent needs of the Nations for maximum production of textiles."

As a result of this finding, the Department of Defense issued a directive which authorizes procurement officers to set aside a portion of a textile procurement for textile mills operating not more than 80 hours a week—two 40-hour shifts. Such mills are entitled to participate in the set-aside portion if they meet the average amount of the prices at which the formerly advertised parts of the procurement went to other firms. This, I wish to emphasize, is not a regional privilege, but applies to all textile mills, wherever located, operating not more than 80 hours a week.

Mr. President, the Comptroller General has squarely ruled that the bid-matching procedures which I have just summarized have ample authority in law, namely, section 2 of the Defense Production Act of 1950 and section 2(c)(1) of the Armed Services Procurement Act, 1947.

I ask unanimous consent to have printed in the Record at this point in my remarks a letter from the Comptroller General to this effect.

The PRESIDING OFFICER. Is there objection?

There being no objection, the letter was ordered to be printed in the Record as follows:

COMPTROLLER GENERAL,
OF THE UNITED STATES,
Washington, June 18, 1953.

HON. HOMER E. CAPEHART,
Chairman, Joint Committee on Defense Production, United States Senate.

MY DEAR MR. CHAIRMAN: Reference is made to your letter of June 4, 1953, calling to my attention a motion passed by your committee, as reported on page 33 of Defense Production Act Progress Report No. 26, dated May 4, 1953, to request the Comptroller General to check certain contracts and to furnish you with a report thereon. I was not aware of the action of the committee until receipt of your letter.

It appears that your committee desires to be advised whether, in my opinion, the so-called set-aside textile contracts discussed in the subject report are authorized by law or constitute an improper exercise of the authority referred to in my decision of January 14, 1952 (31 Comp. Gen. 279), to the Director of Defense Mobilization.

The "set aside" method of procurement consists of an arrangement whereby only a portion of any specific procurement is advertised in the regular manner and the contracts awarded to the lowest bidder or bidders. Contracts to supply the remaining portion (the "set aside" portion) of the procurement are then negotiated with firms in surplus-labor areas who had submitted bids which did not exceed by more than 20 percent the highest bid accepted on the advertised portion. With respect to "set aside" textile contracts, mills operating on an 80-hour week basis, or less, are given first opportunity to negotiate contracts at fair and reasonable prices, preferably the weighted average of the related bid prices, but in no event higher than the highest price of an award made under the related invitation for bids, regardless of whether or not such mills are located in a surplus-labor area.

It is explained that mills located in surplus-labor areas are not given preference as such with respect to textile contracts for the reason that the industry would be seriously affected since the Government buys a substantial amount of its products and a significant number of firms are concentrated in surplus-labor areas. Consequently, the Director, Office of Defense Mobilization, testified that in order to apply the area approach equitably, it would have been necessary to certify many small, one-mill towns as being eligible for preference under such policy, would not have been feasible.

The matter is closely related to that considered in the decision of January 14, 1952, referred to above. In such decision, the Director, Office of Defense Mobilization, was advised that in view of the intent of the Congress as set forth in section 2 of the Defense Production Act in 1950, and the authority contained in section 2(c)(1) of the Armed Services Procurement Act of 1947, to negotiate contracts when determined to be necessary in the public interest, this Office would not object to otherwise proper payments under contracts awarded through negotiation to concerns located in distress-labor areas. The determination that it is in the public interest to award contracts on such basis is primarily the responsibility of the contracting agency and ordinarily is not for questioning by this Office in the absence of a clear abuse of authority. Nothing has been called to my attention indicating any general abuse of the authority up to this time. However, this Office will continue to examine contracts of the type discussed herein, and appropriate action will be taken when indicated by the circumstances involved.

Sincerely yours,

LINDSAY C. WARREN,
Comptroller General of the United States.

Mr. SALTONSTALL. What I have already said, Mr. President, should make clear that DMP No. 4 does not cost the Government one single penny. In fact, as I shall show, it more than pays for itself.

In every case where set-asides are used, the portion of the procurement reserved for formal advertisement is that quantity of the total needed which is most likely to result in the lowest possible bid. Only that amount of the procurement over and above this portion is set aside.

Since the successful bid or bids on the advertised portion have to be matched by the firms entitled to participate in the set-aside, the awards made under the set-aside cannot cost the Government any additional money. In the case of multi-

ple awards, in fact, the set-aside can and often does result in a saving to the Government.

Mr. President, I ask unanimous consent to have inserted in the RECORD at this point in my remarks a summary which conclusively establishes this fact.

There being no objection, the summary was ordered to be printed in the RECORD, as follows:

SAVINGS ON TEXTILE PROCUREMENT UNDER DMP NO. 4

If a whole procurement for, say, 600,000 yards of cotton duck were publicly advertised the bids might look like this:

Firm	Quantity bid on	Price per yard
A	100,000 yards	$2.00
B	do	2.02
C	do	2.04
D	do	2.06
E	do	2.08
F	do	2.10
G, etc	do	[1] 2.12

[1] And up.

In this case firms A–F would be successful bidders; firms G, H, I, etc., would be squeezed out. But if 200,000 yards of the procurement had been set aside, the highest price of any successful award would have been $2.06.

A firm working not more than 80 hours per week, in order to participate in the set-aside 200,000 yards, would have to submit a bid of not more than $2.03.

The Government is thus saved an average of 6 cents per yard on the 200,000 yards under the set-aside. Nor is there any additional overhead cost: although textile contracts cost the Government, on the average, $557 each to administer, the set-aside, by itself, does not increase the number of contracts involved.

Mr. SALTONSTALL. Mr. President, the money-saving aspect of DMP No. 4 is also evident in the case of negotiated procurements. In such procurements the bid-matching privilege of surplus labor area firms forces firms not located in such an area to shave their profit margins in order to avoid the possible loss of the contract to a firm entitled to the bid-matching privilege.

Another aspect of DMP No. 4, Mr. President, which should also be made very clear is its close connection with procedures designed to assist small business. Under the surplus labor area set-aside procedure that I tried to describe a few minutes ago, small business firms are entitled to second priority after surplus labor area firms. If no firm in the latter category is able to match the successful bid or bids on the publicly advertised part of the procurement, small firms outside surplus labor areas are given next crack at the contract. The result is that 76 percent of all set-aside contracts thus far awarded under DMP No. 4 have gone to small firms.

As crowning proof of the undesirability of attemping by an appropriations rider to restrict the power of the administration to control the tremendous impact of defense spending, I should like to remind the Senate that the Joint Defense Production Committee has held full and detailed hearings on the operation of DMP No. 4. That committee has not yet submitted any findings to the Senate. It would be premature and unwise to anticipate its findings by the adoption of a rider to an appropriations bill which has not had the benefit of any hearings or any study by the Government agencies that would be most directly affected.

Mr. President, I was one of those who testified before the committee. The committee has not rendered a report, and yet, on an appropriation bill, without any hearing of any kind, we go forward to adopt the rider.

Mr. MAYBANK. Mr. President, will the Senator from Massachusetts yield?

Mr. SALTONSTALL. I yield.

Mr. MAYBANK. When the Banking and Currency Committee rewrote the National Production Act this year, provision was made for a Joint Committee on Production. We thought so well of it that it was adopted. The Senator from Arizona [Mr. Hayden] is a member of the committee, and he knows about it. Now the function is turned back to the military.

I deeply appreciate the Senator's attitude, and I deeply appreciate the situation in Massachusetts. It is a question of free enterprise, and it is also a question of whether we are going to appropriate billions of dollars.

Mr. SALTONSTALL. Will the Senator permit me to finish my statement? If the Senator says the committee made a report, I will take his word for it.

Mr. MAYBANK. I will not say it made a report. The Banking and Currency Committee, under the able leadership of the Senator from Indiana [Mr. Capehart], in rewriting the law in connection with controls, eliminated that section of the law which applies to what the Senator has been speaking about.

Mr. SALTONSTALL. I was referring to the report of the Committee on Defense Production.

Mr. President. I have a letter dated July 20, 1953, from the Secretary of Labor, Mr. Martin P. Durkin which I shall read as follows:

JULY 20, 1953.

The Honorable LEVERETT SALTONSTALL,
United States Senate,
Washington, D.C.

DEAR SENATOR SALTONSTALL: I am responding to your inquiry regarding the views of this Department concerning the objectives and experience with defense manpower policy No. 4. The success of the mobilization program, in the development of our capacity to defend the Nation, requires efficient use of all of our resources including manpower as well as faciilties. In keeping with the objectives of full utilization of productive capacity and plant facilities, we must take every reasonable step to make the most efficient use of our manpower resources.

Our manpower policy is primarily concerned with bringing defense work to the workers in preference to moving them. The movement of large numbers of workers to already tight areas creates serious burdens on community facilities such as schools, hospitals, housing, transportation, and utilities. Utilization of available labor supply, on the other hand, reduces unemployment, costs of unemployment compensation and permits use of idle plants and tools.

Locating work where needed workers are available will—

(a) Contribute greatly to the utilization of the Nation's total manpower potential by making full use of each area's manpower resources;

(b) Conserve manpower by (1) minimizing the need for migration, and (2) reducing labor turnover and absenteeism caused by inadequate housing and community facilities;

(c) Help assure timely delivery of required goods and services;

(d) Preserve employee skills necessary to the fulfillment of Government contracts and purchases; and

(e) Maintain needed productive facilities.

The principle of taking work to the worker is supported by management and labor as represented on the National Labor-Management Manpower Policy Committee which advises the Director of the Office of Defense Mobilization and the Secretary of Labor.

Locating work as provided by Defense Manpower Policy No. 4 has caused no substantial adverse effect on the national economy or on any given area; however, the amounts of work which have gone into surplus manpower areas have assisted these areas in utilizing manpower and facilities in the interest of national defense. The policy has served to emphasize the need to avoid areas of critical labor shortage.

I wish to point out to you that this policy has been implemented in such a way as to secure goods and services for the Government from surplus manpower areas at prices no higher than for goods purchased from other areas. In fact in some cases goods were purchased at lower prices.

Yours very truly,

MARTIN P. DURKIN,
Secretary of Labor.

Mr. President, there are other letters addressed to the chairman of the Appropriations Committee by Mr. Arthur S. Flemming, Director of Defense Mobilization, and, I think, from the Secretary of Defense, and I would ask the acting chairman of the Appropriations Committee to read those letters when he makes his remarks.

Mr. HAYDEN. It is quite evident that an excellent argument can be made for a proposal that takes work to the worker. But when Congress enacts a statute dependence must be placed on how it operates. Instead of taking work to the worker, in the instance I am familiar with, it takes work away from workers who are skilled and moves it to another place at greater cost to the Government.

Does the Senator say that is the fault of the law, or the fault of the administration of the law?

Mr. SALTONSTALL. Would the Senator repeat his question briefly please?

Mr. HAYDEN. If an instance can be pointed out under this very law where the cost to the Government was greater and work was taken away from skilled workers in one area, in order to provide work in another area for persons not so skilled, would the Senator say that was the fault of the law, or the fault of the way in which the law was administered?

Mr. SALTONSTALL. If the Senator's facts are correct, I would say the law was administered in a poor way.

Mr. HAYDEN. Let me give the Senator the facts. At the request of the armed services, in order to disperse the parachute industry, a factory was established in Phoenix, Ariz., which employed some 250 seamstresses making parachutes. The time came for bidding and the Phoenix company made a lower bid than any other bidder. What happened? A Brooklyn concern, not in a labor scarcity area, agreed to take over the job at a higher price and opened its manufacturing establishment in Massachusetts, the Senator's State. What was the effect? The skilled workers, the seamstresses, who knew how to do the work, were displaced. They lost their jobs. Workers had to be reassembled in Massachusetts and had to acquire skills. In the end the transfer cost the Government more money.

Mr. SALTONSTALL. The Senator from Arizona mentioned that before the committee the other night, and I would reply to him by saying that we have made inquiries of the Office of Defense Mobilization. The company to which the Senator has referred is the Phoenix Parachute Co. Am I correct?

Mr. HAYDEN. That is correct.

Mr. SALTONSTALL. I quote from an informal report of the Office of Defense Mobilization concerning that incident. This is not firsthand information; it is information that was submitted to me. This firm lost part of a $4 million parachute procurement to a New York firm intending to move to Lowell, Mass.

On the original bids the procurement was split four ways, with the Arizona firm being the fourth lowest.

In other words, they were fourth up from the bottom. I am informed there were other bids above that.

This was a bona fide case of losing a contract in the normal way under DMP No. 4, but it remains true that the Lowell firm would not have had a chance at the contract if it had not submitted a bid lower than the Phoenix Co., that is, a bid corresponding to the weighted average of the four lowest bids, of which the Phoenix Co.'s was the highest.

In other words, in that case the Government actually saved money, because the firm did the work at a lower price than that for which it would have been done in Phoenix, Ariz.

Mr. HAYDEN. The only way the bid could have been made lower was for the Brooklyn company to have been made aware of the bid submitted by the Phoenix Parachute Co. I think my colleague can confirm that.

Mr. SALTONSTALL. I think that is true. That is the only advantage that an area of unemployment or distress is given by the DMP No. 4 procedure. Under that procedure, after the bids are in, if the company in the distressed area is within 120 percent of the lowest bid, it can rebid and get a part of the contract at the weighted average prices of the awards to the companies which got contracts under the formally advertised part of the procurement.

Mr. GOLDWATER. Mr. President, will the Senator yield?

Mr. SALTONSTALL. I yield.

Mr. GOLDWATER. I wish to add a brief statement to what my colleague, the senior Senator from Arizona [Mr. HAYDEN], has mentioned in this connection.

ODM policy No. 4 seems to be a fine example of robbing Peter to pay Paul. It is completely contrary to the free enterprise system, under which we should be operating. I shall mention one more point in connection with the matter. I point out the danger that exists under this system.

The firm that took the bid away from the Phoenix Parachute Co., up to the time the letter was written, which was May 16, 1953, had never manufactured any parachutes on its own premises. Evidently what it did—and I say this without full knowledge of the facts, but it is quite evident that the firm operated in this way—was to take advantage of ODM policy No. 4, and, being located in New York, it made a lower bid, and then went into a distress area and established a factory.

I understand from the president of the Phoenix Parachute Co. that up to a month ago the Brooklyn concern had not established a factory in Lowell, Mass. Again, I may be in error, but that was the statement of the president of the Phoenix Parachute Co., which, by the way, is now out of business.

So in order to satisfy the so-called distress labor area of Massachusetts, we now have a distress situation in Phoenix, Ariz. What we have is the dog chasing his tail. We are robbing Peter to pay Paul. Where will it end? I do not believe the Senator from Massachusetts agrees with the fundamental policy behind this practice.

As the distinguished Senator from South Carolina [Mr. Maybank] has said the entire $38 million can eventually work around into so-called distressed areas. Sooner or later we can create distressed areas in every State of the Union.

Mr. SALTONSTALL. Mr. President, I wish to be absolutely fair to my two colleagues from Arizona. When we inquired into the Parachute case, the ODM said that it was thinking of making a careful investigation of the parachute industry under paragraph 8 of ODM policy No. 4, which I have here, if Senators care to see it—in order to assist parachute-manufacturing companies in meeting clothing-company competition. In other words, the question arose in the minds of officials of ODM as to whether the competition of the clothing industry is not harmful to the parachute industry.

In this instance, from the Government's point of view, money actually was saved. Employment was provided in a distressed labor area in which at the time, I believe, at least 20 percent of the labor force was unemployed.

I do not stand here for a moment and say that I believe that if the other area was left completely without industry or without work for people in the industry, this ought to have been done. I do not say that. As the junior Senator from Arizona has said, that would be robbing Peter to pay Paul. However, I do say that the principle involved in the Executive order has been of some help, although not a great deal. It is intended to try to carry Government business into areas where there is skilled labor, rather than to move labor out.

Mr. GEORGE. Mr. President, will the Senator yield?

Mr. SALTONSTALL. I yield.

Mr. GEORGE. How much money appropriated in the bill could be used for the purposes indicated by the distinguished Senator from Massachusetts?

Mr. SALTONSTALL. Speaking quickly from memory, after reading the hearings, although I do not say this is accurate, I would say that to date approximately $52 million in contracts have been awarded. In the case of textiles, approximately $5 million has been awarded to mills operating not more than 80 hours a week.

Mr. GEORGE. How much of the appropriation, which I thought was for national defense, could be used?

Mr. SALTONSTALL. I believe the proper answer to the Senator's question is that any amount that procurement decided should be used. The provision affects a policy of procurement.

Mr. GEORGE. Any amount that is appropriated for procurement could be used?

Mr. SALTONSTALL. It could be used, provided these four qualifications are met: First, if it is a negotiated contract, it can be directed to a distressed labor area.

Mr. GEORGE. Mr. President, will the Senator yield?

Mr. SALTONSTALL. I yield.

Mr. GEORGE. Will the Senator permit me to ask him if I am laboring under a misapprehension when I say that I thought this was a bill for the national defense?

Mr. SALTONSTALL. It is.

Mr. GEORGE. These appropriations are taken from the money of the taxpayers all over the country.

Mr. SALTONSTALL. That is correct.

Mr. GEORGE. This is not a bill for the relief of any particular section.

Mr. SALTONSTALL. It certainly is not Mr. President; and I would say——

Mr. GEORGE. I should like to ask another question. It is not a labor regulation bill, is it?

Mr. SALTONSTALL. No. What the Senator from South Carolina [Mr. Maybank] is doing is endeavoring to place in the bill an amendment which would deny effect to an Executive order, based upon other laws, which helps to make it possible for the Government to fulfill its contracts without causing dislocation by making it necessary for unemployed people, capable of doing defense work, to move away from their homes into already crowded areas.

Mr. GEORGE. I have listened patiently to the Senator. His remarks seem to me to be in favor of some sort of regulation of labor, or of relief. I am not laboring

under the apprehension that this defense program was instituted for any such purpose as that.

Mr. SALTONSTALL. It certainly was not; and I do not for one minute admit to my friend from Georgia that what I am advocating is relief.

Mr. GEORGE. I respectfully suggest to the Senator that he ought to resurrect Harry Hopkins and get him to administer this program. I think he could do a magnificent job, and he could relieve distressed people in various areas of the country where he wanted to grant relief. We would go back to personal government. I thought the present administration said it was against personal government.

Mr. SALTONSTALL. This is not personal government. The regulations are based upon laws which are very strict. The extent to which the Executive order has been used is comparatively slight; and where it has been used it has been in an effort to get Government procurement at no increased expense at least, and at the same time to relieve unemployment.

Mr. GEORGE. I understand; but if we are to rely on Executive orders, we can get one in behalf of steel, cement, or anything else. What we are getting back to is personal government. Under this sort of procedure, we are leaving to the discretion of some one who wants to change labor laws or someone who wants to grant relief in a particular area of the country, to do just that. I say now, as I said during a Democratic administration, that personal government always leads to favoritism, and favoritism always leads to corruption and abuse. That is precisely what is being undertaken in this kind of program.

Mr. KNOWLAND. Mr. President, will the Senator yield?

Mr. SALTONSTALL. Let me answer the statement of the Senator from Georgia.

As I tried to say, the regulations are based upon laws of the United States, enacted by Congress.

Mr. GEORGE. Mr. President, I listened to the Senator very patiently——

Mr. SALTONSTALL. May I finish?

Mr. GEORGE. The Senator said the contract should go to a textile mill which worked only two shifts. That is because someone does not want a three-shift operation. That is all there is to it. Under the guise of a defense program we are undertaking to rewrite the labor laws and undertaking also to grant relief. We are doing it through a species of personal government, the most obnoxious form of government under which Americans have ever lived.

I am not a new convert to this doctrine. I have believed in it all my life. I am perfectly willing, if there are distressed areas, to accord them relief. I am perfectly willing, if there is to be a revamping of the labor laws, to consider any reasonable proposal which may be brought forth. But let us not bring it forth in a defense appropriation bill.

Mr. SALTONSTALL. I have not brought it forth in a defense appropriation bill. It has been the law, and has been working for the past 2 or 3 years. It is based upon an act of 1947.

Mr. GEORGE. That was a production act, and it related primarily to problems which were pertinent, and should have been considered in connection with that act. Now we are considering a defense appropriation bill appropriating some $40 billion. What we are doing is undertaking to write the law with respect to labor and with respect to relief according to someone's concept of it.

Mr. KNOWLAND. Mr. President, will the Senator yield?

Mr. SALTONSTALL. I reply to the Senator from Georgia by saying that a great many of our laws are interpreted by means of regulations. Otherwise they could not be enforced. There is no personal law involved here. If a mill is already working less than 80 hours, or two 40-hour shifts, the purpose of the textiles regulation is to give some employment in such areas, whether they be in Georgia or Massachusetts. This is not done on a regional basis. It is based upon the situation which exists, wherever it may occur.

Mr. GEORGE. If I may be permitted to say so, it is based upon a political consideration and does not operate on a regional basis. It is purely political in its concept.

I deplore an effort of this kind to bring into a defense appropriation bill appropriating forty-million-odd-dollars belonging to American taxpayers principles of this kind.

Mr. KNOWLAND. Mr. President, will the Senator yield?

Mr. SALTONSTALL. I yield.

Mr. KNOWLAND. As I pointed out before, I am speaking merely in my individual capacity as a Senator. I am sure that Senators will recognize that I am not

speaking from a party standpoint. I wish to make that fact perfectly clear, so that no one will misinterpret my views.

I fully agree with the distinguished Senator from Georgia. I believe that the committee amendment now in the bill should be sustained, and I think the motion of the Senator from Massachusetts to strike the language from the bill should be defeated.

The reason I entertain that view is that I consider such action to be contrary to the doctrines in which at least those of us on this side of the aisle have always believed. We have always believed in the free-enterprise system.

What it is proposed to do is to say to the businessman, "Go out and sharpen your pencil and give to the Government in good faith the best bid you can on a Government contract." When, under the competitive system, he has sharpened his pencil, and finally put in a bid at a price which he believes will return to him a decent and fair profit under our competitive economic system, we then say to someone else in another area of the country, "Come in and take a peek at this bid, and if you can match it we will give you the contract."

This sort of procedure would bring about a completely regimented economy. We would be giving power into the hands of the Federal Government such as I believe no government should have, be it Democratic or Republican. This represents a vast grant of power which ultimately could lead to a completely controlled economy if the power were abused. I do not believe the power would be abused under this administration, but I would oppose such a proposal just as vigorously if the party across the aisle were to sponsor it.

The committee amendment went into the bill in the Appropriations Committee. It is true that it was agreed to by a divided vote——

Mr. MAYBANK. Mr. President, will the Senator yield?

Mr. KNOWLAND. Let me finish.

I say that this is a very dangerous power to give any administration. I believe that it actually violates our whole theory of contracting. It is said that this procedure would no cost the Federal Government anything. On the contrary, I believe that if the committee amendment were stricken out it would cost the Federal Government literally tens and hundreds of millions of dollars, for the very simple reason that we would discourage people from bidding if they know that if they put in an honest bid the business could be taken away from them and placed somewhere else. When that is done we discourage the competitive system and we discourage the fair bidding practice under our system of private enterprise. I do not believe the executive branch of the Government, under an Executive order, should be permitted to move the economy of the country from one place to another, and back again.

As the distinguished Senator from Arizona [Mr. Goldwater] has pointed out, we had a very clear example of it in the case he mentioned, which was that of a parachute manufacturing company. I believe hundreds of such cases could be cited throughout the Nation, where, in order to give relief to a so-called distress area, a contract is taken from the place where it rightfully has gone under our bidding system, and given to another. It throws many people out of work and destroys small business.

If that makes sense, and if it is in keeping with our Republican doctrine of free enterprise, I will eat my hat.

Mr. MAYBANK. Mr. President, will the Senator yield?

Mr. KNOWLAND. I yield.

Mr. MAYBANK. I merely wish to repeat what General Hollis said.

Mr. GREEN. Mr. President, who has the floor?

Mr. MAYBANK. The Senator from California has yielded to me.

The PRESIDING OFFICER (Mr. Payne in the chair). Did the Senator from Massachusetts yield the floor? The Chair inquires whether the Senator from Massachusetts yielded the floor. He had the floor, and he yielded to the Senator from California.

Mr. SALTONSTALL. I thank the Chair. I had completed my remarks and was ready to yield the floor, unless Senators desired to ask questions of me. I was prepared to answer questions, when the Senator from California asked me to yield. I thought he was going to ask a question of me. He has made his remarks, instead. I have no further remarks to make.

The PRESIDING OFFICER. The Senator from California was recognized.

Mr. MAYBANK. Mr. President, will the Senator yield?

Mr. KNOWLAND. I yield.

Mr. MAYBANK. I merely wish to say that the Senator from California is eminently correct. The Army, Navy, and the Air Force appropriations bill is not a

relief bill. The proposal is to give contracts to distressed areas and give work to people. I want to tell the Senator from California, who, with his many duties as majority leader, perhaps is not familiar with it, what General Hollis said. I asked the General the question, and he said that it costs $557 for the Army to enter upon negotiations for a contract. That is on each contract. In addition to that they have to keep books on the contracts afterward.

I can understand the situation of some of the towns in Massachusetts, where there is unemployment. But I am opposed to such a procedure on constitutional and other grounds.

Distressed areas will be able to take business from other areas. Such situations exist in California and in New Mexico. A little while ago I saw on the floor the Senator from New Mexico [Mr. Chavez]. He knows very well that such situations exist in his State, where hundreds of people are out of work, as at Las Vegas, N. Mex., which has only one industry.

Mr. KNOWLAND. The Senator from South Carolina is correct. Not only does it cost the Government money when it goes through contract negotiations, but we must not lose sight of the fact that it costs the businessman money to sharpen his pencil and put in his bid, believing that he will get an honest and fair shake in getting his bid accepted, providing he is the low bidder.

Mr. MAYBANK. But the low bids are not accepted.

Mr. KNOWLAND. That is correct. If the businessman knows that time after time, and time after time, when he sharpens his pencil and makes a bid, the contract is taken away from him, we will not be able to get him to make a bid. He will be reminded of his experiences in filling out OPA forms or income-tax forms, or numerous other redtape documents with which a businessman is required to contend and which necessitate putting additional employees on his payroll.

If we make him fill out forms and then, on top of it all, after he makes bid in good faith when he has reason to believe that he is the low bidder and he will get the business, we snatch the business away from him, we are not going to get an honest competitive business in our country, but we will finally build up in Washington a tremendous power which can drag the business life of the Nation from one place to another, as that power may determine.

Mr. MAYBANK. Mr. President, will the Senator yield?

Mr. KNOWLAND. I do not believe that even the last administration would do it. I am sure it would have recognized its responsibility. However, I say to you, Mr. President, as the distinguished senior Senator from Georgia has stated, I believe it is too much power to place in the hands of the President.

Mr. KENNEDY. Mr. President, will the Senator yield?

Mr. KNOWLAND. I yield.

Mr. KENNEDY. The Senator from California stated that hundreds of millions of dollars might be involved in the program. The program has been in effect for 2 years and only about $50 million has been involved. In fact, slightly less than that has been let under the Defense Manpower Policy No. 4, according to the statement of Mr. Flemming. Under the program the Government places a contract at the lowest bid in an area which is cited by the Government to be a distress-labor area.

How can it cost the Government hundreds of millions of dollars?

In addition, no contract which is subject to competitive bidding comes under the policy. It refers only to contracts that are negotiated in the first place. Therefore I do not see how it can cost hundreds of millions of dollars.

Mr. GOLDWATER. Mr. President, will the Senator yield?

Mr. KNOWLAND. I yield.

Mr. GOLDWATER. I am sure the distinguished Senator from Massachusetts will be interested in what I believe to be a perfect example of the situation which is now under discussion. I refer to the Security Parachute Co. of San Leandro, Calif. It submitted a bid of $63.20 per parachute. Yet the company that finally got the major portion of the business submitted a bid of $67. That is a difference of $4 a parachute. Of course, the bids were not on 1 or 2 parachutes. The bids were made on 112,000 parachutes. The only reason why more than $50 million has not been involved so far is because the smart boys have not found out about it. The company that got the contract was among the first of the smart boys to get into it. Mr. President, the smart boys sit in New York City and decide where the critical areas are, and undercut the successful low bidder.

Mr. KENNEDY. Did the Senator say undercut?

Mr. GOLDWATER. They take the business away from the low bidder.

Mr. KENNEDY. But they have to meet the bid of the gentleman who would secure the business. It does not cost the Fedeal Government any more.

Mr. JOHNSTON of South Carolina. Mr. President, I want to correct a statement. I want to read what the order provides.

The PRESIDING OFFICER. The Senator from California was recognized, and has the floor. He had yielded to the Senator from Arizona [Mr. GOLDWATER], and then he was asked whether he would yield to the Senator from Massachusetts [Mr. KENNEDY] for a question.

Mr. TOBEY. Mr. President, will the Senator from California yield for 5 seconds?

Mr. KNOWLAND. I yield.

Mr. TOBEY. Mr. President, when the distinguished Senator from California spoke a few minutes ago, he said he was speaking merely as a United States Senator. I take exception to the word "merely." It is a minimizing word. I do not like that word. Let me say to the leader that when he speaks, he speaks with logic, understanding, and deep conviction. That is a true Bill Knowland speech. He should hold his head up and throw out his chest and say, "I am speaking as a United States Senator." He should not say that he is speaking merely as a Senator.

Mr. GREEN. Mr. President, I do not believe I ever stood on the floor so long before I was recognized and had an opportunity of saying something.

In view of the remarks which I have in mind to make I desire to associate myself, if I may, with the motion which my distinguished colleague, the senior Senator from Massachusetts [Mr. Saltonstall] had made, to strike from the bill certain words on page 58. The words were read so long ago that I believe I should repeat them at this time. They are:

Provided further, That none of the funds appropriated by this act shall be available for expenditure under any contract without regard to the provisions of law relating to the making, performance, amendment, and modification of contracts, for the purpose of correcting or preventing economic dislocations.

Mr. President, I draw the attention of my colleagues to the fact that striking the proviso from the bill is not changing the existing law. The proviso puts something into the labor laws that is not now there.

As previously stated, the amendment has been included as a rider to section 643 of the Department of Defense appropriation bill. The rider was proposed by the distinguished senior Senator from South Carolina [Mr. Maybank]; and it was agreed to in the committee by a divided vote. For that reason, objection to the amendment has now been made. As a result, various Senators have risen to support the amendment.

I wish to put myself on record as firmly subscribing to the principles and objectives which underlie Defense Manpower Policy No. 4, as issued by the Office of Defense Mobilization. As I have previously stated, this bill is not the place to change that order. The purposes of Defense Manpower Policy No. 4 are wholly consistent with the fundamental aims of our mobilization program. This policy provides that government procurement through negotiated contracts and purchases with responsible firms shall be directed to areas of current or imminent labor surplus when the public interest so dictates. It seeks to maintain productive facilities and to assure timely delivery of required goods and services by locating procurement where needed manpower and facilities are fully available. It is designed to preserve employee skills necessary to the fulfillment of government contracts and purchases, and to provide for an orderly conversion from civilian to military production, while minimizing the strains and dislocations attributable to such conversion.

I know, Mr. President, you will agree wtih me that we must take all reasonable steps necessary for the defense of our Nation. Basic to our national security is the efficient use of all of our resources—our production plants and equipment and our manpower. I wish to stress, Mr. President, that all of the procurement directed to labor surplus areas under Defense Manpower Policy No. 4 has been at prices no higher than for similar goods purchased in other areas. This policy merely provides that financially responsible and technically competent firms, located in labor-surplus areas, shall be permitted to have an opportunity to meet the low bid and thus be eligible for contract awards. The Comptroller General has ruled that this policy in no way violates the language and the intent of the Armed Services Procurement Act. At the same time it provides some assistance to local areas confronted with serious problems of idle manpower, plants and tools, and permits them to participate in the mobilization program. This policy

avoids the manpower problems and high costs which arise in congested communities where production facilities are already overloaded and where shortages of manpower exist.

I speak on this subject from first-hand knowledge of the situation which exists in my own State of Rhode Island. Reference has already been made to it by the distinguished Senator from Massachusetts [Mr. Saltonstall]. We are blessed with a competent and skilled work force. The proportion of skilled craftsmen and production workers in my State as compared to our total work force, is about 50 percent higher than that for the Nation as a whole. We have old and well-established business enterprises with a high degree of executive know-how. We have plant buildings and equipment, without the need of resorting to new construction in order to provide many of the goods the Government buys. Nevertheless, unemployment in my State is about twice that of the national average. In 1952—a year of high employment generally when the country was enjoying prosperity—we paid out about $16.5 million in unemployment benefits throughout the year, to an average of 15,500 Rhode Island workers who were able and willing to work, but had no jobs. When we consider the costs of procurement to the taxpayers, it seems to me that we cannot ignore the costs of unemployment. During the last 15 months about $54 million in defense contracts were awarded to Rhode Island firms. Less than 10 percent of this amount was due to Manpower Policy No. 4. Even that small amount, however, was a help to our economy.

I believe, Mr. President, that Government procurement should be distributed with careful consideration of available manpower. Whenever economic and security considerations permit, it seems to me that production facilities, contracts, and important subcontracts should be located at the sources of labor supply, in preference to moving the labor supply. It is economically efficient and socially desirable to bring the work to where the workers are and where the plant facilities exist rather than to encourage movements of people, with all they imply in the uprooting of families, homes, and other social relationships. For these reasons, Mr. President, I support Defense Manpower Policy No. 4, and strongly urge all my colleagues to recognize that this policy is not one of sectional interest, but, rather, one which goes to the very heart of the national public interest.

Mr. ROBERTSON. Mr. President, the distinguished Senator from Rhode Island has referred to the fact that the committee was not unanimous in regard to the amendment of the Senator from South Carolina [Mr. Maybank]. Of course it was not unanimous. The amendment of the Senator from South Carolina endeavored to correct an injustice being done to the West and the South, for the benefit of New England. Naturally the members of the committee who come from New England preferred to preserve the status quo, and voted against the amendment.

The distinguished Senator from Rhode Island fell into error when he stated that the policy to which he has referred does not involve letting contracts at higher prices. The situation is that, under the policy program, a contract can be taken from one man and given to another, provided the price for which the second man will perform the contract is not above the general average nor more than 20 percent higher than the low price. I point out that the criterion in that respect is the average price, not the contract price.

For instance, the Air Force wished to purchase parachutes, and there was available labor at Phoenix, Ariz. So the contract was let to a man in Phoenix, who assembled there 250 seamstresses to make the parachutes.

Then a firm in Brooklyn, N.Y., that had heard about the parachute contract said to the Air Force, in effect, "If you will give us that contract at a little higher price than the price you are paying to have the work done at Phoenix, our manufacturer in Lowell, Mass., will make the parachutes." So that firm got the contract.

Our committee took the position that such contracts were not proper instrumentalities for affording relief throughout the Nation.

Mr. CHAVEZ. Mr. President, I wish to associate myself with the remarks made by the Senator from Arizona [Mr. Goldwater] and also the remarks made by the Senator from Virginia [Mr. Robertson].

I desire to compliment my friend, the Senator from Rhode Island [Mr. Green], for trying to take care of the unemployment in New England and in his State of Rhode Island. However, there is also unemployment in my State.

As a result of the policy which seems to be prevailing at this time, 250 seamstresses in New Mexico were thrown out of work.

Mr. MAYBANK. Mr. President, will the Senator from New Mexico yield to me?

Mr. CHAVEZ. I yield.

Mr. MAYBANK. I understand that that particular industry is the only one in the town of Las Vegas, N. Mex.

Mr. CHAVEZ. Yes, it is the only industry there. So 250 seamstresses were employed in New England, but 250 seamstresses in New Mexico were thrown out of employment.

Mr. MAYBANK. I wish it distinctly understood, since I had a little to do with the amendment, that I am not attempting to discriminate against New England. The people of New England are my friends. I simply do not think such a policy is constitutionally or legally correct.

Mr. CHAVEZ. And it is not morally correct.

Mr. MAYBANK. I agree with the Senator from New Mexico.

Mr. CHAVEZ. Why should 250 widows in my State be thrown out of work in order to give work to 250 widows in New England?

Mr. SALTONSTALL. Mr. President, will the Senator yield?

Mr. CHAVEZ. I yield.

Mr. SALTONSTALL. I would most respectfully call to the Senator's attention certain facts. I have checked up on the matter, because the Senator mentioned it to me recently. Does the Senator refer to Deming, N. Mex.?

Mr. CHAVEZ. No; it was Las Vegas.

Mr. SALTONSTALL. Then there was another case at Deming, to which this provision of the law did not at all apply.

Mr. CHAVEZ. That is correct, but that involved the building of 20-millimeter shells for the Navy. I am talking now about a case in which a contract was given to a firm in New Mexico. When the people were about to go to work, then, all of a sudden, this provision was applied, putting them all out of work. The contract was sent to New England.

I want the Senator from Massachusetts to believe me when I say I wish there were not a single unemployed person in New England. But I do not think it fair, since we are supposed to represent the national interest, that in order to give employment elsewhere unemployment is created within my State.

Mr. MAYBANK. Mr. President, will the Senator yield for a question?

Mr. CHAVEZ. I yield.

Mr. MAYBANK. Am I correct that the incident to which the Senator referred occurred in Las Vegas, N. Mex.?

Mr. CHAVEZ. That is correct.

Mr. MAYBANK. Do I correctly understand that the only industry within the town was completely closed up, and that no other industrial plant was left?

Mr. CHAVEZ. That is correct.

Mr. TOBEY. Mr. President, will the Senator yield?

Mr. CHAVEZ. I yield to the Senator from New Hampshire.

Mr. TOBEY. If there are 250 widows in the State of New Mexico, why do they not import 250 widowers to take care of the situation?

Mr. CHAVEZ. We might eventually invite the Senator from New Hampshire.

Mr. KERR. Mr. President, will the Senator yield for a question?

Mr. CHAVEZ. I yield.

Mr. KERR. The Senator from New Mexico does not think that that would carry out the objective to which the Senator from New Mexico referred, does he?

Mr. CHAVEZ. I may say I have too much respect and love for the Senator from New Hampshire even to venture a comment.

Mr. TOBEY. I dislike to see distressed womanhood anywhere.

Mr. CHAVEZ. Let me explain what happens. I shall endeavor to put certain factual information in the Record which was developed at the hearings. We heard a great deal last summer and fall about saving money for the Government, about taking care of the taxpayer's dollar, rather than wasting it. The head man of the Defense Mobilization Board is Mr. Flemming, whom we know well. He was formerly a member of the Civil Service Commission. The distinguished Senator from Kansas [Mr. Carlson], who is now presiding in the Senate, very nobly and laudably heads the Senate Committee on Post Office and Civil Service. Representative Riley, speaking about this program, asked:

"Taking the price lid off—"

That is what this is—

"it could conceivably cost a great many more millions of dollars for the defense effort, when it is already a burden to carry, isn't that true?"

A fair question, a very fair question. Mr. Flemming's answer, as shown on page 918 of the report, reads:

"The truth is that so far as the cost of the actual contract is concerned, it could cost more. But I would plead with the Members of Congress to consider the offices to which I have referred, and also to consider the fact that when a certification is made there can be inserted, and most probably will be inserted, a maximum price differential."

I invite Senators on both sides of the aisle, especially those who talk about economy, to listen to what Mr. Flemming says about the price differential:

"It might be 5 percent or 10 percent, or whatever seem to be appropriate."

Imagine the administrator of a Government agency, acting by way of regulation, administering law and even passing legislation.

Mr. JOHNSON of South Carolina. That is written into the order, too.

Mr. CHAVEZ. I know it is written into the order. That is the way the order reads. Those who take it for granted that some people want to save money for the Government, that they mean what they say when they say, "Let us not waste the Government's money," should at least observe what is going on in the Government right now.

Of course I am interested in the city of Las Vegas, N. Mex. I am also interested in the class of work about which we are talking. Of course I am interested in every State of the Union. I would not want unemployment to exist anywhere in the Union. But it seems unfair that unemployment should be created in my State by large expenditures in another State. It is not right; it is not fair; and I do not think it is in keeping with what I consider to be the laudable ambitions of certain people to try to save money for the Government.

Mr. KENNEDY. Mr. President, I wish to speak very briefly on the amendment proposed by the senior Senator from Massachusetts. I think the facts speak for themselves. In spite of what the Senator from Virginia [Mr. Robertson] has said, I do not think there could be a case under DMP No. 4 in which a bidder in a distressed area would bid 20 percent above another bid.

Mr. ROBERTSON. Mr. President, will the Senator yield?

Mr. KENNEDY. I yield to the Senator from Virginia.

Mr. ROBERTSON. Twenty percent above the general average could easily be 20 percent above a bid in Arizona or New Mexico.

Mr. KENNEDY. No; I think the Senator has been misinformed. I think the 20 percent merely permits one, if he comes within the range of price, to meet the bid of the man who has been the lowest bidder. If he comes within 20 percent of the lowest bidder, then he is eligible to meet the bid of the lowest bidder. It does not mean that he can be awarded the contract if someone else bids 20 percent less.

Mr. ROBERTSON. A witness testified—and the Senator from New Mexico has just read the testimony—that it might be 10 percent, 5 percent, or whatever seemed to be appropriate.

Mr. KENNEDY. What are the facts, however? The situation has never prevailed that a man who bid 20 percent above the bid of another man could get a contract merely because he came from an area of surplus labor. What the present policy does mean is that if he is within 20 percent of the lowest bid he is then given an opportunity to meet the lowest bid. If he does not do so, he does not get the contract.

This situation affects New England, Mr. President, only because a disproportionately large percentage of distressed areas happens to be located in New England. When the Senate provided assistance for the drought areas of Texas, it did not do so because it wanted to assist the southwestern part of the United States. It did so because it wanted to assist the people who lived in the drought area.

In New England there has been serious unemployment in many communities for a long time. In the city of Lawrence there has been a great deal of unemployment, as much as that which existed at the height of the great depression. All that defense manpower policy No. 4 provides is that a businessman in such an area is permitted to meet the bid of the lowest bidder in order that employment opportunities might be less poorly distributed. It does not mean that the Federal Government will pay more eventually.

Mr. MAYBANK. Mr. President, will the Senator yield?

Mr. KENNEDY. I yield to the Senator from South Carolina.

Mr. MAYBANK. I have a great affection for the people of the great State of Massachusetts, but that is not the principal area that is being affected. As the

Senator from New Mexico and the Senator from Arizona have said, it affects people of other sections.

There are no better Senators that I know of than the two distinguished Senators from Massachusetts. But, Mr. President, this thing is wrong.

Mr. JOHNSTON of South Carolina. Mr. President, will the Senator from Massachusetts yield?

Mr. KENNEDY. I yield.

Mr. JOHNSTON of South Carolina. I want to show the Senator where it might work disadvantageously to the Government. If the Senator were making a bid and knew that he might come within 20 percent of being the lowest bidder, figuring all the costs in, he might lack about 10 percent.

Mr. KENNEDY. That would be true only with respect to bids being received from distressed areas.

Mr. JOHNSTON of South Carolina. The Government then would pay more than it should.

Mr. KENNEDY. No; I repeat that that would be true only if all of the bidders were from distressed labor areas.

Mr. JOHNSTON of South Carolina. It gives an unfair advantage over other bidders. Why do we find persons employed in the textile industry more in one section of the country than in another section?

Mr. KENNEDY. One reason is lower costs.

Mr. JOHNSTON of South Carolina. That section has brought it on itself. I worked in a cotton mill for 10 years. Is it not true that in operating a cotton mill one has to keep modern machinery? I heard the Senator's speech a few weeks ago when he made a statement to that effect.

Mr. KENNEDY. The Senator is not giving me a chance to answer. In the first place, the standard procedure of DMP No. 4 does not apply to the textile industry.

Mr. JOHNSTON of South Carolina. It applies to every industry.

Mr. KENNEDY. It does not apply to the textile industry.

Mr. JOHNSTON of South Carolina. It applies to everything.

Mr. KENNEDY. It applies instead with respect to textile mills working less than an 80-hour week.

Mr. JOHNSTON of South Carolina. There was a notification No. 38——

Mr. KENNEDY. That had to do with 80 hours.

Mr. JOHNSTON of South Carolina. I am glad the Senator has brought that up. A great many cotton mills today are working 120 hours, in 3 shifts.

Mr. KENNEDY. That is correct.

Mr. JOHNSTON of South Carolina. If the Senator were getting rid of his cloth or goods and the Government were buying them, would he not throw out one shift in order to be able to compete?

Mr. KENNEDY. I cannot believe that a man would close down an entire shift in order to get a small percentage of Government business——

Mr. JOHNSTON of South Carolina. If he were considering what would be best for his industry and he wanted to get his goods sold and get them out of his warehouse. We are giving people employment in one place. What are we going to do with the people who are thrown out of employment. There will be just so many goods made and sold.

Mr. KENNEDY. But, statistically, as the Senator knows, other distress areas have not resulted. The textile industry is a soft industry nationally.

Mr. JOHNSTON of South Carolina. We have heard of people who have been thrown out of work in Arizona, New Mexico, and other States.

Mr. KENNEDY. Not in the textile industry.

Mr. JOHNSTON of South Carolina. But the principle is the same.

Mr. KENNEDY. I imagine the Senator from South Carolina is as much concerned as I am with unemployment in the country, no matter where it is located. We can meet the problem by permitting them to work on defense contracts; or we can do it by providing them with long-term unemployment or relief compensation, which has a more debilitating effect upon the economy of the country.

Mr. JOHNSTON of South Carolina. I think the Senator from Massachusetts believes, as I do, in free competitive enterprise throughout the United States. But the Senator's plan would not maintain competitive business.

Mr. KENNEDY. We are giving a preference to those in distressed areas seeking a chance to meet the lowest bidder. But we do that only because we have had substantial long-term chronic unemployment in those areas. It would be just as

much a calamity if the Government should do something about marginal farms. There would be a national emergency if the Government did not pay support prices. In the case of a long-term unemployment area, it is only fair that, in the administration of procurement with tremendously large Government expenditures, we give the businessmen of such areas an opportunity to make a low bid.

Next, Mr. President, the Senator from New Mexico raised the point about Mr. Flemming's response in last year's hearings. In the hearings this year, Mr. Flemming was asked by the Senator from South Carolina [Mr. MAYBANK]:

"Senator MAYBANK. Mr. Flemming, you have been around a long time. You know last year when you first put this in we had a hurried-up meeting and you agreed it wasn't the right thing to do then?

"Mr. FLEMMING. Agreed that to give a price differential was not right.

"Senator MAYBANK. That is what I am talking about, 20 percent.

"Mr. FLEMMING. Wait a minute. They don't get a price differential of 20 percent. The only thing is that if they haven't gone more than 20 percent above, then they have the opportunity of meeting the low bid. And if they don't meet the low bid, they don't get the business."

It seems to me, Mr. President, that this makes it clear that it is not a subsidy we are discussing.

Mr. MAYBANK. A man will bid low if he thinks his bid will be accepted.

Mr. KENNEDY. But this is no problem outside of a depressed labor area.

Mr. MAYBANK. Mr. President, with all respect to the Senator, I think it is wrong to legislate on an appropriation bill appropriating $38 billion. If only $1 were involved, I would be against it, on principle.

Mr. KENNEDY. It does not mean that the Government will pay $52 million more.

Mr. MAYBANK. Mr. Flemming cannot change it. He is not there now; someone else is acting in his place.

Mr. CHAVEZ. Mr. President, will the Senator from Massachusetts yield?

Mr. KENNEDY. I yield.

Mr. CHAVEZ. It seems to me we could be in complete agreement with the idea of the Senator from Massachusetts to try to take care of distressed labor areas. But what would be the good of taking work away from seamstresses in New Mexico and transferring the work to Massachusetts? That would only create a distress labor area in New Mexico.

Mr. KENNEDY. I certainly agree that it would do no good, but that is not what has been happening.

Mr. CHAVEZ. That is what has happened in New Mexico.

Mr. KENNEDY. If a preferential contract has been removed from New Mexico, thus creating a distress area—and this is not a part of the policy we are discussing—New Mexico would be in line for the same preference.

Mr. CHAVEZ. But Massachusetts now has the industry. It has already been decided that parachutes which were being made in Las Vegas, N. Mex., and Phoenix, Ariz., will be made in Massachusetts.

Mr. KENNEDY. Las Vegas is not a surplus labor area.

Mr. MAYBANK. Mr. President, will the Senator from New Mexico yield?

Mr. CHAVEZ. I yield.

Mr. MAYBANK. As I understand, it was not a Massachusetts bidder who obtained the contract.

Mr. KENNEDY. Is it not a fact that the area to which the Senator from New Mexico referred is not a surplus labor area?

Mr. CHAVEZ. It has not been decided to be one, but the stern reality is there. Many people cannot afford to buy groceries. I know that to be a fact.

Mr. KENNEDY. If conditions have become so serious, would not the Senator like to see legislation on the books to permit the people of his State to get work?

Mr. CHAVEZ. Yes; but I would not wish to see people in Massachusetts thrown out of work in order to give work to people in New Mexico. By the same token, I would dislike to see people in New Mexico thrown out of work by giving the work to citizens in any other State.

SEVERAL SENATORS. Vote! Vote!

The PRESIDING OFFICER. The question is on the motion of the Senator from Massachusetts [Mr. SALTONSTALL] to strike out the proviso on page 58, lines 15 to 20.

Mr. SALTONSTALL. I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk called the roll, and the following Senators answered to their names:

Aiken	Griswold	McCarran
Anderson	Hayden	McCarthy
Barrett	Hendrickson	McClellan
Beall	Hennings	Millikin
Bennett	Hickenlooper	Monroney
Bricker	Hill	Morse
Bush	Hoey	Mundt
Butler, Md.	Holland	Neely
Byrd	Humphrey	Pastore
Capehart	Hunt	Payne
Carlson	Ives	Potter
Case	Jackson	Purtell
Chavez	Jenner	Robertson
Clements	Johnson, Colo.	Russell
Cooper	Johnson, Tex.	Saltonstall
Cordon	Johnston, S.C.	Schoeppel
Daniel	Kennedy	Smathers
Dirksen	Kerr	Smith, Maine
Douglas	Knowland	Smith, N.J.
Duff	Kuchel	Sparkman
Dworshak	Langer	Stennis
Eastland	Lehman	Symington
Ellender	Lennon	Thye
Ferguson	Long	Tobey
Frear	Magnuson	Watkins
Fulbright	Malone	Weicker
Goldwater	Mansfield	Wiley
Gore	Martin	Williams
Green	Maybank	Young

The PRESIDING OFFICER. A quorum is present. The question is on agreeing to the motion of the Senator from Massachusetts [Mr. Saltonstall] to strike out the proviso beginning on page 58, in line 15, and extending through line 20.

Mr. SALTONSTALL. Mr. President, I ask for a division.

Mr. ANDERSON, Mr. DOUGLAS, and other Senators asked for the yeas and nays.

The yeas and nays were ordered, and the legislative clerk called the roll.

Mr. CORDON (after having voted in the affirmative). Mr. President, how am I recorded?

The PRESIDING OFFICER. The Senator from Oregon is recorded as having voted in the affirmative.

Mr. CORDON. I ask that my vote be changed to "nay."

Mr. SALTONSTALL. I announce that the Senator from New Hampshire [Mr. Bridges] is absent because of illness. The Senator from Nebraska [Mr. Butler], the Senator from Vermont [Mr. Flanders], and the Senator from Ohio [Mr. Taft] are necessarily absent.

If present and voting the Senator from Nebraska [Mr. Butler] would vote "nay," and the Senator from Vermont [Mr. Flanders] would vote "yea."

Mr. CLEMENTS. I announce that the Senator from Georgia [Mr. George], the Senator from Iowa [Mr. Gillette], and the Senator from Tennessee [Mr. Kefauver] are necessarily absent.

The Senator from West Virginia [Mr. Kilgore], and the Senator from Montana [Mr. Murray] are absent by leave of the Senate.

The result was announced—yeas 25, nays 62, as follows:

Yeas—25

Aiken	Green	Martin
Beall	Griswold	Pastore
Bush	Humphrey	Payne
Capehart	Ives	Potter
Case	Jackson	Purtell
Clements	Kennedy	Saltonstall
Douglas	Lehman	Tobey
Duff	Magnuson	
Ferguson	Mansfield	

Nays—62

Anderson	Hennings	Millikin
Barrett	Hicklenlooper	Monroney
Bennett	Hill	Morse
Bricker	Hoey	Mundt
Butler, Md.	Holland	Neely
Byrd	Hunt	Robertson
Carlson	Jenner	Russell
Chavez	Johnson, Colo.	Schoeppel
Cooper	Johnson, Tex.	Smathers
Cordon	Johnston, S.C.	Smith, Maine
Daniel	Kerr	Smith, N.J.
Dirksen	Knowland	Sparkman
Dworshak	Kuchel	Stennis
Eastland	Langer	Symington
Ellender	Lennon	Thye
Frear	Long	Watkins
Fulbright	Malone	Welker
Goldwater	Maybank	Wiley
Gore	McCarran	Williams
Hayden	McCarthy	Young
Hendrickson	McClellan	

Not voting—9

Bridges	George	Kilgore
Butler, Nebr.	Gillette	Murray
Flanders	Kefauver	Taft

So Mr. Saltonstall's motion was rejected.

Mr. CORDON. Mr President, I changed my vote on this motion because I now understand that the committee amendment was not intended by its proposer, the Senator from South Carolina [Mr. Maybank], to operate with respect to contracts already made, but to operate only with respect to contracts hereafter made. If that is the purpose of the amendment, I will stand by my vote of "nay."

Mr. MAYBANK. Mr. President, will the Senator yield?

Mr. CORDON. If the committee amendment were to operate with respect to contracts already executed, in my opinion it would dishonor a legal contract made by the Government, and the committee amendment should be stricken.

Mr. MAYBANK. Mr. President, will the Senator yield?

Mr. CORDON. I yield.

Mr. MAYBANK. It was never my purpose to suggest that the Government of the United States, under any executive order or law, should violate a contract it had made. I believe in the sanctity of contracts, as does the Senator from Oregon. The purpose of the committee amendment was to protect the sanctity of present contracts, but not to permit any more such contracts.

Mr. FERGUSON. Mr. President, will the Senator yield?

Mr. MAYBANK. That was my intention. I understand that contracts have been made by the Government with some loyal oldtime American firms, but I do not appreciate some of them that were made with people who went to distressed areas and took contracts away from other firms.

Mr. CORDON. Mr. President, I wish to assure the Senator from South Carolina that I changed my vote because I wanted to be in a position to move for reconsideration, if necessary.

Mr. MAYBANK. I have stated what my intention was.

Mr. FERGUSON. The Senator from Michigan can see no other way to interpret the vote except that none of the money can be used for this purpose. That is clear under the amendment, namely, that it will prohibit the use of the money. It is a limitation. Of course it will go to conference. If the sponsor of the amendment will state on the floor—and the Senator from Michigan expects to be a member of the conference—that it was never his intention to have it apply to contracts which are already let and in operation, it can be taken care of.

Mr. MAYBANK. I would not make such a statement, because I do not know what the WPA people working downtown under Flemming have done. They may have made contracts in Arizona for 2 or 3 years. If it is a reasonable contract, made for a reasonable time, certainlyI would state so. It was never my intention, as the distinguished former judge and chairman of the subcommittee knows, to violate a Government contract. But I do not know what those wild people under

Flemming have done. They are totally wild and totally irresponsible, as the Senator from Michigan knows.

Mr. FERGUSON. I wanted to know what the feeling was of the Senator from South Carolina.

Mr. MAYBANK. My feeling is that a Government contract is a Government contract. As the Senator from Michigan and the Senator from Massachusetts know, we have considered certain Government contracts in the independent offices appropriation bill, which will be before us again tomorrow morning, in connection with housing; and my feeling is that where there is a contract, it should be lived up to as a contract. However, when some second-class bureaucrat makes a contract, I am against it.

Mr. President, I ask unanimous consent to have placed in the RECORD a statement which I have prepared on this amendment.

There being no objection, the statement was ordered to be printed in the Record, as follows:

STATEMENT BY SENATOR MAYBANK

The adoption of this amendment will once again establish the principle that legislation shall be written in the Congress of the United States, and not by order and regulation; it will restate the principle that all persons dealing with the Government will be treated in a fair, equal, and impartial manner; that sectionalism shall not be a future consideration in our procurement program; and that small business shall not be discriminated against by virtue of being located in sparsely settled areas where labor surveys are not conducted.

Effective February 7, 1972, the Office of Defense Mobilization issued Defense Manpower Policy No. 4, which is the words of Mr. Arthur S. Flemming, authorizes a price differential of "5 percent, 10 percent, or whatever seems to be appropriate." This order amounting to agency legislation was written by the Office of Defense Mobilization with the stated purpose of alleviating unemployment, but as the learned Senator from Maine so ably stated in the hearings before the Appropriations Committee, "and in the end does not have to pay attention to bids but can go into the distress areas. It would cause a good many more distress areas, I would think."

The purpose of this amendment is to clarify the existing conflict in provisions of the Armed Services Procurement Act of 1947 and Defense Manpower Policy No. 4 issued by the Office of Defense Mobilization, and this amendment simply restates the intent of Congress as set forth in the Armed Services Procurement Act of 1947.

Under the Armed Services Procurement Act of 1947 generally all purchases and contracts for supplies and services shall be made by advertising. There are 16 exceptions under which contracts may be negotiated. Section 2(c)(1) of the Armed Services Procurement Act has been misinterpreted and utilized to carry out Defense Manpower Policy No. 4 contrary to congressional intent. Section 2 (c)(1) provides for the negotiation of contracts "if determined to be necessary in the public interest during the period of a national emergency declared by the President or by the Congress."

It shall be my purpose at this time to analyze the provisions of the Armed Services Procurement Act of 1947 and Defense Manpower Policy No. 4, in order to set forth the conflicting provisions.

1. Under Defense Manpower Policy No. 4 a price differential of 5 percent, 10 percent, or such amount as may seem appropriate may be paid by the Government in areas of unemployment.

The Armed Services Procurement Act of 1947 makes no provision for a price differential in areas of unemployment. The House and Senate reports which accompanied the Armed Services Procurement Act of 1947 set forth that the act was expected to provide (a) that the Government as a purchaser will receive the best bargain available, and (b) suppliers in a position to furnish the Government's requirements will have a fair and equal opportunity to compete for a share in the Government's business.

Under Defense Manpower Policy No. 4, the Government does not receive the best bargain available and suppliers do not have an equal opportunity to compete, and is in direct conflict with the Armed Forces Procurement Act.

2. The negotiation of contracts when necessary in the public interest under the Armed Services Procurement Act means the interest of the Government, which is borne out in reports accompanying the act in language as follows:

"However, your committee recognizes a careful administration is necessary for this bill to be workable in the best interests of the Government. It therefore

expects strict supervision of its application by the responsible authorities in the various departments."

The Office of Defense Mobilization interprets public interest to mean savings in unemployment compensation, tax losses, idle machines, impact on communities, lost sales, and relief payments.

It was never intended that procurement legislation was to be used to solve every conceivable problem, even though the cause be a worthy one. We have just set up a Department of Health, Education, and Welfare to cope with these problems, and I believe with our cooperation Mrs. Hobby will provide progressive leadership in this field.

3. Under the Armed Services Procurement Act of 1947, the report accompanying the act sets forth language as follows:

"Advertising continues to be the rule, negotiation the permissible exception. Advertising will be used by the departments even when a negotiated contract is authorized if in their best judgment it can be expected to give satisfactory results."

4. Three essential conditions will prevail in the vast number of procurement cases, according to the reports accompanying the act, as follows: Definite specifications, several suitable sources of supply, and genuine price competition.

It was the intention of Congress that if these three conditions existed advertising would be used, and when one of the conditions is missing negotiation offers the satisfactory method of purchasing.

The Office of Defense Mobilization, through the issuance of Defense Manpower Policy No. 4, has permitted contracts to be negotiated when all three conditions were present contrary to the intent of Congress.

5. In the Armed Services Procurement Act of 1947, and the reports which accompanied same, the expressed purpose in making use of negotiation was to effect savings for the Government, to promote and intensify competition. Negotiation at the time of the passage of the act was understood to proceed in the following manner:

"Procurement by negotiation as practiced by the services consists of first securing informal quotations from as many sources as practicable, usually accompanied by breakdowns of elements of costs. Separate negotiations then usually begin with the lower bidders, in order to reduce the price by eliminating unnecessary or unjustified charges. When the best possible agreement has been reached, an appropriate contract is awarded the successful firm. Experience has shown that by careful negotiation and by drafting a suitable contract it is frequently possible to secure substantial savings for the Government. Negotiation, properly employed, can promote and intensify competition."

Contracts have, as a matter of practice, been awarded in a manner which is contrary to the procedure outlined, in that there has been no effort to effect savings for the Government, to negotiate first with the lowest bidder, or to intensify competition.

6. Several specific examples were mentioned in Senate Report 571, accompanying, the act, as to the manner in which the public interest would be served in negotiated contracts, as follows: After a high bid was received for certain refrigeration equipment, negotiations were then begun to purchase the entire requirements piecemeal, which resulted in a saving of $151,000, or 46 percent. In the second case a bid was let for penicillin equipment, and when a high bid was received negotiation was started which resulted in a saving of $44,670, or 43 percent. In a third case there was only one bidder for certain cable desired, and a negotiation was carried out with the same bidder resulting in a saving of 35 percent.

In every known reference to negotiation in the reports, when the negotiation was being included in the act, the purpose for which negotiation was being recommended and included was the direct savings to be effected for the Government.

The Office of Defense Mobilization has never to my knowledge indicated or recommended that negotiation be used to effect savings for the Government, but instead ODM has written language into Defense Manpower Policy No. 4 which, according to the admission of the Director, authorizes a higher price than would be obtainable under competitive bidding of as much as 5 percent, 10 percent, or whatever seems appropriate.

In using negotiation for the purpose of solving unemployment problems; preventing tax losses, and idle machines, preventing lost sales and relief payments, the Office of Defense Mobilization has not only misinterpreted the Armed Services Procurement Act of 1947 and issued an order and notification contrary thereto,

but has concerned itself with the functions of other departments, agencies, and committees and exceeded its scope of authority.

7. Certainly no group has given more careful consideration to the problems of small business, or is more qualified to write legislation on that matter, than this body. And in writing the Armed Services Procurement Act of 1947, it was the declared policy of Congress that a fair proportion of the total purchases and contracts for supplies and services for the Government shall be placed with small-business concerns.

The Congress made no distinction between small businesses in one section of the country rather than another, but the action of the Office of Defense Mobilization in relation to small business has amounted to legislation with discrimination. In making labor surveys of labor-surplus areas, "the smallest area that is considered is defined as one which is not primarily a trade or service center and which has an estimated area labor force of at least 15,000 and estimated nonagricultural employment of at least 8,000." This procedure leaves out those small businesses in sparsely settled areas, whereas it was the intent of Congress to assist them.

BACKGROUND ON MAYBANK AMENDMENT TO DEFENSE DEPARTMENT BILL

Procurement policies established under an Executive order issued by President Truman are placing a premium on absentee ownership, inefficiency, and factory decay in certain geographic areas at the expense of more efficient and productive modern plants in other sections of the country.

On January 17, 1951, President Truman issued Executive Order No. 10193, which is cited as the authority for procurement agencies to channel Government orders into labor-surplus areas at prices other than those determined by advertised bids. The Executive order began:

"By virtue of the authority vested in me by the Constitution and statutes, including the Defense Production Act of 1950, and as President of the United States and as Commander in Chief of the Armed Forces, it is hereby ordered as follows."

Following the Executive order, Defense Mobilizer Charles Wilson issued Defense Manpower Policy No. 4 to become effective on February 7, 1952.

In a letter dated January 14, 1952, from Lindsay Warren, Comptroller General of the United States, to the Director of the Office of Defense Mobilization, it is clearly indicated that there is nothing in the Defense Production Act of 1950, as amended, which authorizes such a negotiation of Government contracts contemplated in Defense Manpower Policy No. 4. The exact language referred to is as follows:

"As your letter apparently recognizes, there is nothing in the Defense Production Act of 1950, as amended, which of itself authorizes generally the negotiation of Government contracts or a disregard of normal procurement procedures."

The language of the Defense Production Act of 1950 which was claimed to be the authority for DMP No. 4 has now been repealed.

Mr. Warren's letter continues:

"In its simplest form, therefore, the question you present is merely whether the Armed Services Procurement Act of 1947 authorizes the procedure involved."

In making further reference to the Armed Services Procurement Act, the Comptroller General pointed out that section 3 of the act requires that award be made to a responsible bidder. The Comptroller General then made reference to section 2(c)(1) of the Armed Services Procurement Act of 1947, which contains the following language:

"On the other hand, section 2(c)(1) of the Armed Services Procurement Act of 1947 authorizes the negotiation of contracts without advertising, when determined by the agency head to be necessary in the public interest during the period of a national emergency declared by the President. Such a national emergency was proclaimed by the President on December 16, 1950. Despite such authority, it would not normally appear to be in the public interest for the military departments to make awards of contracts to a firm or group of firms when it is known at the time that the services or supplies are obtainable elsewhere at a lower price."

Section 8 of the Defense Manpower Policy No. 4 did recognize that the operation of this order could have an adverse effect on the entire industry, and a method of procedure was provided for relief in such instances. Section 8 reads as follows:

"When the application of this policy would have a major effect on the operation of an entire industry, appropriate recommendations shall be made to the Director relative to that industry in lieu of recommendations relative to specific geographical areas. In such cases, after notice to and hearing of interested parties, consideration will be given to a separate certification applying to the entire industry."

Pursuant to this language of section 8 of DMP 4, Mr. Arthur S. Flemming, then Chairman of the Surplus Manpower Committee, and who is now Director of the Office of Defense Mobilization, convened a panel and directed the members to hold a hearing and submit "your findings, conclusions, and recommendations."

The recommendations submitted by Mr. Flemming, and approved by Dr. Steelman, said, in part (with reference to the textile industry):

"That no preference be given in the placement of such contracts to any areas or particular cities within areas with respect to this industry.

"That no provision be made for payment of any price differential."

The panel further concluded that the recommendations of the panel are intended to further the public interest without undue cost to the public or unfair discrimination to any part of an industry.

With respect to costs of his plan and resulting delays in procurement, the following excerpt is taken from Progress Report No. 26, hearing before the Joint Committee on Defense Production, May 4, 1953.

Senator MAYBANK. It does cost considerable money, doesn't it?

General HOLLIS.[1] I am about to come to that.

As a generality, since the weighted average price of formally advertised awards is used as the target for negotiated contracts, and I might relate that particularly to the 80-hour rule of which we are speaking, there is not, as a rule, any additional cost to the Government involved because cases are exceptional, where we would be able to obtain our entire requirements at the lowest price awarded pursuant to formal advertising.

There are, however, certain administrative costs involved. Cost figures for ASTAPA indicate that the average cost for awarding and for administering to its conclusion, a typical contract amounts to $557.

Senator MAYBANK. How much would a contract average?

General HOLLIS. I beg your pardon?

Senator MAYBANK. What would the average contract amount to in dollars that costs $557 to carry it through?

General HOLLIS. I do not have figures with me.

Senator MAYBANK. Would you supply them for the record at your convenience?

General HOLLIS. I would, sir.

(The following was later supplied for the record by General Hollis:)

"The value of all contracts awarded by ASTAPA has averaged $189,000."

Senator MAYBANK. What about the time delay?

General HOLLIS. It depends on circumstances, Senator. Our experience has been to date, we go out with a formal advertisement and make a procurement usually for the major part of the procurement which is required to establish prices. Following that, we attempted to negotiate a certain quantity under these ground rules and we are sometimes successful, sometimes not.

The additional delay involved in that negotiated procurement is perhaps in the order of 30 to 45 days. Not infrequently we have found that the quantities which we have thus set aside are not subscribed by industry and it now becomes necessary for us to go into the market again with a second formal procurement or third formal procurement.

Senator MAYBANK. Whereas if you had this to start with, you would have gotten it?

General HOLLIS. We would have gotten it more rapidly.

Senator MAYBANK. It costs a lot of money to handle this business; doesn't it?

General HOLLIS. Yes, sir.

Mr. SALTONSTALL. Mr. President, a parliamentary inquiry.

The VICE PRESIDENT. The Senator from Massachusetts will state it.

Mr. SALTONSTALL. Who has the floor?

The VICE PRESIDENT. The Senator from Massachusetts has the floor.

Mr. SALTONSTALL. I merely wish to say that I understand, as the Senator from Michigan understands, that it is a limitation on the use of the funds. Otherwise

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[1] Brig Gen. Robert P. Hollis, Chief of agency staff, Armed Services Textile and Apparel Procurement Agency.

it would be the law. I simply state it for the Record at this time. My principal purpose in rising is to ask unanimous consent to place in the Record, at the conclusion of my remarks, a letter from the Office of Defense Mobilization, written to the Senator from New Hampshire [Mr. Bridges] by Mr. Flemming, which I intended to read into the Record.

The VICE PRESIDENT. Is there objection?

There being no objection, the letter was ordered to be printed in the Record. as follows:

EXECUTIVE OFFICE OF THE PRESIDENT,
OFFICE OF DEFENSE MOBILIZATION,
Washington, July 21, 1953.

Hon. STYLES BRIDGES,
United States Senate,
Washington, D.C.

DEAR SENATOR BRIDGES: I am informed that the Senate Committee on Appropriations has amended section 643 of the Department of Defense Appropriations Act (H.R. 5969) as follows:

"*Provided further*, That none of the funds appropriated by this act shall be available for expenditure under any contract without regard to the provisions of law relating to the making, performance, amendment, and modification of contracts, for the purpose of correcting or preventing economic dislocations."

The Department of Defense, through its procurement, construction, and other expenditures, has a very significant impact on the Amreican economy. During and since World War II, the Government has issued various policies designed to assure that the Federal procurement agencies would take cognizance of manpower supply factors in the distribution of contracts. These policies have sought to discourage placing additional contracts or facilities in tight labor market areas and to encourage making the best use of areas where labor skills and manufacturing facilities are in surplus supply. Enclosed is a statement summarizing various past and present policies in this connection.

One of the policies which would be prohibited by the committee amendment is Defense Manpower Policy No. 4, which was issued by my predecessor in this office, the Honorable Charles E. Wilson, on February 7, 1952. This policy makes possible the placement of negotiated contracts in areas of substantial labor surplus by permitting firms located there to match the best price obtainable elsewhere. Since March 1952, more than $52 million of Defense Department procurement has been awarded to these areas as a direct result of the policy. This is a very small portion of the Defense Department's total procurement over this period of time. It has, however, been of real assistance to these communities. This assistance to areas of substantial labor surplus costs the Government nothing in prices of materials procured. Although this policy does entail some additional administrative costs, we believe they are justified by the accomplishments of the policy in making better use of manpower and production resources and in assisting distressed communities.

Critics of defense manpower policy No. 4 have pointed out that this policy authorizes the payment of price differentials. I feel very strongly that the Government should procure goods and services at the lowest prices obtainable. Throughout the existence of defense manpower policy No. 4 price differentials have never been authorized or used. Because of my strong opposition to their use, and to assure that defense manpower policy No. 4 will not be utilized in such a manner that the Government will have to pay more for the goods it procures than would otherwise be the case, I have asked for the preparation of an amendment to defense manpower policy No. 4 prohibiting the use of price differentials, and I plan to issue this amendment shortly.

We in the Office of Defense Mobilization have continually endeavored to assure that the available manpower and production resources of the Nation are utilized with maximum efficiency. I consider it essential that the needed administrative flexibility be retained to enable continuance of policies, such as defense manpower policy No. 4, designed to achieve this objective.

We hope, therefore, that the proposed amendment to section 643 of H.R. 5969 will be deleted.

Sincerely yours,

ARTHUR S. FLEMMING,
Director.

Summary of Executive Branch Policies Relating to Area Labor Supply in Connection With Procurement, Allocations, and Plant Location

WORLD WAR II EXPERIENCE

The importance of balanced geographic distribution of defense production and manpower impacts was recognized early in the World War II. Throughout World War II, the allocation of Government procurement contracts and the location of defense-plant facilities were interrelated with the labor-supply considerations.

The Plant Site Board and its successor, Facility Clearance Board, took into account, among other things, the existence of readily available labor supply before selecting the specific location of any major project. Other factors taken into consideration were the need for additional facilities, availability of power, transportation, etc.

Following War Production Board Directive No. 2 of March 1942, which established policies and procedures governing the placement of war contracts by negotiation, specific recognition was given to manpower as a factor in awarding Government procurement contracts. Amendments to the directive enjoined procurement agencies to avoid contracting for the production of items or materials in communities or areas in which labor shortages are known to exist, whenever it is practical to procure the needed items or materials elsewhere. Basic factors to be considered in contract awards were (a) speed of delivery, (b) use of existing facility, and (c) manpower. At the same time, the War Production Board encouraged prime contractors to follow the intent of the directive in the letting of subcontracts.

Pursuant to the amended Directive No. 2, the War Manpower Commission certified to procurement agencies three groups of labor market areas. Group I consisted of labor market areas in which labor shortages existed and in which further supply contracts should not be awarded, when the facilities for meeting the requirements of such contracts were available in other areas. Group II areas consisted of labor market areas in which labor shortages were anticipated. Supply contracts which had a maximum delivery date of more than 6 months were not to be awarded in these areas when facilities were available in other communities for meeting the requirements of such contracts. Group III areas consisted of areas in which labor surpluses existed and no shortages were anticipated. Special effort was to be made to award contracts in these latter areas in order to utilize manpower resources more effectively.

1949 "INVENTORY RECESSION" EXPERIENCE

With the rise of sizable unemployment at the end of 1948 and early 1949, the Executive Office of the President—specifically at the instructions of Mr. John R. Steelman—provided that Federal programs of direct action or assistance to localities be timed and channeled so as to concentrate upon areas where unemployment was heavy without sacrifice of general national objectives. A wide variety of Federal activities were influenced by this directive—procurement of equipment and supplies, construction of public buildings, roads, and other facilities, the public housing program, business loans, locating sites, and scheduling employment levels for Government financed installations and facilities.

Several changes were made in procedures and policies for Federal procurement. A system was installed which gave all firms an opportunity to bid on all Government contracts. In addition to local efforts to expand employment, special assistance was given to manufacturers in areas of heavy unemployment, by providing information and suggesting new products. The Comptroller General ruled that in the event of the tie low bids on Government contracts, the award could be made to a firm located in an area of serious unemployment. In some instances, the Government undertook accelerated procurement programs in order to provide employment in slack seasons. At this same time, procurement agencies also recognized the principles of breaking up large orders and accepting bids on portions of the whole so that smaller manufacturers could bid more readily.

Other Government actions during this period were: (1) the extension of preferential consideration by RFC and other lending agencies to applications for loans which originate where unemployment is serious; (2) Defense Department consideration of labor market conditions in scheduling civilian employment expansions and cutbacks at military establishments (see attachment II); and (3) the extension of preferential consideration by the HHFA, the Public Roads Administra-

tion, the Civil Aeronautics Administration, and other public works agencies to project proposals from areas of unemployment.

EARLY STAGES OF DEFENSE MOBILIZATION, 1950–51

Shortly after the Korean invasion, the Government acted quickly to avoid delays in the delivery of defense materials which might result from unrestricted placement of defense contracts in areas of labor shortage, while other areas with idle facilities and surplus manpower were still available.

Secretary of Defense Marshall, on December 18, 1950, issued a memorandum to the Secretaries of the military departments, entitled "Broadening the Industrial Base of Procurement Programs." (See attachment III.) This memorandum directed the military departments to pay particular attention to a number of factors which should be considered in procurement, including: "1. The availability of manpower in distressed employment areas or in areas of manpower shortages."

On the recommendation of the National Security Council, the Secretaries of Treasury and Labor, and the Director of Defense Mobilization, the President, on January 17, 1951, issued the National Manpower Mobilization Policy. Each Department was directed individually to implement the policy and be responsible for its supervision. Paragraph 7(i) reads as follows:

"Production will be scheduled, materials allocated, and procurement distributed with careful consideration of available manpower. Whenever feasible, from an economic and security standpoint, production facilities, contracts, and significant subcontracts will be located at the sources of labor supply in preference to moving the labor supply."

This policy of "bringing work to the worker" was implemented by the Department of Defense in March 1951.

DEFENSE MANPOWER POLICY NO. 1

On August 2, 1951, Director of Defense Mobilization Wilson issued Defense Manpower Policy No. 1, entitled "Implementation of National Manpower Mobilization Policy With Respect to Procurement and Production Scheduling." This policy expanded on paragraph 7i of the National Manpower Mobilization Policy with specific directives to the various departments:

Procurement. Procurement agencies were directed to issue instructions to procurement officers calling attention to the need for considering labor supply in placing orders. An example of such instructions is the following paragraph from the Defense Department's Directive 250.03–10 of October 19, 1951:

"Instructions to procurement officers should emphasize the increasing need for giving serious consideration to the adequacy of the local labor supply in contract placements and in planning delivery schedules. To the extent possible, procurement should be avoided in labor market areas where manpower is in short supply or in approximate balance (areas classified in group I or group II by the U.S. Department of Labor); and should be placed in labor market areas of having surplus manpower (areas classified in group III or IV)."

With respect to labor shortages, Defense required procurement officers to obtain detailed manpower information whenever a proposed purchase would result in the employment of a significant number of additional workers in an area of labor shortage. A central monitoring system was established to assure compliance.

DMP 1 also directed procurement agencies to encourage and assist prime contractors in following its principles in the selection of subcontractors. Defense Department Directive 250.03–10 required procurement officers to do this and specified that small-business specialists should be utilized in this program. In 1951 and 1952, the National Production Authority cooperated with the Defense Department in a program to spread defense contracts and subcontracts to more than 8,000 manufacturers who were most seriously affected by raw materials allotments and who probably would have been forced to lay off workers. One technique used in various cities was the "industry assistance clinic," at which procurement officers were brought together with potential prime contractors, and prime contractors with potential subcontractors.

Expansion of Government facilities: DMP 1 directed agencies operating Government facilities and installations to take area labor supply into consideration when making decisions regarding the location, expansion, or contraction of such facilities. Both the Atomic Energy Commission and the Department of Defense have frequently consulted with the Department of Labor before initiating new

facility construction or expansion to determine in which areas ample labor supplies could most likely be found.

Tax amortization application: DMP 1 directed agencies responsible for approving applications for accelerated tax amortization and business expansion loans to consult with the Department of Labor regarding manpower considerations in such applications, so as to prevent the dislocations resulting from expansions in present or potential labor-shortage situations. Applications for expansion in labor surplus areas were given priority attention. On February 3, 1952, a Facilities Review Board was established in the Defense Production Administration to review proposed construction or expansion projects sponsored by the Department of Defense and the Atomic Energy Commission and recommend the substitution of existing facilities when available.

Priorities and allocations: DMP 1 directed agencies issuing priorities and allocations to consider the employment effects of their orders affecting civilian production levels and to consider appeals from materials conservation orders when based on the need to maintain a work force for defense production or on community hardship resulting from unemployment.

The National Production Authority established reserves of materials to assist various hardship cases. Special consideration was given to increasing original allotments in the case of entire industries, such as the construction industry, which were faced with severe unemployment. Supplemental allotments were granted to firms in areas of substantial unemployment where further layoffs would result in community hardship. In this respect group IV classifications of an area by the Department of Labor was considered prima facie evidence of community hardship.

DEFENSE DISTRESSED AREAS TASK FORCE

In December 1951 an interagency defense distressed areas task force was formed under the chairmanship of the Defense Production Administration to assist areas of heavy unemployment, particularly automobile-production centers. In January the task force visited Detroit and nearby cities for conferences with industry and labor leaders and Government officials. The Governor of Michigan created an emergency defense contracts commission, made up of industry, labor, and State government representatives. The two groups cooperated to encourage the placing of larger numbers of defense contracts and subcontracts in these distressed areas. Following the issuance of defense manpower policy No. 4, the task force worked closely with the surplus manpower committee. The task force was abolished around May 1952.

DEFENSE MANPOWER POLICY NO. 4

DMP 4 was issued by Director of Defense Mobilization Wilson on February 7, 1952 (see attachment IV). It provided for negotiated procurement from concerns in surplus labor areas (group IV). Although the policy authorized the use of price differentials to effectuate its purposes, the agencies concerned agreed that such payments were unnecessary and undesirable. Accordingly all ODM notifications under this policy have specifically stated that no price differential was considered necessary and implementing instructions of the procurement agencies have not authorized their use.

This policy, as implemented, differs from previous policies which encouraged negotiation of contracts in surplus labor areas, by setting up specific machinery whereby firms in surplus labor areas are allowed to match the best price otherwise obtainable on negotiated contracts. A variant of this is the set-aside method, adapted from small business procedures, whereby portions of procurements are specifically set-aside for negotiation with surplus labor area firms on a price-matching basis.

DMP 4 applies only to the procurement activities of the Department of Defense and the General Services Administration. At present there are 26 areas of substantial labor surplus eligible for contract preference, constituting about 3½ percent of the Nation's nonagricultural labor force. Twenty-eight areas have been dropped from contract preference due to improved employment levels. Seven Group IV areas were not approved for contract preference due to lack of facilities.

In the period from March 29, 1952 through April 30, 1953, preferential contracts amounting to $52,425,749 were awarded by the Department of Defense. The 26 areas remaining under the policy have received preferential contracts

amounting to $12,842,385. The General Services Administration has made preferential awards amounting to approximately $200,000 during this period.

"DMP 4 also provides for special assistance to industries rather than areas. The textile, apparel, and shipbuilding industries have been exempted from the area preference application of the policy and special recommendations have been made to assist them."

The VICE PRESIDENT. The bill is open to further amendment.

Mr. LEHMAN. Mr. President, I have listened to a great many reports by leaders of our Nation with regard to the international situation. They have appeared before committees of which I am a member. They have on other occasions made public statements.

Mr. President, I do not recall of one responsible official of our country testifying or expressing the opinion that the threat to the security of our country is less today than it was 3 years ago, 2 years ago, 1 year ago, or 6 months ago.

On the other hand, many officials and high military officers have testified to the contrary. They have emphasized the fact that we are under an acute threat, and that our security will be jeopardized unless we take the necessary steps to defend ourselves.

Mr. President, I listened to the debate throughout the day, and I gathered the impression that some of my colleagues believe our defense is a matter of the next few months. I wish I could believe it. I know there is a limit to the number of planes we can produce within the next few months. I wish I could believe or be convinced that the security of the United States is a matter of so short a time.

I do not believe that our security or defense measures concern us only for the next few months or during the remainder of the fiscal year. The problems we now face will be with us for a number of years, unfortunately, and there is no way, in my opinion, in which we can avoid the responsibility of providing adequately against the great danger which threatens.

Mr. President, planes ordered today or designed today will not be in service for at least 2 or 3 years. Atomic weapons will probably take even a longer time to construct. The officers and men required by our Air Force and by our other branches of military service will take many months and great patience to train.

I have been impressed by the fact that today we have been discussing a reduction of a billion dollars in the appropriations for the defense of our Nation. The whole question is whether we will increase our appropriations by a billion dollars or let the appropriation stand as proposed by the committee. That is not really an accurate statement. We are not dealing with a cut of $1 billion. We are dealing with a cut of many billions of dollars. I wish to point out the Department of Defense approprations for the fiscal year 1953 were approximately $47,185,000,000. The amount recommended by the Senate Appropriations Committee for the appropriations for the Department of Defense for the year 1954 is approximately $34,511,000,000—a cut of approximately $12,673,000,000.

The appropriations for the fiscal year 1953 for the Department of the Air Force amounted to $21,073,000,000. This year the Senate Appropriations Committee has recommended as the appropriations for the Department of the Air Force, $11,247,000,000, or a cut of approximately $9,825,000,000.

Furthermore, let me point out that while the figures I have cited show a comparison between the last fiscal year appropriations and the appropriations now recommended for the fiscal year 1954 even the budget estimates for the fiscal year 1954 are proposed to be greatly slashed.

In the case of the Air Force, they would be slashed by almost $5 billion.

Mr. President, no one can tell me that we shall be able to purchase as many airplanes and be able to have as much opportunity to train pilots with an appropriation of $5 billion less than the one recommended by the Bureau of the Budget, and more than $9 billion less than the appropriation made for the same purpose last year. Such a reduction in the appropriation does not make sense to me. The necessary work cannot be done under such a reduction in the appropriation. I believe that if we agree to make such a reduction in the appropriation, we shall be acting in a manner which will jeopardize the security of the Nation.

The recommended cut of $9 billion from the appropriation made for this consideration of Senate Resolution 150, Calendar No. 623, favoring international agreements for limitation of armament, which has been reported from the Committee on Foreign Relations.

If this resolution is made the unfinished business—and I have previously discussed this matter with the minority leader—I then propose to have the

Senate take up a number of conference reports. As soon as the resolution is made the unfinished business, I wish to state the program for today and tomorrow, insofar as we can determine in advance.

The PRESIDING OFFICER. The question is on agreeing to the motion of the Senator from California.

The motion was agreed to; and the Senate proceeded to consider the resolution (S. Res. 150) favoring international agreements for limitation of armament.

[From the Congressional Record, bound edition, vol. 99, pt. 8]

DEPARTMENT OF DEFENSE APPROPRIATIONS, 1954—CONFERENCE REPORT

Mr. FERGUSON. Mr. President, I submit a report of the committee of conference on the disagreeing votes of the two Houses on the amendments of the Senate to the bill (H.R. 5969) making appropriations for the Department of Defense and related independent agencies for the fiscal year ending June 30, 1954, and for other purposes. I ask unanimous consent for its present consideration.

The PRESIDING OFFICER. The report will be read for the information of the Senate.

The report was read by the legislative clerk.

(For conference report see proceedings of the House of Representatives, July 29, 1953, p. 10339, CONGRESSIONAL RECORD.)

The PRESIDING OFFICER. Is there objection to the present consideration of the report?

There being no objection, the Senate proceeded to consider the report.

Mr. FERGUSON. Mr. President, I hope that the Senate will agree to the conference report. Certain adjustments were made. The conference bill calls for totals of $34,371,541,000, as compared to 1953 appropriation, $47,185,004,142, a reduction of $12,813,463,142; 1954 original estimate, $40,719,931,000, a reduction of $6,348,390,000; 1954 revised estimate, $35,771,563,000, a reduction of $1,400,022,000; a bill as passed the House, $34,434,140,500, a reduction of $62,599,500; a bill as passed the Senate, $34,511,302,000, a reduction of $139,761,000.

Changes were made in the following items in the Senate bill:

Office of the Secretary of Defense: 3 Office of Public Information, $50,000.

Department of the Army: 7, military personnel, $5 million; 9, maintenance and operations, $12,750,000; total, $17,750,000.

Department of the Navy: 11, Marine Corps troops and facilities, $5,864,500; 12, aircraft and facilities, $9 million; 13, aircraft and related procurement, $15 million; 14, shipbuilding and conversion, $11,500,000; 16, civil engineering, $500,000; 17, servicewide operations, $234,000; total, $42,098,500.

Department of the Air Force: 18, major procurement other than aircraft, $15 million; 20, maintenance and operations, $14,862,500; 21, military personnel requirements, $15 million; 22, research and development, $35 million; total, $79,862,500; total decreases, $139,761,000.

Mr. President, I desire to call to the attention of the Senate a change which was made in the language of the bill. It has reference to Senate amendment No. 41, which, on page 54, line 21, after the word "possessions", proposed to insert:

Provided further, That none of the funds appropriated by this act shall be available for expenditure under any contract without regard to the provisions of law relating to the making, performance, amendment, and modification of contracts, for the purpose of correcting or preventing economic dislocations.

The provision adopted by the conferees, which has been agreed to by the House, is as follows:

Provided further, That no funds herein appropriated shall be used for the payment of a price differential on contracts hereafter made for the purpose of relieving economic dislocations.

I may say that under the previous Office of Defense Mobilization directive No. 4, there was a provision which read as follows:

"The public interest dictates the need for negotiation of Government contracts at reasonable prices in such areas, although lower prices might otherwise be obtainable elsewhere, in order to achieve the purpose of this policy, as set forth in No. 2 above."

That would have allowed the payment of a higher price in a distress area. The purpose of the amendment which is now in the bill provides that a price differential cannot be paid. In other words, the price cannot be increased in order to put

a contract in an economically dislocated area. If it went there at all, it would have to go in on the basis of the low price.

Mr. MAYBANK. Mr. President, will the Senator from Michigan yield?

Mr. FERGUSON. I yield the floor.

Mr. MAYBANK. I understood the Senator was going to ask for the approval of the conference report.

Mr. FERGUSON. I have asked for it.

Mr. MAYBANK. Mr. President, I shall object, I object solely by reason of the amendment which the Senator has so ably discussed.

The Senate, on July 22, by a vote of 62 to 25, requested the Senate conferees to insist upon its amendment. While the Senator is absolutely correct in saying that the bill does not now provide for a price differential, yet, under the bill as now written a man can be the low bidder on a contract, but he may not get the business.

If I may have the attention of the Senator from New Jersey [Mr. Hendrickson], I call attention to a bad situation in his State where a low bidder went to the extent of changing his machinery to carry out a contract, and he did not receive the contract.

Mr. HENDRICKSON. Mr. President, will the Senator from South Carolina yield?

Mr. MAYBANK. I yield.

Mr. HENDRICKSON. There was a case in the city of Trenton of business being taken away from a low bidder and transferred to another part of the country.

Mr. MAYBANK. The business can be transferred in a distressed area to someone who is not the low bidder.

The Senate voted 62 to 25 on this question. I am certain the Senator from New Jersey feels the same way about it as I do.

I am not going to delay the Senate with reference to the remarks of a distinguished representative from New Jersey who, I think, represents the Trenton district. This is no sectional fight on my part, Mr. President, I am interested purely in the law. As the Senator from Georgia has said, this is a billion bill——

Mr. HENDRICKSON. The sort of thing which the Senator from South Carolina has just described can wreck our free enterprise system.

DEPARTMENT OF DEFENSE APPROPRIATIONS, 1954—CONFERENCE REPORT

The Senate resumed the consideration of the report of the committee of conference on the disagreeing votes of the two Houses on the amendments of the Senate to the bill (H.R. 5969) making appropriations for the Department of Defense and related independent agencies for the fiscal year ending June 30, 1954, and for other purposes.

The PRESIDING OFFICER. The question is on agreeing to the conference report.

Mr. FERGUSON. We were trying to keep from destroying the free enterprise system by allowing the Department to pay preferential amounts or to increase the price of armament, for the purpose of going into distress areas, and we thought we had done so when we used the language, "That no funds herein appropriated"—meaning in the whole defense bill—"shall be used for the payment of a price differential on contracts hereafter made for the purpose of relieving economic dislocations."

The Senator from New Jersey [Mr. Hendrickson] mentioned the case of a company which said it was low bidder, but the bid was taken away and given to another company at a higher price.

Mr. HENDRICKSON. In a so-called distress area.

Mr. FERGUSON. In a distress area. That could not be done under this provision in the bill.

Mr. MAYBANK. Mr. President, will the Senator yield?

Mr. FERGUSON. I yield.

Mr. MAYBANK. Of course, it could not be done, but the conferees are saying, "You may be the low bidder, but you will not get the bid. It is going to a distressed area."

So the bidder sharpens his pencil, writes a bid and says, "I am low bidder."

He is told, "Oh, no. There is another place where there is unemployment. They will take the bid at your price." So there will be no low bids, in substance. That is what has happened in Trenton, N.J.

Mr. HENDRICKSON. The Senator is correct.

Mr. MAYBANK. The people in the distress area are out of work.

Mr. HENDRICKSON. Mr. President, will the Senator yield?

Mr. FERGUSON. I yield.

Mr. HENDRICKSON. Is it the opinion of the distinguished Senator from South Carolina that the conference amendment is inadequate to cover the situation?

Mr. MAYBANK. That is my opinion. For the benefit of the Senator from New Jersey, I may say, that a newspaper editor in Trenton called my office last night about this matter.

Remember, Mr. President, the Senate agreed to this amendment by a vote of 62 to 25.

The procurement agency cannot take a low bid, raise it, and pay a higher price. But if the bid is low, then it cannot be awarded unless the manufacturer is in a distressed area. Or if someone finds it is a distress area, he gets the business which some other fellow has worked weeks and months to get on a low competitive bid. In the instance mentioned by the Senator from New Jersey, the bidder even changed the machinery, so that he would get the low bid.

Mr. HENDRICKSON. The Senator is exactly correct.

Mr. MAYBANK. If that is free enterprise, I have never seen it.

Mr. HENDRICKSON. The regrettable thing is that we cannot correct errors of the past, but we ought to be certain, by any amendment that is adopted, that errors of the present and the future will be corrected.

Mr. MAYBANK. After all, this is a military appropriation bill, involving billions of dollars. We have mentioned textiles. The same practice will apply to steel, cement, copper, or anything else that is purchased.

Mr. FERGUSON. I hope language will not be placed in the bill that will prohibit contracts from going into distress areas.

Mr. MAYBANK. No; I do not suggest anything like that; I suggest taking the low bid.

Mr. FERGUSON. But if we are not careful with the language, we will have the same trouble we had with the other amendment. There were almost as many interpretations as there were members of the Commission.

Mr. MAYBANK. That is the only matter in disagreement. I hope the distinguished Senator will take the report back to conference, to see if some acceptable language can be worked out. I do not want to keep contracts out of distressed areas, but neither do I favor giving them preferential treatment by taking business from a place that has a contract on a low bid, and giving it to some other area of unemployment.

The junior Senator from Arizona [Mr. Goldwater] told us what happened in that State. I observe the senior Senator from Arizona [Mr. Hayden] on the floor. A contract for the manufacture of parachutes was taken from Arizona, and people were thrown out of work. The senior Senator from New Mexico [Mr. Chavez] said the same thing happened in New Mexico. The junior Senator from New Jersey [Mr. Hendrickson], who knows far more about Trenton than I do, says unemployment has been created in that city. It is not a sectional question. The procedure simply is wrong.

Mr. FERGUSON. We are arguing the point as to whether when there happens to be dislocation because of unemployment in a certain area, the Defense Department can let a contract there and pay a differential price, or pay a larger price.

Mr. MAYBANK. Oh, no.

Mr. FERGUSON. This language, without any doubt, prohibits that. Now we come to the next point, whether or not the Secretary of Defense or the contracting officers, when they get the same price from a distress area as they get from another area, are prohibited from letting the contract to the distress area. Shall we penalize a distress area?

Mr. JOHNSTON of South Carolina. Mr. President, will the Senator yield?

Mr. FERGUSON. I yield.

Mr. JOHNSTON of South Carolina. Does the Senator mean a situation where both parties bid the same amount and both, consequently, are low bidders?

Mr. FERGUSON. Yes.

Mr. JOHNSTON of South Carolina. The Senator does not mean, does he, that the low bidder in a distress area can return and bid the same as another bidder and get the contract?

Mr. MAYBANK. He can make a bid below that of the other bidder or bidders.

Mr. FERGUSON. The Government today can set aside any bids and ask for new bids.

Mr. JOHNSTON of South Carolina. If that is done, the competitive bidding system is largely done away with.

Mr. FERGUSON. Then Congress had better pass legislation to prohibit the letting of any contract except upon competitive bids, and should provide for the opening of bids and the acceptance of the lowest bid. But it will not always be the lowest bid that will be best for the United States Government. There are other considerations. But in the particular amendment under discussion we prohibit the payment of a differential if it is for the purpose of preventing a dislocation.

I agree with the Senator that all bids ought to be made on a competitive basis, but the Department of Defense tells me that there are thousands of items as to which, because of their nature, and because they have never been made before, have required the Department to seek out people who can make them. According to the way in which it is desired to change the language, if they sought a person and he happened to be in a distress area, they could not give him a contract.

So I say the matter should be referred to the legisative committee and should receive the attention of that committee. In the meantime, the Department should be prevented from paying an increase in the price for the purpose of alleviating conditions in a distress area. I think the conferees of the two Houses did the best they could under the circumstances.

Mr. JOHNSTON of South Carolina. Is is not true that when the very same amendment was discussed on the floor of the Senate, it was stated that no preferential treatment had been given, so far as amount was concerned?

Mr. FERGUSON. Oh, yes; the Department had paid increases. It was authorized to do so.

Mr. MAYBANK. Did the Department pay increased prices?

Mr. FERGUSON. I do not know whether they paid them, but the Department was authorized to do so.

Mr. JOHNSTON of South Carolina. But in the discussion it was brought out that they had not. If that is so, the amendment we now have leaves us where we have been all the time. The Department can take the low bidder and say to someone else, in some distress area, "You come in and bid this price, and you can have the contract."

Mr. MAYBANK. That is correct. Under those circumstances, who will make a low bid? I hope the chairman will take the matter back to conference and work it out. It would be very simple. It would not take the conferees 1 hour.

Mr. FERGUSON. I honestly believe the conferees did the best they could.

Mr. HENDRICKSON. Mr. President, will the Senator yield?

Mr. FERGUSON. I yield to the Senator from New Jersey.

Mr. HENDRICKSON. I am certain the Senator from Michigan does not feel that after a bid has been received, the Government, or any part of it, should take the bid to distress areas and resort to bid shopping.

Mr. FERGUSON. I do not believe that should be done.

Mr. MAYBANK. That is exactly what is being done.

Mr. FERGUSON. If we make a prohibition against rebidding, we are saying to the Secretary of Defense, "You will have to take the bid of the lowest bidder, no matter who he is." If there were a better bid, or an equal bid, in a disclocated area, it could not be accepted. I do not think we want to go that far. That is why I say that the conference committee did the best it could to prevent this program from being used as a WPA project by paying more money in a dislocated area. We do not want to do that. We have prohibited that in no uncertain language.

Mr. President, I hope the conference report will be adopted. I am satisfied that if it were provided that all contracts must be let upon the basis of the lowest bid, as municipalities let contracts, it would be found that the Defense Department would have great difficulty in letting contracts under such conditions.

Mr. HENDRICKSON. Mr. President, will the Senator yield?

Mr. FERGUSON. I yield.

Mr. HENDRICKSON. I was rather impressed with the language which the Senator from Michigan read. I should like to ask him how this language would prevent bid shopping.

Mr. FERGUSON. Does the Senator mean by "bid shopping" the practice of opening bids and finding out how much they are, and then setting them aside and calling for new bids?

Mr. HENDRICKSON. Exactly.

Mr. FERGUSON. I do not know that we could stop that practice without hamstringing the entire defense effort. If we ever reach the point where we compel the Defense Department to accept the lowest bid in any set of bids, the situation will be very difficult. I do not know how we could do it. That would mean telling the

Department that it must accept the lowest bid in any set of bids, and that it could not set aside all bids and call for new bids. We are dealing with an administrative problem.

Mr. HENDRICKSON. I am worrying about using distressed areas as an excuse for bid shopping.

Mr. FERGUSON. I do not want distressed areas used for that purpose. There happens to be one distressed area in New Jersey.

Mr. MAYBANK. Mr. President, will the Senator yield?

Mr. FERGUSON. I yield.

Mr. MAYBANK. This procedure is being followed pursuant to an Executive order. I suggest to the distinguished Senator from New Jersey that the Armed Services Procurement Act of 1947 be used, rather than an Executive order to move business from Trenton, for example, somewhere else.

Suppose there were general unemployment in the country. Such a provision could be used as a relief measure, to transfer business in steel, copper, and everything else, from one part of the country to the other. I do not say that that would be done.

Mr. FERGUSON. I think the Department must have the right to reject all bids and start over.

Mr. MAYBANK. Of course it can reject all bids. But we should not say to the low bidder, "Someone is out of work over here, and you cannot have the business."

Mr. FERGUSON. Suppose the Department rejects all bids and starts over again, and the man in the distressed area happens to be the low bidder?

Mr. MAYBANK. Then he should have the business.

Mr. FERGUSON. Under the language of the Senator's proposal he could not get it, because it would be said that the contract was being awarded for the benefit of the distressed area.

Mr. MAYBANK. If there is any such interpretation possible in connection with the language of my proposal, I appeal to my good friend to take the subject back to conference, eliminate any doubt in the language, and settle the question in 5 minutes.

I am not against any distressed area. I feel distressed personally when any area of our country is in distress. However, I do not believe that a $38 billion appropriation bill for the Armed Services should be used to transfer business and create a distressed area in order to help another one.

Mr. FERGUSON. In the closing days of the session we find ourselves in the position of trying to change the entire procurement system; and we are asked to do it in an appropriation bill. Personally, I do not think it can be done by language in a conference report on an appropriation bill. I think we ought to prohibit the payment of higher prices. Then the regular legislative committee should consider the matter of procurement, and consider the question of whether the fact that a particular area is in distress should have anything to do with the subject.

Mr. MAYBANK. That is all I ask. All I ask is that the Armed Services Procurement Act, which was duly passed by the House and Senate and signed by the President, be used instead of an Executive order to do this, under the guise of relieving labor in distressed areas. The Senator knows who is behind this amendment, I know.

Mr. FERGUSON. In interpreting the kind of language which has been suggested the General Accounting Office might say that a contract should not be let in a dislocated area. I think this is a very important matter, and I hope the Senate will accept the language prohibiting any increase in price because of a dislocated area. I hope we will not try to reform the entire procedure of letting contracts in the Defense Department.

Mr. JOHNSTON of South Carolina. Mr. President, I should like to ask one further question. Assume that a large concern such as General Motors is located in various sections of the United States. Suppose, in a given instance, that General Motors is not the low bidder, but that certain of its industries are in fact, located in a distressed area. If that should happen, although General Motors might not originally be the low bidder, it could then say, "We will meet the low bid, from an industry in a distressed area" and get the business.

Mr. MAYBANK. Among those who have written me and called me, the greater number have been small firms. During the previous debate various communities were cited as illustrations—for example, Las Vegas, N. Mex., and Phoenix, Ariz., where small firms were located. The little fellow has no chance under this procedure.

Mr. KNOWLAND. Mr. President, I am very much interested in this problem, as I am sure the Senators from South Carolina and other Senators understand. They led the fight the other night. I think they are entirely correct. I supported the amendment offered by the distinguished Senator from South Carolina. I feel very strongly on the subject. It is a violation of our entire theory of competitive bidding to permit this procedure to be followed.

However, I hope the Senate will not reject the conference report merely because we did not get our way with respect to this language. I give the Senator from South Carolina my personal assurance that I intend, as a United States Senator, to follow this matter up with the executive branch of the Government. I do not think this procedure should be used. I do not believe that the entire spirit of competitive bidding should be violated by asking people in one area of the country to bid, and, after they have bid in good faith, to take the business away from them and move it somewhere else.

I very much hope that this administration will pay attention to the overwhelming vote in the Senate. If, in the face of the overwhelming vote in the Senate, the administration should nevertheless follow the procedure which has been described, it would be proceeding at its peril, and would be subject to major censure on the part of the Congress, and certainly of the Senate, which has spoken so overwhelmingly on this question.

We are approaching the closing days of the session. We have a very heavy legislative program. Under the circumstances, I hope that the distinguished Senator from South Carolina will not feel that it is necessary to ask that the bill be sent back to conference. As he knows, we have been trying not to hold all-night sessions. Our Members have been working very hard. We are in a situation in which a great number of bills must be acted upon. As I say to the Senator, I have not weakened one iota in my strong opposition to the practice which has been described. I think the Senator from South Carolina and the Senator from Georgia are correct. I believe that the overwhelming vote in the Senate certainly served notice on the administration as to what our feeling on this subject is.

Mr. MAYBANK. Mr. President, I thank my distinguished friend, the Senator from California, for the very able address he made the other evening and for the great help he gave in the adoption of the amendment by a vote of 62 to 24. I know that if he were in charge of the program we would have nothing to worry about. I have known the distinguished Senator very pleasantly for many years. However, when we leave Washington with this Executive order in force, there is no telling what will happen. It would be a simple matter to adopt wording which would provide for taking care of unemployment situations but not permit the Government to shop around and thus hurt other sections of the country. I am sorry that the newspapers have played up the subject as a sectional fight. It is not that at all. I tried to make that plain on the floor of the Senate. It affects the free enterprise system of all Americans.

Mr. KNOWLAND. Mr. President, will the Senator yield?

The PRESIDING OFFICER (Mr. Beall in the chair). Does the Senator from South Carolina yield to the Senator from California?

Mr. MAYBANK. I yield.

Mr. KNOWLAND. I wish to assure the distinguished Senator from South Carolina that I have already personally taken the matter up with the executive branch of the Government, and intend to pursue it. I have called their attention to the Record, and I have suggested that it would be well for the executive department to read the Record of the Senate debate on the pending issue. It is my own judgment, if they proceed in the face of that Record, they would be proceeding at their peril. I feel quite confident that we will have a revision in the theory which has heretofore prevailed in the matter.

Mr. MAYBANK. I only want to say that it should have been revised long ago. I appreciate more than I can say what the Senator from California has done for the free enterprise system in getting in touch with and calling this to the attention of the bureaucrats. However, we will not be in Washington. Before we return, billions of dollars will be spent. All I ask is that we adopt a simple amendment to protect private industry. I am certain that the distinguished Senator from Michigan [Mr. Ferguson] and the other members of the conference committee would be able to straighten the matter out in a few minutes. It would be a very simple matter to arrange.

Mr. HENDRICKSON. Mr. President, I wish to commend the distinguished acting majority leader for the statement he has made, and also to congratulate him on the course of action he has taken. It has been a constructive and positive course

of action. I agree with him, in the face of the statement he has made to the executive department, that if the executive department violates the principles we are concerned about today, they will be flying in the face of danger.

If that happens, we can take a positive course of action to amend the basic law. I feel the distinguished majority leader's statement has clarified the situation, and I am now prepared, somewhat reluctantly, to support the conference report.

Mr. FERGUSON. Mr. President, some Senators voted against the original amendment because they felt the language was improper, in that it applied to past contracts as well as to future contracts, and therefore could cause a great amount of trouble. I believe all Senators agree that we should have fair, competitive bidding, and that there should not be any so-called playing fast and loose. I for one certainly want the executive branch of the Government to read the Record and learn how all of us feel about the matter. However, as I stated before, it is an administrative matter, and we ought to adopt the conference report, with the language prohibiting any price differential, and then wait until January. At that time, as chairman of the subcommittee, I say now, I shall ask them to send up all contracts in January so that we may ascertain exactly what they have done with respect to the so-called manpower rule No. 4. I think they understand how we in the Senate feel about the matter.

Mr. MAYBANK. Mr. President, I thank the Senator from Michigan. However, they understood how we felt for the past several years—at least in the past year, because we held several hearings on the matter, both while I was chairman and since the Senator from Indiana [Mr. Capehart] has been chairman. We got nowhere. I warn Senators that if we leave this WPA project in the bill and the $50 billion is made available, when we return in January there will be no $50 billion left.

Mr. KNOWLAND. Mr. President, will the Senator yield?

Mr. MAYBANK. I do not mean this entire amount. However, we are destroying free enterprise, and we have already destroyed certain industries in Arizona, New Mexico, and New Jersey. We are making a terrible mistake.

Mr. KNOWLAND. Mr. President, will the Senator yield?

Mr. MAYBANK. I yield.

Mr. KNOWLAND. The Senator says, and with considerable justification, that it has been going on for the past several years.

Mr. MAYBANK. I meant last year. This program was not actually implemented until this year.

Mr. KNOWLAND. The distinguished Senator from Arizona [Mr. Goldwater] pointed out an example of a plant in his State that was actually closed down, and the contracts given to someone who had had no previous experience in the business. I do not see how that could be justified under the spirit of the law, or on any basis of equity. I believe if a course of action like that should be followed in the future the officials who countenanced it would be subject to severe censure.

I point out to the distinguished Senator, however, that we have a new administration, and it has just come into office. I feel quite certain the new administration will not pursue any such policy as outlined by the distinguished Senator from Arizona. I will say that when the reports come in, which the distinguished chairman of the subcommittee, the Senator from Michigan, will request, if there are examples of that kind shown by the reports I will join with the Senator from South Carolina in jointly sponsoring legislation which will so tie the hands of the administration, even though it is the administration of my party, that it will not happen again.

However, in the plea to try to expedite our very heavy legislative program, and with the assurance that as acting majority leader, if need be, I shall be glad to join the Senator from South Carolina in introducing such legislation, I hope the distinguished Senator from South Carolina will not still persist in insisting that the report be sent back to conference.

Mr. MAYBANK. I appreciate what the distinguished Senator from California has stated, and I appreciate the fact that there is a new administration in office. I have no complaint with what he has stated. However, these situations have been occurring since the new administration has been in office. I wrote a letter to the Comptroller General, Mr. Lindsay Warren, and he replied that he would watch the program very carefully. We held meetings on the subject. I wanted to find out about it. Fifty billion dollars are available, and it will be spent. I do not know how much of it will be spent for contracts. However, I ask the Senate conferees to try to work out the matter with the conferees on the House side, and I be-

lieve we can word the amendment in such a way that we will be protected, but we will not be protected if we depend on an administrator acting under the authority of an Executive order.

Mr. FERGUSON. Because of the language involved, and because of what we were trying to do in the conference committee, I feel that during the closing hours of the Congress it would be difficult to agree upon another provision. If we do not want to hamstring the whole Defense Department in the matter of procurement, we would be better off to make them submit the contracts to us, so that we could see what they have done. That would permit the legislative committee to study the whole matter. The distinguished Senator from South Carolina is on the committee which would have jurisdiction over it. The Senator from Indiana (Mr. Capehart) is the chairman of the committee. Therefore, I believe we should approve the conference report, and then find out what is done in the next 6 months, and act accordingly, but act in a legislative manner.

Mr. CAPEHART. Mr. President, as chairman of the joint committee which has done a great deal of work on this subject, and will continue to do so, I feel that we certainly should see to it that the spirit and intent of the Senate is followed out. I do not believe that the Senator from South Carolina need fear about it from this time on. It will be handled properly. I do not believe the present administration will violate the spirit and intent of what we are trying to do, in view of the colloquy which has developed on the floor of the Senate.

Mr. MAYBANK. Mr. President, I was told that the Senator from California had discussed this matter with administration leaders. Would it be fair for me to ask about that?

Mr. KNOWLAND. Yes, I have taken it up with Mr. Dodge, the Director of the Bureau of the Budget. I can give the distinguished Senator from South Carolina my personal assurance that I will personally take up the matter with the President of the United States, because this matter is so fundamental, the record made by the Senate is so clear, and vote of the Senate on the question was so overwhelming that the administration should not fly in the face of the vote of the Senate. I will make it my personal business to follow up this matter, and I give the Senator from South Carolina my personal assurance in that regard.

Mr. MAYBANK. If the Senator from California is going to discuss the matter with the President, is he able to state now how the President feels about it?

Mr. KNOWLAND. No; I cannot speak for the President. But I give the Senator from South Carolina my assurance that I will take it up with the President and I will call to his personal attention the overwhelming vote in the Senate and the record of the debate in the Senate.

Mr. MAYBANK. The Senator from California said, I believe, that it is the President's intention to carry out the intent of Congress, as shown by the debate.

Mr. KNOWLAND. The President, not once, but on numerous occasions, has pointed out that he has a deep conviction that under our constitutional system the Congress is a coequal branch of the Government, and, of course, is the legislative branch.

Mr. MAYBANK. I assume that the Senator from California does not believe that bids should be called for and an award made to the lowest bidder, and then have someone who was not the low bidder be told, simply because he is located in a distress area, "If you meet the low bid, you will get the business."

Mr. KNOWLAND. No; I do not. I think that would be in violation of the entire theory of competitive bidding.

Of course, no one wishes to do harm to distress areas; and, of course, a low bidder whose place of business is located in a distress area would be entitled to the business. I shall even go so far as to say that if a new distress area developed, and if a bid made by a firm located in the distress area was the same as a bid made by a firm located outside the distress area, and if there were unemployment in the distress area, and no unemployment in the other area, it might be proper in a situation of that type to accept the bid by the firm located in the distress area where there was great unemployment.

But after the bids have been examined and after the low bid has been accepted, then to take the business away from the low bidder is not proper, it seems to me.

Mr. MAYBANK. How about the 80-hour week? Under the policy, there cannot be in excess of 80 hours of work in a week.

Mr. KNOWLAND. I am not prepared to discuss that.

Mr. MAYBANK. That is a very important point. It should be discussed.

Mr. HAYDEN. Mr. President, will the Senator from South Carolina yield on this point?

Mr. KNOWLAND. I yield.

Mr. HAYDEN. The law on this subject is the Defense Production Act of February, 19, 1948. Subsection (c) of section 2 reads as follows:

"(c) All purchases and contracts for supplies and services shall be made by advertising, as provided in section 3, except that such purchases and contracts may be negotiated by the agency head without advertising, if—

"(1) determined to be necessary in the public interest during the period of a national emergency declared by the President or by the Congress."

So there must be an emergency.

That puts the matter into the hands of the President, for him to make the determination.

Pursuant to that authority of law, I understand that Manpower Policy No. 4 was issued, and, according to the document before me, it was signed on February 7, 1952, by Mr. Wilson, the Director. Pursuant to Manpower Policy No. 4, the contracts have been let in distress areas.

So it seems to me the matter is entirely in the hands of the administration, because the law provides that the President can determine whether there is an emergency and the Secretary of Defense can modify his order of February 4, if he desires to do so.

Mr. KNOWLAND. I believe the Senator from Arizona is entirely correct in that regard.

Mr. HAYDEN. So the responsibility for correcting the situation is theirs; they have that power.

Mr. KNOWLAND. Yes; I think the responsibility rests upon the administration to make the correction.

Mr. HENDRICKSON. Mr. President, I should like to ask a question of the Senator from California. He stated that he had taken up this matter with the Director of the Bureau of the Budget.

Mr. KNOWLAND. Yes.

Mr. HENDRICKSON. Did the Director of the Bureau of the Budget indicate his attitude toward this problem?

Mr. KNOWLAND. Frankly, I do not feel at liberty to disclose the conversation with the Director of the Bureau of the Budget. But following the debate on the floor of the Senate, I immediately took up the matter with him. I told him of the debate and of the examples which had been referred to, and I said that in my judgment the new administratoin would do very well to read the debates on a key issue of this kind in the House and in the Senate; and particularly when such an overwhelming expression occurred in the Senate. I thought it would be a matter of good administrative practice to have the key policy-determining officials read the debates; and I called his attention to the day and the page and the subject matter.

Mr. HENDRICKSON. I thank the Senator from California.

The PRESIDING OFFICER. The question is on agreeing to the report.

The report was agreed to.

The PRESIDING OFFICER laid before the Senate a message from the House of Representatives announcing its action on certain amendments of the Senate to House bill 5969, which was read, as follows:

IN THE HOUSE OF REPRESENTATIVES, U.S.,
July 29, 1953.

Resolved, That the House recede from its disagreement to the amendment of the Senate numbered 23 to the bill (H.R. 5969) entitled "An at making appropriations for the Department of Defense and related independent agencies for the fiscal year ending June 30, 1954, and for other purposes," and concur therein;

That the House recede from its disagreement to the amendment of the Senate numbered 2, and concur therein with an amendment, as follows: After the word "amounts" and before the word "as", insert: "(not to exceed $10,000,000)."

That the House recede from its disagreement to the amendment of the Senate numbered 27, and concur therein with an amendment, as follows: In lieu of the matter stricken and proposed by said amendment, insert:

"SEC. 624. No appropriation contained in this act shall be available in connection with the operation of commissary stores of the agencies of the Department of Defense for the cost of purchase (including commercial transportation in the United States to the place of sale but excluding all transportation outside the United States) and maintenance of operating equipment and supplies, and for the actual or estimated cost of utilities as may be furnished by the Government and of shrinkage, spoilage, and pilferage of merchandise under the control

of such commissary stores, except as authorized under regulations promulgated by the Secretaries of the military departments concerned, with the approval of the Secretary of Defense, which regulations shall provide for reimbursement therefor to the appropriations concerned and, notwithstanding any other provision of law, shall provide for the adjustment of the sales prices in such commissary stores to the extent necessary to furnish sufficient gross revenue from sales of commissary stores to make such reimbursement: *Provided*, That under such regulations as may be issued pursuant to this section all utilities may be furnished without cost to the commissary stores outside the continental United States and in Alaska: *Provided further*, That no appropriation contained in this act shall, after December 31, 1953, be available in connection with the operation of commissary stores within the continental United States unless the Secretary of Defense has certified that items normally procured from commissary stores are not otherwise available at a reasonable distance and a reasonable price in satisfactory quality and quantity to the military and civilian employees of the Department of Defense: *Provided further*, That commissary stores are hereby authorized to be operated by private persons and privately owned organizations under such regulations as may be approved by the Secretary of Defense."

That the House recede from its disagreement to the amendment of the Senate numbered 29, and concur therein with an amendment, as follows: In lieu of the matter proposed by said amendment insert: ": *Provided*, That the officer of the Army now assigned as special assistant to the Comptroller, Department of Defense, shall, effective May 1, 1954, be considered to hold the grade of major general for all purposes, without regard to subsection (a) hereof, and while so serving shall receive the pay and allowances of an officer of that grade and his length of service, and when retired under any provision of law shall be advanced on the retired list to such grade and shall receive retired or retirement pay at the rate prescribed by law computed on the basis of the basic pay which he would receive if serving on active duty in such grade."

Mr. FERGUSON. Mr. President, I move that the Senate concur in the amendments of the House to the amendments of the Senate numbered 2, 27, and 29.

The motion was agreed to.

[From the Congressional Record, bound edition, vol. 99, pt. 8]

DEPARTMENT OF DEFENSE APPROPRIATION BILL—CONFERENCE REPORT

Mr. WIGGLESWORTH. Mr. Speaker, I call up the conference report on the bill (H. R. 5969) making appropriations for the Department of Defense and related agencies for the fiscal year ending June 30, 1954, and for other purposes, and I ask unanimous consent that the statement on the part of the managers be read in lieu of the report.

The Clerk read the title of the bill.

The SPEAKER. Is there objection to the request of the gentleman from Massachusetts?

There was no objection.

The Clerk read the statement.

The conference report and statement are as follows:

CONFERENCE REPORT (H. REPT. No. 1015)

The committee of conference on the disagreeing votes of the two Houses on the amendments of the Senate to the bill (H. R. 5969) making appropriations for the Department of Defense and related independent agencies for the fiscal year ending June 30, 1954, and for other purposes, having met, after full and free conference, have agreed to recommend and do recommend to their respective Houses as follows:

That the Senate recede from its amendments numbered 7, 13, 17, 18, 22, 25, 28½, 33, 35, 37, 38, 39, 42, 43, and 45.

That the House recede from its disagreement to the amendments of the Senate numbered 1, 4, 5, 6, 8, 10, 19, 24, 30, 31, 36, 40, 44, 46, and 48 and agree to the same.

Amendment numbered 3: That the House recede from its disagreement to the amendment of the Senate numbered 3, and agree to the same with an amendment, as follows: In lieu of the sum proposed by said amendment insert "$450,000"; and the Senate agree to the same.

Amendment numbered 9: That the House recede from its disagreement to the amendment of the Senate numbered 9, and agree to the same with an amendment, as follows: In lieu of the sum proposed by said amendment insert "$4,343,000,000"; and the Senate agree to the same.

Amendment numbered 11: That the House recede from its disagreement to the amendment of the Senate numbered 11, and agree to the same with an amendment, as follows: In lieu of the sum proposed by said amendment insert $195,000,000"; and the Senate agree to the same.

Amendment numbered 12: That the House recede from its disagreement to the amendment of the Senate numbered 12, and agree to the same with an amendment, as follows: In lieu of the sum proposed by said amendment insert "$943,000,000"; and the Senate agree to the same.

Amendment numbered 14: That the House recede from its disagreement to the amendment of the Senate numbered 14, and agree to the same with an amendment, as follows: In lieu of the sum proposed by said amendment insert "$720,000,000"; and the Senate agree to the same.

Amendment numbered 15: That the House recede from its disagreement to the amendment of the Senate numbered 15, and agree to the same with an amendment, as follows: In lieu of the sum proposed by said amendment insert "$3,313,839,000"; and the Senate agree to the same.

Amendment numbered 16: That the House recede from its disagreement to the amendment of the Senate numbered 16, and agree to the same with an amendment, as follows: In lieu of the sum proposed by said amendment insert "$115,000,000"; and the Senate agree to the same.

Amendment numbered 20: That the House recede from its disagreement to the amendment of the Senate numbered 20, and agree to the same with an amendment, as follows: In lieu of the sum proposed by said amendment insert "$3,155,000,000"; and the Senate agree to the same.

Amendment numbered 21: That the House recede from its disagreement to the amendment of the Senate numbered 21, and agree to the same with an amendment, as follows: In lieu of the sum proposed by said amendment insert "$3,285,000,000"; and the Senate agree to the same.

Amendment numbered 26: That the House recede from its disagreement to the amendment of the Senate numbered 26 and agree to the same with an amendment, as follows: In lieu of the matter stricken out and proposed by said amendment insert:

"SEC. 618. No appropriation contained in this Act shall be available for expenses of operation of messes (other than organized messes the operating expenses of which are financed principally from nonappropriated funds) at which meals are sold to officers or civilians except under regulations approved by the Secretary of Defense, which shall (except under unusual or extraordinary circumstances) establish rates for such meals sufficient to provide reimbursement of operating expenses and food costs to the appropriations concerned: *Provided*, That officers and civilians in a travel status receiving a per diem allowance in lieu of subsistence shall be charged at the rate of not less than $2.25 per day: *Provided further*, That for the purposes of this section payments for meals at the rates established hereunder may be made in cash or by deductions from the pay of civilian employees."

And the Senate agree to the same.

Amendment numbered 28: That the House recede from its disagreement to the amendment of the Senate numbered 28, and agree to the same with an amendment, as follows: In lieu of the matter stricken out and proposed by said amendment insert:

"SEC. 628. Notwithstanding any other provision of law, executive order, or regulation, no part of the appropriations in this or any other Act shall be available for any expenses of operating aircraft under the jurisdiction of the Armed Forces for the purpose of proficiency flying except in accordance with regulations issued by the Secretaries of the Departments concerned and approved by the Secretary of Defense which shall establish proficiency standards and maximum and minimum flying hours for this purpose, but not to exceed one hundred hours during the fiscal year 1954: *Provided*, That during the fiscal year 1954, without regard to any provision of law or executive order prescribing minimum flight requirements, such regulations may provide for the payment of flight pay at the rates prescribed in section 204(b) of the Career Compensation Act of 1949 (63 Stat. 802) to certain officers of the Armed Forces otherwise entitled to receive flight pay (1) who have held aeronautical ratings or designations for not less

than twenty years, or (2) whose particular assignment outside of the United States makes it impractical to participate in regular aerial flights."

And the Senate agree to the same.

Amendment numbered 32: That the House recede from its disagreement to the amendment of the Senate numbered 32, and agree to the same with an amendment, as follows: In lieu of the matter stricken out and inserted by said amendment insert:

"SEC. 635. Not more than 20 per centum of the appropriations in this Act which are limited for obligation during fiscal year 1954 shall be obligated during the last two months of the fiscal year: *Provided*, That this section shall not apply to active duty training of civilian components."

And the Senate agree to the same.

Amendment numbered 34: That the House recede from its disagreement to the amendment of the Senate numbered 34, and agree to the same with an amendment as follows: Restore the matter stricken by said amendment amended to read as follows:

"SEC. 640. No part of the funds appropriated in this or any other Act shall be available for the payment to any person in the military service who is resident of a United States Territory or possession, of any foreign duty allowances above the authorized allowances for comparable rating in the continental United States unless such person is serving in an area outside the Territory or possession of which he is a resident."

And the Senate agree to the same.

Amendment numbered 41: That the House recede from its disagreement to the amendment of the Senate numbered 41, and agree to the same with an amendment, as follows: In lieu of the matter proposed by said amendment insert ": *Provided further*, That no funds herein appropriated shall be used for the payment of a price differential on contracts hereafter made for the purpose of relieving economic dislocations"; and the Senate agree to the same.

Amendment numbered 47: That the House recede from its disagreement to the amendment of the Senate numbered 47, and agree to the same with an amendment, as follows: In lieu of the matter proposed by said amendment insert:

"SEC. 648. None of the funds appropriated in this Act shall be used for the expenses of operating the Armed Services Textile and Apparel Procurement Agency after December 31, 1953."

And the Senate agree to the same.

The committee of conference report in disagreement amendments numbered 2, 23, 27, and 29.

R. B. WIGGLESWORTH (except as to amendment No. 41),
ERRETT P. SCRIVNER,
GERALD R. FORD, Jr.,
EDWARD T. MILLER,
HAROLD C. OSTERTAG,
ROMAN L. HRUSKA,
JOHN TABER,
GEORGE MAHON,
HARRY R. SHEPPARD,
ROBERT L. F. SIKES,
CLARENCE CANNON,

Managers on the Part of the House.

HOMER FERGUSON,
STYLES BRIDGES,
LEVERETT SALTONSTALL (except amendment No. 41),
WILLIAM F. KNOWLAND,
RALPH FLANDERS,
CARL HAYDEN,
DENNIS CHAVEZ,

Managers on the Part of the Senate.

STATEMENT

The managers on the part of the House at the conference on the disagreeing votes of the two Houses on the amendments of the Senate to the bill (H.R. 5969) making appropriations for the Department of Defense and related independent agencies for the fiscal year ending June 30, 1954, and for other purposes, submit the following statement in explanation of the effect of the action agreed

upon and recommended in the accompanying conference report as to each of such amendments, namely:

TITLE I—INDEPENDENT AGENCIES

Amendment No. 1—National Security Training Commission, Salaries and expenses: Appropriates $55,000 as proposed by the Senate instead of $37,500 as proposed by the House.

TITLE II—DEPARTMENT OF DEFENSE

Office of the Secretary of Defense

Amendment No. 2—Retired pay: Reported in disagreement.

Amendment No. 3—Office of Public Information: Appropriates $450,000 for salaries and expenses, instead of $400,000 as proposed by the House and $500,000 as proposed by the Senate.

Amendments Nos. 4 and 5—Reserve tools and facilities: Appropriates $250,000,000 as proposed by the Senate instead of $500,000,000 as proposed by the House, of which not more than $50,000,000 may be used for purchase or acquisition of existing production facilities including lands, buildings, and appurtenances therefor, as proposed by the Senate instead of $100,000,000 as proposed by the House.

TITLE III—DEPARTMENT OF THE ARMY

Amendment No. 6—Military personnel, Army: Broadens language relating to educational services to include officers. This matter is dealt with on a departmentwide basis in section 641 of General Provisions.

Amendment No. 7—Military personnel, Army. Appropriates $4,708,859,000 as proposed by the House instead of $4,713,859,000 as proposed by the Senate.

Amendment No. 8—Maintenance and operations, Army: Strikes out language relating to training of civilian personnel as proposed by the Senate. This matter is dealt with on a departmentwide basis in section 608 of General Provisions.

Amendment No. 9—Maintenance and operations, Army: Appropriates $4,343,000,000 instead of $4,329,594,000 as proposed by the House and $4,355,750,000 as proposed by the Senate.

In part the action of the conferees restores funds to permit the Army to operate Fort Slocum, N.Y., for a classified project and for such other activities as are essential.

Amendment No. 10—Research and development, Army: Strikes out, as proposed by the Senate, the language of the House bill prohibiting maintenance of tire-testing facilities.

The conferees reiterate the House report in that none of the funds shall be used to maintain a tire-testing facility either in collaboration with the RFC or which would duplicate available commercial testing or testing facilities.

TITLE IV—DEPARTMENT OF THE NAVY

Amendment No. 11—Marine Corps troops and facilities: Appropriates $195,000,000 instead of $185,873,000 as proposed by the House and $200,864,500 as proposed by the Senate.

Amendment No. 12—Aircraft and facilities: Appropriates $943,000,000 instead of $927,000,000 as proposed by the House and $952,000,000 as proposed by the Senate.

Amendment No. 13—Aircraft and related procurement: Appropriates $1,379,000,000 as proposed by the House instead of $1,394,000,000 as proposed by the Senate. The conferees are agreed that no reduction is intended in the alkylate facilities program.

Amendments Nos. 14 and 15—Shipbuilding and conversion: Appropriate $720,000,000 instead of $691,500,000 as proposed by the House and $731,500,000 as proposed by the Senate.

Amendment No. 16—Civil engineering: Appropriates $115,000,000 instead of $114,700,000 as proposed by the House and $115,500,000 as proposed by the Senate.

Amendment No. 17—Service-wide operations: Appropriates $104,000,000 as proposed by the House instead of $104,234,000 as proposed by the Senate. The conferees agreed that within the total amount recommended, the Secretary of the Navy may establish within his office an office of analysis and review.

TITLE V—DEPARTMENT OF THE AIR FORCE

Amendment No. 18—Major procurement other than aircraft: Appropriates $600,000,000 as proposed by the House instead of $615,000,000 as proposed by the Senate. It is understood by the conferees that the Air Force can use any amount of the funds in this appropriaton deemed necessary for the procurement of electronics equipment.

Amendment No. 19—Maintenance and operations: strikes out language relating to training of civilian personnel as proposed by the Senate. This matter is dealt with on a department-wide basis in section 608 of General Provisions.

Amendment No. 20—Maintenance and operations: Appropriates $3,155,000,000 instead of $3,050,000,000 as proposed by the House and $3,169,862,500 as proposed by the Senate.

Amendment No. 21—Military personnel requirements: Appropriates $3,285,000,000 instead of $3,270,000,000 as proposed by the House and $3,300,000,000 as proposed by the Senate.

Amendment N o. 22—Research and development: Appropriates $440,000,000 as proposed by the House instead of $475,000,000 as proposed by the Senate.

TITLE VI—GENERAL PROVISIONS

Amendment No. 23: Reported in disagreement.

Amendment No. 24: Provides that family housing units constructed for the Alaska Communications System may not exceed a unit cost of $40,000 as proposed by the Senate.

Amendment No. 25: Restores the House limitation of $225 on the average per student cost for education of dependents of Department of Defense personnel.

Amendment No. 26: Restores the language of the House bill relating to the operation of certain messes, amended to apply the minimum per diem rate of $2.25 to officers and civilians in a travel status receiving a per diem allowance in lieu of subsistence.

Amendment No. 27: Reported in disagreement.

Amendment No. 28: This amendment, relating to proficiency flying, adopts the language proposed by the Senate with a minor modification governing the frequency of proficiency flying with respect to certain personnel outside the United States.

Amendment No. 28½: Restores the language of the House bill limiting the weight of any one shipment of household goods and personal effects to nine thousand pounds net.

Amendment No. 29: Reported in disagreement.

Amendment No. 30: Adopts the language of the Senate bill prohibiting use of funds for tuition or expenses for legal training except as regards those persons now attending law courses.

Amendment No. 31: Establishes a ceiling of $4,500,000, as proposed by the Senate on the funds provided in the bill for public information and public relations, instead of $5,000,000 as proposed by the House.

Amendment No. 32: Adopts the Senate language relating to limitations on obligations during the last two months of fiscal year 1954, modified to make it inapplicable to funds for active duty training of civilian components.

Amendment No. 33: Restores the House language relating to use of property, services, and commodities received from foreign countries in accordance with mutual defense agreements or occupational arrangements.

Amendment No. 34: Limits the restriction on payment of overseas allowances to military personnel resident in the territories or possessions and excludes civilian personnel as contemplated in the House provision.

Amendment No. 35: Corrects a section number.

Amendment No. 36: Modifies the prohibition in the House bill so as to permit use of appropriations in the bill for payment of tuition or expenses for off-duty training of officers up to and including the grade of first lieutenant in the Army and comparable grades in the other services.

Amendments Nos. 37, 38 and 39: Correct section numbers.

Amendment No. 40: Perfects the wording of the section.

Amendment No. 41: Modifies the Senate provision with respect to the utilization of appropriated funds under contracts entered into by the Department of Defense which may relate to the alleviation of economic dislocations in certain areas.

Amendments Nos. 42 and 43: Correct section numbers.

Amendment No. 44: Perfects the wording of the section.

Amendment No. 45: Strikes out the language inserted by the Senate providing for consolidation of military assistance funds allocated to the Department of Defense with appropriate appropriations for regular military functions.

The conferees are agreed that the situation surrounding the obligation and expenditure by the Department of Defense of militray assistance funds transferred to it by the Mutual Security Agency is completely unsatisfactory, but felt that effective corrective measures can only be taken by the agencies directly involved. Accordingly, the conferees direct that the Department of Defense, the Mutual Security Agency, the Bureau of the Budget, and the General Accounting Office consult with each other with the view of reaching an agreement satisfactory to all and one which will serve the best interests of the government. Certainly, the staff of the General Accounting Office that conducted an investigation on the utilization by the Department of Defense of military assistance funds can be employed to help establish better accounting procedures. The Bureau of the Budget might well consider the feasibility of invoking the provisions of Section 623 of the bill if it is deemed that such action would assist in improving the present fiscal processes as related to production and procurement of equipment and supplies for military assistance.

Amendment No. 46: Inserts the Senate provision prohibiting the use of funds appropriated by the bill for the purchase of passenger automobiles except for replacements.

Amendment No. 47: Provides, as proposed by the Senate, that none of the funds in the bill shall be used for expenses of operating the Armed Services Textile and Apparel Procurement Agency after December 31, 1953.

Amendment No. 48: Corrects section number.

R. B. WIGGLESWORTH (except as to amendment No. 41),
ERRETT P. SCRIVNER,
GERALD R. FORD, Jr.,
EDWARD T. MILLER,
HAROLD C. OSTERTAG,
ROMAN L. HRUSKA,
JOHN TABER,
GEORGE MAHON,
HARRY R. SHEPPARD,
ROBERT L. F. SIKES,
CLARENCE CANNON,
Managers on the Part of the House.

Mr. WIGGLESWORTH. Mr. Speaker, I ask unanimous consent to revise and extend my remarks and include certain extraneous matter.

The SPEAKER. Without objection, it is so ordered.

There was no objection.

Mr. WIGGLESWORTH. Mr. Speaker, this conference report has the distinction of carrying with it a total which is not only less than the total carried by the Senate bill, but also less than the total carried by the House bill.

The total of $34,371,541,000 carried in the report is $62,599,500 less than the total in the House bill and $139,761,000 less than the total carried in the Senate bill.

The total is $1,400,022,000 below the revised estimates submitted in May, and it is $6,348,390,000 below the budget figures submitted in January by President Truman.

Under leave to extend my remarks I include at this point in the Record a table entitled "Summary of Defense Appropriation Bill, 1954";

SUMMARY OF DEFENSE APPROPRIATION BILL, 1954

	Independent agencies	Office of Secretary	Army	Navy	Air Force	Total
Appropriations, 1953	$817,500	$409,800,000	$12,878,900,000	$12,842,459,642	$21,073,027,000	$47,185,004,142
Estimates, 1954:						
January	1,515,000	1,030,975,000	12,109,591,000	11,499,850,000	16,078,000,000	40,719,931,000
Revised	275,000	1,029,625,000	13,671,000,000	9,782,663,000	11,288,000,000	35,771,563,000
House	257,500	1,019,500,000	12,982,000,000	9,384,383,000	11,048,000,000	34,434,140,500
Senate	275,000	769,600,000	13,013,156,000	9,480,408,500	11,247,862,500	34,511,302,000
Conference	275,000	769,550,000	12,995,406,000	9,438,310,000	11,168,000,000	34,371,541,000
Conference comparison with:						
Appropriations, 1953	−542,500	+359,750,000	+136,506,000	−3,404,149,642	−9,905,027,000	−12,813,463,142
January estimates	−1,240,000	−261,425,000	+885,815,000	−2,061,540,000	−4,910,000,000	−6,348,390,000
Revised estimates		−260,075,000	−675,594,000	−344,353,000	−120,000,000	−1,400,022,000
House	+17,500	−249,950,000	+13,406,000	+53,927,000	+120,000,000	−62,599,500
Senate		−50,000	−17,750,000	−42,098,500	−79,862,500	−139,761,000

For all practical purposes, Mr. Speaker, this is a unanimous report.

I do not, therefore, care to comment at any length. However, in the interest of clarity it should be pointed out that the conferees do not intend through amendment 36 to eliminate correspondence or extension courses conducted by or through agencies of the Defense Department.

It may also be stated, in the light of inquiry, that section 640 of the bill is intended to include all foreign-duty allowances, including foreign-duty pay.

Having been compelled by illness to be absent when the bill was on the floor of the House, I want at this time to express my sincere appreciation to each of the other members of the subcommittee of which I have the honor to be the chairman.

Particularly to the gentleman from Kansas [Mr. Scrivner], chairman of the Subcommittee on Appropriations for the Air Force, who piloted the bill through the House with such great ability. Also to the gentleman from Michigan [Mr. Ford], chairman of the Subcommittee on Appropriations for the Army; to the gentleman from Maryland [Mr. Miller]; the gentleman from New York [Mr. Ostertag]; to the gentleman from Nebraska [Mr. Hruska], and to the three minority members on the committee; its former distinguished chairman, the gentleman from Texas [Mr. Mahon]; the gentleman from California [Mr. Sheppard]; and the gentleman from Florida [Mr. Sikes].

It has been a pleasure and a privilege to serve with all of them. Together they constitute one of the strongest committees I have ever been a member of.

I also want to express my thanks to the able members of our clerical staff, to Corhal Orescan, executive assistant of the committee; to Paul Wilson, Samuel Crosby, and Robert Michaels, executive assistants of the Subcommittees on Naval Appropriations, on Air Force Appropriations, and on Army Appropriations; and to Earl Silsby, assistant clerk of the committee. All of them have contributed greatly to the work of the committee.

Finally I want to express my thanks and the thanks of the committee to a group of gentlemen who, from patriotic motives, were good enough to come to Washington and to serve as consultants and investigators on the staff headed by Robert E. Lee, director of surveys and investigations for the subcommittee, with but few exceptions, without reimbursement except for expenses.

These gentlemen, for the most part, men who are or have been outstanding in their respective fields in private life, in part from the General Accounting Office, in the period of a few months available to them, made studies and submitted reports which were invaluable to the committee and which, I am sure, will prove of great assistance to the armed services in the long run. Old-timers in the Department have already testified to the value of the assistance rendered. I feel that the committee, the Congress, and the country are greatly indebted to these gentlemen.

With sincere appreciation I include the names of those who have contributed in this manner to the work of the Subcommittee on Appropriations for the Armed Services:

CONSULTANTS AND INVESTIGATORS—HOUSE APPROPRIATIONS COMMITTEE 1953

Belcher, Donald R., retired, American Telegraph and Telephone, 550 Prospect Street, Westfield, N.J.

Herbert, Carl P., director, St. Paul Research Bureau, 332 Cedar Street, St. Paul, Minn.

Kracke, Edward A., CPA, Haskins & Sells, 67 Broad Street, New York, N.Y.

DEPARTMENT OF DEFENSE

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Shipway, George E., United States Steel Corp., 71 Broadway, New York, N.Y.

Towns, Charles H., CPA, 80 Broad Street, New York, N.Y.
Witwer, George R., Gulf Oil Corp., Gulf Building, Pittsburgh.

FROM THE GENERAL ACCOUNTING OFFICE

Brassfield, Karney A.; Schaffer, Edward; Almy, Merwin; Allen, Grandison; Bacon, Donald; Butt, Clyde; Chaney, Robert; Charam, Philp; Nutis, Michael; Ross, Lehman; Rowe, Maurice; Sabatino, Lawrence J.

Mr. McCORMACK. Mr. Speaker, will the gentleman yield?

Mr. WIGGLESWORTH. I yield.

Mr. McCORMACK. I want to ask a question of my friend, but before doing so I know I express the feelings of all of our colleagues at seeing the gentleman from Massachusetts (Mr. WIGGLESWORTH) recovered. Without regard to party, all of us have followed the gentleman's illness, and we are glad to have him back with us, looking well and functioning again with his usual degree of ability and activity.

I remember well and always shall the fact that he and I were sworn in together the same day, coming from adjoining districts; our districts join one another; and we both succeeded Members of Congress who were called into the Great Beyond. We were both elected at special elections, both elected at the same time, not only for the remaining term but for the next term, and have been in this body ever since, both of us being first elected in 1928 to fill an unexpired term. I have always enjoyed my relationship and friendship with my friend, and I am very glad to see him recovered and back with us.

Mr. WIGGLESWORTH. I thank my congressional twin and good friend over the years, the distinguished former majority leader, for his kind remarks. I am very happy to be back again, and am grateful for his consideration.

Mr. McCORMACK. There is just one question, as the gentleman well remembers, in relation to sending business into distressed areas of the country. I know there has been some kind of harmonizing effect, at least I understand there has been brought about by the conferees. I would appreciate it if my friend the gentleman from Massachusetts (Mr. WIGGLESWORTH) would give us the benefit of what the conference committee did in that particular matter.

Mr. WIGGLESWORTH. I may say to the gentleman that the amendment to which he refers is amendment No. 41 the pending bill.

As adopted in the other body it was very difficult to understand its exact meaning. It was, however, apparently directed towards changing our entire policy in respect to distressed areas. Some people were afraid it might also change our policy in respect to small business and in respect to the Walsh-Healey Act.

Personally I felt that the whole language should be thrown out of the bill and that the matter of awarding contracts should be left in the discretion of the Government officials as it is now, any instructions to these officials being incorporated in the conference report.

The conferees however determined to put language in the bill and this language is certainly far better than what I understand to have been intended by the original Senate language. Its general effect is to allow things to continue as they have in the past subject only to the fact that no price differential shall be allowed in contracts assigned to distressed areas.

Mr. PERKINS. Mr. Speaker, will the gentleman yield at that point?

Mr. WIGGLESWORTH. I yield.

Mr. PERKINS. If I understand correctly, there has not been any contract negotiated, that is, from the differential angle at a figure above the low bid under the Defense Manpower Policy No. 4, which was issued on February 7, 1952. Is that correct?

Mr. WIGGLESWORTH. I think some contracts may have been, but I do not think many.

Mr. PERKINS. But if I understand the language in the amendment today the policy makes it possible that contracts may be negotiated in these distressed critical areas where we have a substantial labor surplus, by permitting firms located in the distressed or critical areas to match the best price obtainable elsewhere. Is that correct?

Mr. WIGGLESWORTH. If the price is the same in both, the contract would presumably go to the distress area. It is left in the discretion of the officials of the department, as it always has been.

Mr. McCORMACK. In other words, the Executive Office of the President and the action taken in relation to distressed and critical areas is not barred. While I

agree with the gentleman from Massachusetts it is not as I would like to see it, nevertheless, the conferees have worked out a situation where in distressed and critical areas the bidder in those areas meeting the price can be given consideration deemed necessary from an economic angle.

Mr. WIGGLESWORTH. The gentleman is correct.

Mr. MORANO. Mr. Speaker, will the gentleman yield?

Mr. WIGGLESWORTH. I yield to the gentleman from Connecticut.

Mr. MORANO. This does not make it mandatory upon the executive department to award that contract?

Mr. WIGGLESWORTH. There is nothing mandatory in the law and there never has been. It is in the discretion of the department officials under existing policy.

Mr. PERKINS. Mr. Speaker, will the gentleman yield for a further observation?

Mr. WIGGLESWORTH. I yield to the gentleman from Kentucky.

Mr. PERKINS. In a letter from the Office of Defense Mobilization, signed by Arthur S. Fleming, he made the statement that since March 1952, approximately $52 million of department procurements have been awarded to the distressed and critical areas and in no instance has a contract been awarded above the low bid.

Mr. WIGGLESWORTH. The same policy will continue in the future.

Mr. MORANO. Is it not so that there are maney other factors that have to be considered outside of price in awarding a contract; therefore, the executive branch needs some discretionary authority?

Mr. WIGGLESWORTH. I think it needs some discretionary authority. It has had it heretofore and it will continue to have it.

Mr. GOLDEN. Mr. Speaker, will the gentleman yield?

Mr. WIGGLESWORTH. I yield to the gentleman from Kentucky.

Mr. GOLDEN. Does the Maybank amendment placed in the bill by the other body, or does the report of the conferees, change the policy heretofore adopted by the Government to allow new industries dealing with defense contracts, in distressed areas, to charge certain portions of their costs off as taxes? Does it touch on or interfere with that policy in any way?

Mr. WIGGLESWORTH. I do not think that the basic law is changed in any way.

Mr. GOLDEN. The gentleman thinks that the policy heretofore adopted by the Defense Department and by the Labor Department to shunt into distressed areas certain Government contracts will and can prevail if they meet the requirements heretofore exacted of those parties?

Mr. WIGGLESWORTH. I think it will and can provided there is no price differential.

Mr. GOLDEN. If they meet the low bid then they have the preference heretofore given them?

Mr. WIGGLESWORTH. They are in the same position as heretofore and can be awarded the contract in the discretion of the proper department official.

Mrs. ROGERS of Massachusetts, Mr. Speaker, will the gentleman yield?

Mr. WIGGLESWORTH. I yield to the gentlewoman from Massachusetts.

Mrs. ROGERS of Massachusetts. I shall request that a list of the States that have been favorably affected by the distressed area provision and which the Maybank amendment would benefit be inserted as a part of the RECORD as well as certain statements by the United Textile Workers and other material.

I do not want to ask too many questions as the able gentleman is back on duty after a severe illness. I rejoice in his recovery. I do think this is an improvement over the Senate amendment, and I congratulate the gentleman. He has always been able to take care of himself. We in the North know only too well that in the past years laws and regulations have, in general, worked to the disadvantage of northern industry and labor.

The following is a statement from the United Textile Workers of America:

UNITED TEXTILE WORKERS OF AMERICA,
Washington, D.C., July 27, 1953.

To the Members of the Appropriations Committees of the House and Senate:

The Maybank rider, H.R. 5969, to section 643 of the defense appropriations bill, is a cruel blow to labor surplus areas and will cause added suffering in distressed textile communities.

Defense Manpower Policy No. 4, originated in 1950, supplemented by announced objectives in 1952 and directives in 1953, has helped to lift the textile industry out of a depression by providing contracts for idle mills and jobs for the workers.

This rider, passed by the Senate, is a clear repudiation of President Eisenhower's pledges to the unemployed of New England. We would call to your

particular attention the public detailed statements issued by Senator SALTONSTALL under dates of July 21 and 22, wherein he vigorously opposed the rider, documented the number of States and cities assisted by DMP No. 4, outlined the benefits to workers and small business, and warned against the disastrous effect of its passage.

The Congress cannot in all fairness and justice pass a bill for the defense of our country, and at the same time with the rider device strike a mortal blow at the defenders.

We urge your consideration and favorable action for the elimination of the Maybank amendment.

Very truly yours,

ANTHONY VALENTE,
International President.
LLOYD KLENERT,
International Secretary-Treasurer.

AREAS ASSISTED BY DMP NO. 4

State	Group IV areas	Total value of awards under DMP 4, Mar. 20, 1952–Feb. 30, 1953
Connecticut	Danielson, until Feb. 6, 1953; Norwich, until Feb. 6, 1953	
Illinois	Crab Orchard area; Danville, until Apr. 10, 1953	$543,574
Indiana	Terre Haute; Vincennes; Connersville, until Feb. 6, 1953; Muncie, until June 27, 1952; Richmond, until Dec. 3, 1952.	2,144,184
Maine	Biddeford, until Feb. 6, 1952; Lewiston, until Feb. 6, 1952	
Maryland	Cumberland	
Massachusetts	Brockton, until Dec. 3, 1952; Fall River, until June 2, 1953; Lawrence; Lowell; Milford, until Apr. 10, 1953; New Bedford, until Apr. 10, 1953; Taunton, until Apr. 10, 1953.	7,063,950
Michigan	Iron Mountain; Bay City, until June 27, 1952; Detroit, until May 23, 1952; Flint, until May 23, 1952; Grand Rapids, until May 23, 1952; Ionia-Beldin, Greenville, until Dec. 3, 1952; Port Huron, until Dec. 23, 1952.	4,558,099
Missouri	Joplin, until Feb. 6, 1953	
New Hampshire	Manchester, until Oct. 1, 1952; Nashua, until Oct. 1, 1952	1,104,10
New Jersey	Atlantic City	
New York	Gloversville; New York City, until Oct. 1, 1952; Utica-Rome until June 2, 1953	26,918,074
North Carolina	Asheville; Winston-Salem	328,821
Ohio	Portsmouth, until Aug. 30, 1952	
Pennsylvania	Altoona; Johnstown; Pottsville; Scranton; Sunbury-Shamokin-Mount Carmel; Uniontown-Connellsville; Wilkes-Barre; Reading, until July 29, 1952.	4,614,609
Rhode Island	Providence area	4,993,896
Washington	Tacoma	
West Virginia	Parkersburg; Point Pleasant; Ronceverte-White Sulphur Springs	117,129
Wisconsin	LaCrosse, until Dec. 3, 1952	139,31

Percentage of firms eligible for textile set-asides by States

COTTON, SILK, AND RAYON

	Percent
Arkansas	50
Connecticut	54.5
New Hampshire	25
New Jersey	66.7
Indiana	50
Pennsylvania	20
Texas	42.9
Rhode Island	42.9
Massachusetts	11.8

WOOLEN TEXTILES

Connecticut	33.3
Maine	30
Massachusetts	50
New Hampshire	18.8
New Jersey	37.5
New York	60
Tennessee	50
Ohio	50

Mr. WIGGLESWORTH. I thank the gentlewoman.

Mr. RILEY. Mr. Speaker, will the gentleman yield?

Mr. WIGGLESWORTH. I yield to my good friend the gentleman from South Carolina.

Mr. RILEY. Knowing the gentleman's long time concern to get the military to practice economy and to obtain value received for the money which they have to spend, does the gentleman believe that this procedure will make for good bidding and will get the lowest bid, or will it simply get bids to be used in shopping around in these surplus labor areas? Does he not believe that this is bad practice and will lead to confusion in the military procurement offices and cause them not to practice the economy that the committee has been trying to get them to practice?

Mr. WIGGLESWORTH. I am told that in certain instances present policy has resulted in saving money rather than increasing the amount expended. The policy is based upon very broad considerations and I should be loathe to see it materially changed without very careful study.

Mr. RILEY. This is equivalent to changing the basic law?

Mr. WIGGLESWORTH. No, I do not think so.

Mr. RILEY. Which the Congress passed requiring competitive bids and that the contract be awarded to the lowest bidder?

Mr. WIGGLESWORTH. It is the same policy that has prevailed for several years. The conference report makes no change except to assure that there is no price differential.

Mr. RILEY. It is equivalent, though, to taking the low bid and then seeing whether or not certain interests are willing to meet that bid, is that not correct? Is that not a bad policy to adopt, and could not this problem be resolved in some other way?

Mr. WIGGLESWORTH. If the Government gets the low bid, it seems to me it obtains all it can hope to.

Mr. RILEY. If it is awarded on the basis of the low bid, I have no criticism whatsoever. But, if you take the low bid from one firm and use that bid to shop with some other firm, I do not think that is good business, and I do not think that is in line with the competitive system which has been in vogue in this country for so many years.

Mr. SHEPPARD. Mr. Speaker, will the gentleman yield?

Mr. WIGGLESWORTH. I yield to the gentleman from California.

Mr. SHEPPARD. I would like to ask my chairman this question. In the operation the gentleman just referred to, on which he responded, it is not the intent of the committee to in any manner offset the function of the low-bid operation under existing law.

Mr. WIGGLESWORTH. I understand that will be the policy if this conference report is adopted.

Mr. SHEPPARD. And it is the intent of the committee that that practice shall be followed?

Mr. WIGGLESWORTH. That is my understanding.

Mr. OSTERTAG. Mr. Speaker, will the gentleman yield?

Mr. WIGGLESWORTH. I yield to the gentleman from New York.

Mr. OSTERTAG. I want to point out that the low bid under the provisions of this amendment would prevail; in other words, the price differential is eliminated; therefore, there is no discrimination as between bidders. It must be a low bid before a contract can be awarded. It is just a matter of possible assignment of the award, provided the bids were equal.

Mr. WIGGLESWORTH. Mr. Speaker, I now yield 5 minutes to the gentleman from Georgia [Mr. BROWN].

Mr. BROWN of Georgia. Mr. Speaker, the other body adopted an amendment to H.R. 5969 and provided that none of the funds appropriated in the Department of Defense appropriations, 1954, shall be available for expenditure under any contract without regard to the provisions of law relating to the making, performance, amendment, and modification of contracts, for the purpose of correcting or preventing economic dislocations.

It is my understanding that the conferees added new language which in my opinion destroys the effect of this amendment. This means that defense contracts will continue to be channeled without regard to the lowest bid price. I cannot believe that the conferees really intended to destroy the effect of this amendment, and I hope that this can be corrected before the bill becomes law and that the funds appropriated will be limited to defense purposes.

The amendment provided that none of the funds appropriated could be expended to correct or prevent unemployment.

The conference report would allow the agency-designated unemployed areas to match and take away the bids of other areas, without regard to how high the competitive bid of the unemployed area may have been.

The conference report would extend beyond defense manpower policy No. 4 in one respect, for under defense manpower policy No. 4 the unemployed area must bid on an advertised competitive bid and come within 20 percent of the lowest bidder in order to match and take away the contract from the low bidder. Under the conference report there would be no requirement that any competitive bid be made in order for the manufacturer in the unemployed area to take away the contract of the low bidder.

It has been the responsibility of the Joint Committee on Defense Production, of which I am a member, to see that the intent of Congress is carried out by Government agencies in the expenditure of funds under the Defense Production Act. Defense manpower policy No. 4 was issued by the Office of Defense Mobilization with an effective date of February 7, 1952, and described by Mr. Arthur S. Flemming at the time as being simply a program designed to alleviate unemployment.

I became alarmed over the fact that our defense funds were to be expended to carry out an order of a Government agency contrary to the provisions of the Defense Production Act. As soon as I learned that this order was to be issued, a hearing was called on February 6, 1952. Prior to the hearing, the Joint Committee on Defense Production was not advised as to what substantive provision of law the Office of Defense Mobilization relied on as authority for defense manpower policy No. 4, and no such authority has been set forth in the order or notification issued thereunder.

In the hearings, the Office of Defense Mobilization has relied on the Defense Production Act and the Armed Services Procurement Act of 1947 as authority for this order which has the effect of destroying our system of free, competitive enterprise in contracting and authorizes prices in agency-designated areas in excess of the lowest bid prices. According to the present Director of the Office of Defense Mobilization this price differential might be 5 percent or 10 percent or whatever seems to be appropriate.

As to the Defense Production Act, the Comptroller General advised the Director of the Office of Defense Mobilization on January 14, 1952, that there is nothing in the Defense Production Act of 1950, as amended, which, of itself, authorizes generally the negotiation of Government contracts or a disregard of normal Government procedures. When the Defense Production Act Amendments of 1953 were passed that part of the act on which the Office of Defense Mobilization relied as authority for defense manpower policy No. 4 was deleted.

As to the Armed Services Procurement Act of 1947, the Comptroller General advised that section 2 (c) (1) authorizes the negotiation of contracts without advertising when determined by the agency head to be necessary in the public interest during the period of a national emergency declared by the President; however, despite such authority, he stated that it would not normally be in the public interest for the military departments to make awards of contracts to a firm or group of firms when it is known at the time that the services or supplies are obtainable elsewhere at a lower price.

I challenge the proponents of this discriminatory policy to cite any section of the Armed Services Procurement Act of 1947, or of the Defense Production Act which authorizes Government procurement to be used for the purposes of correcting or preventing unemployment problems, and I also challenge the advocates of this policy to cite any section of either of these acts which would authorize contracts to be negotiated at price differentials of 5 percent or 10 percent, or whatever seems to be appropriate. Since the Congress of the United States did not authorize price differentials in the Armed Services Procurement Act of 1947, or in the Defense Production Act, how can the Director of the Office of Defense Mobilization authorize price differentials?

The question that this amendment presents to this body is simply one of whether defense funds shall be used for purposes not authorized by the Congress and in direct conflict with the provisions of the Armed Services Procurement Act of 1947.

The vast majority of statements which have been made on this subject in the other body favor the amendment and take the view that this amendment would encourage free competitive enterprise as opposed to personal Government. It was the intent of Congress, as expressed in the reports which accompanied the

Armed Services Procurement Act of 1947, that (a) the Government as a purchaser will receive the best bargain available, and (b) that suppliers in a position to furnish the Government's requirements will have a fair and equal opportunity to compete for a share in the Government's business. The policy of the Office of Defense Mobilization is in direct opposition to the stated language, for the Government as a purchaser is not receiving the best bargain available and there is not a fair and equal opportunity to compete.

In my own State of Georgia, where the textile manufacturers justifiably take pride in their efficient operations, there has been a penalty placed on this efficiency when they bid for a share of Government procurement. These mills operate with 3 shifts, since 3-shift operations are more economical and more efficient. Under notification 38 the Government gives a preference in the placement of contracts to those mills which operate 80 hours or less per week.

On May 4, 1953, in a hearing before the Joint Committee on Defense Production, the present Director of the Office of Defense Mobilization stated that it makes no sense for the Federal Government to follow a procurement policy which would attempt to alleviate a labor surplus situation in one place and create a serious labor surplus situation in another place. He further stated that the Federal Government has no business doing anything of that kind. Yet the record bears out the fact that the Office of Defense Mobilization in attempting to alleviate unemployment in one location has caused serious unemployment in other locations. Manufacturers have established themselves in distress labor areas for the purpose of obtaining a preference in Government procurement. The sparsely settled areas, where labor surveys are not conducted, have suffered under this policy.

A parachute manufacturer went into business in Phoenix, Ariz., at the request of the armed services in order to disperse the parachute industry. Two hundred and fifty seamstresses were employed and trained. The time came for bidding and the Phoenix company made a lower bid than any other bidder. A Brooklyn concern which was not in a labor-surplus area was able to match the bid and open a factory in Massachusetts, thereby closing down the Phoenix factory with the result that 250 seamstresses were thrown out of work, while other workers were trained in Massachusetts.

Defense manpower policy No. 4 in effect tells the businessman to submit the lowest bid he can to the Government. Yet when he has gone to the expense of arriving at and submitting the lowest bid, he is told that someone in another location can take a look at his bid and have the privilege of taking the bid by virtue of being located in a favored area. This not only is opposed to our system of contracting but will cost the people millions of dollars due to the fact that businessmen will be discouraged from bidding if they know that the business will be placed in the favored areas anyway. The executive branch of the Government should discontinue writing orders which permit moving the economy from one place to another at will, thereby creating more unemployment and dislocations than they solve.

In summarizing, I am opposed to defense manpower policy No. 4 for the following reasons:

First Defense manpower policy No. 4 is an agency order which violates the provisions of the Armed Services Procurement Act of 1947 and has no authority under the Defense Production Act both of which are acts of Congress.

Second. The Director of the Office of Defense Mobilization has stated that price differentials under defense manpower policy No. 4 might be 5 percent or 10 percent or whatever seems to be appropriate.

Third. Defense manpower policy No. 4 does not afford an equal opportunity for suppliers in a position to furnish the Government's requirements to compete for a share in the Government's business, and does not assure the Government that it shall received the best bargain available, as required under the Armed Services Procurement Act of 1947.

Fourth. Defense manpower policy No. 4 discriminates against small business in sparsely settled areas of the country in that they are not classified as labor-surplus areas due to their limited population.

Fifth. Defense manpower policy No. 4 places a premium on inefficiency in the textile industry in that mills which operate 80 hours or less per week are given a preference, whereas the most economical operation is a 3-shift operation.

Sixth. Defense manpower policy No. 4 discourages bidding on defense contracts, since there is no assurance that the low bidder will receive the award.

Seventh. Defense manpower policy No. 4 violates the intent of Congress, as set forth in the reports which accompanied the Armed Services Procurement Act of 1947, in that advertising was to continue to be the rule and negotiation the permissible exception. Advertising was to be used if (a) specifications are definite, (b) there are several sources of supply, and (c) genuine price competition.

Eighth. Negotiation has been used for the purpose of solving unemployment problems, whereas it was the intent of Congress that negotiation be used to effect savings for the Government and to intensify competition. The Office of Defense Mobilization has not cited any specific case where negotiation has been used to effect savings for the Government or to intensify competition.

Ninth. The negotiation of contracts during a period of a national emergency when necessary in the public interest means interest of the Federal Government, but the Office of Defense Mobilization has interpreted public interest to mean savings in unemployment compensation, preventing lost taxes and reduced sales, idle machines, impact on communities, and relief payments—all of which are more appropriately under the jurisdiction of other departments, agencies, and committees.

Tenth. Defense manpower policy No. 4 is opposed to our free competitive enterprise system in that contracts are awarded on a sectional basis with a major part of the United States being discriminated against for the favored few.

Eleventh. The reports accompanying the Armed Services Procurement Act of 1947 state that advertising continues to be the rule, negotiation the permissible exception, and that advertising will be used by the departments even when a negotiated contract is authorized if in their best judgment it can be expected to give satisfactory results. There has been no showing that advertising would have failed to give satisfactory results.

Twelfth. Defense manpower policy No. 4 places additional controls on industry at a time when it is the declared policy to abolish controls.

Mr. HOWELL. Mr. Speaker, will the gentleman yield?

Mr. BROWN of Georgia. I yield to the gentleman from New Jersey.

Mr. HOWELL. I want to compliment the gentleman on his statement and associate myself with him in his remarks. It is my hope, and I hope that of the gentleman from Georgia, that the Senate may still insist on changing this amendment when the report comes to the other body.

The gentleman has alluded to an incident occurring in my district. That worked a severe hardship on this company up there, which has for years been supplying the Government with parachutes. It has done a wonderful job, helped the Government in research and development, and been useful to the Government in every way. The application of this manpower regulation has threatened actually to put them out of business at the present time. I do not think the amendment as presently compromised will serve any really useful purpose in altering that kind of situation.

Mr. BROWN of Georgia. This will create unemployment in the gentleman's community?

Mr. HOWELL. Very definitely. We have been close to being a balanced employment area, but this will threaten us very seriously.

Mr. WIGGLESWORTH. Mr. Speaker, I yield 5 minutes to the gentleman from South Carolina [Mr. RIVERS].

Mr. RIVERS. Mr. Speaker, I support the Maybank amendment. We should not change it. This is a bad way to get started. Last year we got on the ball when we had another amendment up and defeated it, because it was wrong morally. We joined in the unmitigated vituperation of the Truman administration when he was a party to this unholy sort of procedure. That is not right.

You know what this thing is about. There is no use to clothe it in any velvet gloves. You are trying to stop a law of nature, which you cannot do. You cannot come on the floor of this Congress and by an act of Congress reverse the economic law under which we exist, just as some of these glossy-eyed people in the former administration got up here and tried to legislate the social conditions of this country. It just cannot be done.

We are sorry for the textile industry in New England, but economic law moved their industries in some other direction. If a man cannot meet a contract on a competitive basis he has no business with the contract. Let us have an out-and-out relief program and help these people if you think that is the way to go about it, but do not let a man get a contract under the guise of competitive bidding when you take another man's bid and show it to John Smith and say, "If you can match this, it is yours."

Gentlemen that is not right, and if you do this thing to us, you are creating wounds that will be aggravated in the future and we will not forget it. We will not like it and we will not forget it. I say to you now not to rub salt in our wounds because there was a time when the only friends you had on this side were the so-called Southern Democrats.

Mr. SCRIVNER. Mr. Speaker, will the gentleman yield?

Mr. RIVERS. I will have to yield to the gentleman, if he will give me an extra minute.

Mr. SCRIVNER. I call the attention of the gentleman from South Carolina that this is an appropriation bill and not a legislative matter, and that the gentleman, as a member of the Committee on Armed Services, can very well remedy the legislative provisions which have, by the way, been in existence more than 3 years.

Mr. RIVERS. I thank the gentleman. He has brought up something that I was not going to mention. Some members of your Committee on Appropriations have been participating in their favorite pastime of legislating on the appropriation committee for the 13 years that I have been here. My chairman is sitting right there, the gentleman from Missouri, DEWEY SHORT, and he knows we have been appealing to you time and time again because of legislation upon appropriation bills. I do not think you ought to do that. Let us do the legislating.

The SPEAKER. Does the gentleman from South Carolina [Mr. RIVERS] yield, and if so, to whom?

Mr. RIVERS. I have to yield if I cannot talk.

Mr. PERKINS. Mr. Speaker, will the gentleman yield?

Mr. RIVERS. I yield.

Mr. SCRIVNER. Mr. Speaker, I yield the gentleman 1 minute.

Mr. RIVERS. I thank the gentleman.

Mr. PERKINS. Mr. Speaker, I can readily understand the viewpoint of the gentleman from South Carolina. I have always felt that our Government should have some policy to alleviate unemployment conditions in labor-surplus areas and especially at a time when there are many tight labor-market areas throughout the Nation. This proposal does not add any additional cost to the Government. It simply affords an opportunity to the distressed or critical areas to meet the low bid. There is no evidence that this provision has ever been abused since the policy order was issued in 1952. In times like these, it is not a good idea to compel our Government to place defense contracts solely in areas where there is no unemployment without giving consideration to the distressed areas. Since the issuance of this order there has not been any contracts negotiated on the price differential angle as provided for in basic law to distressed areas. This amendment eliminated all price differentials in this appropriation bill as pertaining to distressed areas.

The SPEAKER. The gentlemen will be seated. The gentleman from South Carolina has the floor.

Mr. RIVERS. Thank you, sir, I appreciate that. I did not know it.

Let me answer the gentleman now. We have a few of these distressed areas ourselves. We have a few of these distressed people in my part of the world. I represent them, too, gentlemen. I am in the same business, you know, looking out for my people. Just remember that, and I want to tell you this: If you want a relief bill, I will help you. I have always tried to help you people. I have never had a yoke around my neck. I have done as I pleased on this floor. But do not come up here thinking that, under the guise of competitive bidding, you can take the strong arm of the Government and take a man's contract when he is a taxpayer, too. That "jest ain't right."

Mr. DAVIS of Georgia. Mr. Speaker, will the gentleman yield?

Mr. RIVERS. I yield.

Mr. DAVIS of Georgia. I join in what the gentleman has said and also in what the gentleman from Georgia [Mr. Brown] has said. This is a serious matter to us as well as to these other areas.

I have listened with great interest to the discussion of the language proposed in place of the amendment of the Senate numbered 41. It seems to me that an effort is being made here to discriminate against the textile industry in my section and also to add to the burdens of taxation.

There is certainly nothing fair in a system which undertakes to operate on a competitive bid basis, but when the bids are all in it permits high bidders to take another bite at the cherry and say whether or not they will meet the lowest competitive bid. As I understand the discussion we have had here this morning, that is exactly what is proposed to be done if the Senate amendment is altered by the proposed language. It is certainly discriminatory to permit in-

dustries in these so-called critical labor areas to get preferential treatment of this kind. It would be discrimination enough to give such areas preference where equal bids were submitted. But to open the bids, permit a high bidder to revise his bid to meet the price submitted by the low bidder, and then give him a preference is an unconscionable act, and one which will not be tolerated by those who believe in fair dealing.

A bidder, whether he operates in the South, North, East, or West, is entitled to compete on equal terms. If bidders in other sections cannot obtain contracts on that basis, successful bidders should not be discriminated against by coddling those people who, for whatever reason, are not able to meet competition. The burdens of the taxpayers should not be increased by following any such course of conduct. It will increase the taxpayers' burden. It will discourage bids from those who are deprived of a contract which is rightfully theirs because of a low competitive bid, and will have a tendency to increase cost to the Government.

If industries in any area are to be subsidized, then let it come as a subsidy so we will all know what it is costing the Government and the taxpayers. I protest any such roundabout method of subsidizing industry as would be involved in a system of this kind.

Mr. Speaker, I ask unanimous consent to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from Georgia?

There was no objection.

Mr. RIVERS. Could the chairman give me another 3 minutes please? I will yield to the gentleman from Michigan [Mr. Ford], if he will give me a couple of extra minutes. I yield to the gentleman from Michigan.

Mr. FORD. A few minutes ago the gentleman said the Committee on Appropriations had put this amendment, the Maybank amendment in the bill. That is not accurate.

Mr. RIVERS. No, I did not say that.

Mr. FORD. The Committee on Appropriations took no legislative action with reference to this point. It was the action of the senior Senator from South Carolina who put legislation on an appropriation bill. We did not want the legislation there.

Mr. RIVERS. Of ccurse, you did not. I know that. I know you did not want it. That is why you are trying to change it. The amendment of Senator Maybank is right. I know the gentleman will agree that sometimes his committee legislates.

Mr. FORD. We did not in this case.

The SPEAKER. The time of the gentleman from South Carolina has expired.

Mr. RIVERS. Mr. Speaker, will the chairman give me 2 more minutes?

Mr. WIGGLESWORTH. I promised the gentleman from Texas [Mr. Mahon] some time.

Mr. RIVERS. You promised me 1 minute.

Mr. WIGGLESWORTH. The gentleman got his 1 minute.

Mr. RIVERS. Just 1 minute, please.

Mr. WIGGLESWORTH. Mr. Speaker, I yield the gentleman 1 additional minute.

Mr. MCCARTHY. Mr. Speaker, will the gentleman yield?

Mr. RIVERS. I yield.

Mr. MCCARTHY. I think what the gentleman in really telling the House is that the second era of reconstruction ended with the election of 1952.

Mr. RIVERS. I knew I should not take a chance on you.

Let me tell you one thing. We never came to you or to anybody else with our hats in our hands on election day or in any economic way. We never had the Marshall plan in my country when we lost the War Between the States. But I want to tell you this, we have come up the hard way in my country. We have cottonfields close to the industry and you cannot stop that economic law. If you cram this thing down our throats, remember you are going to need us in the days to come because you have a very small minority on my left here.

Mr. WIGGLESWORTH. Mr. Speaker, I yield 8 minutes to the distinguished gentleman from Texas [Mr. Mahon].

Mr. MAHON. Mr. Speaker, as the Members of the House know, I have been quite out of step with some of the provisions in the military appropriation bill this year; but it would not be profitable at this time to discuss those views since the decisions have already been made. But I do think it would be wise to shed a little more light on this issue which is here involved, as to relieving conditions, economic conditions, in distressed areas by a certain procedure in letting defense contracts.

There are two ways whereby business enterprises are being discriminated against. Let us take first the matter of textiles. Here is the way the Department

of Defense lets contracts for textiles, and here is the reason why you people in South Carolina cannot hope to get equality of treatment in bidding for textile business in these instances.

Officials do not let the contract for all the textiles. They just let a contract for a fraction of the textiles required. That is what they do first. They ask for bids on a portion of the textiles required.

After they have asked for bids on a portion of the textiles, the manufacturers in the distressed areas, they have bid within 20 percent of the average of the four lowest bidders outside the distressed areas, then the manufacturing people in the distressed areas get the bid, and under the system as it now works the individual manufacturer does not have to come down to the low bid. His bid has to be on par with the average of the four lowest bids. So, in textiles, the contract does not go to the low bidder. Besides that, the great bulk of the contract is let, not by competitive bidding but by negotiation after the price has been established by this competitive bid system on a fraction of the requirements.

When we were in the time before the truce period, and when we were at the height of the fighting in the Korean war, it was a little different situation. Everybody is sympathetic, I think, to people in the distressed areas. I certainly am. But we have removed controls. Generally speaking, the American people have been sold on the free enterprise system. It is the best system to know about. But this system which I have described is not in keeping with the principles of the free enterprise system.

My own area is in no way involved. National defense spending is high already and it should not be further increased by giving these contracts to people who are not the low bidders.

Another thing that is happening is that the program is discouraging bidding in the nondistressed areas, because prospective bidders say, "We will not get the contract, why should we spend the time and money bidding." So you have fewer bids and the normal range of the bids is higher, so that the taxpayer is being penalized by a system that is not proper and which is contrary to the free enterprise system.

I thought and still think that the other body was correct in adopting an amendment making it impossible to let contracts on the basis of anything other than the free enterprise system. I was however in the minority in the conference.

The other type of favoritism that is practiced has to do with nontextile military goods. On nontextile military goods the bid in the distressed area has to be within 20 percent of the four lowest bidders. Officials take the bid of the man in the nondistressed area, then go shopping around in the distressed areas, and then give it to the man in the distressed area, but in nontextile goods the bidder has to meet the lowest bid. Of course, under the language of the compromise, in textiles the manufacturers, say, in New England, will have to meet the lowest bid, but the lowest bid is getting higher and higher because the people know they cannot get a proper opportunity at these bids in the nondistressed areas.

Now we are going into a little more unemployment as we move along by reason of the fact that we have reached the peak in defense production, and more and more areas are on the borderline as to whether or not they are in economic distress, and perhaps failure to give a contract in a nondistressed area will produce a condition where that area will be in distress. It is a difficult decision for defense officials to make; the policy is administratively unsound. The legislation is not mandatory, but Executive Order No. 4 makes it mandatory from the standpoint of the Department of Defense and officials follow this long, drawn-out, expensive practice, which it seems to me we should abolish.

Mr. GROSS. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield briefly to the gentleman from Iowa.

Mr. GROSS. Does the gentleman remember that only last year this House rejected a proposal to make it mandatory that defense contracts be funneled into surplus manpower areas? Is an attempt being made here today in this bill to circumvent the will of the Congress as expressed last year?

Mr. MAHON. This would certainly circumvent the will of the other body as expressed in amendment No. 41, and it does not seem to me to be good business. I only take the floor to point out what the situation actually is.

Mr. GROSS. May I further point out to the gentleman that an amendment which would have stripped the President of even discretionary power to channel defense contracts into manpower surplus areas was lost here in the House last

year on a tie vote. The gentleman from Texas is to be commended for bringing this present situation to the attention of the House.

Mr. MAHON. I do not remember about that, but let me say that as we get more and more unemployment and as we get fewer defense contracts there is going to be more opportunity for favoritism and politics in the letting of contracts. Defense contracts should not be let on the basis of favoritism and politics.

Mr. Speaker, under leave granted me I now insert in the record a further statement in support of my position on this subject.

Defense manpower policy No. 4 was issued by the Director of Defense Mobilization on February 7, 1952. It established a Surplus Manpower Committee. It required the Defense Manpower Administration of the Department of Labor to certify to the committee the existence of surplus labor areas under standards to be established by the Department of Labor. Finally, it required the committee to make findings and to report to the Director of Defense Mobilization regarding existence of labor surpluses and production tools, together with recommendations, when appropriate that—

The public interest dictates the need for the negotiation of Government contracts, at reasonable prices, in such areas although lower prices might otherwise be obtainable elsewhere, in order to achieve the purposes of this policy.

The Government purchasing agency members of the committee objected to the vagueness of this language, although many other committee members were urging that price differentials be used in carrying out this policy. Finally, the Government purchasing agencies were, on November 28, 1952, able to issue an implementing statement that—

Price differentials are not now authorized under this policy. In the event such differentials are authorized, a supplemental directive will be issued.

Price differentials are elusive things. Our system of competitive bidding is supposed to cause the Federal Government buyer to say to American businessmen qualified to supply the goods:

"Give me your best quotation for this. If you are the low bidder and if you offer material in accordance with the specifications you get the business."

What does defense manpower policy No. 4 require? When it was implemented by the Department of Defense, the Government's biggest buyer, it provided that—

In conducting the above negotiations, it is permissible to reveal the amount of the low acceptable proposal, but not the identity of the firm or cost information pertaining to such proposal.

This is a far cry from the free enterprise system.

Many distinguished people have stated that the application of this policy has not cost the taxpayers extra money. I contend that when you permit any bidder, regardless of whether his plant is in Massachusetts or Texas, to take a look at the price of a bidder who would otherwise be low, you not only give the "free peeker" an unfair advantage but, more importantly, you definitely discourage every distressed area bidder from submitting his best price at the start, or perhaps, if the bidder is not in an area to be given this extraordinary preference, you may discourage his bidding at all. True competition, from which best prices stem, demands that all qualified sources, large and small, bid on Government offerings. I submit that when a qualified bidder submits a low bid, he should have assurance his bid will be accepted. It costs money to prepare a sound bid, sometimes thousands of dollars.

Operations under this policy have delayed the placement of contracts and therefore the final delivery of supplies. In testimony before the Joint Committee on Defense Production, May 4, 1953, the Chief of the Armed Services Textile and Apparel Procurement Agency staff stated that the policy caused an additional delay of 30 to 45 days in awarding contracts. This same witness furnished definite information to the committee that the operation of the policy increased administrative costs—still met by the taxpayer—together with a specific case in early 1953 where, despite his ability to place the whole order for not more than $1.808 per yard, he was forced to pay in a subsequent procurement brought about by this policy $2.64 per yard. A total of $22,200 more was paid as a direct result of this policy.

The CONGRESSIONAL RECORD of July 22 contains a number of examples of this extra burden of cost. The Security Parachute Co., San Leandro, Calif., was stated to have offered a price of $63.20 each for more than 100,000 parachutes. A major portion of the contract was awarded to a distressed labor area firm at a unit price of $67.

The performance record under this policy indicates that we have been creating unemployment in some areas while trying to alleviate it in others. Further, in the textile field it penalizes the firm which has had enough initative to obtain work requiring 3-shift operations in favor of firms who have only been able to get to 2 shifts.

In closing, records indicate that of a total of $1.8 billion worth of contracts placed in distressed areas in a 14-month period, only 3 percent of that total was placed as a result of this policy. This is proof enough that, despite extra costs of material, extra administrative costs, and delayed deliveries, the policy is unsound and has produced negligible results.

Mr. BAILEY. Mr. Speaker, will the gentleman yield?

Mr. MAHON. I yield.

Mr. BAILEY. The gentleman mentioned the increasing number of areas that are becoming distressed areas because of the letup in defense spending. Does not the gentleman think it would be an excellent plan for the administration immediately to get started on a well-planned system of public works so as to take up the slack in employment?

The SPEAKER. The time of the gentleman from Texas has expired.

Mr. WIGGLESWORTH. Mr. Speaker, I yield 2 minutes to the gentleman from Kentucky [Mr. PERKINS].

Mr. PERKINS. Mr. Speaker, I feel that the distinguished gentleman from Texas [Mr. MAHON] did not give the House all the facts. It is true that back prior to World War II and in the early part of the war, there were contracts negotiated by the payment of price differentials in order to utilize surplus labor in the Nation. This is not the case here today.

The defense manpower policy number 4 was created pursuant to an Executive order on February 7, 1952. This policy did authorize the payment of price differentials, but none have been paid. The first critical or distressed area in accordance with the classification of the Office of Defense Mobilization was not so classified until February 21, 1952.

I personally feel that the price differentials can be justified when we take into consideration these critical areas with the high labor-surplus market. The Congress should do something to encourage the development of industry in these areas, and certainly should permit the Defense Department to award contracts in these areas where it will not cost the Government one penny extra. That is the proposal. It eliminates the price differential and provides that the existing industry in the labor-surplus area may have an opportunity to match the low bid. That is, if there is not a variation of more than 20 percent.

Personally I believe that the Office of Defense Mobilization and the Department of Labor will be reluctant to take necessary steps for a tax amortitation plan for industries who may be induced to go into these critical areas, unless we approve this proposal.

Much of the section of Kentucky that I represent now has a surplus-labor market, and those counties should have th opportunity to sell coal and lumber to the Defense Department, especially since there will be no additional cost to the Government. I am unable to go along with the idea that this is a relief proposal. Back home this is the first time that many of the counties could be classified as distressed areas. We all deplore bad economic conditions but these areas deserve the breaks. Kentucky industries have not lost one dime by reason of defense manpower policy No. 4. No other areas have taken any contracts from Kentucky. I would like to read from a letter addressed to the Honorable Styles Bridges, chairman of the Senate Appropriations Committee, which will be inserted in the Appendix of the Record, signed by Arthur S. Flemming, Director of the Office of Defense Mobilization:

"Critics of defense manpower policy No. 4 have pointed out that this policy authorizes the payment of price differentials. I feel very strongly that the Government should procure goods and services at the lowest prices obtainable. Throughout the existence of defense manpower policy No. 4, price differentials have never been authorized or used."

So the statement of the gentleman from Texas is not entirely correct.

Mr. Flemming further states:

"Because of my strong opposition to their use, and to assure that defense manpower policy No. 4 will not be utilized in such a manner that the Government will have to pay more for the goods it procures than would otherwise be the case, I have asked for the preparation of an amendment to defense manpower

policy No. 4 prohibiting the use of price differentials and I plan to issue this amendment shortly."

In view of the statement of Mr. Flemming, I am unable to see where there can be any valid objection to this policy.

Mr. WIGGLESWORTH. Mr. Speaker, I yield 5 minutes to the gentleman from Kansas [Mr. Scrivner].

Mr. SCRIVNER. Mr. Speaker, I am sure we are all happy to see the gentleman from Massachusetts [Mr. Wigglesworth] has recovered from his recent illness and is back with us on the floor today.

There are many other items of importance in this bill and in the conference report besides amendment No. 41, which has shown the confusion that exists and the reason why it should be treated as a legislative matter in a legislative bill or by Executive order rather than by an attempt to write provisions at this time.

One of the matters that was discussed when the bill was before the House and upon which an amendment was offered in the Senate, with which the House has agreed, relates to the matter of proficiency flying in the Air Force. Those who were interested in that matter will be glad to know that this new amendment and the new practice to be followed leaves most of it entirely up to the Secretaries of the services, with approval of the Secretary of Defense, with a maximum of 100 hours of proficiency flying. In some cases it can very well be a few hours each week while in other cases the full 100 hours may be necessary. To make it possible for the older flying officers who have qualified and who have the know-how of flying to receive their flying pay without requirements of compulsory flying, if they have had this flying rating for 20 years or more they will during this year continue to receive the flying pay without the necessity of burning up the gasoline and wearing out the planes, as they have in the past.

Mr. SHORT. Mr. Speaker, will the gentleman yield?

Mr. SCRIVNER. I yield to the gentleman from Missouri.

Mr. SHORT. Of course, it takes many thousands of dollars to keep a plane in operation in order for one officer to draw a very meager pay.

Mr. SCRIVNER. Our figures show it costs at least $10,000 to make it possible for one of these officers to procure his flying pay of $1,800 or $2,000 a year.

The other situation relates to a small group of officers whose assignments are such that they cannot have access to either fields or planes whereby they may keep up their requirements for flying pay. They are performing a very valuable service for the Government, and we permit the Secretary of Defense to make it possible for these officers to get their flying pay for this period of special service without making those proficiency flights.

Mr. SIKES. Mr. Speaker, will the gentleman yield?

Mr. SCRIVNER. I yield to the gentleman from Florida.

Mr. SIKES. Before my distinguished colleague leaves this subject of flying pay, I wish he would emphasize the point—and all of the conferees were in agreement on this—that if the Department of Defense does not during this year write stringent regulations into the flight pay operation, that the Congress itself is going to find it necessary to do so. We have seen so many evidences of abuse of the privilege of flying pay, and we are determined to take it into our own hands if the Department will not stop those abuses.

Mr. SCRIVNER. The gentleman is absolutely correct, and without going into details, we had altogether too many instances of where this was being used purely for unprofitable flying, such as hunting trips, golf trips, pleasure trips—along with other abuses not necessary to detail here.

Mr. SHORT. Mr. Speaker, if the gentleman will yield, the Committee on Armed Services is wholeheartedly in support of the Committee on Appropriations on this particular point.

Mr. SCRIVNER. I thank the gentleman.

There is one other point that some concern was expressed over, namely, the limitation of the obligation of 20 percent of the appropriation in the last 2 months of the year. Some Members who are interested in the training of the reserves and the National Guard thought that this might interfere with their activities in May and June. So, we have excepted the obligation from this limitation of 20 percent.

In conclusion, Mr. Speaker, I feel that the House military subcommittee has done an excellent job not only in the original bill, but in this conference report. We did not get our way on as many points as we might have wished, but we cannot expect to get our way on all matters in conferences.

I want to point out in conclusion that as far as money is concerned, this conference report comes back to the House for approval with an item of $62,599,000 less than our figure and $139,761,000 less than the Senate figure.

Mr. WIGGLESWORTH. Mr. Speaker, I yield 1 minute to the gentleman from Michigan [Mr. Ford].

Mr. FORD. Mr. Speaker, the Army part of this conference report will permit the Army to continue its strength buildup and to handle its assigned military responsibilities during this fiscal year.

Mr. Speaker, at this point I ask unanimous consent to include as part of my remarks chart data showing what the effect of the conference report will be on the Department of the Army.

The SPEAKER. Is there objection to the request of the gentleman from Michigan?

There was no objection.

Mr. FORD. The data is as follows:

Appropriation summary, 1954, Department of the Army

Appropriations, 1953	$12,858,900,000
Budget estimates, 1954:	
Original	12,109,591,000
Revised	13,671,000,000
House bill	12,982,000,000
Senate bill	13,013,156,000
Conference bill	12,995,406,000
Conference bill compared with:	
Appropriations, 1953	+136,506,000
Original estimates	+885,815,000
Revised estimates	−675,594,000
House bill	+13,406,000
Senate bill	−17,750,000

COMPARISON OF CONFERENCE BILL WITH ACTION OF BOTH HOUSES, BY APPROPRIATION ITEM (ONLY 2 ITEMS IN CONFERENCE)

Item	House bill	Senate bill	Conference bil
Military personnel	$4,708,859,000	$4,713,859,000	$4,708,859,000
Maintenance and operations	4,329,594,000	4,355,750,000	4,343,000,000

Note: Net increase over House bill, all in appropriation item "Maintenance and operations," $13,406,000.

Mr. WIGGLESWORTH. Mr. Speaker, I move the previous question on the conference report.

The previous question was ordered.

The conference report was agreed to.

The SPEAKER. The Clerk will report the first amendment in disagreement.

The Clerk read as follows:

Senate amendment No. 2: Page 4, line 8, after the figure, insert "and, in addition, the Secretary of Defense may transfer from other appropriations available to the Department of Defense such amounts as may be necessary."

Mr. WIGGLESWORTH. Mr. Speaker, I move that the House recede and concur in the Senate amendment with an amendment.

The Clerk read as follows:

Mr. WIGGLESWORTH moves that the House recede from its disagreement to the amendment of the Senate numbered 2, and concur therein with an amendment as follows: After the word "amounts" and before the word "as", insert "(not to exceed $10,000,000)."

The motion was agreed to.

The SPEAKER. The Clerk will report the next amendment in disagreement.

The Clerk read as follows:

Senate amendment No. 23: Page 37, line 6, after "concerned", insert "; and all necessary expenses, at the seat of government of the United States of America or elsewhere in connection with (1) instruction and training, including tuition, specifically approved by the Secretary of the Department concerned and not otherwise provided for, of civilian employees, and (2) communication and other services and supplies as may be necessary to carry out the purposes of this act."

Mr. WIGGLESWORTH. Mr. Speaker, I move that the House recede and concur in the Senate amendment.

The motion was agreed to.

The SPEAKER. The Clerk will report the next amendment in disagreement.

The Clerk read as follows:

Senate amendment No. 27: On page 46, strike out all of section 624 and insert the following:

"SEC. 624. No appropriation contained in this act shall, after December 31, 1953, be available in connection with the operation of commissary stores, within the continental United States, of the agencies of the Department of Defense, unless the Secretary of Defense has certified that items normally procured from commissary stores are not otherwise available at a reasonable distance and a reasonable price in satisfactory quality and quantity to the military and civilian employees of the Department of Defense, and that privately operated organizations are unwilling or unable to operate on military reservations, such commissaries to provide necessary goods and services at reasonable rates and in the quality and quantity required: *Provided*, That commissary stores are hereby authorized to be operated by private persons and privately owned organizations under such regulations as may be approved by the Secretary of Defense."

Mr. WIGGLESWORTH. Mr. Speaker, I move that the House recede and concur in the Senate amendment with an amendment.

The Clerk read as follows:

Mr. WIGGLESWORTH moves that the House recede from its disagreement to the amendment of the Senate numbered 27, and concur therein with an amendment, as follows: In lieu of the matter stricken and proposed by said amendment, insert the following:

"SEC. 624. No appropriation contained in this act shall be available in connection with the operation of commissary stores of the agencies of the Department of Defense for the cost of purchase (including commercial transportation in the United States to the place of sale but excluding all transportation outside the United States) and maintenance of operating equipment and supplies, and for the actual or estimated cost of utilities as may be furnished by the Government and the shrinkage, spoilage, and pilferage of merchandise under the control of such commissary stores, except as authorized under regulations promulgated by the Secretaries of the military departments concerned, with the approval of the Secretary for reimbursement therefor to the appropriations concerned and, notwithstanding any other provision of law, shall provide for the adjustment of the sales prices in such commissary stores to the extent necessary to furnish sufficient gross revenue from sales of commissary stores to make such reimbursement: *Provided*, That under such regulations as may be issued pursuant to this section all utilities may be furnished without cost to the commissary stores outside the continental United States and in Alaska: *Provided further*, That no appropriation contained in this act shall, after December 31, 1953, be available in connection with the operation of commissary stores within the continental United States unless the Secretary of Defense has certified that items normally procured from commissary stores are not otherwise available at a reasonable distance and a reasonable price in satisfactory quality and quantitiy to the military and civilian employees of the Department of Defense: *Provided further*, That commissary stores are hereby authorized to b e operated by private persons and privately owned organizations under such regulations as may be approved by the Secretary of Defense."

The motion was agreed to.

The SPEAKER. The Clerk will report the next amendmnet in disagreement.

The Clerk read as follows:

Senate amendment No. 29: Page 54, line 5, insert ": *Provided*, That the officer of the Army now assigned as special assistant to the Comptroller, Department of Defense, shall, effective upon the date of enactment of this act, be considered to hold the grade of major general for all purposes, and while so serving shall receive the pay and allowances of an officer of that grade and his length of service, and when retired under any provision of law shall be advanced on the retired list to such grade and shall receive retired or retirement pay at the rate prescribed by law computed on the basis of the basic pay which he would receive if serving on active duty in such grade."

Mr. WIGGLESWORTH. Mr. Speaker, I move that the House recede and concur in the Senate amendment with an amendment.

The Clerk read as follows:

Mr. Wigglesworth moves that the House recede from its disagreement to the amendment of the Senate numbered 29, and concur therein with an amendment, as follows: In lieu of the matter proposed by said amendment insert ": *Provided*, That the officer of the Army now assigned as special assistant to the Comptroller, Department of Defense, shall, effective May 1, 1954, be considered to hold the grade of major general for all purposes, without regard to subsection (a) hereof, and while so serving shall receive the pay and allowance of an officer of that grade and his length of service, and when retired under any provision of law shall be advanced on the retired list to such grade and shall receive retired or retirement pay at the rate prescribed by law computed on the basis of the basic pay which he would receive if serving on active duty in such grade."

The motion was agreed to.

A motion to reconsider the votes by which action was taken on the several motions was laid on the table.

Mr. LANHAM. Mr. Speaker, I ask unanimous consent to extend my remarks at this point in the Record.

The SPEAKER. Is there objection to the request of the gentleman from Georgia?

There was no objection.

Mr. LANHAM. Mr. Speaker, I want to commend my colleague, Congressman Paul Brown, for his statement relative to amendment 41 to the bill under discussion which relates to the awarding of contracts for purchases made by the armed services to other than the lowest bidder. I have consistently fought the application of manpower order No. 4, which authorized the letting of contracts to other than the lowest bidder for the reason that I am sure it is unsound procurement practice and an unjustified effort to handle the problems of unemployment which have existed in certain sections of our Nation.

While the bill to extend the Defense Production Act during June of last year was before the House, I offered an amendment which provided:

SEC. 301(c). No rule, regulation, order or policy issued under this act shall order the awarding of contracts or the procurement of materiel or supplies in areas of current or imminent labor surplus and any such rule, regulation, order or policy heretofore issued is hereby rescinded.

This amendment of mine was defeated because of a tie vote in the Committee of the Whole House on the State of the Union. My amendment was offered as a substitute for one offered by Congressman, now Senator, Potter of Michigan, which would have specifically authorized the letting of contracts to manufacturers in distressed labor areas without regard to the lowest bidder. After the defeat of the amendment I offered, the House soundly defeated the amendment of Mr. Potter. I respectfully insist that this vote of the House disclosed very clearly that the majority of the Members of the House do not approve of this unsound procurement practice of letting contracts to other than the lowest bidder. It is my understanding that the Senate wrote into the present appropriaion bill now under consideration a provision similar to the amendment I offered last year which would have prevented the awarding of contracts on this unsound basis. It is to be regretted that the House refused to accept the Senate version of this prohibition against such practice and wrote instead amendment No. 41, which merely prevents the use of any of the appropriated funds for the payment of a price differential to sellers in distressed labor areas.

Since the House has adopted the conference committee report, it is my hope that the Senate will refuse to adopt it until and unless its prohibition against such procurement practices is adopted by the conferees.

Mr. ALEXANDER. Mr. Speaker, I ask unanimous consent to extend my remarks at this point.

The SPEAKER. Is there objection to the request of the gentleman from North Carolina?

There was no objection.

Mr. ALEXANDER. Mr. Speaker, I am very unhappy about one particular provision in the conference report as agreed to by the conferees on H.R. 5969, which deals with Department of Defense appropriation bill for 1954.

Under section 41 of the bill, Senator Maybank had added a proviso that none of the funds appropriated by this act shall be available for expenditure under any contract without regard to the provisions of law relating to the making, performance, amendment, and modification of contracts, for the purpose of correcting or preventing economic dislocations.

Under the conference report this particular amendment was superseded by the following: *Provided further*, that no funds herein appropriated shall be used

for the payment of a price differential on contracts hereafter made for the purpose of relieving economic dislocations.

Now, the difference in these two amendments is very great. I feel that if we are to operate under free-enterprise system and to operate our Government for the best interest of all concerned, that we must award these contracts under competitive bidding. As I understand the latter amendment, which is adopted by the conference report, contracts can be awarded by negotiation to manufacturers in the so-called economic distress areas so long as they are able to do the work at as cheap a price as the lowest bid. Now, I have the greatest sympathy for the areas which are having economic trouble due to lack of work. However, it is fundamental that contracts be made on sealed basis and in a fair and equitable manner and be awarded to the lowest competitive bidder who gives the best bid, irrespective to where the bidder might be located. I realize that there is nothing that I can say in regard to this matter which will change the votes in regard to this bill. However, I could not sit still and fail to register my protest in regard to this phase of this particular bill.

SMALL BUSINESS SET-ASIDE

Senator YOUNG. Off the record.

[Brief discussion off the record.]

Senator YOUNG. Back on the record.

Senator HATHAWAY. I should point out, Mr. Chairman, this program has been used with respect to small business set-aside; it has helped small businesses considerably throughout the country, but not as much as we would like to see it help small business. Where a portion of the contract is set aside for small businesses exclusively, it has helped them immeasurably and I think this would be true if it were applied to areas of high unemployment.

Senator YOUNG. Does the Maybank amendment affect minority groups? I was here when that was written into the Appropriations Bill but I forgot whether it has an effect on minority groups or not.

Senator HATHAWAY. Not directly. You may be thinking that within the labor surplus program there is a preference given for those employers who hire the disadvantaged, and one group within this class called disadvantaged is the minority groups. Another group is those under 22 and over 45; another group is those who have dropped out; another group is those who are actually physically or mentally handicapped.

I might say, Senator Pastore and I had a colloquy on the floor in regard to this when I offered the amendment on the floor and withdrew it. I withdrew it because Senator McClellan and Senator Pastore said that they wanted to hold hearings on this before dropping it. I understand both are interested.

Senator YOUNG. Have they held those hearings?

Senator HATHAWAY. This is the first opportunity.

Senator YOUNG. Off the record.

[Brief discussion off the record.]

DOD POSITION PAPER ON PROPOSED AMENDMENT

Senator YOUNG. The Subcommittee has requested the Department of Defense to state its position on that provision of section 723 to which Senator Hathaway has testified. The DOD position will be inserted in the record upon receipt and a copy will be provided to Senator Hathaway.

[The information follows:]

POSITION PAPER ON THE PROPOSED AMENDMENT TO SECTION 723 OF THE GENERAL PROVISIONS OF THE DEFENSE BUDGET FOR FISCAL YEAR 1975

This amendment would remove a prohibition the DoD Appropriations Act has contained since FY 1954 which states, "Provided further, That no funds herein appropriated shall be used for the payment of a price differential on contracts hereafter made for the purpose of relieving economic dislocations."

On the several past occasions that the DoD has been requested to comment on the removal of this prohibition, we have expressed the view that removal was not in the national interest. Inevitably, any action by the Congress to remove the prohibition will raise in the minds of some people the belief it is the intent of Congress that we should pay a price differential.

The primary reason for removing the language apparently would be to permit the total set-aside of procurements for labor surplus areas. We believe that total labor surplus set-asides are undesirable and would impair efficient Defense procurement.

Total set-asides would jeopardize the making of awards to firms best qualified to produce the desired quality of materiel and to meet operational readiness dates. The strongest guarantee that we are obtaining fully qualified contractors for each procurement is to conduct free and open competition, and to make awards on the basis of merit to that producer who can offer the best equipment at the lowest overall cost to the Government. This means that we are interested in the most efficient producers wherever they may be located.

Total set-asides of procurements for labor surplus areas could, in many cases, result in the payment of a higher price for the items procured. Some might point to total set-asides for small business concerns as a precedent for using such a procedure to assist firms in labor surplus areas. However, there are substantive differences in the effects on Defense procurement of total set-asides in each case. First, the universe of contracts appropriate for total small business set-asides is for all practical purposes controlled by the lack of capability of small firms to perform contracts over a certain dollar size. For example, in FY 1973, small businesses were awarded only 11 of the 424 DoD contracts of $10,000,000.00 or more. In any case, natural conditions have historically limited the potential for total small business set-asides to under 6% of our annual procurement award dollars. Secondly, where 100% set-asides are appropriate all small firms in the country can compete. In the case of total labor surplus set-asides, exactly the reverse situation would prevail, i.e., most Defense contracts would be potential set-asides and the number of firms eligible to compete for them would be limited thus restricting competition to a far greater degree than is true with respect to small businesses. We believe this would impose additional costs on Defense contracts in terms of higher prices paid and in the administration of a vastly expanded Labor Surplus Program which although we cannot quantify with precision we would expect to be substantial.

One hundred percent set-asides based on discretionary determinations as would be permitted by such an amendment would invite intense pressures on our contracting officials from local communities and their representatives. Our experience is that the more marginal the case, the more intense these pressures are likely to be. Not only does this introduce administrative delay and frustration to all concerned, but it fosters the making of bad decisions through taking unwise risks in deciding whether a procurement should be restricted or not. Procurements are carried out in hundreds of offices employing thousands of personnel. Where discretionary decisions subject to intense outside pressures are involved, our job of assuring the soundness and objectivity of the procurement process is vastly complicated.

It is doubtful that procurement set-asides would permanently alleviate the unemployment problems of communities because many of our contracts, placed to relieve unemployment, would involve performance extending over a relatively short time. If, on the next procurement, the community had moved out of the labor surplus classification, it might then be denied the right to participate, and the work would be shifted elsewhere. The first community, as a result, might drop back into a labor surplus status, thus setting in motion an uneconomic cycle of rising and falling employment, with Defense procurement being used to perpetuate unsound economic conditions, which in turn would increase our risk of not

being able to procure reliable military materiel. This problem would be magnified many times if the program were expanded because of 100% set-asides.

We should also point out that an expanded Labor Surplus Area Program might work to the disadvantage of small business. In FY 1973, small business received 20.5% of DoD prime contract award dollars, of which 5.8% was as a result of set-sides. Thus, for 14.7 small business set-asides were not deemed appropriate. Small business firms won these in competition with large firm. If we use 100% labor surplus set-asides these procurements might well be awarded to large firms in labor surplus areas rather than to small business firms. The point is that we are adding another condition to the procurement which the small firms would have to meet i.e., labor surplus and which might well confer no advantages they do not already possess in unrestricted competition.

Under the present partial set-aside regulations, small business receives the largest share of Defense labor surplus award dollars (73.4%). Should we initiate total labor surplus set-asides, the mall business participation in these procurements would probably decrease as contract quantities would no longer be split into small economic segments which generally are more conducive to performance by small business.

Finally, a substantial portion of Defense contracts are placed in labor surplus areas already and without the use of total set-asides. In FY 1973, $12 billion or 37.5% of Defense contract award dollars were to firms located in labor surplus areas, and these firms won the awards on the basis of merit and efficiency.

The Defense Department should and will continue to make every opportunity available to firms located in labor surplus areas to compete for procurement awards. Beyond this, the utilization of procurement to relieve problems of economic dislocation would be detrimental to Defense readiness and would not be in the national interest. Therefore, we do not support the proposed amendment to the Defense Appropriations Act.

Senator YOUNG. Back on the record.

The committee has four questions. Do you want to answer them for the record?

Senator HATHAWAY. Yes.

OPERATION OF PREFERENCE CATEGORIES IN TOTAL SET-ASIDE

Senator YOUNG. On pages 4 and 5 of your statement, where you describe the procedure for awarding a contract under a partial labor surplus area procurement, you mention three categories of preferences. I assume that the purpose of these preference categories is to give those firms located in areas having the highest rate of unemployment the first chance at matching the low bid price established for the unrestricted portion of the procurement.

Would you tell us how these preference categories would operate in the context of a total set-aside?

Senator HATHAWAY. While it would be up to the procuring agencies or other officials to redesign the policy on the awarding of contracts in total labor surplus area set-asides. I do not feel this should be too difficult.

Assuming that the Maybank amendment restriction were lifted so that a total labor surplus area set-aside could be declared, both the lowest priced bid and the preference structure might be preserved as follows:

If a first preference firm were not the low bidder, the firm would nevertheless be given the first opportunity to match the low bid. Negotiations could be held with each of the bidders based on their placement in the present preferential structure until the low bid was either matched, or the low bidder's position was reached.

It would seem to me that this would be a realistic way to obtain wider use of the program by the procuring agencies and also generate more interest and participation in the program by firms in the high unemployment areas, while at the same time meeting your concern, and certainly mine, that contracts awarded under the program are reasonably priced.

With regard to your assumption that preferences are based on not only the rate of unemployment in an area and the length of time of this high rate, but also on the employment practices of a firm, the circumstances for applying the preferences are spelled out in attachment A, in the section entitled "Federal Procurement Preference."

ACTION TAKEN IN EVENT ALL BIDS TOO HIGH

Senator YOUNG. You state in your testimony that contracts awarded under the total set-aside method would not necessarily be awarded at higher prices.

What would happen if, upon examining the bid prices in a solicitation restricted wholly to labor surplus area firms. the contracting officer found that all of the prices were too high?

Senator HATHAWAY. In this regard, we have a good analogy in a total small business set-aside.

Under the procurement regulations, if the bids received under a total small business set-aside look unreasonably high, the contracting officer can dissolve the set-aside and resolicit on an unrestricted basis.

A similar provision under a labor surplus area total set-aside program could also provide for withdrawal of the set-aside when it is detrimental to the public interest.

AWARDING OF CONTRACTS TO SPECIFIC CONTRACTORS

Senator YOUNG. In your statement, you said that this is not a matter of taking contracts away from some contractors to give others, or "taking from Peter to pay Paul."

Would you explain that more fully?

Senator HATHAWAY. First, as I have described the operation of the program, you can see that a contractor who has offered the low bid receives only the non-set-aside portion, unless he is qualified for the portion set aside for a labor surplus area firm. At no time would a contractor lose a part or all of the work awarded to him to another contractor simply because the second contractor could assert his labor surplus area preference.

Second, while it is true that this program does not create new job opportunities through increased contracting—the Government does not purchase more supplies and services—nevertheless, the extent of DOD contracting is enormous. For instance, in fiscal year 1973 there were 10,499,226 procurement actions, which include contract awards, modifications and terminations, et cetera. The Department also reports that there were 23,421 companies with awards of contracts over $10,000. No figure is available for the companies winning contracts below $10,000. There are hundreds of contracting officers awarding contracts each day to firms all over the country.

This suggests that a contractor who finds that the work he was hoping to bid or propose on has been set aside for the labor surplus area

program is not denied other contracting opportunities. The Defense Department's procurement program is so enormous that I see no possibility that this program, if expanded, is seriously going to hurt contractors not located in or near labor surplus areas.

CONTRACT EFFECT ON UNEMPLOYMENT

Senator YOUNG. What assurance do we have that a contract awarded under this program actually assists in lowering unemployment in the area?

Senator HATHAWAY. That is probably the most difficult question to answer, and yet the most vital one to the program.

The Subcommittee on Government Procurement has held hearings in which the Department of Defense, the other procuring agencies, and the Department of Labor, as well as State employment security officers, testified. The subcommittee sent questionnaires to each of the States and to the companies presently participating in the program. We have the replies from the States and from 78 companies.

To a question of whether the firm retained the disadvantaged workers hired during work on a labor surplus area contract, 62 companies replied—62 percent of these companies indicated that they did. Since only 25 firms in the survey, or 31 percent, had received a contract as a result of labor surplus set asides, it is difficult to document what the effect of the program is having on unemployment.

In a similar question to the States asking whether they found that the program provided more job opportunities to the unemployed, there was a significant 69 percent of the States indicating yes.

In my opinion, it stands to reason that contractors with plenty of work will draw down the rate of unemployment.

Many firms did reflect dissatisfaction with the program, largely because there weren't more contracts set aside for them. Thus, we return to the question of what can be done to expand the program, and, as I have already said, removal of this restrictive provision in the DOD appropriations bill should give the program new avenues for progress and provide new motivations to those persons who are running it.

Senator YOUNG. Thank you very much for your helpful contribution.

SUBCOMMITTEE RECESS

We will be in recess until 11 o'clock as our next witness cannot be here until then.

[Whereupon, at 10:30 a.m. the subcommittee recessed until 11 a.m.]

AIRBORNE WARNING AND CONTROL SYSTEM (AWACS)

STATEMENT OF HON. THOMAS F. EAGLETON, U.S. SENATOR FROM MISSOURI

Senator YOUNG. The subcommittee will come to order.

Senator Eagleton, we are pleased to have you appear before the subcommittee. Your views will be very helpful.

Senator EAGLETON. Thank you, Mr. Chairman. I very much appreciate the opportunity to testify before the Defense Subcommittee on the Air Force's Airborne Warning and Control System (AWACS).

Frankly, Mr. Chairman, I am almost as disturbed today by the techniques employed to "sell" AWACS to Congress as I am by the total confusion that characterizes the program itself.

I know that this subcommittee is working very hard to assure that the money available in the Federal budget for defense goes to those items which do the most to keep America militarily strong. And I know that you are working hard to assure that defense systems are developed in a sensible way that will assure that the weapons our military uses will be the most effective our increasingly limited financial resources can buy. I thoroughly support that very sound philosophy.

But, just for this very reason, I am deeply concerned that Congress is now being asked to spend more than half a billion tax dollars to purchase a system which (1) has not even been defined; (2) will not be fully tested until the entire fleet of aircraft is bought and paid for; and (3) will have grave difficulty operating effectively and surviving while performing its primary mission.

SABER SCAN STUDY

Last year during consideration of the defense budget, the Air Force presented the Armed Services and Appropriations Committee with the results of what appeared to be a very comprehensive effectiveness study on AWACS entitled "Saber Scan." It was an impressive presentation. There was only one thing wrong—it was based on a number of false assumptions.

At my request, GAO carefully analyzed Saber Scan and the backup data used to support the conclusions in the study. GAO's defense analysts completely discredited the study. In short, Congress had been hoodwinked by the Air Force during its consideration of the fiscal year 1974 AWACS request.

The complete GAO report on the AWACS program was forwarded to this committee in early March and for that reason I will not dwell on its contents. It is an excellent analysis of the issues that this committee must address and it recommends that the fiscal year 1975 production funding for AWACS be deferred.

It is an eminently reasonable recommendation by an agency of Congress possessing the technical expertise we so badly need to evaluate the defense budget.

I would like, Mr. Chairman, today to enumerate the reasons why I feel the GAO recommendation should not be ignored by this committee.

Following are assertions the Air Force has made to Congress concerning AWACS and the reasons I consider them to be either erroneous or misleading:

One, the Air Force has testified that the 12 AWACS requested this year will be fully capable of performing the tactical European mission.

CONSTRUCTION OF AIRCRAFT IN STRATEGIC CONFIGURATION

In fact, the 12 aircraft will be built in the strategic—I underscore the word "strategic"—or CORE configuration—the configuration suitable for the obsolete air defense role, a role which was supposed to have

been canceled last year. They changed the role of AWACS from strategic to tactical in the European defense.

A letter from Deputy Secretary William Clements to the Secretary of the Air Force recognizes that fact and points up the need for major changes to achieve a design capable of performing the much more complicated tactical job, and I quote from the letter:

> * * * it is evident that a more capable configuration than the CORE is essential to support general purpose tactical forces. The effective integration of command and control in joint operations requires additional (intelligence) equipment * * * identification (devices), communications, data transfer, command and control and a measure of self-defense.

Secretary Clements and his Defense Systems Acquisition Review Council then directed the Air Force to conduct extensive tests to determine what the tactical configuration should be. That configuration has yet to be defined, and could not possibly be validated until the operational tests have been performed.

In testimony before the Armed Services Committee, GAO even more explicitly described the problems of designing the tactical AWACS, and I quote from that testimony:

> The change in the primary mission emphasis from strategic to tactical requires that more and better equipment of all types, computers, processors, displays, and particularly communications equipment, be onboard the aircraft. Thus, the question exists as to whether all of the needed systems can be installed in the aircraft, can be integrated so as to function properly together, can interface with a large number of command and control systems now being operated in Europe by United States and NATO ally forces, and whether the system will have the needed tracking and communication capacity to accomplish its mission.

GAO RECOMMENDATION

The GAO went on the recommend that Congress "defer funding for production models of the AWACS until the Air Force verifies and demonstrates through tests that a viable and useful tactical configuration can be developed." There is good reason for that recommendation for caution, for there are grave doubts that AWACS will ever be viable in the tactical environment of Europe.

JAMMING OF AWACS

Reason No. 2, the Air Force has testified that it would be difficult to jam AWACS with ground-based jammers in a European environment.

A GAO technical consultant has prepared mathematical calculations showing that AWACS could be completely blacked out by ground-based jammers from within 200 miles of the Iron Curtain. This jamming could be accomplished with inexpensive and unsophisticated jammers capable of returning to any AWACS frequency. This type of jamming would completely overwhelm the AWACS sidelobes and black out its radar.

Last week the Air Force finally provided the Armed Services Committee with its own calculations—intended to refute GAO's claim. Instead, the Air Force figures, even though they optimize the efficiency of the AWACS radar far beyond the listed specifications, actually confirm that GAO was correct. The GAO calculations have been independently verified by other authorities on radar technology, and I would welcome their review by any radar expert.

There are also two other ways in which the main beam of the AWACS radar can be compromised by ECM (otherwise jamming) techniques. These methods are classified, but I will be pleased to provide the committee with the pertinent information by letter.

Obviously, when the tactical AWACS is designed, it will have to be tested against the full range of ECM threats. But right now the evidence is overwhelming that AWACS will be unable to fulfill its primary tactical requirement—control of friendly aircraft over enemy territory in a European conflict.

SURVIVABILITY OF AWACS IN EUROPEAN THEATER

Three, the Air Force has testified that AWACS would be relatively survivable in a European air battle.

Commonsense counters such a claim. AWACS, flying at 35,000 feet and at subsonic speeds, would be a high priority target for the numerous enemy aircraft we will confront in a European air battle, some of which are capable of flying at mach 3, and at 80,000 feet.

AWACS, emitting high-power radar and infrared energy, would be extremely vulnerable to radar-homing and infrared missiles. AWACS would be particularly vulnerable when its radar is blacked out, or when other ECM tricks are being used against it. If it is forced to retreat, it will, of course, be unable to perform its primary mission, leaving our fighters stranded over enemy territory.

AWACS has no fighting capability of its own. A large number of our fighter aircraft would, therefore, have to forgo their own primary mission—that is offensively engaging the enemy—to come to AWACS' assistance. I personally don't think we should have to sacrifice part of our main line of defense to protect an $80 million command and control ship which may not even be able to command and control if the enemy decides to jam it.

I have thus far discussed what I consider the central issues that must be resolved by this committee in deciding to fund AWACS production. But there are other issues as well which give the AWACS program an aura of total confusion. For example:

Last year when a total AWACS fleet of 42 aircraft was projected, the Deputy Air Force Chief of Staff testified that "* * * 25 aircraft are designated for ADC (air defense) and 10 for TAC. Seven aircraft are designed for * * * training." A number of other Defense officials addressed the tactical requirement in testimony and the highest estimate of need they made was 15 tactical aircraft.

In his March posture statement, Secretary Schlesinger stated that "A CONUS air defense system structured primarily for peacetime surveillance [the current air defense mission] would not require an AWACS force * * *"

If the air defense role has been eliminated, what is the justification for a fleet of 34 AWACS? Thus far, the Air Force has failed to answer that question.

BOEING CONTRACT ON AWACS

The AWACS contract with Boeing contains a highly unusual clause calling for payments by the Government of up to $311 million over

a 14-month period if the production option is not exercised in December 1974. Although it remains a mystery, that clause was probably agreed to when it was thought that the Boeing 707 commercial line would close down and that the Government would have to assume the expense of keeping the line open waiting for the AWACS order. This is no longer the case.

Boeing Vice President Clarence Wilde was recently quoted as saying that the 707 line would remain open indefinitely, and added:

"We are telling our military friends to bring in orders when they can and meanwhile we will continue to build commercial 707's."

The $311 million apparently may be expended to begin building AWACS even before regular production money is appropriated by Congress. It would therefore appear that the only purpose this controversial clause serves is to circumscribe the appropriations process. It most certainly does not protect the interests of the American taxpayer.

The Air Force claims that our allies are very interested in AWACS and that sales to NATO will help lower the costs. However, a recent "Aviation Week" article states that "NATO has looked closely at AWACS and, as one NATO officer put it, 'winced' at the estimated $80 million unit cost."

In addition, the Air Force has failed to ascertain who will foot the bill for equipping NATO aircraft with the IFF devices necessary to communicate with AWACS. This, and the need to integrate AWACS with the NATO command and control system, represents a large hidden cost. If our NATO allies are really interested in AWACS, they should be asked to begin immediately to assist us with the development costs.

Mr. Chairman, I am at a loss to explain why this program is being pushed ahead so fast when there are so many unanswered questions.

"BARGAINING CHIP" VALUE OF SYSTEM

There is no foreseeable national emergency requiring the immediate use of an operational AWACS. And it cannot be argued that the system can be used as a "bargaining chip" in arms limitation negotiations. I, therefore, remain mystified as to why we are being asked to risk so much money on an undefined and untried system which has no fighting capability of its own and which may, in the end, prove unworkable.

In his March posture statement Secretary Schlesinger said "* * * it is faster and cheaper in the long run to insure the proper performance of the key components (of complex weapons systems) before proceeding with full-scale development." That is exactly the rationale behind my recommendation to this committee to eliminate the $550 million requested for AWACS production. The $220 million requested for R. & D. is more than ample and should be used to develop and test the tactical AWACS design.

This subcommittee is confronted with the monumental task of reducing waste while preserving a strong national defense. In the case of AWACS, these compatible goals are best served by our insistence on a more deliberate development and test program.

Mr. Chairman, on Monday, after this statement was prepared, I received a letter on the AWACS program from the Director of Defense Research and Engineering, Dr. Currie.

I would like to put this letter in the record at an appropriate point.

Senator YOUNG. That will be put in the record at the end of your statement.

Senator EAGLETON. I found Dr. Currie's letter interesting in several respects, but it does not in any way alter my testimony today as given. In fact, it is unintentionally supportive of my recommendation to this committee to eliminate the production money for AWACS.

For example, Dr. Currie states in his letter that, on the one hand, the AWACS configuration Congress will be funding this year is adequate for the tactical mission. Yet, in the same paragraph, he discusses the steps that will be taken to "augment" the CORE configuration to meet "the demands of a projected tactical environment." In doing so, he sets forth a program of planned retrofitting whereby the tactical version will be designed by trial and error—testing and then going back and adding to the initial configuration.

What is surprising to me, Mr. Chairman, is that Dr. Currie, a recognized expert in the defense field, then goes on to assert that by adopting this plan the system "can be procured in an economical manner." He thus seems to ignore the multitude of studies which have categorically shown that the concurrent development and production of weapons systems is the single biggest cause of cost overruns.

Developing the tactical AWACS is not simply a question of adding a little here and a little there. As Deputy Secretary Clements and GAO have suggested, it will be a complicated and costly task, even if a sound management schedule is adopted.

Dr. Currie also asserts that penalties for deferring procurement this year would be severe. Indeed they would be. As is stated in my prepared text, the AWACS contract with Boeing contains a highly unusual clause calling for payments by the Government of up to $311 million over a 14-month period if the production option is not exercised by December 1974, this year.

This penalty may have been logical when it was felt the Boeing commercial line was going to close down. In the past it was thought they might close down the 707 line. But now that that is no longer the case, it can serve only one purpose—to hold over Congress' head the "severe" consequence of failing to go along in appropriating AWACS production money.

But Congress need not be forced to act against its better judgment. The Air Force, which should have already renegotiated to eliminate the delay penalty when the original conditions changed, can and should now act to eliminate it. Even if it is necessary to cancel the contract for convenience and reopen it, the cost, which has already been estimated by the Air Force, would not even approach the $311 million delay penalty.

SUSCEPTIBILITY OF AWACS TO ELECTRONIC COUNTERMEASURES

With regard to the susceptibility of AWACS to electronic countermeasures, Dr. Currie states in his letter that, "Extensive analysis by the Air Force, and independent analysis by the OSD staff have shown the specific design of the radar to be fully capable of carrying out its mission in the fact of the postulated ECM threat."

I believe my earlier discussion of the GAO calculations on jamming indicates that this is a gross exaggeration of the known capability of AWACS against the ECM threat. Until the GAO calculations are scientifically, rather than rhetorically, refuted, I will continue to have grave doubts about AWACS' ability to perform its primary role.

It is also interesting to note that Dr. Currie did not see fit to address the vulnerability of AWACS to the hundreds of enemy fighter aircraft to be confronted in Europe. I can only postulate that the Defense Department does not want again to strain credulity by suggesting that AWACS would be safe in such an environment.

Mr. Chairman, in his reference to the severe penalties in delaying AWACS production, Dr. Currie has made it clear that the pressure on the Defense Department to procure the system on its present schedule will be overwhelming. I fear that the question of proving the concept by testing will be a secondary consideration in making this decision. It is therefore essential that Congress assume the responsbility for assuring that a viable tactical AWACS can be achieved before we release the money for production.

By refusing the production money we can at once force the renegotiation of a highly questionable contract and effect a more sensible and economical development program. We have, in short, a rare opportunity to protect the taxpayers' interests while encouraging better management of a major defense system.

Yesterday I received an updated GAO report on AWACS which is based on an intensive continuing review of the program. Dr. Currie's assertions that the AWACS program has followed a policy of "fly before buy" is categorically refuted in this letter report from the Comptroller General.

The problems of developing the tactical design have again been graphically described by GAO, and the Air Force's own test schedule for the tactical subsystems dramatizes the excessive concurrency in the program.

The Comptroller General has strongly reiterated his agency's position on AWACS in the following quote. I would like to read two paragraphs from this letter dated May 15, 1974, addressed to me from the Comptroller General, and I ask that the letter in entirety be made a part of the record.

Senator YOUNG. That will be done.

Senator EAGLETON. I will read the last two paragraphs of that letter of May 15:

> As we have previously indicated, we are of the opinion that the "CORE" configuration was designed for the less demanding strategic mission.

That is what the plane was originally designed for, a strategic mission here that is far less demanding than the tactical one now counted on for use in Europe.

> The number of aircraft to be tracked, the jamming potential of the enemy, the command and communications problems, and the threat to AWACS itself, would be much less when operating in the United States than that faced in Europe with a major land war being waged. The change in the primary mission emphasis from strategic to tactical requires that more and better equipment of all types, computers, processors, displays, and particularly communications equipment, be onboard the aircraft. Thus, the question exists as to whether all of the needed systems can be installed in the aircraft, can be integrated so as to function properly together, can interface with a large number of command and control

systems now being operated in Europe by U.S. and NATO ally forces, and whether the system will have the needed tracking and communication capacity to accomplish its mission.

We still believe, as indicated in our March 11, 1974, report to you, that the viability of AWACS for the European mission should be demonstrated before production. Since there has been no urgent requirement demonstrated for the AWACS, it would seem prudent to defer the production decision until sufficient confidence in the system's performance can be obtained from engineering and operational tests.

Thus, Mr. Chairman, I conclude my testimony with adopting and, in essence, using the words of GAO in terms of their analysis for this system.

CORRESPONDENCE

Senator YOUNG. Letter of May 11, 1974, from Director of Defense Research and Engineering, and letter of May 15, 1974, from Comptroller General of the United States will be inserted into the record at this point.

[The letters follow:]

LETTER FROM MALCOLM R. CURRIE

11 MAY 1974

Honorable Thomas.F. Eagleton
United States Senate
Washington, D. C. 20510

Dear Senator Eagleton:

The GAO Final Report of March 11, 1974, concerning the Airborne Warning and Control System (AWACS) defines three specific issues. In brief, these issues question the suitability of the AWACS configuration to the tactical role, the application of DoD "fly before buy" policies to the procurement and a question of the survivability of AWACS in the tactical environment. I wish to address each of these issues from the DoD perspective.

In our review of the AWACS Program, we concluded that the AWACS CORE configuration is adequate to meet tactical and strategic mission requirements. However, demands of a projected tactical environment make it prudent to plan for augmentation beyond the CORE configuration to maximize its utility. The steps in this augmentation were defined and the Air Force was directed to plan for continuing the R&D and Procurement program on that basis. This plan, now in effect, provides a basic capability in the near term - without delays imposed by waiting for an "ultimate" configuration - that is able to receive in block changes the highly desirable added capabilities in later block configurations. In this way the system can be procured in an economical manner and still have the ability to evolve into an even more capable system. The penalties of deferring procurement until an "ultimate" configuration is in hand are severe.

In the AWACS program, an intensive effort has been made both by the Air Force and by OSD to minimize risk by performing thorough hardware tests and demonstration of capability prior to each major program decision. The extensive test and demonstration of the technologically challenging "look-down" radar in its competitive phase attests to this. The next major area of program risk from our perspective is the effective integration of the other mission avionics with the radar.

This integration testing is being carried out in the System Integration Demonstration (SID) at the present time. This testing must be satisfactorily completed prior to approval of release to production by the Secretary of Defense. The test schedule, currently on track, will bring the AWACS production program before the DSARC in December 1974. This implementation of "fly before buy" is designed to require proof by test of the adequacy of the design and configuration before a production commitment is made.

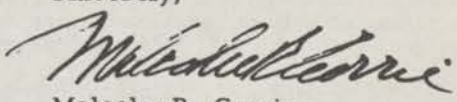
The issue of survivability of AWACS in the tactical environment is a complex one indeed. Studies indicate that the ability of the AWACS to monitor the developing threat, maneuver to avoid it, capitalize upon the protection of friendly surface-to-air defenses, and direct airborne and/or strip alert aircraft to its own defense makes it highly survivable. However, a critical point has been made of the system's alleged vulnerability to enemy electronic countermeasures (ECM).

The development of the AWACS radar over the past seven years has strongly addressed properties of ECM resistance throughout its course. Extensive analysis by the Air Force, and independent analysis by the OSD staff have shown the specific design of the radar to be fully capable of carrying out its mission in the face of the postulated ECM threat. Tests of ECM resistance conducted during the earlier development phases of the radar strengthened our conviction of the adequacy of the design in this regard. Further testing, to be conducted this summer and fall, will serve to verify the analysis already done and will reaffirm the results of the ECM tests done against the radar alone. The results of the verification tests will be a major contributor to our review of the program at the December DSARC.

We feel very strongly that the program review and decision process and criteria that have been established for AWACS are fully consistent with DoD management practice and will be effective in preventing a premature commitment of AWACS to production. The AWACS program has proceeded on schedule and under cost, has accomplished a major radar technological breakthrough, has demonstrated the capability to meet or exceed performance objectives, and there has been no challenge to the military need for the AWACS capability.

Copies of this letter have been forwarded to the Chairmen of the Authorizations and Appropriations Committees.

Sincerely,



Malcolm R. Currie

LETTER FROM COMPTROLLER GENERAL OF THE UNITED STATES

May 15, 1974

Dear Senator Eagleton:

In response to your letters of March 15 and April 18, 1974, the General Accounting Office has continued to monitor the test program for the Airborne Warning and Control System (AWACS) program.

System Integration Demonstration (SID) testing was started in March 1974 and is scheduled to be completed in October 1974. During this period the mission avionics systems, using the preliminary radar design and critical components of other avionic systems, are to be tested to show that they can function together. The aircraft being used is considerably less complex than the "CORE" configuration which the Air Force has indicated is designed to meet the minimum tactical and strategic mission needs for AWACS.

In the fiscal year 1975 budget the Air Force requested funds to procure the so-called Block I configured aircraft, that is, "CORE", plus a self defense system and a satellite communication system. Subsequent Blocks (II and III) might include enhancements needed for the tactical mission such as special identification friend or foe equipment and expanded command and control capabilities. No final decision has been reached by the Air Force on the configurations of the later procurements planned.

It appears that during SID testing the Air Force will attempt to demonstrate solutions to some of the matters of concern to the Deputy Secretary of Defense as expressed in a November 2, 1973, memorandum for the Secretary of the Air Force. To date, one change has been formally proposed to the original SID test plan which adds simulated tests to demonstrate simultaneous close control intercepts against moving targets. Other revisions are being investigated by the Air Force.

Because not all plans have been finalized, we cannot be sure at this time if sufficient tests can be planned and accomplished to provide adequate data on AWACS prior to December 1974 when the Secretary of Defense is scheduled to consider a production decision. Further, significant amounts of Development Test and Evaluation (DT&E) are scheduled extending through 1977--after all planned AWACS have been procured.

The testing now scheduled for completion subsequent to December 1974 is shown below. The DT&E plan defining these tests is due to be finalized by late Spring or early Summer 1974.

Description of the test to be performed	Scheduled completion date
Avionics subsystem performance verification	February 1977
System performance verification	
Block I aircraft	March 1977
Enhancement beyond the Block I configuration (this decision is now scheduled to be made in June 1974)	March 1978

Description of the test to be performed	Scheduled completion date
Operational test and evaluation of verified systems	
Operational suitability testing (Initial operational testing using the brassboard radar is scheduled for completion in October 1974)	March 1977
Qualification tests of subsystems being considered for AWACS tactical mission	
Self-defense system	December 1975
Communications satellite link	December 1975
Special identification, friend or foe (except antenna)	December 1975
Tactical data link --Time division multiple access (TDMA)	December 1976

As we have previously indicated, we are of the opinion that the "CORE" configuration was designed for the less demanding strategic mission. The number of aircraft to be tracked, the jamming potential of the enemy, the command and communications problems, and the threat to AWACS itself, would be much less when operating in the United States than that faced in Europe with a major land war being waged. The change in the primary mission emphasis from strategic to tactical requires that more and better equipment of all types, computers, processors, displays, and particularly communications equipment, be on board the aircraft. Thus, the question exists as to whether all of the needed systems can be installed in the aircraft, can be integrated so as to function properly together, can interface with a large number of command and control systems now being operated in Europe by U. S. and NATO ally forces, and whether the system will have the needed tracking and communication capacity to accomplish its mission.

We still believe, as indicated in our March 11, 1974, report to you, that the viability of AWACS for the European mission should be demonstrated before production. Since there has been no urgent requirement demonstrated for the AWACS, it would seem prudent to defer the production decision until sufficient confidence in the system's performance can be obtained from engineering and operational tests.

We will continue to monitor the AWACS program and report to you, or your staff, periodically as may be appropriate.

Sincerely yours,

R. F. Keller

ACTING Comptroller General
of the United States

STATUS OF AWACS PROGRAM IN CONGRESS

Senator YOUNG. You make a strong case. The AWACS program has been controversial in this committee. We will not able to appropriate all the money the Defense Department needs, and AWACS wouldn't be on the top of my priority list.

I know the House has cut from 12 to 6 the request for these aircraft, and the Senate Armed Services Committee has not reported their bill.

Senator EAGLETON. That is correct.

The main thrust of my argument, Mr. Chairman, is not in terms of number of aircraft, whether it is 12, as requested by the DOD, or six as recommended now by the House, or whether it is four or three. The principal thrust of my argument is that the R. & D. program should go forward for the new mission that has now been assigned to AWACS. It should be fully tested and fully developed before any production begins on AWACS since it has an altogether new mission for which it was not originally designed.

Senator YOUNG. Thank you very much for your testimony, Senator Eagleton.

Senator EAGLETON. Thank you, Mr. Chairman.

Senator YOUNG. I wish more members could have been here, but they are all busy with other committees.

Senator EAGLETON. I understand. I sat over there alone by myself many times.

CORRESPONDENCE

Senator YOUNG. Chairman McClellan asked that the response from Senator Cranston and subsequent correspondence be placed in the record in accordance with the Committee's invitation for Senators to testify.

[The information follows:]

U.S. SENATE, COMMITTEE ON APPROPRIATIONS,
Washington, D.C., April 29, 1974.

Hon. ALAN CRANSTON,
U.S. Senate,
Washington, D.C.

DEAR SENATOR CRANSTON: I have your recent letter forwarding a copy of the breakdown of the costs of stationing U.S. military personnel in foreign countries and areas.

The number of personnel involved have been added to your list and will be included in our hearing record.

With kind regards, I am

Sincerely yours,

JOHN L. MCCLELLAN.

U.S. SENATE,
Washington, D.C., April 2, 1974.

Hon. JOHN MCCLELLAN,
Chairman, Senate Appropriations Committee,
Washington, D.C.

DEAR JOHN: Thanks again for giving me the opportunity to testify on troop cuts in Asia. I very much appreciated your response.

You asked me to supply the record of the vote on the Humphrey-Byrd-Cranston amendment of last September 27, which would have reduced by 110,000 the number of U.S. military personnel stationed in foreign countries. That amendment was adopted by a vote of 48–36.

I am also enclosing for possible inclusion in the record of the hearings a breakdown of the costs of stationing U.S. personnel in each foreign country in fiscal year 1974. I obtained this list from the Comptroller's office in the Pentagon.

I look forward to continuing our conversations about troop cuts.

With best personal wishes,

Sincerely,

ALAN CRANSTON.

DEPARTMENT OF DEFENSE—FISCAL YEAR 1974 ESTIMATED ANNUAL OPERATING COSTS OF MAINTAINING U.S. MILITARY FORCES IN FOREIGN COUNTRIES AND AREAS

	Millions	Military personnel as of Dec. 31, 1973
South Vietnam		(1)
Thailand	$759	36,000
Japan (including Ryukyu Islands)	916	55,000
Philippines	297	16,000
Korea	619	38,000
Taiwan	139	6,000
Forces afloat—West Pacific	368	21,000
Forces afloat—Western Europe	227	23,000
Belgium	26	2,000
Cyprus	2	(1)
France	1	(2)
Germany	2,909	214,000
Greece	46	4,000
Greenland	6	(2)
Iceland	39	2,000
Italy	146	12,000
Netherlands	23	2,000
Portugal (including Azores)	31	1,000
Spain	133	10,000
Turkey	94	7,000
United Kingdom	289	21,000
Forces afloat—Near East/South Asia	9	(2)
Ethiopia	15	(2)
Iran	7	(2)
Saudi Arabia	2	(1)
Forces afloat—other Pacific	76	1,200
Australia	9	(2)
New Zealand	1	(1)
Forces afloat—South America	1	(1)
Brazil	2	(2)
Canada	34	2,000
Other	129	15,000
Total	7,355	492,000

[1] Less than 250 U.S. military personnel.
[2] Less than 100 U.S. military personnel.
[3] Less than 1,000 U.S. military personnel.

Note: Department of Defense estimated annual operating costs of maintaining U.S forces in foreign countries and areas are $7,355,000,000 in fiscal year 1974. Department of Defense accounting records are not maintained to reflect total U.S. costs on an area basis. Operating costs, therefore, were estimated by using appropriate factors. Included are the costs of all military and civilian personnel located overseas and the cost of operating and maintaining facilities overseas. These estimates do not include indirect logistic and administrative costs for support from outside the country, nor do they include major procurement or military construction costs. Includes estimates for Jan. 1, 1974, pay raise. Excludes U.S Territories and special locations, i.e., Alaska, Hawaii, Guam, Canal Zone, Cuba, Puerto Rico, etc.

SUBCOMMITTEE RECESS

Senator YOUNG. We will recess until 10 o'clock tomorrow morning.

[Whereupon, at 11:20 a.m., Wednesday, May 15, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, May 16.]

LETTERS AND STATEMENTS RECEIVED SUBSEQUENT TO HEARING

[Pursuant to committee direction, the following letters and statements received subsequent to the hearing will be included in the record at this point:]

LETTER FROM SENATOR McINTYRE

United States Senate
WASHINGTON, D.C. 20510

May 16, 1974

Dear Mr. Chairman:

I would like to submit the enclosed statement for the record of the hearings of the Defense Subcommittee on the FY 75 Defense Appropriations.

Last year, you may remember, I urged that dollar floors be set for the amount of repair, overhaul, alteration and conversion for public and private shipyards. I did this because I felt the situation at that time might lead to a loss of this work at the public shipyards if the dollar floors were not set. I was, of course pleased that your Committee and the Congress adopted this position.

I believe the situation has now changed and the need has lessened for these floors. I have tried to set forth my thinking in the enclosed statement.

I had hoped to present this statement in person but mark-up on the Defense authorization bill and hearings I was conducting in the Banking Committee on the form and structure of American banking made this impossible.

I am taking the liberty, therefore, of presenting my views to you in this form.

All best personal wishes.

Sincerely,

Thomas J. McIntyre
United States Senator

STATEMENT OF SENATOR THOMAS J. McINTYRE (D-N.H.)

Mr. Chairman:

I appreciate the opportunity to express my views to this subcommittee with regard to the allocation of overhaul, repairs and alterations between naval and private shipyards.

The current legislation included in the F.Y. 1974 Defense Appropriations Act, assigns floors to these categories of work with not less than $851,672,000 assigned to naval shipyards, and not less than $359,919,000 assigned to private shipyards.

I would now, even though these figures were basically the result of suggestions I made, recommend the elimination of these restrictions which provide specific allocations to naval and private shipyards. I believe the situation today is different than it was last year.

As a member of the Senate Armed Services Committee, I have followed the course of the perennial conflict over the allocation of naval shipwork. The country needs both the private and public shipyards. Each serves an essential function as witnessed by the trends in the assignment of work since World War II.

At present, private yards do 100% of new construction, about 30% of repair, alteration and overhaul work and in aggregate about 80% of total navy shipwork. The crux of the situation lies in the sharp reduction of operating ships in the U.S. Navy during the past few years as reflected in the following table:

F.Y.	No. of Ships	F.Y.	No. of Ships
68	967	74	512
69	769	75	506
70	654		

The Navy informs me that with this decrease in numbers there will be a marked increase in the complexity and sophistication of new naval ships. In addition, the size of new ships joining the fleet will generally be

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larger. This trend will have a direct effect on requirements as to quality and capacity of overhaul repair services furnished by public and private shipyards.

Mr. Chairman, my particular interest is in the Portsmouth, (N.H.), Naval Shipyard, which devotes practically all of its productive work to the maintenance of nuclear submarines. My remarks, where applicable to public shipyards will apply to all naval shipyards.

Naval Shipyards Essential to Fleet Support

The overriding requirement for naval shipyards is to provide flexibility in the execution of fleet overhauls and essential ship modernizations, and to manage the uneven flow of repair and alteration work on ship types, ranging from small auxiliaries to the extremely complicated and complex carriers and nuclear submarines.

Historically, the U.S. Navy and the Congress have recognized the cardinal principal that our naval shipyards are part and parcel of our active fleets. These shipyards have been developed and equipped, at considerable expense, to provide complete facilities for the repair and overhaul of naval vessels, together with capabilities for maintaining weapons, propulsion plants, ship control, electronics and other systems of ever increasing complexity. In addition, they provide a wide range of services not normally available at private yards: e.g. personal support functions, medical services, berthing and recreational facilities and the capacity to fill emergency requirements. In a study by Booz-Allen Applied Research, Inc. of the Relative Cost of Ship Construction, Conversion, Alteration and Repair in Naval and Private Shipyards, dated June 30, 1972, this pertinent comment appeared:

> "In a sense, the reason for being of the Naval Shipyard complex gives rise to a set of circumstances contributing to higher cost. These yards are a vital adjunct to the operating forces of the Navy, and are expected to provide positive response to emergency requirements, high priority shipwork assignments, and sudden changes in schedule to accomodate operational needs. Frequent rescheduling and disruption of work necessarily result so that routine work is delayed and its cost increased. A

related factor is the necessity to maintain a more comprehensive range of active capabilities than a private yard would find profitable."

The real efficiency of the naval shipyard is measured by its "ability to respond" rather than by a hard and fast formula based on dollar cost alone. The ultimate profit to the country is in maintaining the fleet in being.

The naval shipyards are in effect tailored to meet the logistical requirements of the fleet. Successive cutbacks have reduced the eight remaining public yards to manning levels which cannot sustain further reductions without serious damage to their capabilities to carry out their assigned missions.

Experience with Mandatory Allocations

In 1963, the Congress enacted legislation at the behest of private shipyards, directing that navy repairs and alterations be divided with 65% to naval shipyards and 35% to private yards. Experience with the 65/35 legislation during the ensuing three years indicated its impracticability:

1. It placed an administrative burden on the Navy, expensive to manage and counterproductive;
2. It failed to produce any appreciable increase in work for private shipyards, over that assigned subsequently under a guidelines arrangement.

The Navy has furnished data for the record, showing the distribution of work within the private sector. It is of interest that during the period covered by these data, naval shipyard employment has decreased about 25% while private shipyards have shown a 3% reduction.

SHIPYARD EMPLOYMENT
(In Thousands)

Fiscal Year	Naval Shipyard	Private Shipyard
Average 1962	99.1	115.8
Average 1963	95.7	118.6
Average 1964	89.8	116.5
Average 1965	81.7	127.1
Average 1966	81.7	136.8
Average 1967	86.7	139.0
Average 1968	93.7	140.3
Average 1969	90.0	143.0
Average 1970	85.2	139.5
Average 1971	76.4	128.7
Average 1972	71.4	131.0
Average 1973	66.0	136.4

The Congress permitted the 65/35 legislation to lapse in F.Y. 1966 and approved a Navy guideline plan, whereby the allocation of shipwork would be assigned on a pre-stated equitable basis. Experience data taken during a five year period showed that an average annual allocation of 36.8% of the total, (repairs, alterations and overhaul) had been assigned to the private sector. Data as disseminated by private shipyard interests did not include conversations in the category of shipwork cited above, which accounts for discrepancies between Navy data and that circulated by private shipyard representatives. It should be emphasized that during this five year period the Navy adhered to the guidelines and surpassed them in the percentage of shipwork assigned to private yards.

Drawbacks to Mandatory Quotas

Specific difficulties encountered in dealing with mandatory quotas include the following:

1. Availability of Manpower and Craft Skills

Many private yards are unable to complete naval ship overhauls within periods of time dictated by overhaul commitments, due to lack of total manpower and in particular, craft skills essential for maintenance work on complex ships and equipments.

A recent study by the Maritime Administration concluded that:

> "Apprentice programs were not emphasized in most commercial yards. Annual output of apprentice programs in repair yards was negligible and of the construction yards, only three, (Bath Iron Works, General Dynamics - Electric Boat Co., and Newport News Shipbuilding and Drydock Co.), had programs of any magnitude."

Further in the Marad Report:

> "The naval shipyard apprentice program is sufficient to provide an adequate number of trades to support the naval shipyard complex."

2. Drydocks and Facilities

Any meaningful study of workload requirements pertaining to our first line ships, including all nuclear powered submarines, during the immediate future quickly establishes the fact that the availability of drydocks for performing necessary work might well be a key factor. With regard to facilities required by naval ships in F.Y. '72, about 65% of our total conversion, repair and alteration work was assigned to aircraft carriers, submarines, nuclear surface work and missile ship maintenance. This work of neccessity had to be assigned to public yards and to those private yards possessing the requisite facilities. The percentage of maintenance funds for this category of work is expected to increase in future years as modernization continues.

3. Administrative Burden

Constant fluctuations in ship overhaul programs are encountered. High on the list are those due to growth in the amount of repair work, changes in repair and alteration programs, and changes due to fleet operational

schedules. In addition, there are emergencies which require shipyard services on a grand scale and a complete rearrangement of priorities.

Legislative restrictions in the amounts to be spent in the public and private sectors seriously impedes the ability of the fleet commanders to accomplish essential work and to carry out operational commitments.

The administrative burden required to insure compliance with mandatory quotas is counter-productive, since it generates an additional bureaucracy to attend to the details of keeping legal limitations in balance.

4. Home Port Consideration and Morale Problems

While it is manifestly desirable to distribute workloads throughout the country, serious problems do develop for the crews in cases where the ships are assigned for overhauls at considerable distances from home ports.

Few private shipyards have facilities for messing, berthing, laundry or recreation for crews during overhaul. The general problem will be particularly critical during the immediate future when major emphasis is being placed on ship alterations pertaining to habitability, and pollution abatement, both of which render ships virtually uninhabitable during the overhaul.

Summary and Conclusion

I repeat my strongrecommendation for the elimination of restrictive legislation which provides specific allocations in the assignment of ship-work, (repairs, alterations and overhaul).

There are compelling reasons for this course of action, viz:

a. The country needs naval shipyards and private shipyards. Each serves an essential function as witnessed by trends in the assignment of shipwork since World War II. Private shipyards now have 100% of new construction and about 30% of repair, alteration and overhaul work. The Congress must decide whether or not we plan to retain naval shipyards which have been tailored to meet the needs of the fleet, at considerable cost to the tax-payers, and have withstood the tests of time in the

evolution of ships, weapons and methods of propulsion. We could, if need be, assign all navy work to the private sector, but I am convinced that in the long run, we would find it necessary to build into the private yards the numerous extras which distinguish the naval shipyard from its private shipyard counterpart -- and this would, of course cost additional money.

b. We have tried the system of legislated quotas and no advantage has accrued to the small private yards which are lean and hungry for work -- because most of these yards are not qualified to perform the type of ship-work which comprises the major part of the Navy's requirements. In the meantime, the Navy has been saddled with an onerous and expensive administrative burden of no useful purpose.

c. Special facilities, designed to enhance the morale of ships' crews have been developed during the life of our Navy and have been incorporated into the structure of our naval shipyards as funds permitted. These should continue to be used to fullest advantage, whenever practicable.

STATEMENT OF SENATOR WILLIAM D. HATHAWAY

On March 27, 1973, the President vetoed S. 7, the Vocational Rehabilitation Act. His veto message was quite clear:

"As President, it is my duty to sound the warning - and to defend the public interest by vetoing fiscally irresponsible, badly constructed bills...."

The American people have repeatedly shown that they want to hold a firm line on both prices and taxes. I stand solidly with them. I shall therefore veto those big-spending bills which would jeopardize our economic hopes for the future."

S. 7 was a bill to provide jobs and vocational rehabilitation for the handicapped. It had been worked on over a period of four months in 1972 and reworked before the bill was resubmitted in 1973. It would have cost around $1 billion. On February 4, the President introduced the military budget request for F.Y. 1975. His request is for $91.3 billion. This is the biggest military budget request in the history of the world. It includes somewhere between $1.5 and $6.3 billion that was tacked on as an afterthought, the idea being that maybe this would stimulate the economy. Also, there was $6 billion stuck in as a F.Y. '75 supplemental budget request which according to analysts should be a part of a F.Y. '75 request. If ever a bill was "fiscally irresponsible," or "badly constructed", this would seem to be it, but apparently the Administration has decided not only that holding down spending is not so important after all, but that military spending is the best way to stimulate the economy.

This is a known fallacy. Past experience has shown defense expenditure is one of the least effective ways of stimulating the economy. As a recent monthly economic letter of the First National City Bank of New York put it, "Historically, it has seldom proved good economics to give an economy a fiscal shot in the arm by upping defense outlays."

What is the justification for all this spending? The question is particularly troubling when one considers that a war has just been concluded. Within two years after World War II, the military budget was about 10% of its wartime high. Within two years of the Korean War, it was 45% of its wartime

high. But within two years of the Vietnam War, it promises to be about 120% of its wartime high! This is an unfortunate trend. If the Pentagon is to be believed, apparently war is becoming cheaper, relatively speaking, or peace is becoming more expensive.

Such high spending is the more alarming when one considers the rationale Secretary of Defense Schlesinger gave for it in the following statement:

"We have the responsibility, not only to the United States itself but also to our friends throughout the world, to assure the military balance so necessary to deterrence and a more enduring peace. Other nations led in that responsibility for most of the first two centuries of our national existence; now the cloak of leadership unavoidably embraces us, and we must make the long-term effort to bear it."

Assume the "cloak of leadership" in maintaining the "military balance so necessary to deterrance and a more enduring peace" such as that of the "First two centuries of our national existence"?! Apparently someone has been withholding information from Mr. Schlesinger. The first two centuries of our existence saw the French Revolution, the War of 1812, the Napoleonic Wars, the Franco-Pressian Wars, not to mention the Civil War (those international peace keepers weren't doing their job for that one!) The Crimean War, the Russo-Japanese War, World War I, World War II, the Korean War, etc., etc. Of course, it may be that Mr. Schlesinger is aware of these events, but that according to Pentagon terminology, they constitute peace.

If that is the case, it might explain why he thinks peace will be so expensive. But that is a troubling thought. The problem is merely one of definition, of course, but it does leave the layman with certain nagging doubts. In Pentagon terminology, ("Pentaspeak") how does one distinguish between a very expensive peace and a very costly war? One way, apparently, is by price. The Vietnam War, for example, was merely costly, whereas the peace that follows is going to be expensive. The phrase "peace at any price" will take on a richer meaning.

Senator Barry Goldwater gave some insight into the reasons for this paradox in an interview published in an October, 1973, issue of U.S. News and

World Report. In answer to the question, "Why are new weapons systems becoming so expensive?" Senator Goldwater made the following statement:

"One factor, of course, is inflation. But that can't possibly account for the total.

Another factor is that in times of peace the Pentagon designs its weapons, in times of war they fight - and they don't have time to fool around with weapons designs. We get better weapons in wartime than we do in peace....The over-sophistication is caused mostly by the military and industry trying to put something new in the air, something new in the field. I'd like to keep it simple."

The type of oversophistication he was talking about, sometimes called "gold-plating", is one of the many areas in which spending should be cut. I do not want to see my country's defense capabilities weakened. But removing the fat is important not because the fat isn't needed, but because fat actively interferes with the functioning of the organism. I am not talking about trying to starve our military to death; I am talking about trying to make it a little better. I am talking about getting it into shape, into something that might be called "fighting trim."

The Defense Department now has one civilian for every two uniformed personnel; it has too many support personnel for every combat soldier; it has more generals and admirals commanding 2 million men than were commanding 12 million at the end of World War II; and it has the "gold-plating" mentioned earlier. These are not the problems of keeping America strong. They are the problems of a fat, over-staffed bureaucracy inefficiently operated, because it is insufficiently controlled. And the reason it is insufficiently controlled is because we in the Congress have not lived up to our duty to exercise oversight of the Pentagon budget. The point is not that spending in some of these areas could be cut without hurting our nation's military capabilities, but that in many areas a cut, and some common-sense buying, would improve our capabilities.

Like any other governmental body, the Pentagon is not subject to the economic discipline of the market place. Because of that, it must be held

strictly accountable for what it spends to the representatives of the people whose money is being spent. Those representatives are we in the Congress; and

it's time for the Pentagon to learn a few simple lessons about good management and marginal utility. It's time for the Congress to make the Pentagon a weapon for the defense of our country rather than a giant bureaucracy that hobbles our economy.

Finally, although we must be able to defend our country, we must also seek out the path towards peace. If we arm ourselves with every weapon available, our adversary will not fail to do the same. We do not have a monopoly of the weapons of doom.

Therefore, we must turn to our only alternative, and that is a reduction of arms. This path is not without danger, but we must find the courage to accept that danger, or our fear will redound to our terror. There is no security in terror.

In a statement of September 25, 1973, the U.S.S.R. made the following proposal:

> The Soviet Union proposes that the following question be included in the agenda of the twenty-eighth session of the General Assembly of the United Nations as an important and urgent item: "Reduction of the military budgets of States permanent members of the UN Security Council by 10 per cent and the use of a part of the funds thus saved for providing assistance to developing countries."
>
> If everyone agrees to this proposal, and if the General Assembly adopts an appropriate resolution, a good and useful thing can be done.
>
> The States permanent members of the UN Security Council are known to bear the heaviest military expenses. This fact is taken into account in our proposal.
>
> We consider it advisable to take as a starting point for the proposed reduction the level of military budgets for the current year of 1973. The part of the funds released as a result of the

reduction to be used for rendering assistance to developing States could amount, for example, to 10 per cent.

Of course, this measure requires the participation of all States permanent members of the Security Council without exception. It is also desirable that other States possessing big economic and military potentials should reduce their military budgets, too.

We suggest that the funds allocated for purposes of economic assistance to developing countries should first of all be granted to those countries of Asia, Africa and Latin America which have experienced great difficulties this year because of grave natural disasters, drought or floods.

The distribution of the said funds should be carried out on an equitable basis. The amount of funds to be granted to individual countries and the time-limits for granting them could be determined by an international committee established on a temporary basis and consisting of representatives of developing countries, States permanent members of the Security Council and the countries reducing their military budgets.

It is obvious that the States carrying out the reduction of military budgets would also benefit from the implementation of such measures. They would obtain a possibility to channel considerable resources for the peaceful needs of their peoples, for the improvement of their living standards.

I think this is an excellent proposal, and I think now is the time to start. According to a large group of former defense officials, this much ($9.13 billion) and more, some say up to 14.9 billion, could be cut from this year's budget without having any negative effect at all on our national security. It would come at a time when such a gesture would have a most positive effect on efforts for world peace. And, as the Russians themselves stated, "It is obvious that the States carrying out the reduction of military budgets would also benefit from the implementation of such measures."

In our case, this is most certainly true.

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

THURSDAY, MAY 16, 1974

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 10 a.m., in room S–126, the Capitol, Hon. John L. McClellan (chairman) presiding.

Present: Senators McClellan and Young.

DEPARTMENT OF DEFENSE

NONDEPARTMENTAL WITNESSES

Chairman MCCLELLAN. The subcommittee will come to order.

The subcommittee has received requests from various private citizens to present testimony relative to the fiscal year 1975 budget for the Department of Defense. We have set aside this morning to hear those witnesses. We will undertake to call them in the order in which the requests were received, consistent with logical grouping of subject matters, since two or three will want to testify on the same subject.

The first witness we will call this morning is Mr. Edwin M. Hood, president of the Shipbuilders Council of America.

Senator Hatfield, I believe, wishes to introduce these first witnesses.

Senator, we are very glad to have you.

STATEMENT OF HON. MARK O. HATFIELD, U.S. SENATOR FROM OREGON

Senator HATFIELD. Thank you, Mr. Chairman. Mr. Chairman and Senator Young, I am very pleased to be able to be here this morning. Even though I am not a member of this particular subcommittee, I consider it a great privilege to serve on your Committee on Appropriations and this morning to have the privilege of introducing these gentlemen who represent certainly not only an important industry in my State but also many other States as well, and an industry which contributes directly to the national defense of this Nation.

As you know, particularly on the west coast, we are dependent upon ship repair facilities and more especially the trained personnel and skilled workmen to maintain the viability of this during a wartime, or even during a time of emergency, and also to maintain the integrity of such a facility. We have to depend on certain segments of the Navy repair business in peacetime.

I am sure, Mr. Chairman and Senator Young, that you don't draw together skilled personnel on a moment's notice, so I think it is really

incumbent on this Nation to maintain a kind of division of repair work whereby we can continue on a permanent basis this kind of organization which is desperately and definitely needed during an emergency period. You just don't, as I say, form such an operation overnight.

So I am talking here not in terms of the economic importance to our State in terms of payroll only, but in terms of national defense. I am pleased to say we have not only people here representing the important industry, but we have especially, and if I may put a focus on the Oregonian involved, we have a man who is typical of his industry. He is a good corporate citizen, and he contributes much to the community by his leadership and involvement in our community. That is the quality of person I think you will find in the commitment of these people that goes beyond the economics, to the core of our whole national defense and that preparation. What we have to sustain is the facility to maintain repairs and other services to our Navy and to other parts of our shipping industry.

STATEMENT OF GEORGE W. WINTZ, BOARD CHAIRMAN, WESTERN SHIPBUILDING ASSOCIATION

ACCOMPANIED BY:

EDWIN M. HOOD, PRESIDENT, SHIPBUILDERS COUNCIL OF AMERICA

GEORGE HAMILTON, PRESIDENT, NEW ENGLAND SHIP REPAIR YARD ASSOCIATION

MICHAEL J. GALLAGHER, PRESIDENT OF THE NEW YORK AND NEW JERSEY DRY DOCK ASSOCIATION

Senator HATFIELD. With that, I would like to commend to you for your consideration Mr. George Wintz and his colleagues representing a very important part of our national defense program.

Mr. WINTZ. Thank you, Senator.

Chairman MCCLELLAN. Thank you very much, Senator.

I gather from your remarks that you consider the maintenance of a capable repair force as a part of the preparedness necessary for this country.

SOVIET CAPABILITY

Senator HATFIELD. Mr. Chairman, you have put it very succinctly and right on target. I must just share with you one perspective I gained by visiting the Soviet Union on an occasion when I had tended to think only of our comparative defense and military strength in terms of how many planes did they have, how many planes did we have, how many submarines did they have, how many submarines did we have, and all through the whole military hardware picture. I was struck by the kind of industrial capability that was so evident.

Their poor transportation system and the lack of modernization of their productivity represented by their industrial plant made me realize again that we can have all the hardware out there and be superior, but if we do not have the logistical backup, the logistical productivity, then our hardware is only good for the initial thrust.

So, to sustain a definite effort, we have to have such industries as iron and steel and others that represent this kind of repair. To me, it is as vital as the megatons by which we measure our bombs, or the

numbers of tanks that we have in our national defenses to, have this kind of industrial logistical backup.

Thank you.

NEED FOR ADEQUATE DEFENSE

Chairman McClellan. I may say I am in full accord with your view with respect to this, and also I am committed to trying to see that the United States does not become a secondary military power. I don't know if there is to be an assault on the military budget. No doubt, criticism of the military is justified in many areas. War and preparation for war have always involved and will always involve a great deal of waste and some extravagance. We ought to try to eliminate this as much as possible, but at the same time I don't think we can ever afford to let down our involvement. We have to maintain a military posture with a logistics backup that is essential for our national security. It should not be sporadic or halfhearted. Rather, we must be constant in our vigilance if we are to maintain our way of life.

Thank you very much, Senator.

Senator Hatfield. Thank you very much. I have to go to another meeting.

Chairman McClellan. Which one of you wants to testify first?

Mr. Hood. I think the Oregonian, in deference to Senator Hatfield, should be first, Mr. Chairman.

Mr. Wintz. George W. Wintz.

Chairman McClellan. Now, gentlemen, I don't want to deny anyone the right to read his full statement, if he wishes, but we do want to give everyone a chance to be heard this morning, if we can. So, if you are going to read your statement, that is fine. If you feel you can highlight your statement without reading it, we will insert your statement in full in the record and let you speak to it. I will leave that to you. You are the witnesses, and we want to afford you every courtesy and every opportunity to be sure that you make the presentation in the way you think will be most effective.

Mr. Wintz. Thank you, Senator. I will hold my statement briefly here.

My name is George W. Wintz. I am president of Willamette Iron & Steel Co., with shipyards in Portland, Oreg., and Richmond, Calif., and I am also chairman of the board of the Western Shipbuilding Association, who represents conversion and ship repair yards, suppliers, labor organizations, and many other important related segments serving the maritime industry on the Pacific coast.

I appreciate the opportunity to appear before your respected subcommittee to present the case for the continuation of the private shipyards on the Pacific coast to obtain by competitive bidding a fair share of the Navy's alteration and repair work.

NAVY ALTERATION AND REPAIR ALLOCATIONS

First, gentlemen, please accept the thanks of our membership for your favorable support for the amendment to H.R. 11575, which allocated 29.7 percent of the Navy's alteration and repair work to the private sector. This was signed into law on January 4 and is now in operation.

Chairman McCLELLAN. Let me interrupt briefly. Do you regard that percentage as reasonably fair and equitable?

Mr. WINTZ. That is a good question, Senator. We can handle more work, but we think that it is not quite on the equitable side. It is a very, very good start, though.

Chairman McCLELLAN. Is it adequate to sustain your capability and keep you in operation and prevent the dismissal of a great many people?

Mr. HOOD. Mr. Chairman——

Mr. WINTZ. I can only speak, Senator, for the Pacific coast region.

Chairman McCLELLAN. I am talking about from your knowledge.

Mr. WINTZ. We are getting by, Senator.

Chairman McCLELLAN. I will recognize Mr. Hood, if you wish to comment.

Mr. HOOD. Historically the industry has felt that a 50–50 split would be more equitable in terms of maintaining the capabilities of both the naval and private shipyards.

Chairman McCLELLAN. You may proceed.

Mr. WINTZ. Thank you.

PRIVATE YARD SITUATION

I am delighted to report to you that our participation in this work has been a lifesaver to the private yards on the Pacific coast. Our private yards have responded well. In general each contract has attracted four to five very competitive bids, the work has been performed on schedule and with good workmanship, and it is very obvious that the confidence that you have extended to us has been well placed.

One such recent case is the work accomplished by San Francisco private yards on naval aircraft carriers. With Hunter's Point Naval Shipyard scheduled for closure next month, the Navy has assigned via competitive bidding several large contracts covering work formerly performed in their own yards. The results have been praiseworthy, and I am pleased to attach herewith copy of a letter from the commander of the Naval Air Force in the Pacific thanking our private yards for an excellent performance.

Chairman McCLELLAN. Your letter may be printed in the record.

[The letter follows:]

SUPERVISOR OF SHIPBUILDING, CONVERSION AND REPAIR, USN,
Twelfth Naval District, April 16, 1974.

From: Supervisor of Shipbuilding, Conversion and Repair, USN, Twelfth Naval District.
To: Triple "A" Machine Shop Inc., Pier 64, San Francisco, CA 94107.
Subj: USS CORAL SEA (CVA–43) Selected Restricted Availability (SRA) FY 74 Job Order #12ND–004–74, 12ND–004A–74 and 12ND–004C–74 to Contract #N62798–70–C–0011; Letter of Commendation for

1. The Supervisor recently received a message from VADM Robert D. Baldwin, USN, Commander Naval Air Force, U.S. Pacific Fleet, commending this activity for its outstanding performance in accomplishing the USS CORAL SEA (CVA–43) Selected Restricted Availability. Since this commendation was a direct result of Triple "A" Machine Shop Inc.'s excellent performance throughout this availability, I want to take this opportunity to express my appreciation to you and to all the personnel who participated in the accomplishment of this work.

2. I appreciate your efforts and commend you and your workforce for a job "Well Done"!

P. D. KJELDGAARD.

WORKLOAD ON PACIFIC COAST

Mr. WINTZ. I would like to briefly bring you up to date on the workload and labor situation on the Pacific coast. There are three very large and active naval repair facilities remaining on the Pacific Coast—Bremerton, Wash., and Mare Island and Long Beach in California. It is to be noted that these yards are experiencing more work than they can comfortably handle with the labor available within their respective areas. To support this statement, I am attaching herewith recent copies of prominent advertisements for skills of all types by the naval shipyards. Mare Island is endeavoring to sell the virtues of sunny California in the Portland papers. Bremerton is doing likewise in their area, and the Long Beach Naval Shipyard is also aggressively recruiting. Our shipyards are experiencing labor shortages, and in my opinion they have about all the work they can properly handle now.

Chairman MCCLELLAN. You are talking about the Government yards?

Mr. WINTZ. Yes, I am talking about the Government yards, and I have supporting documents there. It is very plain to us that the answer to these navy yard manpower shortage is to increase the allocation of naval work for competitive bidding to the private sector by an appreciable amount. To take away from us what we have gained by H.R. 11575 would be unthinkable, and certainly would not be to the best interests of our country. The private sector has additional capacity, our management is aggressive, and over these many years has learned to respond very quickly to changing workloads. It is certainly to the best interests of all concerned that the Congress take advantage of these capabilities. It has been proven that we can save you money, we do good work, maintain contract schedules, and we sincerely ask that you subscribe to our request that the private yards be permitted an allocation of 50 percent of all naval work within our capabilities.

I just cannot overemphasize the value of competitive bidding and the savings to the taxpayers. We must all realize that a certain state of readiness must be preserved in private as well as naval shipyards, and the answer to this is to place an equitable volume of work in both sectors. Our association has never advocated, nor does it now, the closure of any naval shipyard, for that is a matter for the military to decide.

In closing, we once again urge your strongest support to assure language for the fiscal 1975 Defense Appropriations Act that mandate an equitable division of Navy ship repair, alteration and overhaul work between naval and private shipyards.

Thank you, gentlemen.

Chairman MCCLELLAN. Thank you very much, sir.

Senator Young?

ABILITY OF PRIVATE YARDS

Senator YOUNG. Yes. I have a question. Can the private yards do all kinds of alteration and repair work? For example, can you repair nuclear ships and replace cores?

Mr. WINTZ. Not on the nuclear end, Senator. I am speaking on the Pacific coast. There are three private yards in the United States: The Bethlehem at Quincy, and the Quinton at Pascagoula, and we on the Pacific coast.

I think the gentlemen at the table this morning do not do that kind of internal nuclear power work, that is very specialized. We do get, of course, in the sophisticated electronics and work of that type, and in fact both ourselves as well as the naval shipyards pretty much rely on the same specialized subcontractors for that type of sophisticated work.

BACKLOG OF REPAIR WORK

Senator YOUNG. As a result of the Viet Nam war I understand there are more ships to be repaired and alteration work than usual.

Mr. WINTZ. Senator, that is correct, and then our Navy has some of the ships in our own private yard in port. We had a destroyer in there that goes back to World War II, and it is not in very good status.

Senator YOUNG. The Navy has been able to allocate the 30 percent we wrote into the bill last year?

Mr. WINTZ. I would say on the Pacific coast, Senator, yes, sir.

Senator YOUNG. According to your figures.

Mr. WINTZ. Yes.

Mr. HAMILTON. That does not apply to New England, New York.

Senator YOUNG. You have not received 30 percent?

Mr. WINTZ. Practically nothing.

HANDLING OF 30 PERCENT DISTRIBUTION

Mr. HOOD. The answer, Senator Young, to the 70–30 split, how it has impacted totally throughout the country will not be known until at the end of the fiscal year on June 30——

Senator YOUNG. How is this 30-percent distribution requirement handled by the Navy? I mean in the New England area you are not getting near that 30 percent? How does the Navy handle it?

NEW ENGLAND SITUATION

Mr. HAMILTON. What has happened, the Navy closed the Newport, R.I., destroyer base, and they took approximately 65 ships which were destroyers and their support vessels which we normally worked on and moved them to Charleston, S.C., and Norfolk, Va. Then they also put out an order that all naval vessels must be repaired in their home ports.

Chairman MCCLELLAN. Would you identify yourself for the record?

Mr. HAMILTON. Yes; George Hamilton.

In doing so, they have not only taken all the ships we normally worked on in the Newport, R.I., area and sent them South, but they refused to let us bid on them so all we are getting are the dregs that are left over from the 3d Naval District of New York and give us a chance to bid occasionally on the ships at their discretion.

So, in effect, the 13 repair yards in New England, since the first of January, have got practically nothing as far as naval work is concerned.

Speaking for myself, I have had two naval vessels since January 1, which is ridiculous.

Chairman McCLELLAN. You represent a private yard?

Mr. HAMILTON. Yes, sir. I am a general manager of the Bethlehem Steel Yard in Boston, which is the biggest between Boston and the Canadian border.

Chairman McCLELLAN. What is the situation in regard to Government shipyards?

Mr. HAMILTON. There is no competition now. They closed the Boston naval shipyard and also the Newport destroyer base that normally handled and moved the ships south, so they have, in effect, shut New England out of naval work completely. The closest base now is Norfolk, Va., and some in New York.

Chairman McCLELLAN. Have you been getting any repair work at all?

Mr. HAMILTON. In the last month I have two ships and one ship on the dock which we negotiated out of the Third Naval District, but we are not allowed as of today to bid on the repair of vessels that are home-ported in Norfolk and Charleston, S.C.

Chairman McCLELLAN. They give you no opportunity to bid on it?

Mr. HAMILTON. These are the ships we normally worked on up until 3 months ago.

PREPARED STATEMENT OF MR. GEORGE HAMILTON

Chairman McCLELLAN. Mr. Hamilton's complete statement will appear at this point.

[The statement follows:]

The private ship repair yards, a segment of the industry wholly apart from ship building, pride themselves on their independence and being "the shock troops of the industry," traditionally able to react quickly in the event of a national emergency.

While having to bid for their work, ship repair yards in a competitive atmosphere have demonstrated through four cost studies by independent accounting firms that today's complex naval ship repair, alteration and overhaul work can be accomplished more economically than in Navy yards. The most recent of these, an Ernst and Ernst study completed in 1971, establishes that repair costs in private ship repair yards are half of such costs in Navy yards.

Indeed the Office of Management and Budget promulgated policy in 1966 establishing fundamental reliance on private enterprise for its needs. Further, the Department of Defense and the Navy have considered it their responsibility since 1970 to "foster the establishment and retention of a competitive commercial depot maintenance base."

The problem is that contrary to all this, as noted by the House Subcommittee on Defense Appropriations (92nd Congress, second session), there was a "strong tendency on the part of the Navy to put a disproportionate share of such work (repair, alteration and overhaul) in (Naval) shipyards."

The Subcommittee further noted that "the private (ship repair) yards cannot hope to survive on (the) small allocation of repair, alteration and overhaul work now awarded them." The Subcommittee concluded: "It is important that a realistic allocation of this work be assigned to private ship (repair) yards to retain an industrial base required for instant reaction in the event of a national crisis."

For Fiscal 1974, the Congress voted a 70-30 split of all non-nuclear repair, alteration and overhaul work between the Navy yards and private ship repair yards. This being some improvement over the 19.6% we received in 1972. This year we are asking for a 50-50 split.

Speaking for the New England Ship Repair Yards, I must state that we are in a disaster area . . . the Defense Department closed the Newport, Rhode Island Destroyer Base and moved approximately 65 vessels consisting of Destroyers and their support vessels which we normally worked on to Norfolk, Virginia and Mayport, Florida. This action plus Admiral Elmo R. Zumwalt's order that all naval vessels must be repaired in their designated home ports further discriminates against the New England Ship Repair Yards.

In order to survive, the New England Ship Repair Yards must be allowed to bid across naval districts on all naval vessels repaired on the Atlantic and Gulf Coasts.

We are not, as others might suggest, asking that precipitous action be taken against Naval shipyard personnel. Rather we seek survival and ask that co-existence be made possible by more equitably sharing the predictable workload each and every year . . . so as to retain the essential industrial base needed for instant reaction . . . so as to add to the tax base of our government . . . and so as to provide more naval power for the defense dollar.

NEW YORK-NEW JERSEY SITUATION

Mr. HOOD. Mr. Chairman, I think you might like to hear from the gentleman from the New York-New Jersey area just to get——

Chairman MCCLELLAN. All right, Mr. Gallagher. Do you have any comments?

Mr. GALLAGHER. Mr. Hood will make a statement.

PREPARED STATEMENT OF EDWIN HOOD

Mr. HOOD. For the purpose of saving time, Mr. Chairman, I will submit my statement for the record and ask if you will indulge us for a few more moments and hear Mr. Gallagher.

Chairman MCCLELLAN. We certainly will. Mr. Hood, you may submit your statement for the record, and it will be printed in the record in full.

[The statement follows:]

On numerous past occasions, I have been privileged to appear before the Subcommittee on Defense. However, for the record, I am Edwin M. Hood, President and Board Chairman of the Shipbuilders Council of America, a national industry association composed of major shipyards in all sections of the country.

I am accompanied by:

Michael J. Gallagher, President, New York New Jersey Dry Dock Association
George S. Hamilton, President, New England Ship Repair Yard Association
George W. Wintz, Board Chairman, Western Shipbuilding Association

My statement will be short and to the point. My colleagues will be equally as brief.

It is truly tragic that an annual intrusion on the limited and valuable time of this distinguished Subcommittee is necessary to reiterate a point which is no longer disputed: dollar savings of considerable magnitude are possible through the award of an increasing volume of U.S. naval ship repair, overhaul and alteration work

to privately-owned, commercially-operated shipyards in the membership of our separate organizations.

Yet, were it not for these yearly appeals to the Congress, supporters of the government-owned and operated naval shipyards would postulate a crescendo of illusory reasons as to why an increasing, rather than decreasing, volume of non-nuclear repair, overhaul and alteration naval ship work should be allocated to higher cost Navy yards - regardless of impact on the public treasury and levels of defense spending - and regardless of clear evidence that lower costs are available in the private sector.

Four independent studies - two sponsored by the Navy Department and two commissioned by the private shipyard industry - have effectively demonstrated that costs for all types of ship work are considerably higher in the naval shipyards. The Congress, through the aegis of the Defense Appropriations Subcommittees, has taken cognizance of this situation, and has acted to restrain a needlessly expensive penchant on the part of those responsible for the apportionment of repair, overhaul and alteration work on non-nuclear surface vessels between naval and private shipyards.

As a consequence, the Fiscal '74 Defense Appropriations Bill mandated a split of approximately 70 percent for naval yards and 30 percent for private yards. Whatever the dialogue may be, this unbalanced ratio still constitutes favored, unfair and costly government competition with private enterprise significantly threatening the efficient use of private sector facilities.

Indeed, taking into account the precepts of private enterprise which are fundamental to the American ethic, taking into consideration the inherent cost saving potential which is so important to a reduction in defense spending, a 50/50 percent ratio would seem more logical, and we hope the Congress, through the leadership of this distinguished Subcommittee, will see fit to require such a distribution as a part of the Fiscal '75 Defense Appropriations Bill.

As to the need for constant Congressional monitoring of this situation, we cannot, at this moment, state with any certainty that the private shipyard industry will have collectively received 30 percent of this type of work by the end of Fiscal '74 - by June 30 of this year - as prescribed in the Fiscal '74 Defense Appropriations Bill. In some areas, there is evidence of increased awards to private yards; in others, there is evidence of deliberate machinations to obviate the Congressionally-mandated necessity of placing more work with lower cost private yards.

We most earnestly request your continuing attention to this matter so important to those private shipyards throughout the country whose employees and skills are dedicated to the repair, overhaul and alteration of non-nuclear combatant and non-combatant surface vessels for the United States Navy.

STATEMENT OF MICHAEL J. GALLAGHER

Chairman MCCLELLAN. Mr. Gallagher.

Mr. GALLAGHER. Senator, my name is Michael J. Gallagher. I am the president of the New York and New Jersey Dry Dock Association.

On behalf of our association, I wish to thank you for the opportunity to once again appear before your committee. Last year we appealed to your committee and the congressional Defense Appropriation Committee for a more equal distribution of naval repair, alterations, and conversion of nonnuclear naval vessels for the private shipyard industry. At that time we informed your committee of the vast economical savings that could be realized through the encouragement of competitive bidding by private shipyards in this country.

Your learned committee and the Congress, in their wisdom, besides realizing the private shipyard industry could perform repairs, alterations and conversion work to nonnuclear naval vessels at a greater saving to the taxpayer, stated that the private shipyards of this country are essential for the support of defense production and should be relied upon to the maximum extent practicable to promote the national defense. The private shipyards were allocated 29.7 percent, amounting to $360 million, of the funds available for this work.

Unfortunately, this act was not passed into law until sometime late in December 1973, leaving only 6 months for the work to be performed by private industry. The increase of naval work available to private shipyards was enthusiastically greeted by our industry, but our enthusiasm was short-lived because the proposed budget for fiscal year 1975, made public early in February 1974, requested elimination of the provision providing work for private shipyards. This was a severe blow to our industry which labored under the belief that finally the Navy's policy regarding private industry had been changed. Private industry cannot respond effectively unless we are assured of a continuous volume of business.

ALLOCATION REINSTATEMENT REQUESTED

We hope your committee will reinstate an allocation of funds in the Defense Appropriation bill for fiscal year 1975 for private shipyards.

NORTHEAST SITUATION

I would also like to take this opportunity to bring to your attention the grim prospects of naval work available to the private shipyards in the Northeast. It was the hope of the New York and New Jersey Dry Dock Association and the New England Ship Repair Yard Association, that with the closing of the Boston Naval Shipyard, the destroyer fleet home-ported in Newport, R.I., would be open to our districts for competitive bidding.

Before the closing of the Boston Naval Shipyard, 70 vessels were home-ported in Newport, R.I.; now only 7 vessels remain. The total number of ships left in the First, Second, and Third Naval Districts today is 41, of which 20 are support vessels such as tugs, barges, cranes and small tankers. The Navy has shut off the Northeast.

We feel the Navy must alter its policy and allow cross district bidding. It is our feeling that there are means to accomplish this with-

out undue hardships to Navy personnel. From time to time naval vessels are sold to foreign governments. These vessels could be outfitted and repaired in any district.

Vessels that are activated from the reserve fleet and vessels that are being placed into the layup fleet, could be repaired anywhere. Support vessels such as tugs, and barges can be towed to different districts and the crews of such vessels moved to other ships.

We bring before your committee the fact that if a national emergency existed today, the Government-operated naval shipyards could not properly support the defense of this Nation without the aid of private shipyards.

A realistic allocation of naval repair, overhaul and conversion budget in order to maintain this private industrial base has been demonstrated time and again and I ask this committee to act vigorously in effecting this allocation.

The shipwards in the Northeast, it is our feeling in the New York-New Jersey Dry Dock Association, and we share the feeling of the New England Dry Dock Association, that the Navy has cut off the Northeast to any repair work. The ships left in the First, Second, and Third Naval Districts, 41 vessels, of which 20 are support vessels, Senator, there is no work available of any proportion to the shipyards in the Northeast.

I would like to bring that to your attention.

EQUITABLE ALLOCATION FORMULA

Chairman McCLELLAN. Is there any way that some formula of allocation might be worked out so that all might share and still survive?

What I am trying to determine is if we should get into a real crisis again, and need all of these facilities, some would be closed down, and would not be available. What I am trying to ascertain, is there any way some allocation can be made that would be reasonably profitable so as to keep this industry alive and available? Is that practical?

Mr. HOOD. Mr. Chairman, it is largely controlled at the moment by the so-called home-port policy of the Navy, but we as an industry for a number of years have advocated to the Navy the development of the very kind of thing that you are suggesting wherein both the private sector yards and the naval sector yards could be utilized in an optimum way so that the capabilities——

Chairman McCLELLAN. I am talking about the private sector.

Mr. HAMILTON. An allocation is an ideal way to do it, but I don't know how it could be developed. What we have asked for which would give us at least a chance is an opportunity to bid, and they won't even let us bid on it right in New York.

Chairman McCLELLAN. At present you are denied the right to bid?

Mr. HAMILTON. Yes. It will give us a chance to get in there. Right now we cannot even bid.

Chairman McCLELLAN. Anything further?

Mr. HOOD. We have exceeded our time, Mr. Chairman.

Chairman McCLELLAN. That is all right. We want to hear you.

Mr. HOOD. We appreciate that, and we appreciate also the opportunity to have our statements printed in the record.

STATEMENT OF LARRY F. GILLESPIE, PRESIDENT, COUNCIL OF NAVAL EMPLOYEE GROUPS

ACCOMPANIED BY:

LEWIS BOGDANOFF, PRESIDENT, THE JOINT COMMITTEE FOR YARD DEVELOPMENT, PHILADELPHIA NAVAL SHIPYARD

ADMIRAL JAMES, FORMER CHIEF OF THE BUREAU OF SHIPS

PUBLIC SECTOR REPRESENTATIVES

Chairman McCLELLAN. Our next witnesses are L. F. Gillespie, president of the Council of Naval Employee Groups; Lewis Bogdanoff, president of the Joint Committee for Yard Development, Philadelphia Naval Yard; and Page Groton, assistant to the international president, International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers, and Helpers.

Come around, gentlemen.

Does each of you have a prepared statement?

Mr. GILLESPIE. If I may, Senator, I am Larry Gillespie, president, Council of Naval Employee Groups, representing approximately 32,000 employees of the four western naval shipyards of Puget Sound, Bremerton, Wash.; Mare Island, Vallejo, Calif.; Long Beach; and Pearl Harbor, Hawaii.

Chairman McCLELLAN. These are Government yards?

Mr. GILLESPIE. Yes, sir.

Chairman McCLELLAN. In other words, we just heard the private sector, now we are going to hear from the public sector, is that right?

Mr. GILLESPIE. Yes, sir.

Chairman McCLELLAN. Proceed.

Mr. GILLESPIE. In addition to representing the four west coast yards, I am also an employee at the Long Beach Naval Shipyard with 28 years of service.

If I may, sir, I would like to introduce Admiral James, former Chief of the Bureau of Ships, and Mr. Lewis Bogdanoff, president of the Joint Committee for Yard Development, Phildaelphia Naval Shipyard.

Chairman McCLELLAN. Proceed.

Mr. GILLESPIE. May I express my sincere appreciation to you and the committee for the opportunity to present the views of our employee groups with respect to any legislated distribution made in repair work.

PREPARED STATEMENT

If I may, Senator, I would like to have my statement introduced into the record in its entirety, and I will just highlight those things.

Chairman McCLELLAN. Very well.

Mr. Gillespie's prepared statement may be printed in the record in full. You may proceed to highlight it.

[The statement follows:]

Mr. Chairman, Members of the Committee:

I am Larry Gillespie, President, Council of Naval Employee Groups, representing approximately 32,000 employees of the four western naval shipyards of Puget Sound, Bremerton, Washington; Mare Island, Vallejo, California; Long Beach; and Pearl Harbor, Hawaii. I am also an employee at the Long Beach Naval Shipyard with 28 years of service.

May I express my sincere appreciation to you and the Committee for the opportunity to present the views of our Employee Group with respect to any legislated distribution of Navy ship repair work.

For the past three years, naval shipyards have been the target of an aggressive campaign waged by the Shipbuilding Council of America. They contend that costs in naval shipyards far exceed costs of the private shipyards for similar type work. We categorically refute such claims. If a truly objective comparison could be conducted, it would prove without question, in our opinion, that it does not cost more to repair ships in naval shipyards. In fact, it is our contention that the private repair shipyards are, in effect, being subsidized by the Navy for some of its cost. Currently, the Navy bears such cost for the private shipyards as engineering, design, and planning. Were the private yards required to pay these costs, without question, their total cost would be considerably higher. But, not withstanding, our arguments of a year ago in opposition to any legislated mathematical distribution of naval repair work, the Congress passed such legislation.

Such legislation did not take into consideration the capabilities, manpower, or the physical limitations of the private repair yards. Unlike the private building shipyards, the private repair yard does not have the tooling required to repair the modern type ship coming on the line today. Without crying sour grapes, because we can and do appreciate the private yard problems, but it is because of their lack of capability that ships assigned to private repair yards have not been completed on schedule to meet Fleet commitments. I'm sure the Committee can get the specifics of where I speak from the Navy. Part of the problem today, which has befallen both Navy and private repair yards commenced with the winding down of the Vietnam war and the subsequent Fleet reductions. There are approximately 550 ships in the Fleet today as compared to slightly over 900 ships of a few years ago. Yet, our commitments to the free world has not diminished and to a large degree it falls on the Navy to maintain our country's visability. In recognizing the reduced Fleet size, the Navy is in the process of closing two shipyards. With the closing of the naval shipyards at Boston and Hunters Point in San Francisco, the Navy has brought into alignment its own repair capability necessary to maintain the reduced Fleet size. In effect, the Navy has achieved, by the unfortunate circumstance of closing shipyards, a fuller utilization of the capabilities of the remaining Navy yards. And, from this greater utilization, lower costs can be realized because of continuous employment level, full use of plant and equipment, resulting in a decent ratio of productive workers to overhead workers thus increasing productivity.

Unfortunately, the private repair yards are unwilling to accept what is very apparent to everyone else and that is the Navy is smaller. The volume of work which both Navy and private yards could rely on with any degree of frequency is past. Further, the greatest reduction in ships was in the older non-combatant types which the private shipyards did have some expertise and the facilities to repair. However, the new ships are bigger, more complex, which the private repair shipyards are not fully

equipped to handle. On top of this the type and size of the repair jobs are so large that the private yards, except for a very few large building yards do not have the capability nor the workforce to man the job properly with the right mix of mechanical trades.

The basic capability of naval shipyards not possessed by private shipyards is when a ship has trouble, the ship is moved right into the Navy yard and people start to work immediately. Just within the past month, because of the inability of the private shipyards to accept work because of an overloaded work condition, and the magnitude of the job, the carrier ORISKANY was assigned to Long Beach Naval Shipyard. The work is scheduled to begin the first part of August, approximately 90 days from when the shipyard was informed. It is no small work package, it has been estimated to be around 95 thousand man-days of work. Can you imagine the logistic problems, planning and development of the work package that is involved. Then, our friends in the private sector will have the nerve to cite high costs in Navy yards. Many times, ships are moved into naval shipyards on short notice. Naturally, costs can be higher, when you plan for one type of work and have to alter your plans and shift work forces around to accommodate the change.

With the Fleet reductions and closing of naval shipyards, there has been a marked decline in the skilled workforce. Skilled mechanics are a premium because of the demand of all sorts of private businesses for first-class journeymen paying above top dollar and steady work. Because of the decline in employment in Navy shipyards from 94 thousand of three years ago to our current level of approximately 61 thousand. Naval shipyards are undertaking measures to obtain qualified journeymen by increasing their apprentice program classes. Puget Sound is increasing their apprentice class to some 800; Charleston is doing the same, in fact, they are starting a new class now and another in September; Long Beach is increasing their next class 100%; Mare Island a similar increase and the other naval shipyards are following suit. What is the private sector doing in this area? Nothing! Yet, in time they will realize the benefit of the Navy's apprentice program by pirating fully trained qualified mechanics away. In effect, the Navy, through their shipyards, is conducting the only real apprentice training program for the entire shipbuilding and ship repair industry. Besides the apprentice training program, Navy yards are constantly training their regular workforce on new techniques and changes which occur almost daily.

It is our firm request that the imposition placed on the Navy in last year's appropriation not be included this year. The continued allocation of work between Navy and private shipyards can only work to the disadvantage of the Navy and the country and could result in the further strangulation of more Navy yards. Such a diminution of Navy yard capability would permanently erase mobilization potential which the Navy must possess to meet emergency situations as they may arise. We strongly urge against the continuation of any constraints on the Navy's ability to administer the appropriated funds of the Congress. Permit the Navy the discretion of assigning ship repair work to naval or private yards.

Perhaps I have overstated our case, but the fact remains - Navy shipyards are an integral part of the Navy, providing needed repairs with one objective - a first-class fighting ship with safety and comfort of the crew, who are serving their country. May I conclude by quoting from the status of Shipyard Report by the Subcommittee on Seapower, chaired by the Honorable Charles Bennett, "It is this ability to bring to bear an especially skilled workforce in an emergency that makes Navy Yards so important to maintaining national preparedness."

REDUCTION IN REPAIR WORK

Mr. GILLESPIE. First of all, Senator, I think we should recognize here that the Navy has made an attempt to recognize the capability and the abilities of the private yards in the assigning of work in prior years.

Within the last year the Navy is closing two naval shipyards, one on the east coast at Boston and the other on the west coast at Hunter's Point in San Francisco.

In effect, what the Navy has done is recognized its own capability and the fleet size. As of a few years ago the Navy had approximately 900 to 1,000 ships in the fleet. Today it roughly is a little in excess of 500 ships. So, the Navy has in effect reduced its own repair capability to the size of the ship force that is available to be repaired and needs repairing and updating.

From this greater utilization of its own remaining shipyards they have maintained a steady employment level, the increased use of their own plant and equipment and air facilities from which they can achieve lower cost, a decent ratio of productive workers to overhead-type workers; and I am sure you recognize the Navy operates under the regulations, and with that we are sure that we can achieve increased productivity.

Unfortunately, what has occurred within the last few years with the winding down of the war in Vietnam and the reduced fleet size, our friends in the private sector have been reluctant to accept this fact, and they recognize their business opportunities fading away, but it is a point of realism that we all have to recognize and live with. The Navy has reduced the number of ships that are available to be repaired.

On top of this the newer ships that are coming on line and the ships that are bigger, they are more complex, the systems within those ships are more complex.

LONG BEACH SITUATION

If I might only cite one instance, Senator, of what has recently happened at Long Beach that I am personally aware of and that has to do with the assigning of a carrier into the Long Beach Naval Shipyard within the last month, which is to take place, that carrier is to report to the shipyard sometime in August to begin an overhaul of a magnitude of almost 95,000 man-days' work. We have just been notified of this.

Here within 3 months we have to do the planning, setting up of the work package, ordering the material. All of these factors dropped right into our lap. You can see the problems that it creates logistically, the planning, the materials that have to be ordered, and all of this simply because of the condition that existed in the San Francisco Bay region.

That size jobs cannot be handled by, as we understood, the private concerns of the area. They were already tied up with work, and they could not take on another job of this magnitude, so the Navy took the only logical step to put it somewhere where they knew it could be

accomplished and has been assigned to Long Beach.

I am sure that there are other situations that the Navy can refer to and inform you about in any of these cases, Senator.

EMPLOYMENT REDUCTION

Chairman McCLELLAN. Are you stating in effect that the Government shipyards have been reduced to a capacity where they are capable of accommodating the needs of the Navy? Is that what you state?

Mr. GILLESPIE. Not entirely, Senator. To a great degree, yes. The reduction of navy yard employment within the last few years has dropped from 94,000 to where now the navy yard employment is only 61,000.

Chairman McCLELLAN. The ships dropped, too. We are not constructing the ships.

Mr. GILLESPIE. That is right.

Chairman McCLELLAN. There is not need for so many at present-day costs.

Mr. GILLESPIE. We recognize that, sir.

REPAIR RATIO

Chairman McCLELLAN. What today is the ratio of repairs done by navy yards and that done by the private sector for the ships you have?

Mr. GILLESPIE. Well, the allocation is approximately 70–30, Senator.

Chairman McCLELLAN. Approximately 70–30. Do you think that is a fair allocation?

Mr. GILLESPIE. I would be presumptive to say that it is a fair allocation. I think we are all looking to our own to insure that we maintain as much work as we can and keep working.

DISCRETIONARY ALLOCATION RECOMMENDED

Chairman McCLELLAN. I know. That is human nature. Are you contending that the Government yards should have more than 70 percent of this work?

Mr. GILLESPIE. What we are saying, Senator, is that we would like to see the allocation as such and the discretion left to the Navy as to where they feel that capability——

Chairman McCLELLAN. You want the Navy to use its discretion? Well, these are Navy shipyards. I would like to be able to say what I should like to do about all my own affairs, too.

Mr. GILLESPIE. Well, agreed, Senator, but I look at it from another viewpoint. While I recognize that the private sector does have an investment and they are looking toward making a profit and only from the assignment of work that they can maintain their plant, their equipment and, in turn, purchase new equipment for work coming down the pike which they feel is coming and they could possibly plan for it, the effect is that our situation today is that the Navy yards are in a better position to do it, and if we get to the point of detracting from the Navy yards' present capability and reducing that, what we are in effect doing, in my opinion, is putting the naval shipyards in the same position that we feel the private shipyards, the repairs yards, are, and that is reducing their capability.

Chairman McCLELLAN. I am trying to find answers. I am not being critical. Would you say that we can safely eliminate those private shipyards?

Mr. GILLESPIE. No, sir.

Chairman McCLELLAN. That we don't need them?

Mr. GILLESPIE. No, sir.

Admiral JAMES. May I comment, Mr. Chairman?

Chairman McCLELLAN. Yes.

Admiral JAMES. As former Chief of the Bureau of Ships, I had to appear before your committees in the past to get the money to administer this program.

Chairman McCLELLAN. I don't think I was here then.

Admiral JAMES. I trust I am young enough to remember when we were both here, Senator.

Chairman McCLELLAN. I don't mean that. I was not chairman, but I was a member of the committee, yes.

Admiral JAMES. In any event, in those days the Congress had expressed the desire, which was heartily supported by the Navy, and still is, that there is room for both the private and the public sector.

Chairman McCLELLAN. That is the thought in my mind, that there is. If so, what is an equitable distribution of the work? You suggested that the Navy should determine that and not the Congress.

65/35 DIVISION OF WORKLOAD

Admiral JAMES. May I comment further? In the earlier days when this issue first was raised by the very energetic Mr. Ed Hood in behalf of his supporters, the Congress expressed an intent that we would divide the work roughly in the ratio of 65 percent to the public yards and 35 percent to private yards.

Chairman McCLELLAN. Which would give about one-third of the work to private yards.

Admiral JAMES. This was very easily accomplished, and it was done by the Navy's own administration of the program carrying out the will of Congress as expressed in the various reports but never until 1963 was it written into the law, at which time it was specifically expressed. That started about 2 years of the most God-awful administration of this program because ships can't be counted on to be in the right place at the right time. There are too many other considerations of the operations of the Navy. Ships get into trouble, they have fires onboard. This causes all sorts of dislocation, and this today is part and parcel of the problem by this fixed floor which was established under the——

Chairman McCLELLAN. It would be established as a target, and then left to the discretion of the Navy as to who would achieve it. You believe this would make it possible for you to act prudently on the basis of ship allocation?

Admiral JAMES. This will be exactly the solution to the problem because the Navy has carried out the intent of Congress and the records will clearly show that.

Chairman McCLELLAN. Why is the Secretary so unhappy about that?

SMALL YARD SITUATION

Admiral JAMES. You have to differentiate between the kind of private yards that you have. Your private yards that build ships are filled, they have order boards that keep them busy. They are very happy with what they are doing, building Navy ships and commercial ships.

The little fellow, and I am not depreciating or deprecating any of the yards that were before you here today, but there are little fellows that they represent who don't have the capability and who, therefore, with this decrease in the number of naval ships being offered for overhaul cannot get into the act.

Now, the impact on the Northeast area, I am completely incompetent to talk about it, but I do know that the Navy consolidated the residue of its forces into certain fewer bases and the distance from Norfolk or even more ridiculous, from Jacksonville, is something that would disturb the fleet operations and certainly disturb the crew and morale and the families in these situations. So you have to distinguish between the capability of these private yards to do this thing.

DISCRETIONARY POWER REQUESTED

Now, it is unfortunate that we only have 503 ships. It is unfortunate that our merchant fleet, which I served for 6 years after I retired, has fewer ships, and this is fundamentally the problem. But I repeat again the basic objective of the Navy is to keep both private and Navy yards alive to give them a reasonable percentage of the work which the Navy has to distribute. But if they are put into a straitjacket by legislative language that becomes the law, then the administration of this thing becomes a horror affair, and it is, as you have stated, to leave to the discretion of the Navy to carry out the stated purpose of assuring adequate work for the private yards as well as the Navy yard, and the administration to be left to the Navy, and I think that the Navy will buy that.

Chairman MCCLELLAN. If we had a goal of one-third to the private sector and two-thirds to the public sector as a target for the 1 year, you might run 25 percent or 28 percent to the private sector, and next year perhaps 37 or 38 percent. I don't think it would be an exact percentage each year, because of the flow of business and the location of the needs, and so forth, would vary some.

I don't know about a one-third or two-thirds division, but assuming that as a basis, if it could be administered in good faith, and administered so that, overall, in a period of time in 4 or 5 years, you come out at about that percentage, you could thus keep the private sector alive and be able to maintain the public sector, too, which is the ideal thing to do. Finding a way to do it now, is the problem.

Admiral JAMES. I don't think that is a very difficult proposition, simply to express the intent of the Congress to see that this condition exists and leave it to the Navy.

Chairman MCCLELLAN. If the Congress wrote it in as a goal and left the administration and discretion to you gentleman, could you assure us that you could administer it so that it would bring about that result?

Admiral JAMES. I must remind you, sir, I am retired and cannot speak for the Navy.

Chairman MCCLELLAN. You can give us ideas and your opinion.

Admiral JAMES. I am about to do that, sir. The action of the Navy over the past 10 years from the 1963 period when Congress did just what you said, set up a target and said conform within reason, and if one year it is high and one year it is low, if the overall is good, that is fine, and it came out 65.3 percent for the Navy, 34.7 percent for the private industry over a 10-year period.

All we have to do is go back to that by taking out specific language that says you will do this, you will do that, which is what I say ties the Navy up.

Mr. BOGDANOFF. May I comment?

Chairman MCCLELLAN. Yes. I am just trying to get the record straight. I am for both interests, because I think the country needs both interests.

EFFECT ON NAVY YARDS

Mr. BOGDANOFF. What has been happening here over a 10-year period is that the Navy yards have been slowly killed, one slice of baloney at a time. Mr. Hood here of the private yards appeared here and they appear very reasonable. They only want a percentage enough to keep open.

Now, it started off with a percentage of new construction and that percentage that they need to keep open kept getting higher and higher and higher until they now have 100 percent of that new construction. Then the remainder of repair, overhaul, and conversion was set up 65 for the Navy, 35 for private yards, but that 65 was repair, overhaul, and conversion.

The private yards have gotten 100 percent of the conversion, so that all that is left of the whole pot now is the repair, the new construction and the conversion have all been given 100 percent to private yards. Now they are campaigning for 50 percent of the repair work, which will mean of the total work, the new construction, conversion and repair and overhaul, the Navy yard is going to get a very small portion.

Chairman MCCLELLAN. What are the three items—new construction, conversion, and repair?

Mr. BOGDANOFF. Yes.

PRIVATE SECTOR WORKLOAD

Chairman MCCLELLAN. Of those three, how much does the private sector have of the total cost to the Federal Government?

Mr. BOGDANOFF. The private yards are now doing 72.9 percent. This is late in November or so, of all Navy work. That is repair, overhaul, and conversion.

Chairman MCCLELLAN. They are doing 72 percent?

Mr. BOGDANOFF. 72.9, almost 73.

Chairman MCCLELLAN. Private sector?

Mr. BOGDANOFF. Of all naval work, that is.

Chairman MCCLELLAN. That is building, conversion, and repair.

Mr. BOGDANOFF. Yes. The naval shipyards are doing 27 percent, but they are here today only to talk about repair where the navy yards are

doing the highest percentage, so now they want that. They have already got the whole pie in the other two.

Chairman McClellan. That is what I wanted to get the facts on in this record.

Senator Young?

UTILIZATION OF CREW

Senator Young. When a ship is in the repair, what happens to the crew? Do they have to go to that port and stay there or are they on furlough, or just what happens to the crew?

Admiral James. The crew accompanies the ship to the overhaul yard. If the nature of the job is a conversion job, meaning 9 months to 15 months, depending on the magnitude of the program, the crew are generally reduced to a mere skeleton, and they are dispersed throughout the fleet and the new crew will be ordered when the ship is ready to return.

Senator Young. And that does present a problem to the Navy as to where a ship is being repaired?

Admiral James. Yes, sir. Especially with the morale of the fleet and the low reenlistment rates, the Navy is very sensitive about keeping the ships near the families when they are in for overhaul because that is about the only time that the crew gets to be at home with their families.

Mr. Gillespie. If I may, Senator, there is normally attached a naval station. We at Long Beach have full facilities, mess halls, hospitals, dental clinics, everything is right there, fully taken care of.

NEW ENGLAND REPAIR PROBLEMS

Senator Young. We have not talked to the Navy yet, but I understand part of their problem in the New England area is the location of home ports.

Mr. Gillespie. That is right.

Admiral James. That is what the gentleman was lamenting.

Mr. Gillespie. I will be just about a minute or so longer, Senator.

LABOR PROBLEM

Because of the decreased work force, we are losing our skilled mechanics and I recognize some of the advertisements that Mr. Wintz has brought in advertising for steel workers at Mare Island and Long Beach. We have found this to be so. The labor markets in our area are so demanding that you have people competing for the primary journeymen, and with that the naval shipyards have undertaken a program to increase their apprentice classes.

At Puget Sound Naval Shipyard they are increasing the air apprentice class to some 100 students this year. At Charleston they are doing likewise; in fact, they are initiating a class now and they are going to start another one in September.

Long Beach increased that by 100 percent, and I understand Mare Island is also going to increase their class by 100 percent, and the other shipyards are doing likewise.

In order to replace those journeymen who are leaving because of the early-out prerogative that has been extended to the Civil Service who are retiring, we are losing men fast.

SHIPYARD REPORT

I would like to close, Senator, by quoting from the shipyard report by the Subcommittee on Sea Power, chaired by the Honorable Charles Bennett from Florida:

"It is this ability to bring to bear an especially skilled work force in an emergency that makes navy yards so important to maintaining national preparedness."

Thank you, Senator.

Chairman McCLELLAN. Thank you.

Mr. Bogdanoff?

STATEMENT OF LEWIS BOGDANOFF

Mr. BOGDANOFF. I am Lewis Bogdanoff of the Philadelphia Naval Shipyard. I have kept my statement down to a little less than 5 minutes, and I would like to go through it.

Chairman McCLELLAN. You may proceed.

REDUCTION IN NAVAL SHIPYARDS

Mr. BOGDANOFF. In 1962, the Shipbuilders Council of America started its campaign to destroy the naval shipyards. At that time the private shipyards employed 114,600 people. The naval shipyards employed 97,800 people. The private shipyards did 56.6 percent of all Navy work and the naval shipyards did 43.4 percent. This was divided in the following manner. The private yards did 67.7 percent of the new construction and 21.6 percent of the repair overhaul and conversion. The naval shipyards did 32.3 percent of the new construction and 78.4 percent of repair, overhaul and conversion.

The private shipyards were doing the largest share of the work, but the division was fairly equitable.

EFFECT ON PRIVATE SHIPYARDS

Then came the constant streams of propaganda saying that private shipyards were dying and must be preserved to save the Nation in times of emergency. Every year they yelled a little more and, though they never got all they asked for, they got something additional. The result is that by November of 1973, private shipyard employment is up to 141,700 and naval shipyard employment is down to 62,700 with two naval shipyards scheduled to close. Private shipyards now do 72.9 percent of all Navy work while naval shipyards do 27.1 percent. Private shipyards get 100 percent of Navy new construction, and 34.6 percent of repair, overhaul, and conversion. Naval shipyards do no new construction and 65.4 percent of repair, overhaul and conversion.

ESTIMATE OF NAVAL SHIPYARD AND CAPACITY

A study made by the Seapower Subcommittee of the Committee on Armed Services of the House of Representatives in May 1971 gives the following "Estimates of naval shipyard capacity":

[The chart follows:]

Basic Shipyard Employment

Shipyard	Low Efficient Level	Optimum Efficient Level	Employment Dec. 31, 1973	% Optimum Employment
Portsmouth	7,200	10,000	5,260	52.6
Philadelphia	7,700	13,500	7,117	52.7
Norfolk	9,000	15,500	9,867	63.7
Charleston	7,000	9,000	6,477	71.9
Long Beach	5,600	9,000	7,019	78.0
Mare Island	8,800	11,000	7,716	70.1
Puget Sound	8,100	17,000	9,078	53.4
Pearl Harbor	5,200	6,500	4,884	75.1

ARGUMENT FOR USE OF PUBLIC YARDS

Mr. BOGDANOFF. As can be seen from the above, so much work has been given to private shipyards that all naval shipyards are operating far below their optimum efficiency level and most are below their low efficiency level.

The Shipbuilders Council of America now screams that because they are more efficient that naval shipyards, they should be given more work for the good of the country. Who made naval shipyards inefficient? The Navy is now closing two of its shipyards so that the work can be distributed among the others and make them operate at a more efficient level, but the council yells give it to us, for the good of the country. As Disraeli said of Gladstone, "I don't mind when he keeps an ace of trumps up his sleeve, but when he insists that God put it there, that is too much."

The private shipyards that are large enough to do Navy work are glutted with orders. Those that don't have sufficient work are too small, and lack the skills to do Navy work. Fortunes were recently spent at the Philadelphia Naval Shipyard to finish a ship started in a small private yard. It would have been far cheaper to build the ship in Philadelphia.

Please stop treating the Shipbuilders Council as if they were reasonable people. Give them nothing this year. They are killing all the naval shipyards just to make a buck for themselves. The effect on the country doesn't interest them one iota.

Sorry for the strong language, but I have been arguing about it for 10 years.

Chairman MCCLELLAN. Mr. Gillespie is strong medicine.

Anyway, tell me, what is the Shipbuilders Council of America?

Mr. BOGDANOFF. This is an organization of which Mr. Hood who was here is the president, and it represents most of the private shipyards in the country.

PRIVATE SHIPYARD CONSTRUCTION

Chairman MCCLELLAN. This is pretty impressive, taking into account the total amount the Federal Government is spending on the construction, conversion, and repair of ships. Do you agree they are getting 70 percent?

Mr. BOGDANOFF. 72. 9 percent.

Chairman MCCLELLAN. 72.9 percent.

Mr. BOGDANOFF. Mr. Hood is well worth his salary. He has done a good job. These figures actually come from the papers that Mr. Hood's organization puts out to his own members to show what good a job he is doing. I figure there is no better place to get them.

Chairman MCCLELLAN. Very well.

Anything further?

Mr. GILLESPIE. Senator, if I may, with that you recognize that in such an operation as building for any kind of repair naturally your costs are going to decrease, and I think we are all interested in saving money. There is nobody here that is trying to get an appropriation far in excess of what is needed to maintain a first-class Navy. But in this process we recognized that when one yard is doing construction, or two,

or three, that they can build up certain expertise. They have got, you might say, production line methods going for them, and I am sure they recognize that within certain areas costs run high, and that is what happens in Navy shipyards.

We usually turn out being the R. & D.—that is, the research and development—for anything that goes on in the Navy. Then after the Navy finds out this is not the way we want to do everything, then they start reducing it down and we can get into lower costs.

Chairman McClellan. All right. Thank you gentlemen.

Mr. Bogdanoff. Thank you.

Mr. Gillespie. Thank you.

STATEMENT OF PAGE GROTON OF THE INTERNATIONAL BROTHERHOOD OF BOILERMAKERS

PREPARED STATEMENT

Chairman McClellan. At this point in the record there will appear the prepared statement of Mr. Page Groton of the International Brotherhood of Boilermakers.

[The statement follows:]

MY NAME IS PAGE GROTON. I REPRESENT THE INTERNATIONAL BROTHERHOOD OF BOILERMAKERS, IRON SHIPBUILDERS, BLACKSMITHS, FORGERS & HELPERS. OUR MEMBERSHIP IN THESE ANCIENT AND HONORABLE CRAFTS IS SPREAD THROUGHOUT THE WORLD AND IN BOTH PRIVATE AND PUBLIC ORGANIZATIONS. SO OUR INTEREST IS NOT PAROCHIAL BUT CATHOLIC. WE WELCOME THE OPPORTUNITY TO PRESENT OUR VIEWS TO THIS COMMITTEE.

YOU ALREADY KNOW AND HAVE HEARD TESTIMONY WHICH INDICATES CONCERN FOR THE SIZE OF OUR FLEET, THE NECESSITY TO CONTINUE TO PRESS FOR A LARGE, MORE FLEXIBLE MORE VERSATILE NAVY. WE ECHO AND SUPPORT THAT VIEW. WE BELIEVE, VERY EMPHATICALLY, THAT A STRONG NAVY IS VITAL TO OUR SAFETY AS A NATION, BOTH FROM A DEFENSIVE AS WELL AS OFFENSIVE STANDPOINT. THE NECESSITY TO MAINTAIN THIS NAVY AS WELL AS BUILD IT IS IMPORTANT TO ALL OF US. THE TRACK RECORD LATELY HASN'T BEEN TOO GOOD. THERE HAVE BEEN DELAYS IN SHIP DELIVERIES WHICH HOLD UP THE RETIREMENT OF OLD SHIPS AND THE PROCUREMENT OF NEW ONES. COST OVERRUNS HAVE THE SAME EFFECT. IT SEEMS TO US THAT WE HAVE COME FULL CIRCLE AGAIN IN THIS REGARD. THE SITUATION OCCURS AND RECURS WITH ASTONISHING REGULARITY. IN THE HISTORY OF OUR COUNTRY THE SHIPBUILDING HAS BEEN ALTERNATELY ACCONPLISHED IN PRIVATE YARDS, NAVY YARDS, PRIVATE AND NAVY YARDS, WITH A CYCLE RUNNING NOW DURING WHICH NO NEW CONSTRUCTION IS ASSIGNED TO THE NAVY YARDS AND NONE HAS BEEN AWARDED TO THEM FOR THE PAST 7 YEARS. EACH YEAR THAT HAS GONE BY OF THE SEVEN THE SITUATION HAS GROWN A LITTLE WORSE, JUST AS IT ALWAYS DOES IN A NON-COMPETITION SITUATION.

THE LARGE SHIPBUILDING COMPANYS ARE CHUCK-A-BLOCK WITH WORK AND BOOST THEIR ESTIMATES TO THE POINT WHERE THEY EITHER DO NOT GET THE BID, OR ARE NOT RESPONSIVE TO THE INVITATIONS TO BID, RAISING THE TOTAL COSTS TO THE TAXPAYERS. SO WHILE THE SHIPBUILDING INDUSTRY AS A WHOLE HAS DROPPED IN PERSONNEL APPLIED, DURING THE PAST 10 YEARS ALL OF THE REDUCTIONS HAVE OCCURRED IN THE PUBLIC YARDS. LET ME INTRODUCE SOME DATA SHOWING WHAT HAS HAPPENED TO THE NAVAL SHIPYARDS DURING THE PAST 12 YEARS AND WHAT CONVERSELY HAS HAPPENED TO THE PRIVATE SHIPYARDS IN THE SAME TIME

THE SIGNIFICANCE OF THIS DATA IS NOT REALLY APPRECIATED UNTIL IT IS POINTED OUT THAT DURING THIS TIME NAVAL SHIPYARDS AT NEW YORK, BOSTON, AND SAN FRANCISCO ALL HAVE CLOSED AS WELL AS A SIGNIFICANT REPAIR FACILITY AT SAN DIEGO. TWO NAVAL SHIPYARDS ON THE EAST AND VIRTUALLY TWO ON THE WEST COASTS ARE GONE.

FRAME. FY		SHIPYARD EMPLOYMENT (IN THOUSANDS) NAVAL SHIPYARDS	PRIVATE SHIPYARDS
1962	AVERAGE	99.1	115.8
1963	"	95.7	118.6
1964	"	89.8	116.5
1965	"	81.7	127.1
1966	"	81.7	136.8
1967	"	86.7	139.0
1968	"	93.7	140.3
1969	"	90.0	143.0
1970	"	85.2	139.5
1971	"	76.4	128.7
1972	"	71.4	131.0
1973	"	66.0	136.4
CURRENT APRIL 1974		60.0	145.0
GAIN (LOSS) SINCE 1962		(39.1)	29.2

IT WOULD APPEAR THAT MOST OF THE PERSONNEL COULD HAVE FOUND JOBS IN THE PRIVATE YARDS IN THE SAME TIME FRAME BUT AN EXAMINATION OF THE DATA SHOWS THAT THE VIET NAM INCREASES (1966-1970) WERE SIMULTANEOUS IN BOTH PRIVATE AND PUBLIC YARDS AND AFTER A SHORT DOWN TURN FOR THE PRIVATE YARDS THEY HAVE NOW EXCEEDED THE VOLUME THEY HAD IN 1969, THE EARLIER PEAK. ONE OTHER CONSIDERATION WHICH NEEDS TO BE OUTLINED IS THIS -- THE PRIVATE SHIPYARD WORK IS NOW GENERALLY CONCENTRATED IN THE SOUTH ATLANTIC AND GULF COASTS, WITH LITTLE WORK AVAILABLE TO THE WEST COAST. MANY OF THE MEMBERS OF OUR UNION, WHEN THEY WERE LAID OFF AT THE NAVY YARDS SIMPLY WENT INTO OTHER OCCUPATIONS AND WE HAVE NOW LOST THEIR SKILLS, KNOWLEDGE AND WHAT IS MOST IMPORTANT THEIR EXPERIENCE. WE ARE BEING WASTEFUL OF OUR MANPOWER AND ARE SPENDING THESE SKILLS AS THOUGH THEY WERE ENERGY. THE NAVY YARDS HAVE THE MANPOWER AND THE SKILLS STILL AVAILABLE, AND IN ADDITION, ARE WILLING TO TRAIN APPRENTICES IN THESE SKILLS, AND WE SUPPORT THEIR EFFORT TO TRAIN OUR COUNTRY'S YOUNG MEN. APPROPRIATE WORK SHOULD BE ASSIGNED TO THESE PUBLIC YARDS BEFORE ALL OF THE KNOW-HOW DISAPPEARS AND IS LOST, AND REGAINED AT A HIGH PRICE. THE REPAIR AND ALTERATION OF THE NAVY'S SHIPS IS ANOTHER AREA WHERE THE PRIVATE YARDS WANT ALL OF THE WORK TO THE EVENTUAL DETRIMENT OF THE NAVY. THE ONLY WORK CURRENTLY ASSIGNED TO NAVY YARDS IS IN THESE CATEGORIES. THE PEOPLE IN OUR UNION ARE THE POSSESSORS OF SOME OF THE HIGHEST SKILLS IN THE METAL WORKING CRAFTS. THE LARGER PRIVATE YARDS ARE ALL FULL OF NEW CONSTRUCTION WORK SO MORE AND MORE DIFFICULTY IS

BEING ENCOUNTERED IN OBTAINING RESPONSIVE AND RESPONSIBLE BIDDERS IN THE PRIVATE SECTOR. MORE AND MORE DIFFICULTY IS BEING ENCOUNTERED IN COST CONTAINMENT.

THE SMALLER PRIVATE YARDS HAVE NEITHER THE FACILITIES OR THE CAPABILITIES TO ACCEPT AND MANAGE ANY OF THE COMPLEX OVERHAULS OF THE SHIPS IN THE FLEET AND PARTICULARLY THOSE VERY COMPLEX AND SOPHISTICATED NEW SHIPS GRADUALLY AND SLOWLY REPLACING THE OLDER SHIPS. WHY WOULD ANYONE BE CONVINCED THAT ASSIGNING WORK TO A SHIPYARD BADLY EQUIPPED, WITHOUT ADEQUATE FACILITIES IS GOOD BUSINESS? AND THEN COMPLAIN WHEN ONE OF TWO THINGS HAPPEN - THE OVERHAUL IS BOTCHED OR REQUIRES A LONGER PERIOD TO ACCOMPLISH THAN SHIP MISSION ASSIGNMENT CAN ACCOMODATE.

THE SMALL JOB-SHOPS ARE UNABLE TO KEEP GOING, SO OUR PEOPLE ARE IN AND OUT OF WORK AS THESE CONTRACTS ARE BID ON AND COMPLETED.

IN MANY AREAS WE ARE LOSING PEOPLE TO OTHER OCCUPATIONS BECAUSE OF HIGHER PAY AND DISCONTINUITY IN WORK AVAILABILITY. SUBSIDIZATION IS THE ANSWER TO THE SMALL OPERATIONS, BUT IF YOU DO THAT, THE NAVY YARDS ARE ALREADY IN BUSINESS, SO WHY INTERFERE --SO--

IT SEEMS TO US THAT THE WAY THINGS HAVE BEEN GOING LATELY, A LITTLE, JUST A LITTLE MANAGEMENT TALENT COULD BE SHOWN. YOU KNOW. - LABOR PEOPLE ALWAYS BELIEVE THEY CAN MANAGE BETTER THAN THE MANAGERS, WE NEVERTHELESS BELIEVE THE NAVY GENERALLY HAVE BEEN CORRECT IN THEIR DECISION TO ASSIGN ALL OF THE NEW CONSTRUCTION WORK TO THE PRIVATE SECTOR OF THE SHIPBUILDING BUSINESS IN THE RECENT PAST BUT WE ALSO BELIEVE IT IS TIME TO LOOK AT THE NECESSITY TO RETAIN THE SKILLS IN THE NAVY YARDS, FOR TWO REASONS - ONE; IT LOOKS LIKE THE OPPORTUNITY FOR LESS EXPENSIVE NEW CONSTRUCTION WORK IS HERE SINCE THE LOW BIDDERS HAVE OVER COMMITTED THEMSELVES AND ARE OUT OF THE PICTURE, AND, TWO; THE LOSS OF THE CAPABILITY IN NAVY YARDS IS WASTEFUL. WE ALSO BELIEVE THAT THE ASSIGNMENT OF THE BULK OF THE REPAIR WORK TO THE NAVY YARDS MAKES GOOD SENSE; AND WE ENDORSE THE IDEA OF ALLOWING THE MANAGERS TO MANAGE AND LET US DO THE WORK IN YARDS WHICH ARE ALREADY BUILT, HAVE THE FACILITIES, IN THE SHIP'S HOME PORT WHERE THE SAILORS CAN BE WITH THEIR FAMILIES AND MAYBE EVEN TAKE A JOB IN THE NAVY YARD AFTER THEY LEAVE THE NAVY, AND JOIN OUR RANKS; WE BELIEVE THE NAVY HAVE DONE A CREDITABLE JOB IN THESE WORK ASSIGNMENTS AND CAN CONTINUE TO DO IT WITHOUT THE NECESSITY OF LEGISLATIVE OR FISCAL CONTROLS ON THE ASSIGNMENT OF WORK.

I THANK YOU FOR THE OPPORTUNITY TO PRESENT OUR VIEWS.

[The following information was subsequently received from the Department of Defense.]

POSITION OF DEFENSE DEPARTMENT

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
WASHINGTON, D. C. 20350

May 30, 1974

Dear Mr. Chairman:

The distribution of Navy shipwork among naval and private shipyards has already and will continue to be discussed during hearings on the Fiscal Year 1975 Department of Defense Appropriations Act inasmuch as the subject has been brought to the attention of Congress many times during the past decade. Therefore, I consider it appropriate to restate the Navy's views on this matter for your consideration.

The Navy position is that it must have authority to be flexible in the assignment of naval ships to naval and private shipyards if it is to manage efficiently the uneven flow of conversion, alteration, and repair work on ship types ranging from tugs to complex carriers and nuclear submarines. The imposition of dollar value or percentage constraints is a real impediment to efficient operations and causes an administrative burden which, in the Navy's opinion, is non-productive. This position, which has been held consistently, was not reached arbitrarily. Rather, it is based on experience with the present and prior limitations and, necessarily, on the Navy's intimate knowledge of the capabilities and capacity of the shipyard industry, Navy and private, and on related morale considerations.

The Navy's Home Port Policy was formulated to aid in the recruitment and retention of Naval personnel by virtue of performing shipwork in home port. This policy is working and, consequently, is given considerable weight since competent, well-motivated manpower is the Navy's greatest asset. Carrying out the policy, however, can and does result in a preponderence of shipwork allocations in the areas of Fleet concentration. This result tends to deprive private shipyards in non-home port areas of a proportionate share of the work and, in turn, to cause them to petition for an assigned level of work. The disparity must be balanced against the very visible morale problem for the crew members (and their families) of ships that must be overhauled in a location other than their home port.

Assignment of shipwork over the past several years clearly demonstrates the fact that the Navy does recognize the need for a strong private shipyard base, and that the strength of this base is in the best interests of the Navy in terms of broadening industrial capability. However, there is one segment of the industry, the smaller repair shipyards, which is not benefiting

from the increased workload and from which much of the pressure arises for increased assignment of Navy repair and alteration work to private shipyards. Unfortunately, these smaller shipyards lack the capacity and capability to perform the work required on the highly complex ships which make up an increasing part of the Navy's Fleet and on the new commercial ships, which are becoming increasingly large. The simple fact is, therefore, that increasing the amount of Navy repair and alteration work to be allocated to private shipyards will not significantly help these smaller yards.

The shipyard industry is faced with a number of capability and capacity problems. First, there is a definite shortage of skilled manpower, and requirements will increase 8 to 12 percent in the next two years. At the present time, the naval shipyards are operating apprentice programs sized to meet the skilled manpower needs. However, this training is not as extensive in the private shipyard sector, and accordingly, increasingly severe manpower shortages will restrict the volume of work that the private shipyards can undertake. Of equal importance is the fact that the more complex naval ships can be overhauled in a reasonable time only if large numbers of skilled shipworkers are available at the shipyard site. This manpower problem is showing up more and more frequently in the Navy's negotiations with the private shipyards for repair and alteration work. Enforced allocation of ships to shipyards lacking adequate skilled manpower will result in reductions in the amount of work accomplished and in lengthened overhauls, both deleterious to Fleet readiness. Second, with the growth in size of merchant ships and the more stringent limitations imposed by the complex naval ships remaining in the Fleet, dry-docking capacity and capability have become a tangible problem. Unless flexibility to use naval shipyard facilities when needed is allowed, the number of split bids and separate availability periods for dry-docking purposes will increase to the detriment of costs, schedules, and crew morale. Again, this problem is showing up in the Navy's negotiations with the private shipyards.

The growing percentage of maintenance funding being allocated to carriers, submarines, and complex missile ships; the current emphasis on special programs such as 1200 psi propulsion plant improvement; and the substantial increase in size of amphibious and combat support ships has shifted the conversion, alteration, and repair work to a limited number of private shipyards and the existing naval shipyards having the large dry-docks and extensive capabilities required. This assessment means that we must reverse the downward trend of naval shipyard employment to meet the Navy's future maintenance requirements. Moreover, the basic justification for naval shipyards is their ability to respond by performing any kind of ship conversion, alteration, and repair work on instant notice. It is inevitable that this response capability will be degraded under current trends. The policy employed by the Navy during the time period between the earlier and the current statutory limitations on allocation of shipwork has permitted the retention of eight naval shipyards at a reasonable operating level. The continued application of rigid limitations can tend only to depress this level and, thus, to erode the capability to respond quickly to emergencies that is so essential to military force.

Therefore, it is my recommendation, in view of the current and projected overhaul requirements and to permit the flexibility that the Navy requires to maintain the Fleet properly, that no percentage or dollar limitations be imposed on the distribution of Navy alteration and repair work between naval and private shipyards in FY 1975 and thereafter.

These factors have been discussed under different labels and in greater depth many times in the past. If I have succeeded in impressing upon you the great importance that I attach to this matter, my purpose will have been served. The Navy will, of course, appreciate the opportunity to provide additional detailed information supporting its position at any time.

Sincerely,

J. William Middendorf II
Acting Secretary of the Navy

The Honorable John L. McClellan
Chairman, Committee on Appropriations
United States Senate
Washington, D. C. 20510

STATEMENT OF HENRY E. NILES, CHAIRMAN, BUSINESS EXECUTIVES MOVE FOR NEW NATIONAL PRIORITIES

ACCOMPANIED BY JACK L. LEVIN, PARTNER, SCHECTER & LEVIN ADVERTISING/PUBLIC RELATIONS

Chairman McCLELLAN. Next we have on our list Mr. Henry Niles, chairman, Business Executives Move for New National Priorities.

Come around.

Who is with you, Mr. Niles?

Mr. NILES. I have with me Jack Levin, one of the outstanding members of Business Executives Move for New National Priorities.

Chairman McCLELLAN. All right, Mr. Niles. Do you have a prepared statement?

Mr. NILES. Yes, sir. I have a prepared statement which I would like to submit for the record, and I will make a few comments on it.

Chairman McCLELLAN. At this point it will be received and printed in the record in full, and then you can highlight it.

Mr. NILES. Thank you.

[The statement follows:]

I am Henry E. Niles, Chairman of Business Executives Move for New National Priorities, (BEM), a nationwide organization of business owners and executives who believe that our nation is spending too much for excessive and wasteful military manpower and weapons at the expense of meeting urgent domestic needs. We believe our military expenditures can be reduced sharply without endangering our national security. This would lead to a healthier economy with less inflation, lower taxes and an enlarged domestic market for most goods and services. Specifically, we believe that the request of the Department of Defense for a peace-time record budget should be rejected. We believe that the request should be cut by $10 to $15 billion in order to increase our security against attack from without and to prevent erosion from within.

Senator Stennis, Chairman of the Armed Services Committee, in his opening statement at the hearings on the DoD budget on February 5, 1974, said:

"The funding request for the Department of Defense, which the President made yesterday as a part of his overall budget, is in two forms: First, there is a supplemental fiscal year 1974 request totaling $6.2 billion; and second, a fiscal year 1975 Department of Defense request for budget authority totaling $92.9 billion. The sum of these two requests is $99.1 billion. This sum compares to $80.2 billion, including the military assistance program, which was appropriated for the Department of Defense last year for fiscal year 1974.

"In terms of budget authority these two requests are the largest ever requested in one year except for 1942, for which the total was $99.5 billion.....

"I think that these requests for a record peace-time budget require a most stringent review and adequate justification in the Congress; and whenever possible savings and reductions should be made."

Although there is disagreement as to the causes and cure of inflation, it is generally agreed that reducing Federal spending would reduce inflationary pressures. The military budget is the largest request upon which your committee will have to act. Reducing it materially would help our nation at this difficult time when a growing number of citizens are suffering increased hardships due to rising prices and unemployment. Many persons are no longer able to buy the quality and quantity of food they are used to eating. Some are even facing starvation.

"National Security" expenditures to prevent attack by the Russians,--(who else could we rationally prepare against?)--is of little importance to a famished

old person or to a hungry unemployed youth. Even the average citizen walking on a city street after dark is more fearful of criminal attack by a fellow American than he is of any weapon activated by a foreign foe. Tax money is needed to build many aspects of true national security and prosperity. Even in this, the richest country in the world, there is not enough to meet all requests.

You gentlemen on the Appropriations Committee are under pressures which are comparable to those on the chief executive of a business organization. You have to balance the claims of the different groups within the Federal establishment whose requests for funds come to you. A business executive is familiar with this sort of problem. He has to balance the demands and pressures from different parts of his organization for increased funding and power. Those making the demands usually are sincere in thinking that their field is the most important one in the whole organization. The manufacturing people are sure that they are most important because without them there would be no products to sell. The sales vice-president and his people know that they are most important because there would be no profits without sales. The credit manager is convinced that sales to those who won't pay could wipe out the company. The financial people are certain that without skillful management of capital funds, the enterprise would collapse. And so on,--except the research and development people--some of them may admit that they are not the most needed for today's success, but their work is surely most essential for next year's success. It is good to have people who believe in their jobs so long as there is coordinating control from the top of the organization. However, no one part of the organization is fully satisfied with the resources and power allotted to it. Any part of a business organization, if given more money and power, might do its own specialized job better--but the organization might be wrecked.

The President of the United States and the Office of Management and Budget have certainly had to do much of this kind of balancing of demands. However, under our system of government, Congress, not the Executive Branch, has final authority. You are representing the Senate in studying requests in detail and making your recommendations. Many interests are working to get your votes for items or projects in which they are interested. Chief among these are the hundreds of military officers who spend much of their time trying to influence Members of Congress to vote for the DoD requests.

We in BEM urge you to consider the long-term implications of increasing the military budget in a period of detente between the U.S. and both the USSR and the Peoples Republic of China.

In "Offensive" weapons the U.S. has a lead of over three to one in comparison to the Soviets, according to figures given by Secretary of Defense Schlesinger on page 50 of his Annual Report. In "Defensive" weapons, the Soviets are far ahead of the U.S. If the U.S. increases still further its offensive weapons, as is being proposed, will this not strengthen the fears of the Russians that we are preparing to make a surprise attack and that therefore they should act before we do? In other words, is not the proposed budget destabilizing?

The present balance of terror should not be upset by either side increasing its lead. Instead, it would be much better to take steps downward toward balance at descending levels. This would not lessen military security and would enable the governments to meet better the domestic threats of disease, accident, crime, ignorance and poverty.

There have been suggestions that a strong military force may be needed to preserve "law and order" if hunger, high prices, and unemployment lead to mass desperation and riots. If such a situation is feared, it would be better to divert funds from exceedingly expensive weapons, such as the B-1 bomber and the Trident submarine, and use them in the civilian economy to create more employment in the production of needed goods and services.

Some of the specific ways in which the budget might be cut are:

1. A cut of all but a very small percentage of our troops and their dependents overseas, especially those now in Europe, Korea and Thailand.
2. Eliminating or slowing down development of the B-1 bomber, the SAM-D Air Defense System, the Trident Submarine, AWACS, Binary Gases and Tactical Mini-Nukes.
3. Reducing the number of permanent changes of station to a figure lower than one per man.
4. Cutting the manpower ceilings for military personnel and civilian employees.

We wish to raise a series of basic questions:

1. Is it in the best interest of the United States to have the strongest military force in the world? Actions of our government to increase the military budget, especially for offensive weapons are likely to arouse Russian fears of a first attack by the U.S., thus increasing the chances that the USSR might take preemptive action.
2. If a major war starts, would our huge supply of armaments protect us from near or complete destruction?
3. Does the Executive Branch need bargaining chips for SALT II? (Senator Symington at the hearings of the Armed Services Committee on February 5, 1974, stated: "The ABM was sold as a bargaining chip; Trident was sold as a bargaining chip, and this new counterforce targeting is being sold as a bargaining chip. It took us four years to win World War II. What we dropped on Germany and Japan in four years was one twenty-fifth of 1 percent in TNT equivalent of what we have in the nuclear stockpile ready to drop tomorrow. Looking at the other vital aspect of true national security, the economic picture, I am worried about still more bargaining chips that pop up regularly and so heavily increase our military cost.")
4. Should any funds be included in the military budget in order to stimulate the economy? (Secretary Schlesinger stated that about $1 billion had been included for this purpose. Others suggested that the figure was much larger. Various studies indicate that more jobs are created on the average by a given sum spent for civilian than for military purposes. Congress and the voters can judge better whether an economic aid program is desirable if it is not hidden in the military budget.)
5. Should we spend much more effort and money searching for alternatives to war? (The budget proposed for the Arms Control and Disarmament Agency is about $9,500,000 for Fiscal 75. This is about one ten-thousandth of the proposed defense budget.)

I thank you for the opportunity to testify before you and to urge, on behalf of Business Executives Move for New National Priorities, that you make drastic cuts in the proposed budget for the Department of Defense. Such cuts are our first order of priority. They are necessary to meet urgent domestic needs.

REDUCTION IN DEFENSE EXPENDITURES REQUESTED

Mr. NILES. We are a nationwide group of business executives who believe that the expenditures for the military are far greater than necessary to provide adequate security for our country and that often they are actually counterproductive.

We feel that in a period of détente, when there is no fighting by the United States, these expenditures should be reduced. Senator Stennis at the first hearing on the DOD's fiscal year 1975 request stated that the funding requested amounted to $99.1 billion, including the fiscal year 1974 supplemental, in comparison to $80.2 billion actually appropriated last year.

The Joint Economic Committee staff study indicates a much smaller increase. Adjusting for the "two manipulations," as the staff study calls them, we find that the base line goes up by $11 billion in current dollars in fiscal 1975 and in constant dollars to a 7.8-percent increase in real defense resources.

We urge that the committee compare the allocations to last year's actual rather than to this year's request. I have seen some proposals to this year's request have been cut by a small amount, but it seems to be shocking as a businessman that we are not considering the overall picture and what it was last year. We are not just going on requests. As a business executive I am used to having requests come from department heads. Everybody seems to want a little bit more than they have had before. I think that you gentlemen on the Appropriations Committee are under pressures very similar to those of a business executive.

The manufacturing man in a company thinks you have got to have an amount of money for manufacturing, that is the most important. The salesman is sure that his work is the most important because if you don't have sales you don't make any profit. The credit man feels that that is most important because if you make sales to people whose credit is bad you lose any profit you might have. The financial manager says that obviously you have got to have good financial management or you won't have a satisfactory organization. The research and development people are about the only ones that say they are not the most important immediately, but they say it is mighty important for the future of the company. Each one wants the maximum amount that he could possibly spend, and that is good, and that is helpful.

BALANCED REQUIREMENTS

I would like to have the different departments all feel very important, but you have got to have somebody at the top as a chief executive who says: "We will balance these two things. We cannot do everything. What can we do?"

You gentlemen are in that position representing the country, representing the Congress. How are we going to balance between the different parts of the economy, the different parts of the Government, the Department of Defense and the other groups?

DÉTENTE COUNTRIES ACTIONS

We feel that there should be a very material cut in the request, and getting it down preferably even to below what was spent last year be-

cause as we see it the needs are less with the growing détente without actual fighting. We have suggested at least a goal.

Chairman McClellan. Shall we take into account what the other partners of the détente are doing or not?

Mr. Niles. Yes, sir.

Chairman McClellan. Have you taken that into account?

Mr. Niles. I think so.

Chairman McClellan. Do we know what they are doing?

Mr. Niles. I don't think anybody does.

Chairman McClellan. I don't think you can take it into account if you don't know.

Mr. Niles. I can only take into account what is reported but I don't think that our own military is sure of what is being done.

Chairman McClellan. No; we can't know everything, but we get general ideas and opinion.

Mr. Niles. I think we can.

REDUCTION OF $10 TO $15 BILLION REQUESTED

Chairman McClellan. What do you think that we should cut back? And where do you think the money should go if we are able to cut back? First tell us how much that you think the military should be cut back.

Mr. Niles. I would say at least $10 to $15 billion.

ALLOCATION OF CUT

Chairman McClellan. You want a reduction of $10 to $15 billion. Where would you take it off?

Mr. Niles. I would not attempt to say exactly where it should be taken off.

Chairman McClellan. We are asking for help now. I am perfectly willing to cut it to $50 billion if anybody can show me how it can be done and preserve the preparedness essential to our security.

Mr. Niles. I think we agree on that.

DEFENSE POSTURE RELATIVE TO OTHER GOVERNMENT SEGMENTS

Chairman McClellan. Let me give you some figures and then you comment on them.

In fiscal year 1965 we were spending about $47 billion for the Department of Defense. That was 39.8 percent of our total federal budget. It was 7.2 percent of the gross national product.

In fiscal year 1975 the request is 27.2 percent of the national budget, and 5.9 percent of the gross national product, a marked reduction.

During the period 1965 to 1975, assuming we were going to appropriate what has been requested, the increase of the military part of our budget, including military assistance, has gone up from $47.1 billion to $85.8 billion, an increase of 82 percent in the last 10 years.

The cost of the Federal Government other than defense in 1965 was $71.3 billion. In 1975 the request is for $218.6 billion for outlays other than defense. In other words, the other expenditures of Government during the past 10 years will have increased about 207 percent, while the military outlays have increased by 82 percent.

Thus, of that total increase, only 21 percent may be attributable to the Department of Defense.

Thus it is evident that while defense outlays have increased over this 10-year period, all other Government outlays have increased far more. The question arises whether we should curtail defense increases still more and permit other Government costs to continue to increase at an accelerated rate.

Mr. NILES. Mr. Chairman——

Chairman MCCLELLAN. The inference is that the Congress has continued to increase funds for military requirements while neglecting everything else. This is positively not true. In fact, just the opposite is true, for, as I have indicated, while defense outlays have increased to keep pace with inflation, total outlays for the remainder of the Government have increased far more as a result of greatly increased participation by the Government in a wide variety of activities. We have increased outlays to the civilian agencies tremendously.

Mr. NILES. Yes, we certainly have.

Chairman MCCLELLAN. All right. What is your business today?

Mr. NILES. I am retired from the chairmanship of the Baltimore Life Insurance Co.

Chairman MCCLELLAN. I was thinking you were a manufacturer or in production of some type. You are paying more for groceries today than you did last year.

Mr. NILES. I certainly am.

Chairman MCCLELLAN. The same is true of the military personnel who are supported by appropriations. The commuted ration rate for enlisted personnel is presently $2.28 a day. Prior to January 1, 1974, it was $1.65. Thus we are faced with an increase of 65 cents per man per day, which is substantial.

When we attempt to reduce funds for the Defense Department, we must either reduce manpower or procurement of weapons or development of future weapons. If it were demonstrated that we would not impair our national security, I would consider reductions in military strength, just as I would consider any other reductions. But I oppose the idea that we are not adequately supporting other programs and that we are providing excess amounts for defense. It is positively untrue and it misleads people across the country.

Mr. NILES. I didn't state that.

Chairman MCCLELLAN. But we get that argument constantly. You state that we ought to reduce the defense budget by $10 or $15 billion. I ask you then, as a good citizen coming in here to help us and give us guidance, to show us where to make the reductions.

Mr. NILES. I think perhaps the best way to get some idea on that is to refer to this booklet "Military Policy and Budget Priorities" presented by Paul C. Warnke, former Assistant Secretary of Defense.

Chairman MCCLELLAN. Mr. Warnke is scheduled to testify before this committee and I welcome his suggestions.

Mr. NILES. I have not just pulled this figure out of the air. I am not trying to tell the Department of Defense where to cut.

Chairman MCCLELLAN. We tell them where to cut. You say they could. They say they can't. Now tell us where. We will have to do the cutting.

Mr. NILES. Yes.

NEED FOR SECURITY

Chairman McCLELLAN. If you can convince us, show us where we can cut. I mean it. I don't like to spend an unnecessary nickel on it, but I am concerned. I don't want us to become a second-rate military power, for I don't think it is safe for the world and for America for us to become a second-rate military power.

Mr. NILES. Mr. Chairman, I want to see us as secure as possible. A secure country. I question whether increasing our lead in offensive weapons does not make us less secure rather than more secure.

Chairman McCLELLAN. I don't think we are increasing it. Russia is gaining on us right now.

Mr. NILES. My only evidence on that is the annual Defense Department report of Secretary Schlesinger.

Chairman McCLELLAN. I am afraid you don't have all of the evidence.

Mr. NILES. I am talking about the report from the Secretary of Defense, who shows under the heading "Offensive Weapons" on force loadings the United States in mid-1973 had 6,784 in comparison to the 2,200 of the U.S.S.R.

Chairman McCLELLAN. All right. We must consider the number of missiles the Soviets have compared to our own, and how they are closing the gap in submarines and in other areas. It is a difficult thing, but I want us to be sensible and practical about it. But if we let our Nation become a second-rate power, not only America but the whole free world will be placed in jeopardy by so doing, in my judgment.

Mr. NILES. Well, I am trying to look at it from the overall point of view, trying to look at it from the Russian point of view as well as our own. If I felt that another country which was very strong, the United States, was preparing a first attack, and it appeared——

Chairman McCLELLAN. Do you think our country is going to attack anyone?

Mr. NILES. No; of course I don't.

Chairman McCLELLAN. I don't either.

Mr. NILES. But I can see that the Russians might feel so because we are increasing our offensive weapons lead.

Chairman McCLELLAN. Has she not done the same thing?

Mr. NILES. Apparently not, according to the report from the Department of Defense.

Chairman McCLELLAN. I think you are only reading one part. We have a vote. I am sorry. We will have to come back in just a few minutes.

Mr. NILES. Thank you.

[Whereupon, a short recess was taken.]

Chairman McCLELLAN. All right. Let us proceed.

PINPOINTING OF REDUCTIONS REQUESTED

I don't want to appear to be antagonistic. If anybody can show us, by pinpointing where we ought to make reductions so that we can weigh them against the whole picture, I would welcome it.

Mr. NILES. Mr. Chairman, I see various statements of what might be done. For instance, this one here, from the Project on Budget Priorities, suggests $14.9 billion possible saving.

Chairman McClellan. Identify it for the record. Do you want to leave it?

Mr. Niles. Yes.

Chairman McClellan. The document referred to is "Military Policy and Budget Power Priorities, Fiscal 1975, a Report of Congress." We have a copy in the committee file. This is just so the record will reflect what the witness was referring to.

Mr. Niles. The authors seem to be a very responsible group of people. I look at it as a business executive would. You have to cut down 10 percent or whatever it might be. The chief executive would hardly say to his advertising executive "you have to cut out the ad in the third edition of the Saturday Evening Post." He would tell what savings have to be accomplished.

FUNDS TO STIMULATE ECONOMY

I am not an expert, but I can see a number of weaknesses in the DOD proposals. I would say that the hiding of about $6 billion for stimulus to the economy is inappropriate. Secretary Schlesinger is reported to have told the Defense Appropriations Subcommittee of the House in February that his budget request would have been only $85 billion in total obligational authority instead of the $91.3 billion actually sought, if added amounts had not been included to stimulate the economy.

I feel that this is the wrong way to make appropriations. If we want to spend $6 billion to stimulate the economy, fine, but I think that the Congress and the public should know that they are doing it for that.

I am also opposed to spending through the military because the impact of military expenses is much slower than more direct stimulation would be. You cannot target it to specific geographic areas. The military spending goes largely to skilled workers and well-paid workers, rather than in the lower paid group, who are the ones that are suffering most at this time.

You gentlemen are probably quite aware of the reaction of the people to inflation and high cost of living. Military spending does not create social capital but only military goods. It gives wages to the people that are working on it, which means they can bid up the prices of consumer goods. So it seems to me rather self-defeating.

I would like to ask permission to quote from BEM News Notes for the record.

Chairman McClellan. Very well.

[The material follows:]

"Where There Is No Vision the People Perish"

Secretary of Defense Schlesinger in his report to the Congress on the FY 1975 Defense Budget and the FY 1975–79 Defense Program says: "As the Psalmist tells us, 'Where there is no vision, the people perish.' Hence I would like to share with you our vision." (Page 1 of the report.)

The Secretary, in the course of the 237 pages of his report, describes his vision of the world and of the need for military might and especially for more powerful and more accurate missiles to enable us to fight a limited nuclear war. He urges a record-breaking military budget with increased billions for offensive weapons, the purpose of which is to deter the U.S.S.R. from attacking us—or to devastate that country if it does attack. He plans to militarize the Indian Ocean and never

mentions the possibility of making it a demilitarized zone for countries which do not border it. His vision is one of a world in which armed might appears to be the dominant factor in determining world events. On the first page of his report he states:

"The United States today, as opposed to the period before 1945, bears the principal burden of maintaining the worldwide military equilibrium which is the foundation for security and the survival of the Free World. This is not a role we have welcomed; it is a role that historical necessity has thrust upon us. The burden of responsibility has fallen on the United States, and there is nobody else to pick up the torch if the United States fails to carry it.

"In fulfilling this responsibility we recognize that we are dealing in a world which is militarily dominated by two states—ours and the Soviet Union. There is no other nation that possesses a military capability comparable to these two states. Consequently, in judging the military balance, and in deciding upon our own force posture, we do so primarily with the Soviet Union in mind."

And two pages later, he says:

"The Soviet Union has historically been a relatively prudent and sober power and I trust it will continue to be so. I hope that as a result of our mutual recognition that there is no good alternative to peaceful cooperation, we shall gradually achieve a world in which security is based upon something more than a balance of arms."

Nowhere in the Secretary's statement does he mention the United Nations. He indicates no vision of the possibilities of building international institutions of world law with enforcible machinery. There is no hint of the brotherhood of man as taught by the founders of the great religions. The Secretary's vision seems to be impractical and unrealistic in the world of nuclear weapons. It would lead this country into spending vast sums in military equipment and personnel and would create a situation of tension and unstable balance of terror which could lead to an explosion into World War III and the destruction of most of the world.

There are two kinds of realists, and their visions differ. First, backward-looking realists who believe the nation must rely on military might for safety. Second, forward-looking realists who recognize that the destructiveness of modern weapons is such that some other way than war *must* be found for settling international disputes. The forward-looking realists project the evolutionary trends in human history. They see an ever-widening area of law and stability as communication becomes faster and easier—tribes, then cities, then states, then nations and, next, the whole world. They would have us avoid the self-defeating aspects of relying on military power and would prepare us for the potentialities and realities which lie ahead.

The Secretary's reference to the "Psalmist" is inaccurate. His quotation is part of Proverbs 29, Verse 18, which, in the King James version, reads: "Where there is no vision, the people perish; but he that keepeth the law, happy is he."

LETTER FROM ADMIRAL TRUE

Mr. NILES. I have here a letter from Admiral E. True, U.S. Navy, retired, one of our military sponsors. He says he is in complete agreement with my testimony.

The present administration claims its greatest accomplishments in the field of foreign policy and pursuit of peace. The defense budget indicates preparation for war and assumption of new duties as world policemen. It dimishes National Security rather than increasing it.

In this nuclear age, the only National Security involves also World Security and the only path toward it is in strengthening a world organization for the settlement of disputes and keeping the peace. The effort in this direction now by the United States is a bet on war by a ratio of 10,000 to 1. (I think he refers to the fact that the Arms Control and Disarmament Agency gets only one-ten thousandth of the DoD budget.) The Defense Department is still living in a past age. It is not the Agency to bring about either peace nor true National Security in this era. Our only hope that our grandchildren will inherit a livable world lies with the Members of Congress.

Sincerely yours, Arnold E. True, Rear Admiral, U.S. Navy, Retired.

EFFECT ON PREPAREDNESS

Chairman McCLELLAN. Does he want us to be a second-rate military power?

Mr. NILES. Mr. Chairman, I don't know how you rate military power. If you mean having the largest amount of offensive weapons, I would say probably he does not want that. I do not want that. I do want us to have a military establishment which will make both us and the U.S.S.R. secure. I recognize that one of the risks we run is that the other side may think that we are preparing to attack them. I don't think we are, but they may think we are. If they think we are, that increases the chance that they may fire some weapons at us. If they do, our weapons have failed to serve their purpose.

Salvador de Madariaga, who was the head of the disarmament section of the old League of Nations. He said that as soon as a gun is fired in anger it has failed in its purpose. Firing is not the purpose of guns. Their purpose is to back up national policy so that you don't have to fire them.

The military in this country often seem to think that the larger the number of guns you have the greater will be their effect in supporting the national policy. However, it appears to some of us, that the purchase of more offensive weapons is likely to create greater insecurity. If so, we have wasted our money. We have not gotten what we wanted. We have the opposite of what we wanted.

Chairman McCLELLAN. If you don't have offensive weapons——

Mr. NILES. You may have to have some, it is a question of how much. Can we not be gradually moving toward a lower level?

Chairman McCLELLAN. I favor every effort in the world to bring about disarmament. We do have negotiations going on with Russia in that regard, and I hope they will be successful. Both countries can rely upon armaments and will rely upon armaments if those negotiations are successful, and I support them whole-heartedly.

Mr. NILES. Yes, sir.

NEED FOR PREPAREDNESS

Chairman McCLELLAN. I know this: With the development of science and technology today in nuclear weapons, I know we won't have a second chance.

Mr. NILES. I know.

Chairman McCLELLAN. If the other side ever went wild and decided to destroy us, we won't have a second chance.

Mr. NILES. That is what worries me.

Chairman McCLELLAN. That is what worries me.

Mr. NILES. There'll be no second chance for us or the Russians. The Russians must see that the same way if they think we are going to attack them.

Chairman McCLELLAN. That is why I encourage the disarmament efforts, but until we get some agreement, we cannot just withdraw from the contest and let them build up armaments wherein they can negotiate from strength and we can't.

UNILATERAL REDUCTIONS

Mr. NILES. Yesterday, at a luncheon in Baltimore, Dr. Allen Barnes, vice president of the Rockefeller Foundation, in a very broad review of the whole situation in the world said that he felt that it would be highly desirable for the United States to consider reducing unilaterally its expenditures.

Chairman MCCLELLAN. I don't agree with that.

Mr. NILES. We would tell the Russians that if they did the same thing, next year we would make another reduction.

Chairman MCCLELLAN. Now we have got other witnesses, and I want to——

Mr. LEVIN. Senator, very briefly, I want to comment.

INTERNAL SECURITY THREAT

Speaking as a businessman, the executives and the number of social justice organizations, citizens organizations, I would not attempt to get into the area of the statistics, in which you are expert, but I would like——

Chairman MCCLELLAN. I am not an expert.

Mr. LEVIN. I am a rank amateur, but I would just like to underline one point that I feel. Since I am in the community I get feedback from lots of people. I sense a growing alienation in some quarters in desperation, which I think Mr. Niles would regard as great a threat to our security from within as some of the threats that we face on the whole.

FUNDING FOR EDUCATION

I think when we are cutting back, as we have been cutting back on many of the vital programs in the area of education, primary and secondary education——

Chairman MCCLELLAN. No, we have not cut back.

Mr. LEVIN. There have been cutbacks.

Chairman MCCLELLAN. No.

Mr. LEVIN. Economic Opportunity.

Chairman MCCLELLAN. I showed you on education, and I showed it overall a while ago, that in veteran aid to education in 1965, just 10 years ago, we were spending $1,349 million, and the budget this year is $7,577 million, an increase of 462 percent in 10 years time. We are not cutting back.

Mr. LEVIN. I have some figures about cutbacks in the program.

MISLEADING STATEMENTS ON REDUCTIONS

Chairman MCCLELLAN. It has been asked that we reduce military appropriations. We cut back on some other things, some in each budget, but over the past 10 years the charge that Congress has reduced the social programs of the Federal Government is simply misleading.

PUBLIC ASSISTANCE INCREASES

Take another example. Public assistance was paying out $3 billion 10 years ago; now it is up to $14 billion.

Mr. LEVIN. Was that not cut back $1,237 million?

Chairman MCCLELLAN. That was money not required by the States. But over-all it has increased steadily.

HEALTH SERVICES INCREASES

Take health services. In 1965 we were spending only $496 million for this item. Today we are spending $22 billion.

Talk about cutting back. These are the programs that are increasing the cost of Government. These are facts, and no one has challenged them since I put them in the record.

Mr. LEVIN. I think we are concerned about the security of this Nation, about keeping the first rate powers anyway, but we feel that——

Chairman MCCLELLAN. I am supporting these programs. I vote for them, but I don't want us to be charged with becoming callous and indifferent to the other programs. The Appropriations Committee of the Congress has been generous and we are leading in that direction.

In regard to defense, I just want to be certain that we don't find ourselves in a position where we cannot negotiate from strength.

Mr. LEVIN. May I ask just one question?

Chairman MCCLELLAN. Yes.

Mr. LEVIN. Do you feel that the spokesmen for these groups that I have been mentioning—the alienated, the antagonistic ones—are as represented in these committee hearings as the others are, the ones from the Defense Department?

I don't know. I am asking.

Chairman MCCLELLAN. What point of view do they have that is not represented here?

Mr. LEVIN. I look around here today, of course, I don't see any——

Chairman MCCLELLAN. These are public hearings.

Mr. LEVIN. I beg your pardon?

Chairman MCCLELLAN. These are public hearings, a day set aside for those who wish to testify.

Mr. LEVIN. I wonder if these people are as articulate or as prepared to present their case, their desperation, their hopelessness as some of the people who appear before you.

Chairman MCCLELLAN. I don't know what you mean. They are American citizens. We opened this hearing to anyone who wants to come. You are here because it is open to the public.

Mr. LEVIN. I appreciate the opportunity.

Chairman MCCLELLAN. Yes.

Mr. LEVIN. Thank you.

NAVAL RESERVE ASSOCIATION

STATEMENT OF CAPTAIN MORTON LEAVITT, NATIONAL PRESIDENT, NAVAL RESERVE ASSOCIATION

ACCOMPANIED BY JOHN NEVIN SHAFFER, REAR ADMIRAL, U.S. NAVY (RETIRED), EXECUTIVE DIRECTOR, NAVAL RESERVE ASSOCIATION

Chairman MCCLELLAN. Next we have Capt. Morton Leavitt, national president of the Naval Reserve Association.

Captain LEAVITT. I would like to have with me our executive director, Rear Admiral Shaffer.

Chairman MCCLELLAN. Please proceed. I have been very generous here with time, but be as brief as you can be, please.

Captain LEAVITT. Very short address, sir.

Chairman MCCLELLAN. All right. Maybe I am responsible for taking up some of the people's time.

Go right ahead.

NAVAL RESERVE ASSOCIATION FUNCTIONS

Captain LEAVITT. Mr. Chairman, and Senator Young, I am Morton Leavitt, the national president of the Naval Reserve Association, having been elected to the office in October 1974. I am also a captain in the U.S. Naval Reserve, retired, having been commissioned a lieutenant (jg) in 1943. I attach a brief biographical sketch.

The Naval Reserve Association is a national educational and professional organization of officers joined together to support the Navy and to provide services to Naval Reserve officers. The association's entire resources and capabilities are directed toward strengthening our Nation's defenses through service to the Navy and the Naval Reserve.

Our membership exceeds 15,000 officers organized by districts and chapters, presently totalling nearly 200 nationwide.

A major objective of the Naval Reserve Association is to cooperate in the solution of the many and complex problems which of necessity arise in a Navy composed of both regular and Reserve personnel.

I act as the chief executive of the association and have the responsibility of representing it and of carrying out the mandates of its national conferences and the policy directives of its executive committee.

It is a privilege to submit this statement for the committee's consideration, giving the opinions and recommendations of the Naval Reserve Association concerning the Defense Department program and budget proposals for fiscal year 1975, now before the Congress. I appreciate the opportunity.

SELECTED RESERVE MAINTENANCE

Last year NRA's national president appeared before the House Armed Services Committee to urge that the Selected Naval Reserve be maintained at meaningful manpower levels. Again this year an even stronger sense of concern and emphasis prompts me to call attention to the vital necessity of establishing realistic manning criteria for the Nation's Selected Naval Reserve.

The levels should be determined at the level of mobilization day plus 30 days as a bare minimum, and authorization and funding should be provided to support the equipping and training of these personnel on a full 48-drill per year basis.

STRENGTH LEVEL

In fiscal year 1973 the Selected Naval Reserve's congressionally mandated strength was 129,000. That figure was known to be quite a bit less than the first mobilization day requirements in an emer-

gency, and well below the "immediate" or "first 30-day" requirements. Despite this, and despite the fact that the Active Regular Naval Forces have been cut back critically, it has been said, for reasons of fiscal constraints, at a time when the Soviet Navy capabilities were dramatically increasing, the Navy and Defense Departments recommended reductions in fiscal year 1974 from 129,000 to 116,981.

Much credit is due to the Congress for rejecting those proposals, for recognizing the risks, for refusing to accept such recommended reductions. It is inspiring that the congressional actions returned 2,250 personnel to the fiscal year 1974 authorized totals; and in the hearings, the Defense and Navy witnesses gained detailed understanding of the interest and intent of the Congress.

Although a total of 119,231 Naval Reserve man-year average paid drill strength was approved in Public Law 93–155, funds were not provided to support this level in the subsequent Appropriation Act, and in fact the effect of congressional action on the appropriation bill was to reduce the man-year average.

The Naval Reserve Association believes that the man-year average should be maintained this year, and urges that this committee support the appropriation of full funding for the authorized totals.

Under the Nixon doctrine, in this period of the All Volunteer Force, in keeping with total force policy, and without the draft, increased reliance on the Selected Naval Reserve is mandatory.

Considering that the costs of maintaining adequate active regular naval forces are to a great degree personnel costs, it is absolutely necessary that a high percentage of the total naval force be maintained in lower-cost Reserve units. Reserve Forces are said to have a 1-to-4 or 5 advantage over Regular Forces, in lower costs; and attained readiness levels of Reserve units are reported to be comparable to active counterparts. The Reserve is therefore our greatest national security bargain.

Faced with the facts that the threat to U.S. control of the seas is critical and rising, and that the Active Forces are at a low ebb, the Navy should be increasing its Reserve Forces, and showing evidence of creating innovative programs for assigning additional Reserve ships and aircraft.

1975 SELECTED RESERVE REDUCTION

I have learned to my deep consternation and regret, however, that the Navy and Defense Departments, with the fiscal year 1974 strength of the Selected Reserve targeted at about 117,000 man-years, requested funding for 108,000 man-years, a 9,000-man year reduction for fiscal year 1975. I understand, too, that it was proposed that 10,000 reservists be shifted from a 48 to a 24 drill basis.

Also, I understand that the money to be estimated as saved by employing fewer reservists is to be devoted to operating expenses and hardware.

Mr. Chairman and members of the committee, the officers of the Naval Reserve Association are opposed to reductions of the manpower levels of the Selected Reserve as being contrary to the national defense interests. We know that if those 10,000 reservists are ordered into a 24-drill instead of a 48-drill program their training and readiness will

be inadequate, but worse than that, most of them will probably not even be retained, but will become forced reductions, further cutting the already too limited manning levels. And we, also strongly, believe that to trade personnel for hardware is a most dangerous way in which to proceed in trying to build a Reserve Force capable of achieving its missions.

I want to emphasize as seriously and solemnly as I possibly can to you gentlemen, and for the record of your committee, and for the information of our fellow citizens, our firm beliefs that manpower levels, ship and aircraft levels, and supporting unit levels for the Selected Naval Reserve should be established upon actual mobilization requirements. Funds should be sought then by the Navy and Defense Departments, and should be appropriated, to equip and train these personnel so that they, and their Reserve ships and aircraft stand ready to respond effectively when needed.

The Naval Reserve has, for a long while, been sized on the basis of what is at least level requirement; or of a floor; or of what is affordable in the constraints of tight fiscal policies, or of what is estimated as being reasonably attainable.

It is urgent that the Reserve be fully justified on the basis of realistic and meaningful wartime requirements, first, foremost, and finally.

MOBILIZATION REQUIREMENTS

I must admit a personal sense of limitation in my deliberate and extensive efforts to obtain an authoritative statement and justification of the fundamental mobilization requirements for the Naval Reserve. But I am determined that these efforts are needed and I intend to continue to try. Plain language definitions and criteria are needed. The Defense Department should take charge of this ambiguous situation, and resolve the issues, so that adequacy, risk, and balance will be matters of Defense responsibility and authority—not entirely at the discretion of the individual services.

It is only in the context of the total force that the requisite service balance, necessary to carry out integrated war plans, can really be logically justified.

In my view, congressional committees in particular, and American citizens in general, require from our Defense Department basic statements with persuasive rationale in unclassified language outlining the acceptable criteria for meaningful Reserve mobilization requirements.

BALANCED FORCE OBJECTIVE

A balanced total force is the natural objective of a complete program for the Defense Department. I find more and more reservists with whom I discuss this matter who feel defense balance is obviously lacking now and needs emphasis and understanding. Of course, force balance is strongly affected by national policy and many other elements of strategy. But there are some basic and essential elements that can be agreed upon.

First, in a national emergency involving submarine warfare, the Navy must win control of the seas before any other major military efforts by the United States or our allies can become possible. Next, to support U.S. and allied forces overseas, the use of the seas by our

shipping is essential to our efforts; and control of the seas is vital. And also, to support the U.S. economy and population at home, our use of the seas is absolutely essential.

It is important to emphasize that the Defense Department should be held responsible to set the criteria for risk levels and balance; and assure that the same or similar criteria are applied. Only thus, in my opinion, will the Congress have some assurance that the services' forces are justified on a balanced and equitable basis, not leaving it to the services to set independent criteria for what should be a coordinated defense responsibility.

STRONG SELECTED RESERVE REQUIREMENT

Mr. Chairman and distinguished members of the committee, I would like to summarize and conclude my statement by making a positive point of emphasis on the need for a strong Navy including a strong Selected Reserve component.

It is evident to informed observers that we have witnessed a dramatic shift in the balance of military power in recent years between the United States and the Soviet Union, especially on the seas. Our situation in the U.S. Navy is a very serious one and many are rightly and properly worried about this situation. I too share this concern for our weakened naval condition. It is under these circumstances that I urge continuing positive leadership, combined with increased ship, aircraft, and manpower levels, more funding and stronger programs to improve the Naval Reserve—not to cut it out.

The Naval Reserve force offers the unique opportunity to our Nation of providing the badly needed, vital capabilities at greatly reduced costs.

We should have been increasing manpower levels and appropriations for our Naval Reserve, not cutting them, last year.

We should be increasing our Reserve strength, not cutting it, this year.

Our naval situation, I say again, is dangerous for our national security today. We need inspired leadership and innovative efforts to build up the Naval Reserve as the best means available to maintain our vital naval capabilities at least cost. In the challenges of today's uncertain world situation, the Naval Reserve forces must be made more competent, more capable partners in the total force.

I thank you for the opportunity to submit this statement for your consideration.

Chairman McCLELLAN. Thank you, Mr. Leavitt.

Do you have anything you wish to add?

Admiral SHAFFER. Nothing to add, Mr. Chairman; no.

Chairman McCLELLAN. Thank you very much.

Senator Young, any questions?

RESERVE EMPHASIS

Senator YOUNG. I have noticed less reliance on the part of the Defense Department now on the Reserves of all the services than in previous times. Do you agree?

Captain LEAVITT. My personal feeling is I feel this is true, yes, sir. I think that was true. I think it shows that if we can put more Reserves on the active duty ships and spread it, since they are cutting

back the Active forces now, if we can augment it with our Reserve forces which are costing the country less as far as wage controls, we can spread it out that way at great saving.

Chairman McCLELLAN. You heard the previous witness?

Captain LEAVITT. I don't agree with him.

NATIONAL SECURITY REQUIREMENT

Chairman McCLELLAN. You see what we are confronted with here. We have tried to hold down defense expenditures, and to take into account the tremendous fiscal burden that our Government is carrying. I don't know how much further we can reduce defense requests and still preserve a measure of safety that I think the people of this country want.

Captain LEAVITT. I think that is very true, Senator. I think it is important that consideration is given to the security of the Nation in all means. I also know that if further cuts are anticipated in the Reserve program, and if the changes are made in the training program from the 48 to 24 drill, which is basically with the enlisted personnel, we are going to have a personnel problem because we are going to lose a lot of those people.

Chairman McCLELLAN. Thank you very much.

Captain LEAVITT. Thank you very much.

STATEMENT OF H. O. BEAVER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, CARPENTER TECHNOLOGY CORP.

ACCOMPANIED BY:

DONALD DeKIEFFER, FIRM OF COLLIER, SHANNON, RILL & EDWARDS

WILLIAM J. PENDLETON, MANAGER, ADMINISTRATIVE SERVICES CORP., AND TECH CORP.

INTRODUCTION OF ASSOCIATES

Chairman McCLELLAN. We have three more witnesses. Mr. Beaver, president of Carpenter Technology.

Mr. BEAVER. It is a fairly short statement, and I will read it.

Chairman McCLELLAN. Identify the people with you.

Mr. BEAVER. Donald DeKieffer, firm of Collier, Shannon, Rill & Edwards; and William J. Pendleton, Manager of Administrate Service Corp. and Tech Corp.

I am president and chief executive officer of Carpenter Technology Corp.

Chairman McCLELLAN. What is this corporation?

Mr. BEAVER. It was formerly Carpenter Steel Co., with headquarters in Reading, Pa., a firm of about 5,000 people.

Chairman McCLELLAN. What does it do?

Mr. BEAVER. Specialty steel manufacturer, one of the leading ones both domestically and internationally.

Chairman McCLELLAN. Steel?

Mr. BEAVER. Specialty steel.

Chairman McCLELLAN. Meaning what?

Mr. BEAVER. Stainless steel; high temperature alloys.

Chairman McCLELLAN. You may proceed.

Mr. BEAVER. I am speaking today on behalf of the Tool and Stainless Steel Industry Committee and the Stainless Steel Producers Committee of the American Iron and Steel Institute as well as my company.

SUPPORT OF "BUY AMERICAN" PROVISION

The U.S. specialty steel industry is united in its support of the "buy American" provision for specialty steels which has been incorporated in the defense appropriations bill for the last 2 years.

Not only has this provision provided a needed stimulus to the American steel industry, the "doomsday" predictions of its opponents have been thoroughly discredited by our experience in the marketplace.

To understand the importance of this legislation to the steel industry—and to my company, in particular—you must first understand what the provision does—and what it does not do.

It does provide preferential treatment for American-made specialty steel in defense applications. This preference goes beyond DOD purchases of "mill forms" such as sheet, bar, strip, et cetera; and includes items containing specialty steel such as jet engine blades, rocket engines and naval equipment. By granting this preference, Congress has done much to assure the continued supply of vital military equipment from domestic sources. Congress has clearly recognized the wisdom of maintaining a strong domestic defense base in the event of national emergency.

STIMULATION OF PRODUCTION

It does stimulate the production and growth of the American specialty steel industry. Legislation such as section 724 in the appropriations act enables steelmakers to more accurately predict demand levels, and provides a sound base upon which to plan and maintain efficient production.

The effect of the "buy American" provision on the specialty steel industry in general and my company in particular has been dramatic. Last year, 1973, was a record production year for Car Tech, as it was for most of the industry. While some of our success can be attributed to cause other than the "buy American" provision, we feel that the legislation can be accurately characterized as the "pump-priming" catalyst for our achievements.

PROVISION OBJECTIVES

Equally important, however, is what the "buy American" provision does not do.

It does not prevent the Department of the Defense from securing critical metals from foreign sources when there is a domestic scarcity. The section provides a well-reasoned "escape" clause which permits DOD to look elsewhere for specialty steels when they are not available in sufficient quality or quantity from American sources. The specialty steel industry recognizes and approves of this "escape" provision. As long as it is fairly administered, the law fulfills both the purposes of national defense and an economic stimulant.

It does not cost the taxpayers a "bundle" in the form of an indirect subsidy to the steel industry. As mentioned previously, the economic catalyst provided by the "buy American" provision creates and maintains hundreds of jobs—and thousands of dollars in taxable income.

The "savings" which might be achieved by buying foreign-made steel is more than compensated in increased revenues—and employment—for American industry.

LEGISLATION FLEXIBILITY

One of the prime characteristics of this legislation is its flexibility. When the domestic market is depressed, American mills are kept operational by the DOD purchases of specialty metals, both direct and indirect, and the "spin-off" effect of secondary private purchases.

Some of Car Tech's largest customers, as well as those of competitors, for example, hold DOD contracts, as well as producing products for private consumption. In many cases, it is not practical for them to stock both domestic and foreign steel supplies—these contractors have found that procurement of their civilian as well as military requirements is economically desirable.

Conversely, when the market for specialty steel products is strong, as it has been for the past year, the industry has an opportunity to fill both civilian and defense requirements. Should demand exceed supply of steel, our defense needs are not prejudiced. By using the escape provision, foreign sources can be tapped to meet temporary shortfalls.

R. & D. EFFORTS

Another important point which should be emphasized is that the specialty steel industry by its very nature is committed to extensive research and development. A great deal of funds and man-hours must be expended each year to develop high technology metals for this country's ever-increasing defense and industrial requirements.

Without this research and development, the United States could find itself technologically weak in the metals area and dependent on foreign sources for some of its critical needs. The recent Arab oil embargo has shown the dangers of such dependence. The buy American provision assures the industry of a continuing solid base upon which to plan and conduct the necessary developmental efforts.

In conclusion, the buy American requirement has demonstrated its utility over the past 2 years. The American specialty metals industry has been greatly strengthened, and is better prepared to provide steel for defense purposes. Our financial position is improved; employment and production are increasing.

While it would be an oversimplification to attribute all these gains to the buy American provision, that legislation has had a significant favorable impact upon our industry, and America's defense base. Further, the gloomy predictions of opponents of this section simply have not materialized.

The Defense Department is able to procure material from any source it wishes during times of scarcity. If there have been small additional direct costs, they have been more than offset by increased employment and taxable revenues.

We again urge you to retain this provision in the Defense Appropriation Act of 1975.

Thank you for your attention.

Chairman McCLELLAN. Very good.

Mr. Pendleton, Mr. DeKieffer, any statements?
Mr. PENDLETON. No, sir.
Mr. DEKIEFFER. No, sir.
Chairman MCCLELLAN. All right.
Do you support his statement?
Mr. PENDLETON. Yes.
Chairman MCCLELLAN. Senator Young.

TITANIUM PRODUCTION

Senator YOUNG. Do you get into titanium production? Is that one of the metals you are involved with?
Mr. BEAVER. Some, especially the metals industry does; very definitely.
Senator YOUNG. All right. That is all I have.
Chairman MCCLELLAN. Very well.
Thank you.
Mr. BEAVER. Thank you.

RESERVE OFFICERS ASSOCIATION

STATEMENT OF COLONEL JOHN T. CARLTON, EXECUTIVE DIRECTOR, RESERVE OFFICERS ASSOCIATION OF THE UNITED STATES

ACCOMPANIED BY:
COLONEL FLOYD H. HAYWOOD, JR., USAF (Retired), DEPUTY EXECUTIVE AND DIRECTOR, RETIREMENT AFFAIRS
COLONEL ARTHUR A. BRACKETT, USAF (RETIRED), DIRECTOR, AIR FORCE AFFAIRS
CAPTAIN EDWARD L. HUIE, USNR (RETIRED), DIRECTOR NAVAL AFFAIRS
COLONEL ROBERT L. MOORE, USA (RETIRED), DIRECTOR, ARMY AFFAIRS

PREPARED STATEMENT

Chairman MCCLELLAN. Colonel Carlton.
I know you have quite a lengthy statement, comparatively, to some we have received this morning. If you will, I would like for you to agree to place it in the record and highlight it.
Colonel CARLTON. Mr. Chairman, I don't think it is necessary even to highlight it. Let me just make two or three statements and I will take about a minute of your time.
Chairman MCCLELLAN. Let the statement be printed in full in the record.
[The statement follows:]

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Mr. Chairman and Members of the Committee:

We are here today to make what we are sure is an appeal with which you are familiar--for support of Reserve Forces in the Total Military Force which will assure adequate strength for the defense of our nation.

We believe that while progress has been made in the development of the Total Force Concept, we have not yet really reached the degree of a Total Force Policy. Yet, it seems apparent to us that we have a long road to travel before we reach the point where we can truthfully claim the Reserve Forces can indeed take their places beside the Active Forces and perform professionally, creditably and with full combat effectiveness.

In varying degrees, this applies to all the Services--to Army, Navy, Air Force, Marine Corps and Coast Guard.

Herein we have a vast reservoir of dedicated and willing men and women. Some of them are discouraged by the lack of public support, by an apparent withdrawal of full official support and by shortages into which they read a less than full appreciation of their value and their willingness to sacrifice for the good of their country. The military witnesses who appear before you certainly talk of these matters. We believe that this Committee, and indeed the Congress as a whole, will wish to correct these deficiencies as they are disclosed.

Some twenty years ago, ROA recommended to the Congress that the Reserves be developed into a "Citizen-Hurricane Force"--so well organized, trained, equipped, managed and motivated, that it would be possible to mobilize it and get it into action almost overnight. This has never been done--but it still is possible. In a Total Force, company or battalion size Reserve units--the number would depend upon many factors and could be pre-determined by careful planning--could achieve a readiness unprecedented in military history.

The development of such a Reserve comes not from a dreamworld but from a recognition of the kind of world in which we live today. It recommends iself for a number of reasons:

FIRST, it would pose a magnificent appeal to the youthful citizenry of the nation;

SECOND, it would give support and status to the military image which unfortunately is less today than it deserves;

THIRD, it can be done within the economic framework of our society without posing a major dollar strain; and

FOURTH, it can fit into our culture which by tradition is non-militaristic, peaceloving and non-acquisitive of territory and power over other peoples.

We have the framework of such a Reserve today in all the Services. Our men and women who serve part-time are eager for new impetus to already on-going programs and for new departures into programs to meet the challenges of the future. Yet, they need your support, your encouragement, your recognition--and the inspiration you can give them.

We fully understand the reluctance of this Committee and the Congress to increase to any degree, or by any amount, the moneys required to support the Defense Forces. On the other hand, we believe that whatever sums are required adequately to defend this nation--to keep it safe, secure and at peace--is an indispensable investment. Obviously, unless we have this defense adequacy, we risk losing everything else, including the increasingly vast programs which add to the comfort, health, well-being and care of our citizens through costly social program outlays.

It is not our desire to demonstrate an unsympathetic or uncooperative attitude toward the Active Duty Forces. The facts are, however, that in the budget planning the Defense Department has applied over the years a reduction formula to the Reserve Forces with the result that they are not now adequately manned, trained, supported, managed or encouraged. Our nation has always maintained its security by arousing the vast body of its citizenry to respond to a call to

the Colors; this nation must continue this traditional policy. To do so, a substantial reordering of priorities in the military Services to create a genuine Total Force Policy must be directed. There is no question that the citizen members of our Armed Forces who give only part-time to their preparedness training cost only a fraction of the Active Forces; and it is apparent that adequacy in defense preparedness can be achieved with a lesser dollar than can be accomplished outside the citizen-Reservist tradition.

It is obvious, Mr. Chairman and members of the Committee, that we cannot at this point analyze the defense budget and suggest to you specific changes or to make specific money requests for the various Reserve Forces, nor to suggest from what line items funds can and should be diverted, if indeed they should be. What we are proposing is that this Committee make it clear that it wishes and requires adequate support for a broad-base Reserve, stretching out across this broad land and arousing interest and part-time participation of the willing young men and women in every community in the military Reserve programs.

In the following, we should like to discuss briefly the needs of all the Services in these programs.

ARMY RESERVE FUNDING

Army Reserve Personnel

The Army Reserve has the mission to furnish, in the event of war,or national emergency, or at any other time our national security may require, units organized, trained and equipped during time of peace for rapid mobilization, expansion and deployment. Also the Army Reserve is required to provide individual personnel for necessary replacement and expansion of the active Army. All Army Reserve Units are established requirements in the Department of the Army's Mobilizstion Plans. Therefore, the objective is to bring these units and individuals to a peak of readiness that will require a minimum of post-mobilization training.

To accomplish this mission we support a budget for Army Reserve personnel to provide a FY 75 end strength of 228,000 with an average strength of 233,000, in the units of the Selected Army Reserve, plus subsistence for ROTC students and the Health Professions Scholarship Program established in September 1973 by P.L.92-426.

However, we believe that even with an average strength of 233,000 for the USAR that this poses a strategic risk in view of the drastic reductions which have been made and are now taking place in the Active Army.

The strength authorizations requested for the Active Army and its Reserve Components for FY 75 do not provide the strength to maintain the number of units, especially combat-type units, needed to meet the known requirements of contingency and mobilization plans.

We believe that there is justification for the activation of additional combat units and other type units in the U.S. Army Reserve. It must be remembered that five Reserve units can be funded for the cost of one Active unit.

Strength in the Army Reserve can be obtained and maintained. This has been dramatically proven just within the last 60 days. The first "total effort" recruiting campaign for the Army Reserve sponsored with strong command emphasis by the Commanding Generals of First, Fifth and Sixth U.S. Armies produced 16,667 new accessions to the USAR from 1 April to 11 May, bringing the average strength up to 93 percent authorized.

Equipment

We support the FY 75 request of the Administration for funds to increase stock fund equipment as a vital step in the effort to increase unit and materiel readiness. Wtth new and modern equipment continuing to be issued to the USAR, the maintenance and storage of this equipment requires additional funds.

Facilities and Command Support

An increase in this budget activity is necessary for the operation for the three field maintenance shops and the over 1,000 on-station training centers necessary for the Army Reserve.

We thereby support the Administration's FY 75 request for 70.9 million for this account.

NAVY'S SELECTED RESERVE

Six years ago the authorized minimum average strength of the Navy Selected Reserve was increased by 3,000, placing an overall average minimum strength to 129,000. This strength was achieved by the Navy and the action resulted in a significant improvement in the readiness of the Navy's Selected Reserve. The increase was made at a time when the active Navy was also in an expanded situation. At that time the Navy presented a plan to the Congress which would bring the strength of the Selected Reserve to an ultimate level of 139,000 with annual incremental increases of 3,000. Actually, the Navy's immediate mobilization requirements amount to a figure significantly higher than 139,000.

Nothing has been heard of the 3,000 incremental increases that were planned. And now, Mr. Chairman and members of the Committee, we are in a situation where the active Navy has been drastically reduced in ships and in personnel strengths, yet the Administration proposes a severe reduction in the strength of the Navy's Selected Reserve. The authorization request for Fiscal Year 1974 was reduced to a minimum average strength of 116,981, a reduction of 12,019 officers and men. The Congress wisely added 2,250 positions to this number for the final authorized strength of 119,231. Now, for Fiscal Year 1975, we were surprised by the Administration's action in requesting a Selected Naval Reserve of only 107,526.

It is axiomatic that when the Active Forces decrease, the Reserve must be increased.

The Secretary of the Navy has stated that funds saved by decreasing personnel are going for "increased operational expenses" occasioned by oil price increases, maintenance and other factors.

Last year, Fiscal Year 1974, the Navy's reason for Selected Reserve reduction was to reprogram 11.6 million reserve dollars to provide two additional Naval Reserve destroyers, three minesweepers; and six million reserve dollars were set aside to equip the Navy's new Naval Reserve Readiness Commands. In reality, in Fiscal Year 1974 only 2.9 million reserve dollars were programmed for equipment for the Readiness Commands, a shortfall of 3 million reserve dollars.

All of us are, of course, familiar with the Administration's commitment to a Total Force Policy--that is, consideration of Reserve Forces as equal partners with our active duty forces in the overall defense structure.

Therefore, we must be concerned by the downward trend of active Navy manpower levels--cutting approximately 25,000 personnel in the last two years--while concurrently reducing the Naval Reserve by 22,000 in the same period. Since there has been no discernible change in the Navy's missions within our total defense commitments, ROA feels that it is unwise to allow this dangerous situation to continue.

It seems evident that attention has been given only to those force levels that have been funded. This is looking at the problem in reverse--in terms of what we have rather than what we need. Such a planning constraint rather obviously foreshortens the considerations in trying to answer that famous question--"How much is enough?"

Another item of great concern is the shift of some 4,000 Naval Reservists from Category "A" (48 drills) to Category "B" (24 drills) in FY 74--and some 10,000 more in FY 75. P.L. 90-168 calls for at least 48 drills and 15 days ACDUTRA for Selected Reservists--except where modified by the Service Secretary. The huge OSD-directed shifts from Category "A" to Category "B" are not in consonance with

P.L. 90-168. Readiness standards simply cannot be obtained in the 24-drill environment. It appears that insufficient consideration has been given to the nature and composition of the new Reserve Units being created in the current restructuring. Whereas most of the old Navy Programs in Category "B" had no enlisted men, virtually all of the new units contain mixes of officer and enlisted personnel. Shifting large numbers of these units to Category "B" will make it impossible to develop and maintain necessary levels of readiness--and will virtually guarantee that the necessary enlisted personnel will not be retained.

Still another issue we urge you to support is the equipping of the Reserve Centers with necessary training support items. The new Naval Reserve Units must have this equipment if they are to become mission-capable. Yet, the FY 74 appropriation and the FY 75 budget provide only about half of the needed funds for initial equipping. The readiness training support system, therefore, will not become functional for 10 years--a schedule that will result in "too little, too late." Therefore, we urge that you support the readiness training equipment buy under its original plan of $6 million per year for the five-year period--FY 74-78.

It seems to our Association that strength of the Navy's Selected Reserve should be based upon manpower requirements for a major contingency or an all-out mobilization situation and, accordingly, we strongly recommend that the Navy's Selected Reserve should remain at least at 119,231 officers and men and preferably raised to 129,000. Any reduction will mean that substantial numbers of high performing enlisted men who have been induced to join will be summarily thrown out of the Selected Reserve.

We respectfully request that you provide the required funds to support this program.

MARINE CORPS SELECTED RESERVE

As in the case of the Navy's Selected Reserve, we believe that the Marine Corps' Selected Reserve strength should be based on per-

sonnel requirements of the Fourth Marine Amphibious Force (Reinforced Division/wing team) rather than being a mirror image of the three active duty Marine divisions.

The Administration has requested this year a minimum average strength for the Fourth Marine Amphibious Force of 36,703 or a reduction of 3,032 officers and men from last year.

This reduction would appear to be a lowering of the manning level to the reduced manning level of the active duty counterpart. This rationale was used in 1972 when the reduction was 1,186, in 1973 the reduction was 833, in 1974 the reduction was 5,381, and now in 1975 the reduction is 3,032.

So in four years we have seen the strength of the Marine Corps Selected Reserve reduced by 10,432 officers and enlisted personnel.

We recognize that changes are normal and must occur, but in this case we believe that the reduction is drastic and the downward trend must be stopped and reversed. Accordingly, we recommend a minimum average personnel strength of 39,735 as authorized last year.

We applaud the Marine Corps for its efforts in planning and executing combined amphibious exercises using both regular and reserve personnel in concert with the U.S. Navy and NATO powers. One such example was the combined exercise conducted in the Thrace area of Greece and Turkey. The Commandant of the Marine Corps evaluated the operation by saying, "This was an outstanding illustration of the Total Force Policy."

We respectfully request that you provide the required funds to support this program.

AIR FORCE SELECTED RESERVE

AF Reserve Accomplishments. We understand that in his presentation to you, General Homer I. Lewis, Chief of Air Force Reserve, spoke at some length about the accomplishments of the Air Force Reserve in the past year. We do think, however, the outstanding accomplishments of the members of our Reserve associate strategic airlift units during the Mid East Crisis deserves reiterating. The

fact is that without a mobilization over 1,800 Reservists participated in this world-wide mission. You will remember that over 150 Reservists flew missions into Israel augmenting active duty MAC crews and that 24 all-Reserve crews landed at Tel Aviv. This is certainly ample evidence of the MAC surge capability contained in the Air Force Reserve associate unit program.

AF Reserve Management Structure. The effectiveness of the current structure for the management of the Air Force Reserve is not only supported by the above cited accomplishments, but by the increasing stability, the increased number of combat ready units, and the development of a successful recruiting capability in the Air Force Reserve. Yet we receive recurring rumors of attempts to make large scale changes to this structure. We would hope that the Congress, in line with its responsibilities as provided in P.L. 90-168, The Reserve Revitalization Act, would prohibit any major tampering with what is now a demonstrably successful Air Force Reserve management structure.

AF Reserve Personnel Funding. We believe the request for Reserve personnel funding is deficient in one important aspect. It is our understanding that the funds requested by Pay Group A spaces will provide only for an 85% airman manning level in the non-flying units and only 90% manning in the flying units of the Selected Reserve. We feel that the Readiness posture expected of our USAFR units requires 100% manning. We estimate that additional funding to attain 100% manning is in the neighborhood of $2 million.

AF Reserve O&M Funding. We share the concern of the House Armed Services Committee (as expressed in page 77 of their Report No. 93-1035 on H.R. 14592, the FY 1975 Military Authorization Bill) over the "disproportionate" cuts in fuel allocations for the Reserve Forces. This, as the House Committee points out, has a seriously deleterious affect as to "reduced activity rates, flying safety and operational readiness of these forces."

In the case of the Air Force Reserve, we are told that there has been imposed a reduction of some 23,000 flying hours. We think

this is truly dangerous, thus we urge that funds be restored to provide the fuel for these urgently needed flying hours.

AF Reserve Equipment. As reported to you, the Air Force Reserve now has 16 C-130 tactical airlift units, none of which have their full complement of aircraft. Yet the Under Secretary of the Air Force, Mr. Plummer, in testimony before the House Armed Services Committee on 13 March of this year, stated:

> "The Air Force has a substantial shortage of tactical units, including Reserve units, to satisfy requirements established by the Joint Chiefs of STaff to meet wartime requirements, for example, fighter attack and airlift" (underscoring supplied). Also, earlier in his statement, Mr. Plummer said, "We continue to support the procurement of aircraft and other equipment for the Air Reserve Forces."

We think that the ultimate -- and we hope not too long delayed solution -- is in increased buys of C-130s and tactical fighters, either for active forces with a subsequent fallout of their current aircraft to the Reserve units, or, as seems to be required, a direct buy for Reserve units.

Mr. Chairman and members of the Committee, we are most grateful for your indulgence today and for your understanding and sympathetic attention to these requests. We believe that they are made in the name of the security of this nation. We hope that you will agree that this is true.

SUPPORT OF RESERVE CONCEPT

Chairman McClellan. Take such time as you need. I don't want to deny you a full hearing.

Colonel Carlton. I don't feel we have been denied at all, Mr. Chairman.

Let me just emphasize the fact that the Secretary of Defense, Mr. Melvin Laird, about 4 years ago developed the total force concept in which the Reserve became a partner in the defense team and we feel that this should be carried forward and should be supported and even greater reliance placed upon the entire citizen community throughout the United States for the defense of this country, and it can be done and is being done and it can be more effective.

If the chairman will not be offended, I would like to say how strongly we agree with the statements you made a few minutes ago and how much we are aware that unless we have a strong defense, including a strong reserve, that all of these other programs that we are talking about for the well-being and care and health of our people, none of these programs will be worth anything because they don't exist.

We first have to have our country secure and safe and then all of these other social programs and the welfare of our people can follow.

Thank you very much.

NEED FOR DEFENSE

Chairman McClellan. I don't know whether I said it to this representative or not, but I think the first law of survival is self-defense. If we cannot survive, we cannot have these other advantages. If we become vulnerable to attack and are attacked and are not able to repel such attacks, then we lose our sovereignty. We have also tried to provide for the social needs of our people.

Colonel Carlton. George Washington said that, Mr. Chairman, and every other President and Commander-in-Chief has said that since, and that has been the national policy.

Chairman McClellan. I think one thing some people overlook is that with sophisticated modern weaponry of such destructive power, there is no second chance. We have got to be ready. We have got to have our powder dry and have it in the chamber on the ready.

It is a tragic world situation and we ought to do everything we can to resolve this, to eliminate the threat, and bring about a large measure of disarmament. If we can do it by treaties and by agreements, the integrity of which can be relied upon, well and good. But, if we can't, we must not take the risk of not being capable of self-defense.

Colonel Carlton. You are so right, Mr. Chairman.

Chairman McClellan. Very well.

Do you have any questions?

Senator Young. No.

STATEMENT OF GUY GRAN, INDOCHINA RESOURCE CENTER/ NARMIC

ACCOMPANIED BY D. GARETH PORTER

USE OF MASF FUNDS

Chairman MCCLELLAN. Our next witness is Mr. Guy Gran, Indochina Resource Center.

All right, Mr. Gran.

You have quite a lengthy statement, I believe. Will you be willing to insert it in the record and comment on it?

Mr. GRAN. Yes. Thank you, Mr. Chairman.

I have with me my colleague, D. Gareth Porter, and he will make the principal commentary.

I will conclude with a few remarks about what level of MASF funding we think ought to be appropriate for this next fiscal year.

Mr. Porter will give the principal commentary on the political and military framework in Vietnam, where this money is going to go, what it is likely to produce, what it has produced over the last year.

Chairman MCCLELLAN. Let me ask right off: Do you oppose military aid for Vietnam or do you support it?

Mr. GRAN. We oppose the level and the results of military aid in Vietnam.

Chairman MCCLELLAN. Proceed.

Mr. PORTER. Mr. Chairman, Senator Young——

Chairman MCCLELLAN. Do you represent some organization?

Mr. PORTER. Yes.

I am with the Indochina Research Center in Washington.

Chairman MCCLELLAN. Proceed.

Mr. PORTER. We have prepared a rather lengthy analysis of the request for the military assistance service funded for fiscal year 1975 which we ask to be placed in the record, together with an addendum.

[The analysis and addendum follow:]

FOREWORD

This year, Congress has an excellent opportunity to help bring peace to South Vietnam. For the first time in a decade, American ground and air troops are not fighting there. For the first time in a generation, all sides have agreed on a blueprint for peace, the Paris Agreement of 1973.

Congress has played a crucial part in these developments. Its opposition to the Christmas bombing of 1972 was a factor in the Administration's decision to sign the Paris Agreement a month later. In the spirit of the Agreement, Congress halted the bombing of Cambodia in August 1973 and passed legislation aimed at ending U.S. support of South Vietnamese police and prisons in December 1973. And in March of this year, Congress rejected the Administration's request for $474 million in supplemental military aid for the Saigon government.

These actions have saved countless lives in Indochina. In addition, they have made available millions of dollars for human needs at home.

Now the Nixon Administration's FY 1975 request for military aid to the Republic of Vietnam (RVN) presents Congress with a choice of whether or not to continue this progress. To state the matter frankly, we believe Congress must choose between subsidizing Saigon's armed forces and helping to restore peace; between an open-ended commitment to one side of the conflict in South Vietnam and a firm commitment to uphold the Paris Agreement.

We are convinced that a non-military resolution of the conflict is unlikely as long as American arms and resources offer President Thieu the option to fight. It is up to Congress not to renew that option. Congress must redesign U.S. military assistance to Vietnam in such a way as to promote the implementation of the Paris Agreement.

U.S. MILITARY ASSISTANCE TO SOUTH VIETNAM, FISCAL YEARS 1974-75

[In thousands of dollars]

	Fiscal year—	
	1974 programed	1975 requested
Defense Department military assistance	1,224,600	2,125,000
A. MASF:		
1. Authority:		
(a) Total obligational authority	1,126,000	1,600,000
(b) New obligational authority	900,000	1,450,000
2. Expenditures	1,022,100	1,450,000
(a) Procurement	358,800	851,600
Army	80,400	473,800
Air Force	278,400	341,700
Navy		36,100
(b) Operation and maintenance	622,900	574,400
Army	355,900	304,800
Air Force	247,100	250,400
Navy	19,900	19,200
(c) Military personnel (Army only)	40,400	24,000
B. Non-MASF Defense Department authority	98,600	525,000
1. Defense attaché's office	[1]	[1]
2. Excess Defense articles	35,000	35,000
3. Local currency purchases	63,600	[2]
4. Secret War Reserve Fund [4]	[1]	490,000
Non-Defense Department funds available for military assistance	358,000	380,000
A. Commodity support programs in foreign assistance bill	[3] 49,000,	[3] 380,000
B. Public Law 480 (title 1) in Agriculture bill	309,000	
Total military assistance available	1,582,600	2,505,000

[1] Not available.
[2] Total commercial import program funds for fiscal year 1974 were $190,000,000. An estimated 25 percent of CIP-generated funds are said to support the RVN's military budget.
[3] In its fiscal year 1975 presentation for Indochina postwar reconstruction, AID has requested $380,000,000 in commodity support of various sectors. Since congressional legislation forbids the military use of Public Law 480 funds, beginning in fiscal year 1975, we assume a larger share of commodity support funds shall be used for military purposes than in the past.
[4] A secret military aid fund uncovered by Senate staff, "Philadelphia Inquirer," May 8, 1974.

Source: GAO report, "Congressional Record," Mar. 28, 1974, E 1917.

Introduction

For FY 1975, the Department of Defense is requesting $1.6 billion in total obligational authority for Military Assistance Service Funded (MASF) military aid to South Vietnam—$474 million more than the ceiling authorized by Congress in FY 1974.[1] Included in the MASF request is $1.45 billion in new obligational authority (see Chart).

Because a detailed description of the FY 1975 MASF request is not publicly available, we have made a category-by-category analysis of FY 1974 expenditures in the belief that they offer the best available guide to future programs.

In examining each category, we have tried to determine its conformity with the Paris Agreement signed by the United States, the Republic of Vietnam (RVN), the Provisional Revolutionary Government (PRG) of South Vietnam and the Democratic Republic of Vietnam (DRV) on January 27, 1973. After careful studying the Agreement, U.S. military assistance programs and reports of the military and political situation in South Vietnam, we have arrived at the following conclusions:

Insofar as U.S. military aid supplies the Republic of Vietnam's Armed Forces (RVNAF) with funds, fuel, weapons, ammunition, logistical and personnel assistance in support of offensive operations against the other signatories, such assistance is inconsistent with

Article 3 of the Paris Agreement which commits all parties, including the United States, to "maintain the ceasefire and ensure a lasting and stable peace;"

Article 4 of the Paris Agreement which states: "The United States shall not continue its military involvement or intervene in the internal affairs of South Vietnam."

[1] The $1.126 billion ceiling on MASF authority in FY 1974 included military aid to Laos as well as South Vietnam. For FY 1975, military aid to Laos has been transferred to the Military Assistance Program.

Article 7 of the Paris Agreement which forbids the introduction of military personnel and war materials into South Vietnam, except for periodic replacement of damaged or worn-out war materials "on the basis of piece-for-piece of the same characteristics and properties." It should be clear that this exception was not meant to allow the replacement of war materials consumed in offensive military actions.

We submit the following analysis in the belief that Congress should provide military assistance to South Vietnam only to the extent that such aid is compatible with the Paris Agreement.

The Nature of Postceasefire Fighting

In order to determine whether U.S. military assistance to South Vietnam is consistent with the Paris Agreement, Congress must know how the Republic of Vietnam Armed Forces (RVNAF) are using their American-supplied goods and services. Evidence from American correspondents and other observers in South Vietnam indicates that the RVNAF is using U.S. military aid to conduct offensive combat operations in violation of the ceasefire.

From the moment the ceasefire was to begin, reports from South Vietnam told of Saigon's efforts to regain territory it had lost in the weeks and months before the Agreement was signed.[2] According to one American official interviewed by the *Washington Post* two months after the signing, the Army of the Republic of Vietnam (ARVN) had already recaptured some 350 hamlets that had been occupied by PRG forces before the ceasefire.[3] In April 1973, the U.S. Defense Attaché's Office told Senate staff investigators that after the first weeks of postceasefire fighting, the ARVN had "initiated several operations designed to expand areas of control, to which the enemy responded strongly." [4] Some of th eareas in which these attacks took place have been the scenes of fighting ever since.

By late 1973, President Thieu appeared to be directing his efforts toward provoking Communist military moves which could be used to convince Congress that his regime was under attack. In October, Thieu predicted a general offensive in early 1974 and called for "preemptive attacks" against PRG forces wherever they might be.[5] In January, Thieu announced that the war had resumed and vowed to strike at Communist base areas.[6] Shortly thereafter, the Saigon command acknowledged that it was systematically bombing PRG territory.[7]

While intensifying the conflict militarily, Thieu has timed his major charges of Communist violations to coincide with Congressional hearings on military aid in the hope of receiving more money in an atmosphere of anxiety over a Communist offensive. In April 1974, a *New York Times* correspondent reported wide belief in South Vietnam that the Saigon Administration had "orchestrated the news about the fall of a ranger base called Tong La Chan—which is reliably reported to have been evacuated in the dead of night—in order to dramatize the North Vietnamese threat." [8]

Of course, the PRG and North Vietnamese armies have not laid down their arms either. In October, the PRG's military command ordered its forces to respond more vigorously to ARVN's efforts to expand its areas of control. However, both the PRG's public statements and its captured internal orders make clear that Communist units were not to attack without provocation and were to continue supporting the structure of the Agreement.[9]

Whenever non-partisan observers have been on the scene to report the facts, Saigon's charges of unprovoked Communist attacks have proved distorted. Two cases in point occurred in October, 1973, when President Thieu was claiming major violations by the P.R.G. First, on October 2, Saigon spokesmen announced that a regiment of Communist troops had attacked two A.R.V.N. battalions N.E. of Thanh Duc. But a correspondent of the *New York Times*, 10/3/73 spoke

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[2] New York Times, Jan. 29, 1973, Feb. 11, 1973; CBS Evening News, Jan. 29, 1973, Feb. 7, 1973; Baltimore Sun, Jan. 31, 1973; Newsweek magazine, Feb. 19, 1973.

[3] Washington Post, Mar. 29, 1973.

[4] Thailand, Loas, Cambodia and Vietnam: Apr. 1, 1973, Staff report, Subcommittee on U.S. Security Agreements, Committee on Foreign Relations, U.S. Senate, June 1973, p. 33.

[5] New York Times, Oct. 21, 1973, p. 3.

[6] New York Times, Jan. 5, 1974.

[7] New York Times, Jan. 10, 1974.

[8] New York Times, Apr. 20, 1974.

[9] "Political Reorientation Training Manual for Cadre, Agents and Party Members," Feb. 5, 1974, a captured document translated by the U.S. Mission and made available by the Department of State.

to A.R.V.N. soldiers involved in the action who admitted that their side had started the fighting.

A second such case took place ten days later. On October 12, Saigon charged a major cease-fire violation when A.R.V.N. troops were forced to withdraw under fire from Bach Ma outpost in Thua Thien province. However, a check with official U.S. sources revealed that the A.R.V.N. had established the outpost *after* the cease-fire in order to expand its zone of control.[10] Thus, the other side's "unprovoked attack" was actually a response to earlier violations by the A.R.V.N.

U.S. military assistance to South Vietnam category-by-category analysis

Procurement:

Fiscal year 1974 request, 843,000; Fiscal year programed, 358,400; Fiscal year 1975 request, 851,600.

The original fiscal year 74 MASF Procurement request included the following items:[11]

Weapons	$1, 800, 000
Ammunition	331, 000, 000
Air ordnance	176, 000, 000
Vehicles	1, 000, 000
Aircraft	331, 000, 000

Munitions. In the year following the ceasefire agreement, the United States supplied the RVN with approximately $276 million worth of munitions, including bombs, rockets, artillery shells and small arms ammunition. This amount was about 75% of the level of supply in 1972, a year of far heavier fighting than 1973 because of the DRV's spring offensive.[12]

Reports from South Vietnam indicate that RVN forces are using their American-supplied munitions at a much greater rate than the other side and with a minimum of controls by the United States. The *Washington Post* reported: "American sources say they have learned that in Indochina, the more guns and ammunition are available, the more the armies in the field will use them."

The *Post* story quoted a well-informed officer who said that even after the U.S. reduced the ammunition supply, "we found out that the South Vietnamese were still outshooting the enemy by 20 to 1, but the overall total was that much lower."[13]

Field reports from staff of the American Friends Service Committee's medical center in South Vietnam and from American correspondents indicate that a large share of the RVNAF's ammunition is consumed in harassment and interdiction (H & I) fire, the practice of spraying artillery shells into the countryside, an offensive action which violates the ceasefire. After treating many civilian victims of the ARVN's random shellings, the AFSC staff in Quang Ngai province went in March 1973 to discuss the matter with the U.S. Consul General of I Corp. The consul General's response to AFSC's reports of civilian casualties was: "There is no way artillery firing 14 miles away can be accurate. We're trying to persuade the GVN to use less artillery, but *they're shooting off more with the expectation that it'll be replaced by the Americans.*" (emphasis added)

In March 1974, the Defense Department told Congress that the RVN's armed forces had been consuming ammunition faster than the U.S. was delivering it. At the time, the DoD was seeking supplemental budget authority "which will allow us to restore the ceasefire level of ground ammunition."[14] In other words, the Administrations policy is to replace all ground munitions used up since the ceasefire, whether Saigon's forces have expended these munitions in offensive or non-offensive operations. Far from undertaking "to maintain the ceasefire," the Administration is offering the RVN a blank check for munitions in whatever combat operations it chooses.

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[10] Interviews with State Department officials. The officials confirmed that a similar series of events occurred in Quang Duc, South Vietnam, in November. For another report discrediting a Saigon charge of an unprovoked Communist attack, see *New York Times*, Nov. 3, 1973.

[11] Fiscal Year 1974 House Armed Services Committee DoD Hearings, part 2, p. 1295. In June 1973 the DoD itself reduced its original FY 74 MASF request but we were unable to obtain breakdowns for its reduced request or for its ultimate programing.

[12] New York Times, Jan. 28, 1974.

[13] Washington Post, June 4, 1973.

[14] FY 74 House Appropriations Committee Hearings on Second Supplemental Bill, part 3, p. 543.

Aircraft.—The Defense Department plans to send more than 100 Northrop F–5E fighters to South Vietnam, ostensibly as replacements for Saigon's F–5A's. The F–5E has a greater ordnance capacity and more powerful engines and "resembles the F–5A in name only," according to officials quoted in the Washington Star-News.[15] The replacement of F–5A's with F–5E's is a violation of Article 7 of the Paris Agreement which stipulates that piece-for-piece replacement of war materials must be "of the same characteristics and properties."

A Defense Department spokesman told us that all F–5A replacements are requested by the RVN and verified by the U.S. Embassy as having been "destroyed, damaged, worn out or used up" as stipulated by Article 7. But Don R. Brazier, Principal Assistant Secretary of Defense/Comptroller, told the Senate Armed Services Committee last June: "The F–5E's . . . are *not to replace attrition per se, or losses, they are to modernize the Vietnamese Air Force* by substituting E's for A's."[16]

Moreover, there is reason to believe the DoD now intends to send the RVN a greater number of F–5E's than the 128 which Congress authorized last year,[17] even though there is no evidence that that many F–5E's have been destroyed, damaged, worn out, or used up. On January 31, 1974, the Washington Post reported that the Defense Department is planning to send 150 F–5E's to South Vietnam over the next two years.

Ships.—Dan Chu, the official newspaper of President Thieu's political party, reported on February 8, 1974 that the United States is planning to send the RVN four warships "of a new type." Two of these ships may be two patrol gunboats, "both destined for transfer to South Vietnam," which are reported in the April 1974 issue of *Sea Power* magazine to have been included in the Navy's Fiscal 1975 shipbuilding request.

Recommendations

1. Until the RVN agrees to halt its offensive combat actions and abide by the Paris Agreement, Congress should suspend authorization and appropriation of further funds for procurement in the MASF program.

2. After making known its desire to see the Agreement fully implemented, Congress should send a fact-finding mission to South Vietnam to determine whether or not the Thieu government is working to establish a genuine cease fire, to demarcate zones of control and to inaugurate the political process of reconciliation prescribed by the Agreement.

3. If this investigation determines that the RVN has reversed its policy and begun implementing the Agreement in good faith, Congress should then review the Administration's MASF procurement request in light of the new political and military situation and in strict accordance with the one-for-one replacement provisions of Article 7. It should be clear that replacement of war materials is not an obligation upon the United States. Moreover, Article 7 does not allow the U.S. to resupply a party which is carrying out offensive military operations.

4. To procure whatever replacements of war materials which Congress finds consistent with Article 7, Congress should authorize funds from unobligated MASF balances. Congress should not authorize or appropriate new MASF funds until those balances are expended.

5. Because the shipment of F–5E fighters is in violation of Article 7, Congress should immediately stop all shipments of these planes to South Vietnam. It should not authorize or appropriate MASF Navy Procurement funds for ships or other war materials which are not of the same properties and characteristics as war materials they are intended to replace.

Operations and maintenance

	In thousands
Fiscal year 1974 programed	$622,900
Fiscal year 1975 request	574,400

[15] Washington Star-News, Jan. 8, 1974.
[16] FY 74 Senate Armed Services Committee DoD Hearings, part 8, p. 5927, (emphasis added).
[17] *Ibid.*, part 6, p. 4460.

The original fiscal year 1974 MASF Operations and Maintenance request included the following items: [18]

Contracter operational maintenance support	181,000
AID/DoD realinement program, support of Vietnamese police	12,000
Packaging, crating, and handling of equipment	121,000
Support of RVN Armed Forces	222,300
Training	2,400
Depot maintenance	10,200
Field Advisers, military assistance, Vietnam	25,800
Rural development cadre	5,600

Contractor Operational Maintenance Support. Money under this budget category goes to Department of Defense contractors for work performed in Vietnam. Much of the money is used to pay civilian contractor personnel. These civilians provide technical and logistical support to the South Vietnamese armed forces, performing such functions as repair and maintenance of aircraft and other combat equipment.[19]

As of January 31, 1974, 2,736 American civilian contractor personnel remained in Vietnam according to figures from the U.S. Defense Attaché Office (DAO) in Saigon. At the time, the Defense Department had $115,000,000 in outstanding contracts with 103 companies—44 of them American—for work in Vietnam.[20]

The work of civilian contractor personnel in Vietnam is inconsistent with the Paris Agreement on two counts. First, Article 7 stipulates that "military personnel, including technical military personnel" of the United States are not to be introduced into South Vietnam after the ceasefire. Although civilian contractor personnel are not actually military officers, they are paid by the U.S. military to perform technical military functions. Moreover, some of these civilians are former officers who have recently left the military and taken up jobs doing what they did while in the military.[21] Their employment in Vietnam violates the intent, if not the letter of Article 7.

Second, the military support functions performed by civilian contract personnel constitute a form of U.S. military involvement in South Vietnam which violates Article 4 of the Agreement.

Support of South Vietnamese Police. In December 1973, Congress passed the Foreign Assistance Act of 1973 whose Section 112 prohibited the use of foreign assistance funds to support the South Vietnamese police and prison system. In attaching this provision to the bill, the Senate Appropriations Committee took note of substantiated accounts of mistreatment and torture in South Vietnamese prisons: [22]

"The committee believes it is not in the best interest of the Agency for International Development or any other agency of the government to be identified with the police system of South Vietnam." [23]

In support of its recommendation to eliminate Foreign Assistance Act funding for Saigon's police and prisons, the Committee cited relevant articles of the Paris Agreement:

"With the signing of the 'Agreement Ending the War and Restoring the Peace in Vietnam' on January 27, 1973, the United States agreed that it would not 'impose any political tendency or personality on the South Vietnamese people,' that 'advisers to all paramilitary organizations and police forces will be withdrawn' and that we would not 'interfere in the internal affairs of South Vietnam.'"

In FY 1974, the Defense Department budgeted $10.6 million in support of the RVN's National Police.[24] Although Section 112 of the Foreign Assistance Act does not apply to DoD appropriations, we believe that MASF monies going to President Thieu's police constitute as much of an interference in South Vietnam's internal affairs as would Foreign Assistance funds. Any FY 1975 Defense De-

[18] FY 74 House Armed Services Committee DoD Hearings, part 2, p. 1295; FY 74 House Appropriations Committee. DoD Hearings, part 1, p. 689. In June 1973 the DoD ultimately reduced its original total MASF request from $2.1 to $1.6 billion. We do not have a breakdown of how much if any the listed items were reduced in the subsequent O & M request. We do know that $10.6 million was ultimately programmed for support of SVN police (Senate Report 93-620, 1974, p. 27) and that $3 million was ultimately programmed for RD cadre (1973 Hearings, Mutual Development & Cooperation Act, p. 84).

[19] FY 74 Senate Armed Services Committee DoD Hearings, part 1, p. 160.

[20] Contracts in Support of RVN Operations, MACV RCS 4200-1, Defense Attaché Office, U.S. Embassy, p. 1.

[21] *New York Times*, March 30, 1973, p. 17; *U.S. News & World Report*, Feb. 4, 1974.

[22] Senate Report 93-620, p. 27.

[23] *Ibid*, p. 29.

[24] *Ibid*, p. 27.

partment request for funds in support of the RVN's police or prison system is inconsistent with Article 4 of the Paris Agreement and should be denied.

Packaging, Crating and Handling of Equipment. Inasmuch as these funds may provide logistical support for RVNAF's offensive actions, Congress should suspend their authorization pending Saigon's implementation of a ceasefire. Should the RVN end its violations of the Paris Agreement, Congress should authorize only those packaging, crating and handling of equipment funds which are necessary to replace war materials according to the conditions of Article 7.

Other O & M Categories, MASF funds for *Support of RVN Armed Forces,* for *Training* and for *Depot Maintenance* should not be approved. Subsidizing the military of one of the competing South Vietnamese parties, paying for its operations, training and the maintenance of its bases constitute a form of military involvement in South Vietnam.

Funds for *Field Advisers and Military Assistance, Vietnam* should be eliminated if the Defense Department is making such a request in FY 1975. Article 5 of the Paris Agreement requires the withdrawal of U.S. military advisers from South Vietnam and Article 7 prohibits their reintroduction. Insofar as funds in this category pay for DoD direct-hire or military personnel who perform military support functions, they should not be approved. The presence of such American personnel in Vietnam violates Article 4 of the Paris Agreement. (See discussion below of Defense Attaché's Office).

Congress should also deny any Fscal 1975 MASF request for support of *Rural Development Cadre.* RD cadre have reportedly been recruiting villagers—sometimes by force—to join President Thieu's political party.[25] Funding these political workers is a form of intervention in the internal affairs of South Vietnam. It is also inconsistent with Article 9(c) of the Paris Agreement which states: "Foreign countries shall not impose any political tendency or personality on the South Vietnamese people."

RECOMMENDATIONS

Congress should not authorize or appropriate further MASF funds for Operations and Maintenance support of the Republic of Vietnam's armed forces or police, except for funds in the category of packaging, crating and handling of equipment. All other categories of operation and maintenance support are inconsistent with Article 4 of the Paris Agreement.

Congress may authorize and appropriate funds to package, crate and handle replacements of war materials as provided by Article 7, once the RCNAF has terminated its offensive actions. Accordingly, we make the same recommendations for funding of packaging, crating, and handling of equipment as we made for the category of Procurement (see pages 5 and 6 above). It should be clear that once a ceasefire is establishd, the amount of funds to support the handling of equipment replacements will be small.

Military personnel

	In thousands
Fiscal year 1974 programed	$40,400
Fiscal year 1975 requested	24,000

Article 5 of the Paris Agreement stipulates the total withdrawal of troops, military advisers, and military personnel associated wtih the pacification program, armaments, munitions and war material of the United States. Article 7 prohibits their reintroduction into South Vietnam.

RECOMMENDATION

Congress should authorize and appropriate no further funds for Military Personnel in the MASF budget.

Local currency purchases

	In thousands
Fiscal year 1974 programed	$63,600
Fiscal year 1975 requested	Not available.

According to Articles 4, 5 and 7 of the Paris Agreement, the Defense Department should have ended the U.S. military presence in South Vietnam which was formerly used to justify local currency purchases. Funds in this category constitute another form of subsidy for the RVNAF. Financial support for the

[25] *New York Times,* June 12, 1973, p. 2.

armed forces of one of the two competing South Vietnamese signatories may be construed as intervention in the internal affairs of the country.

RECOMMENDATION

Congress should eliminate any further funds in the MASF budget for Local Currency Purchases.

Defense attache's office

Fiscal year 1974 programed	Not available
Fiscal year 1975 request	Not available

The Defense Attache's Office (DAO) in South Vietnam employs about 50 U.S. military personnel and 936 direct-hire civilians [26] who provide logistical support, communications-electronic support, budget programming and training support for the RVNAF. The DAO also carries out intelligence activities and "liaison" with the Saigon military command.[27] If Defense Department listings of job openings in Vietnam are any indication, the DAO employs American civilians as ammunition specialists, intelligence officers, security specialists, aircraft technicians and training officers, among other things.[28]

In the first weeks after the signing of the Paris Agreement, the DoD predicted it would have no direct-hire employees in Vietnam in 1974. By April 1973, however, the Department had changed its mind. DoD officials explained to staff of the Senate Foreign Relations committee that "fighting had continued at a higher level than anticipated, necessitating a higher level of support activity." [29]

In other words, the DAO's function is to support RVNAF military operations, and the more they fight, the more support they need.

American support of Saigon's combat operations is inconsistent with Article 4 of the Paris Agreement. Because the RVNAF's actions have continued to violate the ceasefire, such assistance is also inconsistent with U.S. obligations under Article 3.

Moreover, the presence in Vietnam of American civilians performing technical military functions violates the spirit, if not the letter of Articles 5 and 7. These articles respectively order the withdrawal and forbid the introduction of "military personnel, including technical military personnel, associated with the pacification program, armaments, munitions and war material of the United States." The presence of U.S. military personnel employed by the DAO in South Vietnam violates the letter of these articles.

RECOMMENDATION

Congress should deny funds for the Defense Attache's Office in Vietnam except to support a very small contingent of personnel who might be needed in connection with the replacement of war materials as provided by Article 7. Even this small level of funding should be suspended until the Saigon government ends its offensive military operations and begins to abide by the Paris Agreement.

Excess defense articles

	In thousands
Fiscal year 1974 programed	$35,000
Fiscal year 1975 request	35,000

Excess Defense Articles consist of war material and equipment which the Defense Department has determined to be above and beyond its own requirements. These articles are transferred to the armed services of other nations at a procurement value not less than one-third their original value. Thus, Excess Defense Article authority provides the DoD with an opportunity to supply the RVNAF with up to three times the amount of war materials or equipment it could provide with the same authority in the ordinary procurement category of the MASF budget.

[26] Telephone interview with R. Glynn Mays, Management Systems staff, State Department, March 7, 1974.
[27] Thailand, Cambodia, Laos, and Vietnam: April 1973, U.S. Senate Committee on Foreign Relations staff report, p. 38.
[28] *Bulletin* of Kelly Air Force Base, San Antonio, Texas, Feb. 6, 1974; Positive Recruiting List, DoD Office of the Centralized Referral Activity, Defense Electronics Supply Center Dayton, Ohio, Feb. 16, 1974.
[29] Thailand, Cambodia, Laos, and Vietnam: April 1973, p. 38.

Insofar as Excess Defense Article funds provide war materials which support RVNAF offensive actions, the authorization or appropriation of such fund is inconsistent with Articles 3 and 4 of the Paris Agreement.

RECOMMENDATION

Congress should request the General Accounting Office to investigate whether the Defense Department is using Excess Defense Article authority in good faith, or whether it is using it as a bookkeeping device to procure more war materials for the RVNAF than Congress intends.

Pending a finding of good faith, Congress should authorize Excess Defense Article obligations according to the recommendations we have made under the category of MASF procurement. (See pages 5 and 6)

War reserve material

	In thousands
Fiscal year 1974 programed	Not available
Fiscal year 1975 request	$490,000

The Defense Department has acknowledged that funds in this category were intended for "war reserve" equipment and material for South Vietnam, Thailand and Korean forces. According to the May 8, 1974 *Philadelphia Inquirer*, the Senate Foreign relations staff who uncovered the category believe it to be an unauthorized channel for military aid to the RVN.

RECOMMENDATION

Congress should ask the GAO to investigate whether funds in this category have provided military assistance to foreign countries in excess of Congressional authorization. Congress should specifically outlaw the use of any Defense Department funds for military assistance to South Vietnam which are not brought to the direct attention of the appropriate Congressional committees. Funds in the War Reserve Material category should be denied, as MASF procurement authority requests are more than sufficient for legal replacements under Article 7 of war materials which have been consumed in non-offensive actions.

CONCLUSION

All parties to the Paris Agreement are now locked in a vicious cycle of fighting that may ultimately lead to full-scale war. The present level of MASF funding is accelerating that cycle by subsidizing whatever combat actions the Republic of Vietnam chooses to pursue. The only way to break this cycle is to redirect American military assistance so that it encourages full implementation of the Paris Agreement, allowing the Vietnamese people to decide their own future through the political process prescribed by Articles 9 through 12.

Congress can help achieve a peaceful, non-military settlement in Vietnam by refusing the Nixon Administration's request to continue providing the RVN with the means to make war. Congress should eliminate all military assistance funds which are incompatible with American obligations under the Paris Agreement. Furthermore, Congress should suspend authorization and appropriation of military assistance funds which would not be inconsistent with the Paris Agreement if the RVN were honoring it.

In order to encourage the Thieu Administration to honor the Agreement, Congress should make clear its willingness to review these suspended funds as soon as President Thieu has begun meeting the minimum conditions for peace and reconciliation in his country: 1) ending all offensive military operations; 2) agreeing to demarcate and respect zones of control; 3) allowing officers to negotiate local arrangements to prevent further military clashes, as provided in the Ceasefire Protocol; 4) restoring democratic freedoms so that all political elements can compete freely.

President Thieu could carry out the above measures quickly once he decided to do so. By suspending aid contingent upon these actions, Congress would provide him with an important incentive toward that decision. Once the Saigon Administration had begun to implement these provisions of the Agreement, Thieu could invite a Congressional delegation or staff team to confirm the progress toward a political settlement. Congress would then be able to reconsider military aid in the new setting—a setting in which Saigon's military needs would be drastically reduced.

This proposal would not mean we are reneging on commitments made to an ally. The Paris Agreement put an end to unconditional American support for the Thieu regime, since it obligated the U.S. to ensure the peace and not to intervene on behalf of one South Vietnamese party. Our proposed reduction on suspension of MASF programs would mark a shift from maintaining a particular regime to supporting the goals of peace and reconciliation.

Nor would a major reduction of military aid to Saigon amount to "delivering South Vietnam bound hand and foot to Hanoi," as some have charged. In the first place, the RVNAF has more equipment than it can use in its own self-defense. The U.S. has delivered at least $6.2 billion worth of military goods to Saigon,[30] including more than 1800 aircraft.[31] This compares to 340 planes and helicopters in the DRV's air force.[32] The PRG is not known to have any aircraft.

In the second place, most evidence suggests that the DRV and PRG are more interested in a political competition than a military one. Captured Communist documents reveal that Thieu's rivals were anxious to have a stand-still ceasefire after the Agreement was signed. One intercepted directive unconditionally ruled out any offensive operations during the first sixty days of the ceasefire and forbade any reprisals against Saigon officials.[33] Another secret order called on cadres to mobilize a political struggle to "create basic conditions to guarantee implementation of the Agreement, maintain peace and enable the revolution to continue to march forward." [34]

The PRG's endorsement of the Agreement's political solution is corroborated by American journalists who have visited PRG zones after the ceasefire. The correspondents have noted that the Agreement is disseminated and discussed everywhere in the insurgents' territory.[35] This fact of political life in PRG zones contrasts sadly with Saigon, where the Thieu Administration even denies permission to publish the full text.[36]

Finally, the other side's support for the Agreement emerges most clearly in its March 1974 six-point proposal, which reiterates the key provisions of the accord. The PRG proposal called for: 1. the issuing of ceasefire orders (Article 2); 2. the return of all political prisoners and captured personnel within three months (Article 8c); 3. the immediate formation of a National Council of Reconcilitation and Concord with each of the three segments choosing its own people (Article 12); 4. immediate establishment of democratic liberties (Article 11); 5. free and democratic elections no later than a year after the formation of the National Council (Articles 9 and 12); and 6. the negotiated mutual reduction of armed forces (Article 13).[37]

Although American officials called the proposal substantive, the Saigon government rejected it immediately, saying that the PRG had no intention of living up to its declarations. If that were the case, President Thieu ought to have called the PRG's bluff by accepting its plan. Instead, he offered a counter-proposal in which the two sides would set up working groups for detailed negotiations on four main areas: restoration of democratic liberties, establishment of the National Council, national elections and the future of the armed forces on both sides.[38]

The basic differences between the two positions is that the PRG is proposing the immediate implementation of the Paris Agreement while the RVN wants to renegotiate the basic points. For example, President Thieu suggests a working group to discuss the restoration of democratic liberties. Article 11 of the Agree-

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[30] The $6.2 billion in U.S. military supplies consisted of:
(1) $5 billion as part of the long-term Vietnamization Program. *Logistic Aspects of Vietnamization*, 1969–72, General Accounting Office Report No. B–15945, Jan. 31, 1973, p. 8.
(2) $1.2 billion as part of the pre-ceasefire crash buildup (FY 74 Senate Armed Services Committee DoD Hearings, p. 424).

[31] Thailand, Cambodia, Laos, and Vietnam: April 1973, op. cit., p. 45.

[32] FY 74 House Armed Services Committee DoD Hearings, part 1, p. 322.

[33] *New York Times* News Service, *Washington Star-News*, Nov. 23, 1972. Similar orders were reported by U.S. officials to have been in effect at the time of the signing of the ceasefire. The *New York Times*, Jan. 23, 1973.

[34] Vietnam Documents and Research Notes, issued by the U.S. Mission in Saigon, Document No. 115, September 1973, COSVN's Directive 02/73, "On Policies Related to the Political Settlement and Ceasefire."

[35] *New York Times*, Feb. 19, 1974, p. 1; *Washington Post*, Mar. 11, 1973.

[36] Letter from Special Office of the Republic of Vietnam's Ministry of Information, No. 17—GBTUDV/PHBCNT/KSAL June 9, 1973 denying permission to a request to have the Paris Agreement reprinted.

[37] *New York Times*, Mar. 23, 1974.

[38] *Asia and Pacific Daily Report*, Foreign Broadcast Information Service, IV, March 25, 1974, p. L1.

ment stipulates the immediate and unconditional guarantee of such liberties, yet Saigon wants to place conditions upon its implementation.

Thieu has resisted implementation of the Agreement's political provisions because if realized, they would allow a challenge to his political monopoly in RVN-controlled areas. He has refused to restore democratic freedoms, arguing that to do so would allow the PRG to subvert his regime.[39] He has refused to recognize the existence of the neutralist Third Force which is supposed to participate in the tripartite National Council of National Reconciliation and Concord.[40] He has used police controls and military force to prevent people from returning to homes outside his zones of control, though Article 11 guarantees freedom of residence.[41] And finally, Thieu has publicly ruled out the general elections called for in Article 12.[42]

To continue providing vast military resources to President Thieu is to underwrite a government unwilling to risk its fate in political competition. While President Thieu may feel that some of the provisions of the Paris Agreement are to his disadvantage, the Agreement remains the only present alternative to war.

We should remember that non-implementation of the Geneva Agreement of 1954 led to the Second Indochina War, costing Americans hundreds of billions of dollars and thousands of lives. In order to avoid the dangerous prospect of a Third Indochina War, Congress should reduce and suspend American military assistance to the Saigon government until it begins to implement the Paris Agreement.

Reflections on a Fiscal Year 1975 Ceiling for the MASF Program

Any ceiling for MASF that Congress selects will send a number of political and military messages to each part in the Vietnamese conflict. Congress should weigh carefully the implications of at least three distinct levels of funding the RVN military forces for FY 75: a status quo figure of $750 million to one billion, a range of $200 to $400 million, and a suspension of further aid pending evidence of political compromise.

$750 Million to $1 Billion

During FY 74 the MASF program will obligate nearly all of the $1.126 billion it was granted. Of that amount $266 million was obligated to pay for ammunition used in FY 73 and before and $116 million will be used for Laos. Actual MASF spending for FY 74 in Vietnam is thus about $744 million.

The D.O.D. justification of the MASF program was to help the RVN repel supposedly endless aggression and ceasefire violations by the PRG and DRV forces. But DOD testified in the House Armed Services Committee (FY 75 hearings, V. 1, p. 900) that:

"The determination of the initiator of a cease-fire violation is exceedingly difficult because of the fragmentary and second and third-hand nature of the reporting systems. The incidents normally take place in the countryside and, unlike the pre-cease-fire period, most U.S. personnel assigned to Vietnam are in Saigon. As a result, we do not have truly independent sources for information of this kind."

DOD went on to generalize on PRG/DRV culpability with "all evidence available" but didn't provide any of the evidence. The many independent witnesses refute DOD's conclusions.

Spending in FY 75 at this level would likely mean perpetuation of the past year's level of fighting, which left 120,000-150,000 Vietnamese casualties and another 800,000-1,000,000 refugees. It would permit the present level of harassment and interdiction fire and other ammunition consumption at a daily rate of

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[39] *Washington Post*, June 15, 1973, p. A1.

[40] "Indeed, it is our reckoning that the matter of the third segment has only been advanced by the Communists on the wishful ground that with the restoration of peace one such political force will emerge in the South to support them. But they have miscalculated, *there being no such thing as a third force in South Vietnam* . . . .

"Faced with this deadlock, we have proposed a solution to do away with the third force." Interview with Nguyen Van Thieu, *Vietnam Report*, June 15, 1973, p. 5. (emphasis added)

[41] In the Mar. 4, 1973 *New York Times*, Frances Fitzgerald wrote of the Thieu government's effort to restrain the movement of refugees back to their homes:

"In many provinces officials have taken away these people's identity cards—forcing them to check in at the police station every few days—and threatened arrest or violence against those who move from their wartime settlements."

[42] *Washington Post*, Dec. 30, 1973.

700 tons and daily cost of $1,000,000. Independent observers have documented many South Vietnam cease-fire violations following a basic pattern and using U.S. resources. For example, RVN offensives nibble at PRG territory sometimes drawing PRG retaliation, which RVN then claims as a cease-fire violation. RVN sets up outposts in PRG territory from which air strikes are directed; the PRG besieges the base; RVN forces flee or are overrun and claim a cease-fire violation. Harassment and interdiction shelling seek to disrupt life in PRG areas.

Such a level of spending would provide no incentives for Thieu to begin the negotiating process set forth in the Paris Agreements, would make probable a similar request for MASF funds for next year, and could stimulate major offensive operations by the PRG or DRVN if no political agreement is in sight.

$200 to $400 Million

Such a funding level for FY 75 would permit modest amounts of ammunition and petroleum products. There is no substantive way to estimate how much ammunition is now wasted or used in RVN offensives. On a recent visit to Saigon, one Congressional staffer was told by an American official that the RVN could get along on 25% of its present consumption. The ammunition request for FY 75 is $400 million for the army and $68.5 million for the Air Force.

The result of the MASF program rests on questionable legal ground. The Paris Agreement did not legally obligate us to re-supply ANY procurement items, never mind those lost in RVN offensive operations. DOD itself testified last year to the Senate Armed Services Committee (FY 74 hearings, V. 8, p. 5906) that activities under the O & M category and personnel category are not permitted by the Paris Agreement:

The words, "armaments, munitions, and war materials" were taken from the peace agreements signed in January. Those words, as defined by the Department of Defense for the purpose of complying with the peace agreement—the definitions are set forth in the Senate Foreign Relations Committee Report, pages 26 to 27—do not include as has been earlier stated, the contract services which we are providing to the Vietnamese with civilian personnel. It does not include spare parts on consumables. It does not include subsistence. It does not include petroleum products.

D.O.D. could scarcely complain if Congress forced it to live up to its own understanding of the Paris Agreement since Pentagon spokesmen insist that the Agreement is still totally operative.

The RVN, though far from defenseless, would not have the resources to continue harassment and interdiction fire and other offensive operations. A *de facto* in-place cease-fire could well develop, encouraging the likelihood of negotiating a *de jure* cease-fire. Less resources would also put some pressure on Thieu to begin lessening political restrictions, letting refugees return home, and demobilizing some troops—a process the RVN desperately needs to undertake if its economy is going to survive. Such a funding level would be a clear political message to Thieu: Get on with the peacewaking procedures outlined in the Paris Accords while you still have time and resources.

$0—A Suspension of the MASF Program

Such a position should be viewed as a suspension of military aid until certain political conditions (sketched out in the joint IRC/NARMIC proposal) are met by Thieu. Without the foreign reserves to pay for much ammunition or oil, Thieu would be forced to begin to live up to his obligations under the Paris Agreement. The result would be a cease-fire. At the same time budgetary pressure would force a demobilization of 200 to 400,000 troops, a process the economy badly needs. Americal military aid would still be flowing through other channels. The costs of the DAO and CIA activities in Vietnam are not under the MASF program. The Administration's request for Indochina Postwar Reconstruction includes economic aid totalling $911 million, of which $387 million in commodity subsidies will be generating piasters which can be used for military purposes and this does not include Food For Peace.

In sum, the issue of RVN defenselessness would be irrelevant. If Thieu transferred the contest into the political arena, as the Paris Agreement intends, he would not be using or needing many military resources. The PRG would almost certainly follow their own interests and live up to their announced policy of competing within the political framework of the Paris Agreement. Without such

a political resolution of the political conflicts, there will be no peace in Vietnam, and Congress will face a similar MASF request next year.

MILITARY ASSISTANCE FUNDING

Mr. PORTER. Today I would like to speak directly to you, if I may, about some of the implications of the request for military assistance and to address the political-military context very briefly.

You have already heard the witnesses from the Defense Department who have presented the rationale for this request of $1.6 billion.

This, as you know, is certainly a major part of the entire Defense budget. It is not unlike the rest of the Defense budget. It is not spending directly for American defense; it is spending in a situation which, as you know, is filled with controversy, a political issue of long standing.

We feel that the presentation by the Department of Defense for this rationale is in many ways misleading and full of misinformation about the situation in Soviet Vietnam and we welcome this opportunity to address some of the substantive issues which are raised by that testimony.

CEASE FIRE FAILURE

Dealing with the administration's request, I think, first of all, this committee must confront the problem of peace or the lack of peace in South Vietnam, that is, why has there not been a cease-fire as called for by the Paris Agreement of 1973?

This brings us to a consideration of that agreement as the basic focus for understanding the political and military situation in South Vietnam today.

Now, there has been a tendency on the part of the administration and on the part of many Members of Congress to dismiss the Paris Agreement as merely a facade for withdrawal of the United States active participation in the war and to allow the two South Vietnamese sides to fight it out between themelves.

ALTERNATIVE TO VIETNAM WAR CONTINUATION

I think this attitude toward the agreement ignores the problem of how we can bring about a standstill cease-fire which is the only way that the conflict in South Vietnam can be resolved peacefully and without another round of major warfare which can only end in tragedy for the Vietnamese as well as for ourselves.

What I want to emphasize today is that there is an alternative to the continuation of the war as it is now going on, an alternative to beat the indefinite continuation of the conflict with all the economic dislocation, the social chaos of the political repression and human misery which accompanies it and an alternative to the possibility or probability of another major North Vietnam offensive.

Chairman MCCLELLAN. Can we do this unilaterally?

Mr. PORTER. No.

I want to explain what I mean by the alternative which I am referring to.

That alternative is based on a political reality which I am afraid, is too little understood in the United States and which, of course, the Department of Defense has not explained to this committee, and that is that the North Vietnamese Government and Provisional

Revolutionary Government in South Vietnam have seen it as in their interests to carry on their struggle against the two regimes within the framework of a political process as set out in the Paris Agreement rather than to continue a costly military struggle in which they during the past year have had to concede the initiative to the Siagon Government or to launch yet another costly offensive which would only disrupt their own economic progress in the North and which would sacrifice many of the political gains which they hope to get through the Paris Agreement.

PARIS AGREEMENT BASIS FOR CEASE-FIRE

So, the alternative which I am referring to is the possibility of getting the Paris Agreement, itself, to be the basis for a standstill cease-fire and the beginning of a political process by which this conflict can be ended without a military resolution which, I think you will agree, is not something that is in the interests of the American people or in the interests of the Vietnamese people.

Chairman McClellan. I think we ought to stop fighting, and make some political agreement. I think we all want that, but how can we accomplish that?

Mr. Porter. First of all, let me point out that those who have studied the documents, both internal Communist documents and those documents which they have published for their own cadres and followers in the North and in the South, I think would agree that they regarded the Paris Agreement as a way in which they could carry on their struggle without a military resolution.

Chairman McClellan. Who regarded that?

Mr. Porter. This is the North Vietnamese Government and their allies in the South.

Chairman McClellan. They could carry on without what?

Mr. Porter. Without a military resolution; that is, a major offensive to defeat the Saigon Government.

As you will recall, during the negotiations in Paris during October November, December, and January, the Thieu Government of South Vietnam was very upset about the terms on which the United States was prepared to settle with the North Vietnamese.

The draft agreement in October was one which was submitted by the North Vietnamese negotiators. They were finally compelled to make concessions to the American negotiators in order to reach the final text of the agreement but certainly overall they were satisfied with the terms of those agreements.

BASIC TERMS DEFINED

Now, let me just briefly mention the three basic terms which it seems to me we have to keep in mind when we talk about this alternative to the present situation.

First of all, and most important, there has to be under the Paris agreement a standstill cease-fire in place to armies not moving forward, not coming into conflict with each other or into contact with each other or trying to increase their area of control.

Along with that standstill cease-fire there must be a demarcation of zones of control under the agreement.

This means that the Saigon government must negotiate with the Provisional Revolutionary Government on a line or series of lines which will not be crossed and which they will consider that the other side of the line belongs to the other side.

Secondly, there must be a change in the political atmosphere within the Saigon-controlled zone as well as in the PRG zone. This is so that there can be the possibility of a free election throughout the country so that there can be some political competition between the two sides as well as other unrepresented political groups which so far have not been able to have a voice politically.

Thirdly, there would be a freedom of movement throughout the countryside so that refugees who have fled from their homes in the countryside that were bombed and shelled can go back and try to resume farming and so forth.

POLITICAL SETTLEMENT NEEDED

Now, again, I have to emphasize that all three of these major provisions of the Paris agreement were regarded by the Communist side as being in their interests relative to the situation that they had while the war was going on. They believed that it was relatively more in their interests to have political settlement, to have the political competition go on in an area where they felt that they were relatively stronger than to carry on military conflict where Thieu was militarily stronger than they were with an air force which we built up over the last few years and a 1.1-million-man army.

Let me just briefly mention what my analysis is of what has happened since the cease-fire, and it contrasts very sharply with the presentation which the Defense Department presented to this subcommittee.

ATTITUDE OF COMMUNIST FORCES

First of all, I want to note that captured documents which were translated by U.S. Intelligence in late 1972 and early 1973 confirmed that in fact the Communist forces in South Vietnam ordered their troops to observe the ceasefire, not to go on offensive operations, but they hoped that there would be, in fact, the standstill cease-fire and the standdown. This of course, did not prove possible. There is a great deal of evidence to show that the Thieu government did not observe a standstill cease-fire and did, in fact, try to expand its area of control.

Now I want to quote the Defense Attaché's Office that told the Senate Foreign Relations Committee staff investigators in April 1973 that the Communist forces' military activities were "generally defensive except for the continuing attacks by fire along the DMZ, on the border ranger outpost at Ton le Chan and in the Hong Ngu area."

I just want to point out that the Ton le Chan base was to have been under attack by the Communist forces, was one in which U.S. officials, themselves, admit they were calling air strikes as well as artillery strikes on the surrounding Communist-controlled area so that this must be seen as a response to our military initiatives as well as military operation.

SOUTH VIETNAMESE TERRITORIAL CONTROL

In recent days, the Defense Department has made statements to the effect that Saigon has "exercised restraint" in its military policy since the Paris Agreement, in contrast to the "excesses" of agreement of the other side. This is difficult to square, however, by the admission of the Defense Department that since then there have been territorial changes that have been, and I quote, "in favor of the Government forces."

That is to say, the GVN has increased its area of control.

Senator YOUNG. I am very interested in your statement and I will read it, but I have to go.

Chairman MCCLELLAN. Proceed.

Mr. PORTER. All right.

This submission simply substantiates the charge made by the other side that ARVN has seized and occupied 5 to 10 percent of the territory they controlled at the time of the cease-fire.

LEGALITY OF ARVN POSTS QUESTIONED

I should add that many American officials will admit privately, if you talk to them, that ARVN has, in fact, built military posts illegally beyond the area of control that they had at the time of the cease-fire, especially those areas in which ARVN was forced to evacuate during the Communist offensive of 1972. They have simply tried to recapture that territory since the cease-fire.

There is one other major cause of the fighting which I think is important to understand and that has been the systematic effort by the GVN to prevent the consolidation of the PRG zone of control by means of air strikes and artillery against both populated areas and communications and logistics lines.

They have used "harrassment and interdiction" artillery fire against villages to discourage the movement of refugees back to those areas and they have tried to prevent the building of a road network linking the various geographical parts of the PRG zone.

They have carried out air strikes, as I say, on the lines of communication.

LEGALITY OF ROADBUILDING BY PRG

There have been a number of statements by the White House and Defense Department saying that these roads are somehow illegal, roadbuilding by the PRG is somehow illegal under the agreement. Protocol of the cease-fire makes this a legitimate function of either side to build roads in a zone of control, and, indeed, the United States has repaired and rebuilt highways while explicitly recognizing the military value of those roads.

MILITARY BUILDUP

Now let me conclude by addressing myself to the specific changes which the DOD has made regarding military buildup by the South Vietnamese and South Vietnam.

First of all, there has been an increase in combat troop strength of the North Vietnamese by 20 percent. I want to point out that in the Senate Foreign Relations Committee report of June 1973 they

note that the CIA estimate of North Vietnamese troops prior to the cease-fire was 120,000 combat troops in South Vietnam. Now, this did not take into account the large movement of North Vietnam troops in January 1973 before the agreement was signed and went into effect, and it is estimated that some 20,000 to 25,000 troops did move into South Vietnam during that period.

The next estimate they have is in April of 1973. The CIA estimate is 142,000 troops. Now, if you compare that with the latest figures given out on North Vietnamese troop strength in South Vietnam, you will find in December 1973 the figure of 138,000 troops was given and, today, at least last week, in the New York Times, the report was that the estimate is 140,000 to 150,000 troops.

So, the figures which have been used at least publicly by the CIA and other agencies indicate that there has been virtually no buildup in combat troop strength.

Second, the tank strength.

Again, this Foreign Relations Committee report indicates that some 350 tanks came in prior to the agreement. The claim that 400 tanks have come in since the agreement appears to be exaggerated and untrue.

In terms of heavy artillery, if you look at this report again you find that the figure of a 75 percent increase in heavy artillery is simply not true because it came in primarily before the agreement came into effect.

CEASE-FIRE VIOLATIONS

OK, I want to simply conclude by saying that I believe that the analysis which the Defense Department has presented to you of the violations to the cease-fire of the military buildup, of the interest and policy of the two sides is seriously incorrect and inaccurate and the position that the Indochina Resource Center takes on the military service fund is that we should try to support the Paris agreement and that we should get the Thieu regime to carry out the primary terms of that agreement so that there can be a cease-fire, and the only way we can do that is by using the purse strings which Congress does have the control of and by denying him funds until he does agree to carry out those provisions.

INDOCHINA RESOURCE CENTER

Chairman McCLELLAN. I will ask you to repeat the name of the organization that you represent.

Mr. PORTER. The Indochina Resource Center.

Chairman McCLELLAN. Do you have some official position in it?

Mr. PORTER. Well, I am temporarily the codirector with Fred Friedman here in Washington.

Chairman McCLELLAN. What is the composition of this organization?

Mr. PORTER. Well, we are made up of some six or seven full-time research and writing and liaison staff and we serve information and purpose for both public and congressional.

Chairman McCLELLAN. How is it supported?

Mr. PORTER. We are a constituent group of the Indochina Education Council which is sponsored by the United Church of Christ, United Methodist Church and United Presbyterian Church.

We get most of our funds by small contributions and from small foundations.

POSITION OF ORGANIZATION

Chairman MCCLELLAN. I listened to you but I don't fully understand your request. What is it you think the United States should do? Do you wish us to not give any assistance?

Mr. PORTER. Let me ask Mr. Gran.

Chairman MCCLELLAN. I am asking you—you testified.

Is it your idea that the United States should give no military assistance to South Vietnam?

Mr. PORTER. My response to that is that I think that the best policy would be to say to the Thieu government that we are going to defer further funding of military assistance to you until you carry out the following steps:

First of all, agree to negotiate that there so be a ceasefire effective on balance, stable ceasefire in South Vietnam.

Second, agree to not move forward beyond the lines negotiated.

Third, agree to carry out the promise of the democratic reforms which are in article 11 of the Paris agreement.

I think those steps, in themselves, would find immediate response on the other side and that we could look forward to a very rapid change in the picture. I think then, once those steps are carried out, we can talk about funding the military needs of the Thieu government.

UNITED STATES SUPPORT OF SOUTH VIETNAM

Chairman MCCLELLAN. Frankly, I am anxious to find a way not to continue funding them, if we can do it, but I don't want to breach a contract we made.

Since we didn't win the war and didn't try to win it, I am wondering why we need to continue to support South Vietnam other than the fact that we may have made some commitment in trying to get them to reach an agreement to the cease-fire.

As long as we have money over there, the situation continues. Of course, if you have faith in the North Vietnamese—I don't have any; I don't think they will carry out their word for a minute, and I think they will take every advantage they can.

I think ultimately a military decision is going to settle the issue, and I don't have the faith that you have that they can do it politically. I don't think they will ever be able to do it politically.

I don't want our people over there trying to settle the military issue again.

Mr. PORTER. I think, unfortunately, you may be right in saying ultimately it will be decided by military force.

Chairman MCCLELLAN. I think you know that.

I think you know that in your heart as well as I do. That is the way it is going to end.

Mr. PORTER. I think the reason it may have to be settled that way is that we have not——

Chairman McCLELLAN. Some witnesses would have us believe that all the fault is America's.

Mr. PORTER. No; I think it is a matter of analyzing the interest.

Chairman McCLELLAN. The other side? Any fault on the other side?

Mr. PORTER. It is not a question of fault.

Chairman McCLELLAN. Yes, it is.

Mr. PORTER. In this situation, Senator, it is a question of whose interests are served by political settlements as opposed to military settlement. I think if you examine the evidence you will find that the evidence indicates that the Communists are willing to try to live under the terms of the Paris Agreement because they are militarily less strong than the Thieu regime and they are politically better able to compete than the Thieu regime, so it is not a question of faith in the North Vietnamese to be unselfish but merely a question of faith that they are going to follow their own interests.

Chairman McCLELLAN. I think you and I have one thing in common and not for the same reasons. I would like to see us be relieved of any obligation to continue to finance a war there. I feel that way. You probably feel that way, I think, for different reasons.

Mr. PORTER. I would ask you, with the greatest respect, to examine the presentation which the DOD has presented to you.

Chairman McCLELLAN. I am not always in accord with the DOD, either. All right. Thank you very much, gentlemen.

THE AMERICAN LEGION

STATEMENT OF JAMES R. WILSON, DIRECTOR, NATIONAL SECURITY-FOREIGN RELATIONS DIVISION, THE AMERICAN LEGION

PREPARED STATEMENT

Chairman McCLELLAN. At this point there will appear statements by a number of individuals who wish to have such statements appear in the record.

The first is that of Mr. James R. Wilson of the American Legion.

[The statement follows:]

MR. CHAIRMAN, MEMBERS OF THE SUBCOMMITTEE

I THANK YOU FOR THE OPPORTUNITY TO PRESENT THE VIEWS OF THE AMERICAN LEGION ON FY 1975 DEFENSE APPROPRIATIONS. THIS YEAR PRESENTS A TRULY SERIOUS CHALLENGE TO THE CONGRESS TO INSURE THAT THIS NATION'S STRATEGIC POSTURE IS NOT FURTHER ERODED. HOPEFULLY, THE SOBERING EXPERIENCE OF THE YOM KIP-PUR WAR BROUGHT THE REAL WORLD BACK INTO FOCUS TO MANY WHO WERE REVELLING IN THE EUPHORIA OF A NOT YET ACCOMPLISHED DETENTE WITH THE SOVIET UNION AND RED CHINA. PERHAPS THAT "COLD SLAP IN THE FACE" WILL WARN US AGAINST THE REOCCURRING AMERICAN FOLLY SO ACCURATELY DESCRIBED BY SECRETARY OF DEFENSE SCHLESINGER:

> "OUR EXPERIENCE IN THIS CENTURY HAS AMPLY DEMONSTRATED THAT SATIATING OUR MILITARY ESTABLISHMENT IN WARTIME AND STARVING IT IN PEACETIME BRINGS US NEITHER PEACE NOR LONG-TERM ALLEVIATION OF THE HEAVY BURDEN OF DEFENSE. IN BOTH BLOOD AND TREASURE, IT WILL COST US LESS TO MAINTAIN A REASONABLY STABLE LEVEL OF DEFENSE EFFORT UNTIL IT IS POSSIBLE TO ACHIEVE GENUINE MUTUAL REDUCTIONS IN ARMAMENTS."

THE COLD FACTS ARE THAT SINCE SALT 1, THE USSR HAS TESTED FOUR NEW ICBM'S, AND THREE OF THEM WERE TESTED WITH MIRV'S, THEY HAVE DEVELOPED THEIR FIRST MIRV SUBMARINE - LAUNCHED MISSILE; INTRODUCED A NEW CLASS OF NUCLEAR SUBMARINE (THREE OF WHICH ARE ALREADY IN THE OPERATIONAL INVENTORY), AND UNVEILED A NEW SLBM WITH A 4,000 PLUS NAUTICAL MILE RANGE. IN THE BOMBER FIELD, THE FIRST SQUADRON OF THE NEW BACKFIRE SUPERSONIC BOMBER IS OPERATIONAL. IN THE CONVENTIONAL FORCE FIELD, WE ALL ACKNOWLEDGE THAT THE SOVIET ACTIVE FORCES EXCEED OURS BY WELL OVER ONE MILLION MEN.

THIS IS ONLY A PARTIAL LIST, AND I AM CONFIDENT THAT THIS SUBCOMMITTEE IS WELL AWARE OF THE VAST STRATEGIC AND CONVENTIONAL STRIDES THE SOVIET UNION HAS ACHIEVED IN THE PAST 18 MONTHS. WHILE THE UNITED STATES IS LITERALLY "TREADING WATER" AND "KEEPING OPTIONS OPEN," THE USSR IS PROCEEDING AHEAD AT A BREAKNECK PACE. IT IS THE VIEW OF THE AMERICAN LEGION THAT THE CHALLENGE TO THIS NATION IS CLEAR - WE CAN NOT SETTLE FOR A DEFENSE PHILOSOPHY WHICH GIVES US A "MARGINAL CHANCE OF SUCCEEDING."

THE TESTIMONY I PRESENT TODAY IS BASED UPON RESOLUTIONS ADOPTED AT OUR 1973 NATIONAL CONVENTION AND AT SUBSEQUENT NATIONAL EXECUTIVE COMMITTEE MEET-

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INGS BY ELECTED REPRESENTATIVES OF THE MORE THAN 2,700,000 MEMBERS OF THE AMERICAN LEGION. THE VAST MAJORITY OF THESE POSITIONS ORIGINATED IN A LOCAL POST OR AT A STATE CONVENTION AND WE FEEL THAT THEY REPRESENT A VALID CROSS SECTION OF RESPONSIBLE AMERICAN PUBLIC OPINION ON OUR NATION'S MINIMUM DEFENSE NEEDS.

COPIES OF THE TEXTS OF THESE RESOLUTIONS ARE APPENDED TO THIS STATEMENT, AND I RESPECTFULLY CALL THEM TO YOUR ATTENTION:

NUMBER	TITLE
167	United States Military Strength and Capability
29	National Defense and Research Development Program
275	TRIAD Concept and B-1 Bomber
279	Minuteman Missile Force
28	Trident System
273	A-10 Aircraft
274	F-15 Aircraft
276	Total Force Concept of Providing Modern Aircraft to Regular and Reserve Forces
277	Advanced Airborne Command Post Program
278	Airborne Warning and Control System
321	Maintain Authorized Strengths for National Guard & Reserve Components
183	Oppose Cutback in Services at General Military Hospitals

NUMBER	TITLE
189	Equalize Military Retired Pay
371	Amend PL 92-425 Pertaining to a Program of Survivor Benefits for Military Personnel in Retirement
372	Expedite Payment of PL 92-425 Program of Survivor Benefits for Military Personnel in Retirement
377	Reserve Retirement Law Amendment
404	Oppose Enlisting Category IV Personnel into Reserve Components for Education and Training
405	Equalization of Re-enlistment Pay for Reserve Components
406	Reserve Components Retirement Benefits Legislation
407	Amend PL 92-425 to Provide Survivorship Benefit to Dependents of Armed Services Reserve Component Members
453	Maintain a Modern, Complete and Powerful U.S. Navy and Marine Corps
2(F)	Project Sanguine
3(F)	Modernization of the U.S. Army
8(S)	Expand Junior ROTC Program
9(S)	Total Force Policy
10(S)	Retired Military Pay
11(S)	Provide Air Force with Modern Aircraft
12(S)	Provide Air Guard with Modern Aircraft

WHILE THESE RESOLUTIONS ADDRESS THE SPECTRUM OF DEFENSE ISSUES, THEIR PRINCIPLE THRUST IS EMBODIED IN RESOLUTION 167 WHICH STATES:

"WE OPPOSE THE PRINCIPLE OF PARITY IN THE NATIONAL DEFENSE WHEN DEALING WITH AN ENEMY THAT HAS NEVER RESPECTED WEAKNESS. WE HAVE LIVED AT PEACE WITH THE SOVIET UNION FOR 25 YEARS ONLY BECAUSE WE HAVE BEEN STRONGER. WE VIEW A DEPARTURE FROM A POLICY OF STRENGTH TO BE UNCERTAIN AND HIGHLY DANGEROUS, AND REQUEST CONGRESS TO PROVIDE SUFFICIENT FUNDS TO INSURE THAT WE MAINTAIN A STRONG NATIONAL POSTURE."

OUR RESOLUTIONS ARE ALL HELD TO BE OF IMPORTANCE, BUT I WOULD LIKE TO MAKE SPECIFIC COMMENT ON SEVERAL OF THE MOST PRESSING AREAS.

TOTAL FORCE POLICY

FROM THE EARLIEST DAYS OF THE REPUBLIC, AMERICANS HAVE EMBRACED THE FUNDAMENTAL DOCTRINE THAT THE CORNERSTONE OF DEFENSE IS THE CITIZEN ARMY. THE TOTAL FORCE POLICY IS FULLY IN KEEPING WITH THIS AMERICAN AXIOM. FURTHERMORE, A PERUSAL OF THE FY 1975 BUDGET SHOWS THAT MORE THAN 55% OF DoD FUNDS ARE ALLOCATED TO MANPOWER COSTS.

BECAUSE OF PERSONNEL COSTS, PROMINENT DEMANDS IN THE BUDGET AND OUR CONTINUING SEARCH FOR NEW ECONOMICS TO OFFSET THE EROSION OF DEFENSE BUYING POWER, MANPOWER IS A LIKELY AREA FOR FISCAL ATTACK. THE AMERICAN LEGION DEPLORES ANY REDUC-

TIONS IN DEFENSE STRENGTH, ACTIVE OR RESERVE, IN THESE UNSTEADY TIMES; BUT, IF REDUCTIONS ARE ESSENTIAL, THE CUTS SHOULD COME IN THE ACTIVE ESTABLISHMENT RATHER THAN IN THE RESERVES.

THE AMERICAN LEGION SUPPORTS THE TOTAL FORCE POLICY WITH THIS QUALIFICATION: IF TOTAL FORCE IS TO BE EFFECTIVE, THE POLICY MUST BE FULLY IMPLEMENTED. FULL IMPLEMENTATION MEANS THAT:

...THE FORCE HAS TO BE MANNED;

...THE FORCE HAS TO BE EQUIPPED; AND

...THE FORCE HAS TO BE TRAINED.

IT IS THE VIEW OF THE AMERICAN LEGION THAT FULL IMPLEMENTATION OF THE TOTAL FORCE POLICY HAS NOT BEEN PURSUED WITH THE VIGOR THAT THE PROMISE WARRANTS. FULL IMPLEMENTATION WILL DEMAND....FROM THE CONGRESS, DEFENSE MANAGEMENT AND THE ACTIVE ESTABLISHMENT....A COMMITMENT GREATER THAN WE HAVE YET WITNESSED.

FULLY IMPLEMENTED, THE TOTAL FORCE POLICY IS THE BEST AVAILABLE SOLUTION FOR ADEQUATE DEFENSE AT AFFORDABLE COST.

RESEARCH AND DEVELOPMENT

THE AMERICAN LEGION SUPPORTS THE $9.3 BILLION REQUEST FOR RDT&E. FOR THE PAST SEVERAL YEARS, OUR RDT&E FUNDS HAVE BEEN AN AREA OF FREQUENT AND SIZE-

ABLE BUDGET REDUCTIONS, AND SUBSEQUENTLY IN ACTUAL DOLLARS OUR EFFORTS HAVE DECLINED. BY CONTRAST, THE SOVIET UNION, BY THE INFUSION OF SIZEABLE FUNDING, HAS MEASURABLY REDUCED OUR TECHNOLOGICAL MARGIN OF SECURITY. THEIR MASSIVE PROGRAM IN THE PAST YEAR ALONE HAS MADE POSSIBLE THE TESTING OF FOUR NEW ICBM'S, THREE OF WHICH WERE FLOWN WITH MIRV'S, DEPLOYMENT OF A NEW SLBM AND AGGRESSIVE ABM TECHNOLOGICAL ADVANCES. FORMER SECRETARY OF DEFENSE MELVIN LAIRD OBSERVED:

> "IF THE UNITED STATES EVER DECIDES WE CANNOT AFFORD TO MAINTAIN TECHNOLOGICAL SUPERIORITY, THEN WE MUST BE WILLING TO ACCEPT THE STATUS OF A SECOND RATE POWER."

IN THE OPINION OF MANY WE HAVE NOW ACCEPTED THE SECOND-BEST ROLE. TO AVOID WIDENING THE GAP FURTHER, WE URGE YOUR CONSIDERATION OF AN ADEQUATE FY 1975 REQUEST, ONE WHICH WILL NARROW THIS MOUNTING DISPARITY. THE VERY NATURE OF OUR FREE SOCIETY DEMANDS THAT WE NOT MERELY MATCH, BUT STAY MEASURABLY AHEAD OF ANY POTENTIAL ADVERSARY.

STRATEGIC FORCES

A THIRD AREA OF SPECIAL EMPHASIS IS THE MODERNIZATION AND UPGRADING OF OUR STRATEGIC FORCES. THE

LESS THAN PLEASANT ALTERNATIVES WHICH FACE THIS CONGRESS ARE WHETHER WE PUSH AHEAD WITH UPDATING OUR TRIAD DETERRENT OR WHETHER WE YIELD PERMANENT STRATEGIC SUPERIORITY TO THE USSR. THE AMERICAN LEGION FEELS THAT ANY DELAYS OR POSTPONEMENTS OF THE DEVELOPMENT OF THE B-1, THE TRIDENT SUBMARINE OR MINUTEMAN III CONVERSIONS, AND MODERNIZATION IN THROW WEIGHT AND ACCURACY, COULD CREATE A MORE SERIOUS IMBALANCE IN A DELICATE INTERNATIONAL CLIMATE.

RESOLUTION 275 OF OUR 55TH NATIONAL CONVENTION URGES: "SUPPORT FOR THE DEVELOPMENT AND ORDERLY PROCUREMENT OF THE B-1 BOMBER BY TIMELY AND ADEQUATE AUTHORIZATIONS AND APPROPRIATIONS IN THE CURRENT AND FUTURE FISCAL YEARS AS A VITAL ELEMENT OF THE TRIAD CONCEPT."

THE HIGH PRE-LAUNCH SURVIVABILITY AND SIGNIFICANT STAND-OFF CAPABILITY OF THE B-1, PLUS THE HIGH SURVIVABILITY FORECAST FOR IT IN A HIGH-THREAT ENVIRONMENT, MAKES IT A REALISTIC ARM FOR THE TRIAD INTO THE 21ST CENTURY. WE OPPOSE ANY REDUCTION IN THE $499 MILLION REQUESTED FOR ADVANCED RDT&E FOR THIS VALUABLE ADDITION TO OUR STRATEGIC ARSENAL.

THE TRIDENT C-4, WITH A RANGE DOUBLE THAT OF THE POSEIDON, REPRESENTS MAJOR TECHNOLOGICAL AND OPERATIONAL ADVANCES OVER OUR CURRENT SLBM'S. THIS VASTLY INCREASED RANGE WILL NOT ONLY PERMIT US TO RE-

DUCE OUR DEPENDENCE ON OVERSEAS BASING BUT IT WILL PRESENT TO THE SOVIET UNION A NEARLY IMPOSSIBLE ASW CHALLENGE, VIRTUALLY GUARANTEEING TRIDENT'S SURVIVAL. IT IS THE VIEW OF THE AMERICAN LEGION THAT FUNDS REQUESTED FOR TRIDENT IN THE FY 1975 BUDGET ARE A PRUDENT INVESTMENT TO ASSURE A CREDIBLE AND EFFECTIVE SLBM FLEET FOR AT LEAST THE BALANCE OF THIS CENTURY.

RESOLUTION 279 SUPPORTS MODERNIZATION OF THE THIRD ARM OF OUR TRIAD, THE MINUTEMAN FORCE. IT URGES ALL ACTION DESIGNED TO IMPROVE THE SURVIVABILITY AND EFFECTIVENESS OF OUR MINUTEMAN FORCE, SPECIFICALLY URGES REPLACEMENT OF ALL MINUTEMAN I AND II MISSILES WITH MINUTEMAN III, AND A CONTINUATION OF RESEARCH AND DEVELOPMENT ON ADVANCED MISSILES TO ENHANCE BOTH ACCURACY, PENETRATION AND PAYLOAD. RECENT SOVIET DEVELOPMENTS IN THE "MIRV FIELD" MAKE THIS CONTINUED MODERNIZATION IMPERATIVE.

CONVENTIONAL FORCES

ONE OF THE MOST REALISTIC DETERRENTS TO NUCLEAR CONFRONTATION IS THIS NATION'S ABILITY TO RESPOND RAPIDLY AND FORCEFULLY TO AN ENTIRE SPECTRUM OF LIMITED AND RESTRICTED THREATS. OUR GENERAL PURPOSE FORCES PROVIDE US WITH THE FLEXIBILITY NEEDED IN THE PRESENT ERA AND ADDED CREDIBILITY THAT AMERICA WILL FULFILL HER COMMITMENTS.

OUR INTERNATIONAL TIES AND OUR GROWING DEPENDENCE ON OVERSEAS SOURCES FOR RAW MATERIALS DICTATES THAT THE UNITED STATES CONTINUE TO HAVE UNRESTRICTED ACCESS TO THE OCEANS AT ALL TIMES. THE AMERICAN LEGION SUPPORTS THE FY 1975 SHIP-BUILDING REQUESTS TO ASSURE THAT OUR SEAPOWER ROLE WILL BE PROJECTED INTO THE 21ST CENTURY. SPECIFICALLY, RESOLUTION 453 URGES FUNDING FOR FLEET MODERNIZATION, DEVELOPMENT AND PROCUREMENT OF THE F-14 AND S-3 ASW AIRCRAFTS, AND MODERN SEALIFT CAPABILITIES. THIS POSITION RECOGNIZES THAT OUR NATIONAL SURVIVAL DEPENDS ON A SUPERIOR NAVAL STRENGTH TO INSURE FREEDOM OF THE SEAS TO OUR COMMERCIAL AND MILITARY SHIPS.

ON THE ARMY SIDE, WE SUPPORT THE DEVELOPMENT AND EVENTUAL PRODUCTION OF AN ADVANCED ATTACK HELICOPTER; A MODERN, MECHANIZED INFANTRY COMBAT VEHICLE; AN ADVANCED SURFACE TO AIR MISSILE; A NEW MAIN BATTLE TANK AND AN IMPROVED TACTICAL TRANSPORT AIRCRAFT. OUR LAND FORCES REQUIRE SUBSTANTIAL MODERNIZATION, INCLUDING THE REPLACEMENT OF THOSE ASSETS CONSUMED IN CONNECTION WITH THE RECENT MIDDLE EAST CONFLICT.

WE SUPPORT THE INTRODUCTION OF THE F-15 (EAGLE) AND THE A-10 CLOSE AIR SUPPORT AIRCRAFT INTO THE USAF INVENTORY. THESE TWO SYSTEMS WILL ENHANCE THE DIVERSITY AND FLEXIBILITY WHICH WERE SHOWN AGAIN

TO BE INDISPENSABLE IN THE YOM KIPPUR WAR. OUR RELIANCE ON TACTICAL AIR FORCES TO OFFSET POTENTIALLY SMALLER LAND FORCES DEMANDS THAT WE DEVOTE ADEQUATE RESOURCES TO THIS AREA.

SUMMARY

TODAY, THERE IS A CLEAR AND PRESENT DANGER TO OUR RELATIVE MILITARY BALANCE OF POWER WHICH MUST BE MADE KNOWN TO THE AMERICAN PUBLIC. OTHERWISE, PUBLIC SUPPORT FOR CONTINUED MAINTENANCE OF A STRONG DETERRENT POSTURE WILL BE JEOPARDIZED AS IT HAS FOLLOWING WARS OF THE PAST.

IT SEEMS TO BE A REGRETTABLE AMERICAN TRADITION THAT A WAR'S END INEVITABLY BRINGS A CLAMOR FOR DISMANTLING THE FORCE STRUCTURE SO LABORIOUSLY AND SO EXPENSIVELY CONSTRUCTED. AS A NATION WE SEEM INCAPABLE OF ABSORBING THE OFTEN-REPEATED LESSONS OF PREVIOUS EXPERIENCE.

ONCE AGAIN THERE IS A DEMAND FOR "REORDERING PRIORITIES." TO SOME AMERICANS THAT PHRASE SUGGESTS THAT WE COULD FINANCE INCREASES IN SOCIAL PROGRAMS BY PARING THE DEFENSE BUDGET BEYOND THE LIMIT OF SANITY. CERTAINLY WE SHOULD DO EVERYTHING WITHIN OUR POWER TO IMPROVE THE QUALITY OF LIFE FOR ALL WHO ARE PART OF THIS NATION. BUT WHEN CONSIDERING PRIORITIES, WE SHOULD REMEMBER THAT DEFENSE IS

ITSELF A SOCIAL SERVICE, THE MOST IMPORTANT ONE BECAUSE IT GUARANTEES OUR FREEDOM AND OUR VERY EXISTENCE.

WHILE WE APPLAUD RESPONSIBLE MOVES TOWARD A MORE PEACEFUL WORLD, WE ARE ALSO REALISTS WHO KNOW THAT AN AMERICAN POSITION OF STRENGTH IS THE ONLY ATMOSPHERE IN WHICH THESE STEPS CAN GENUINELY ACHIEVE PEACE. THE MILITARY BALANCE IS AT BEST PRECARIOUSLY POISED AT THIS TIME. TO VISIBLY AND UNILATERALLY REDUCE OUR DEFENSE POSTURE AT THIS CRITICAL PERIOD IN OUR NATION'S HISTORY WOULD BE A STEP BACKWARD IN OUR MUTUAL GOAL OF A LASTING WORLD PEACE.

I THANK YOU VERY MUCH.

55TH NATIONAL CONVENTION OF THE AMERICAN LEGION
HELD IN HONOLULU, HAWAII, AUGUST 21,22,23, 1973

RESOLUTION NO. 167

COMMITTEE: National Security

SUBJECT: UNITED STATES MILITARY STRENGTH AND CAPABILITY

WHEREAS, America's greatest safeguard to freedom is a strong national defense and only by retaining our position as the world's leading military power can we remain free and safe from nuclear attack; and

WHEREAS, military cutbacks have severely undermined our national defense budget to the point that we are now behind the Soviet Union in overall military capability, thus putting the status of the free world in doubt and grave jeopardy; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we oppose the principle of "parity" in the national defense when

dealing with an enemy that has never respected weakness. We have lived at peace with Russia for 25 years only because we have been stronger. We view a departure from a policy of strength to be uncertain and highly dangerous, and request Congress to provide sufficient funds to assure that we maintain a strong national posture.

RESOLUTION NO. 29

COMMITTEE: National Security

SUBJECT: NATIONAL DEFENSE AND RESEARCH DEVELOPMENT PROGRAM

WHEREAS, there are factions within the nation that seek to further reduce the level of our military capability; and

WHEREAS, our nation's defense spending is at its lowest point in constant dollars since 1951; and

WHEREAS, while we reduce our defense expenditures, the Soviet Union continues to modernize its strategic and conventional forces at an accelerated pace; and

WHEREAS, research and development is the backbone of America's continuation as a viable military force for peace in the world; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we urge the Congress and the Administration to maximize research and development and to maintain the most modern military force our technology can provide, one large enough and versatile enough to assure its deterrent capability.

RESOLUTION NO. 275

COMMITTEE: National Security

SUBJECT: TRIAD CONCEPT AND B-1 BOMBER

WHEREAS, Strategic deterrence depends on the TRIAD concept - a mix of land-based intercontinental missiles, submarine-launched missiles, and strategic bombers; and

WHEREAS, The interim SALT Agreement has accorded to the Soviets a 3-2 advantage in numbers of ICBM launchers; and

WHEREAS, Strategic bombers are not a part of the interim SALT Agreement, but are an essential part of the TRIAD; and

WHEREAS, The Soviet advantage in strategic missiles and their intensive research and development programs gives manned bombers much greater importance in the strategic equation; and

WHEREAS, The TRIAD concept is deemed vital to the security of our nation in providing insurance against technological breakthrough that might neutralize anyone of our offensive systems, in posing a major defense problem to an aggressor, and in offering a great variety of options and unique capabilities for response; and

WHEREAS, The manned bomber is the most flexible element of the TRIAD, capable of being launched on warning and remaining safe until a determination is made as to whether an attack is actually underway; and

WHEREAS, In addition to their nuclear deterrent role, strategic bombers alone possess the inherent capability to deliver massive firepower in conventional warfare; and

WHEREAS, The average age of the B-52s which comprise most of the current strategic bomber force is more than 15 years and the Air Force deems it absolutely essential that this aging force be replaced around the end of this decade; and

WHEREAS, The B-1 bomber presently under development is being designed to be as insensitive to future changes in the threat as is feasible, and will be hardened against nuclear effects and will be able to penetrate enemy defenses better at lower altitudes and higher speed with smaller radar cross-section and bigger payloads than the B-52s, and will employ greater numbers of the now operational SRAMs; now, therefore, be it

RESOLVED, By The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that the Administration and the Congress again be urged to support and promote the TRIAD concept and support the urgently needed program of rapid development and procurement of the B-1 bomber by providing adequate authorization and appropriations therefor in current and future fiscal years as a vital element of the TRIAD concept.

RESOLUTION NO. 279

COMMITTEE: National Security

SUBJECT: MINUTEMAN MISSILE FORCE

WHEREAS, the interim SALT Agreement limits both the United States and the Soviet Union to an unequal number of strategic offensive ballistic missiles, with the Soviet Union having a substantial advantage, not only in numbers of strategic missiles, but also in missile throw-weight; and

WHEREAS, except for the size of ICBM silos, the SALT Agreement places no significant constraints on the qualitative characteristics of the missiles or the launchers; and

WHEREAS, the Soviet Union is engaged in intensive research and development programs to improve its existing missile system; and

WHEREAS, it is of the most vital importance that the missiles permitted to the United States under the SALT Agreement be made highly survivable and possess the greatest possible effectiveness as a vital element of the TRIAD concept; and

WHEREAS, the Air Force has initiated the Silo Upgrade Program to improve the pre-launch survivability of the Minuteman force so that an enemy first strike would not seriously degrade its retaliatory capability; and

WHEREAS, the Air Force is also replacing its older Minuteman I missiles with newer Minuteman III missiles which are the key to continued force effectiveness with their MIRV capability, increased penetration aids and improved component hardness during powered flights; and

WHEREAS, the Command Data Buffer program will provide secure, remote retargeting of the Minuteman III force from the launch control facility rather than requiring entry into each silo to insert target data; and

WHEREAS, the Air Force is currently making evaluations to determine whether to replace the Minuteman II missiles with Minuteman III missiles; and

WHEREAS, it is deemed to be vital to the national security that all Minuteman I and II missiles be replaced by Minuteman III missiles and that research and development be continued and intensified to take advantage of technological gains in the state of the art to insure the greatest survivability and effectiveness of the intercontinental ballistic missiles permitted to the United States under the SALT Agreement; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we urge the Administration and the Congress to fully support all Air Force programs designed to improve the survivability and effectiveness of our Minuteman force as an integral part of the TRIAD concept, and we specifically urge that the Air Force replace all older Minuteman missiles with Minuteman III missiles and continue with advanced research, development and procurement of advanced missiles for the land-based ICBM system without sacrificing numerical and throw-weight capacity.

RESOLUTION NO. 28

COMMITTEE: National Security

SUBJECT: TRIDENT SYSTEM

WHEREAS, our sea launched ballistic missiles are an integral part of this nation's TRIAD defense deterrent; and

WHEREAS, by the late 1970s the first generation Polaris submarines will be nearly 20 years old, with no potential for significant improvements; and

WHEREAS, it has been announced that the Soviet Union may soon have an operational 4,000 nautical mile range SLBM, the SS-N-8; and

WHEREAS, the first generation TRIDENT submarine will incorporate the latest technology to improve their survivability and will have a range of almost 5,000 miles; and

WHEREAS, this greater range would reduce U.S. dependence on foreign basing for our ballistic missile submarines; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we urge the Administration and the Congress to fully fund and cooperate in the rapid development and deployment of the TRIDENT System.

RESOLUTION NO. 273

COMMITTEE: National Security

SUBJECT: A-10 AIRCRAFT

WHEREAS, The importance and necessity of effective close air support of friendly ground forces engaged in combat with an enemy force has been conclusively demonstrated in every major conflict since World War I; and

WHEREAS, The A-10 aircraft has been specifically designed to perform the close air support role for American armed forces better than any aircraft in existence, or under development, through its characteristics of maneuverability, survivability, long-loiter time, lethality, responsiveness, and simplicity; and

WHEREAS, Detailed analyses have clearly established that the A-10 aircraft, which The American Legion has heretofore supported under the designation of A-X aircraft, is the most cost-effective weapon system for performing the close air support role; and

WHEREAS, The Air Force is developing new and improved armaments such as the rapid-firing GAU-8 gun which is capable of destroying enemy tanks as essential elements of the A-10 aircraft weapon system; now, therefore, be it

RESOLVED, By The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we urge the Administration and the Congress to continue their support of the program for the development and procurement of the A-10 aircraft and its essential armament in order that the Air Force may fulfill with the highest degree of effectiveness its mission of providing close air support to our ground forces in any potential future conflict.

RESOLUTION NO. 274

COMMITTEE: National Security

SUBJECT: F-15 AIRCRAFT

WHEREAS, The history of warfare has clearly indicated that control of the air space over the battle zone is vital to the degree of success to be achieved by ground forces; and

WHEREAS, The Air Force has designed an air superiority fighter, the F-15, to meet the threat of the increasing number and quality of high-performance fighter and interceptor aircraft being developed by the Soviet Union; and

WHEREAS, It is vital that air superiority be achieved and maintained by the United States and its allies in any potential future NATO/Warsaw Pact conflict if our forces are to conduct effective close air support and interdiction tasks; and

WHEREAS, The F-15 fighter aircraft is designed to out-maneuver and out-fight any aircraft which any potential aggressor is anticipated to have operational in the next 10-15 years; and

WHEREAS, General George Brown, Chief of Staff, USAF, has stated that the F-15 "shows every promise of having the mission versatility to control the skies not only in tactical contingencies, but also as an interceptor in the air defense of the United States"; and

WHEREAS, All flight testing of the F-15 aircraft has been highly successful; now, therefore, be it

RESOLVED, By The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that the Administration and Congress be urged to support the Air Force procurement of F-15 aircraft in Fiscal Year 1974 and future years in sufficient numbers to insure the attainment of air superiority by our forces in any potential future conflict.

RESOLUTION NO. 276

COMMITTEE: National Security

SUBJECT: TOTAL FORCE CONCEPT OF PROVIDING MODERN AIRCRAFT TO REGULAR AND RESERVE FORCES

WHEREAS, The Secretary of Defense on 21 August 1970, in anticipation of major curtailments of the force levels within the Defense Establishment of the United States due to rising manpower costs, directed implementation of the Total Force Concept; and

WHEREAS, The Total Force Concept would provide a greater degree of national defense capability and potential through reliance upon both active and reserve elements of the Defense Establishment; and

WHEREAS, This increase in capability would be attained and maintained at less expense to the United States; and

WHEREAS, The Total Force Concept dictates equipping both the regular and reserve forces with modern first line equipment; and

WHEREAS, The Air National Guard Tactical Fighter Force of the Reserve Forces are equipped with obsolete tactical equipment such as the aged and ineffective F-100 tactical fighter aircraft whose current and projected maintenance and safety modification costs alone exceed production costs of first line tactical aircraft; now, therefore, be it

RESOLVED, By The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we urge the Congress and the Secretary of Defense to implement the Total Force Concept without delay and equip the Reserve Forces with modern first line aircraft from production as well as Regular Force assets, at the earliest possible date.

RESOLUTION NO. 277

COMMITTEE: National Security

SUBJECT: ADVANCED AIRBORNE COMMAND POST PROGRAM

WHEREAS, the credibility of the United States strategic deterrent depends in substantial measure on the existence of a reliable and survivable command and control system; and

WHEREAS, the EC-135 aircraft currently used for the airborne command post function by the National Command Authority and the Commander-in-Chief of Strategic Air Command has been found to be inadequate because of lack of automatic data processing capability, lack of growth space, lack of proper communica-

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tions capability and the aircraft are not hardened against the full range of nuclear effects; and

WHEREAS, the Air Force is taking necessary action to develop the necessary new communications and data processing equipment and to procure new modified Boeing 747 aircraft to serve as the Advanced Airborne Command Post for the National Command Authority and the Commander-in-Chief, Strategic Air Command; and

WHEREAS, the proposed program will advance the national security of the United States in case of enemy attack by providing greater and more effective command, control and communications capacity, increased aircraft survivability, and longer loiter time on station; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we support the Air Force in its efforts to take maximum advantage of recent technological advances to provide the most effective possible command and control system of our strategic forces and urge the Administration and the Congress to support the Advanced Airborne Command Post program by providing adequate authorizations and appropriations in the current and future fiscal years.

RESOLUTION NO. 321

COMMITTEE: National Security

SUBJECT: MAINTAIN AUTHORIZED STRENGTHS FOR NATIONAL GUARD AND RESERVE COMPONENTS

WHEREAS, all Reserve Components are required to maintain mandatory strength levels; and

WHEREAS, the Departments of Defense, Army, Navy, Air Force, Marine Corps and the Coast Guard have stated that high levels of mobilization readiness will be required of their respective reserve components since the national defense policy is to consider them as the first resources for augmentation of the Active Forces in future emergencies; and

WHEREAS, the Secretary of Defense has recognized that the Reserve Forces and National Guard must be fully supported to produce a high degree of readiness; and

WHEREAS, the Active Forces have been given greatly increased resources and inducements to attract voluntary enlistments and to reduce reliance upon the draft; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we urge the Congress and the Secretary of Defense to authorize

for the National Guard and Reserve Components necessary incentives required to maintain authorized strengths during and following the transition to the zero draft as of great importance to the national security of this country.

RESOLUTION NO. 278

COMMITTEE: National Security

SUBJECT: AIRBORNE WARNING AND CONTROL SYSTEM

WHEREAS, current United States systems of detection of potential enemy aircraft are obsolescent and often ineffective as demonstrated by the landings in recent years at Homestead AFB, Florida and New Orleans, Louisiana of undetected aircraft from Cuba; and

WHEREAS, the Air Force is developing an Airborne Warning and Control System (AWACS) which is designed to detect, identify and track approaching aircraft and if they are determined to be hostile, to direct interceptors against them; and

WHEREAS, AWACS will be capable of detecting and tracking aircraft at low altitudes over land as well as water; and

WHEREAS, AWACS will deny to potential aggressors the confidence of being able to degrade CONUS air defense through attack on fixed surveillance and control sites; and

WHEREAS, AWACS consists of an air surveillance radar and associated data processing and communications equipment installed in a modified Boeing 707 aircraft; and

WHEREAS, this urgently needed element of air defense modernization has in recent years been neglected by the diversion of resources to other programs; and

WHEREAS, with its vastly improved, all-altitude surveillance radar, data processing, and rapid digital communication, AWACS will be capable of playing a vital role in future tactical air operations as it will provide for better command and control of air superiority, interdiction, close air support, and combat support operations; and

WHEREAS, AWACS will be capable of immediate deployment with other elements of air power to provide early warning and on scene command and control anywhere in the world, thereby adding significantly to the capability and credibility of our world-wide deterrent posture; and

WHEREAS, additional research, development and testing is required before a final production decision may be reached by the Department of Defense on this vital program; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that the Administration and the Congress be urged to support the Airborne Warning and Control System program by giving appropriate priority to the completion of necessary research and development for the equipment required and to its production and installation in the designated aircraft.

RESOLUTION NO. 183

COMMITTEE: National Security

SUBJECT: OPPOSE CUTBACK IN SERVICES AT GENERAL MILITARY HOSPITALS

WHEREAS, The American Legion has always supported government sponsored hospital and medical services to veterans; and

WHEREAS, some military retirees and their dependents retired in the vicinity of general military hospitals in order to utilize the services of this medical facility; and

WHEREAS, closing these hospitals would impose severe economic hardship on many of these retirees and families in spite of partially subsidized medical services through the CHAMPUS program; and

WHEREAS, the Department of Defense as a result of budget cuts by the Office of Management and Budget is discussing a cutback in services at general hospitals which could result in elimination of services to retirees and dependents; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we go on record as opposing such cutbacks in services.

RESOLUTION NO. 189

COMMITTEE: National Security

SUBJECT: EQUALIZE MILITARY RETIRED PAY

WHEREAS, past inequities have been created by failure to update military retired pay; and

WHEREAS, the Federal Government has an obligation to retired military personnel to provide retired pay in line with what

they were led to expect when they entered the armed forces and acknowledging that retirement pay is part of what a veteran has earned; and

WHEREAS, the retired pay for these military retirees is based on the inadequate pay scales which prevailed during their long and faithful years of service; and

WHEREAS, those who have retired for disabilities incurred in line of duty have by their sacrifices earned the right to every consideration when corrections in provisions for retirement and retainer pay are considered for all members and former members of the uniformed services; and

WHEREAS, it is quite clear that pay for all retirees, including all disabled retirees should be equalized so that all such retirees of the same grade, years of service, and all disabled retirees be the same; and

WHEREAS, the application for piecemeal increases based on the consumer price index does not compensate for the low retirement pay; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we endorse and support legislation to equalize military retired pay currently in effect for active duty personnel having the same grade or rank and length of service.

RESOLUTION NO. 371

COMMITTEE: National Security

SUBJECT: AMEND PUBLIC LAW 92-425 PERTAINING TO A PROGRAM OF SURVIVOR BENEFITS FOR MILITARY PERSONNEL IN RETIREMENT

WHEREAS, Public Law 92-425 establishes a program of survivor benefits for military personnel in retirement which supplements survivorship benefits of Social Security; and

WHEREAS, the program is on a cost-sharing basis and provides a survivor annuity at 55% of the members retired pay; and

WHEREAS, this program has no direct connection with the Veterans Administration Dependency and Indemnity Compensation program; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we hereby recommend that PL 92-425 be amended as to where a beneficiary may receive benefits from the survivor annuity program and dependency and indemnity compensation concurrently.

RESOLUTION NO. 372

COMMITTEE: National Security

SUBJECT: EXPEDITE PAYMENT OF PL 92-425 PROGRAM OF SURVIVOR BENEFITS FOR MILITARY PERSONNEL IN RETIREMENT

WHEREAS, Public Law 92-425 establishes a program of survivor benefits for military personnel in retirement which supplements survivorship benefits of Social Security; and

WHEREAS, the program is on a cost-sharing basis and provides a survivor annuity at 55% of the members retired pay; and

WHEREAS, a survivor applies for this benefit, long delays are encountered due to the complicated procedure required to process the application; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we hereby request that upon application for survivors benefits, the retired pay section of each branch of the armed forces be instructed to make payment immediately.

RESOLUTION NO. 377

COMMITTEE: National Security

SUBJECT: RESERVE RETIREMENT LAW AMENDMENT

WHEREAS, Many men stay active in the Reserve forces of the Department of Defense after several years of active service; and

WHEREAS, these men serve many hours to earn credit toward retirement and subject themselves to instant call in defense of their country; and

WHEREAS, these men earn credits toward retirement which is not payable to them until they reach 60 years of age; and

WHEREAS, the wives of these men cannot receive any benefits from their husband's military retirement pay unless he receives his first retirement check at age 60; and

WHEREAS, many of these men do die before they reach the age of 60 and the wife is then not entitled to any benefits from his reserve retirement; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that it introduce as a Congressional bill to change the Reserve Retirement Law as follows:

A wife and other qualifying dependents, who would be entitled to benefits of the Reserve Retirement Law if the retired reservist were to reach age 60 and receive his first retirement check, shall be entitled to residual benefits in the event of the death of her retired reserve husband before his 60th birthday and before he receives his first retirement check. A widow shall be entitled to the same benefits with the same restrictions as if the deceased retired reservist had been in receipt of his retirement check.

RESOLUTION NO. 404

COMMITTEE: National Security

SUBJECT: OPPOSE ENLISTING CATEGORY IV PERSONNEL INTO RESERVE COMPONENTS FOR EDUCATION AND TRAINING

WHEREAS, there exists a proposal that persons of limited ability falling into Category IV of qualification standards be enlisted into the Reserve components of the armed services for education and training; and

WHEREAS, reserve components are presently equipped with only limited training facilities sufficient to take care of only those persons who already possess sufficient education and abilities to benefit therefrom; and

WHEREAS, the regular components of the armed services are far better provided with facilities and personnel to provide education and training of persons of limited ability than are the reserve components, should it be determined that, as a matter of public policy, such training should be provided to such persons as a function of the armed services; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that no Category IV personnel (persons of limited education and ability) be assigned, recruited, inducted, or otherwise placed in any reserve component of the armed services whatsoever.

RESOLUTION NO. 405

COMMITTEE: National Security

SUBJECT: EQUALIZATION OF RE-ENLISTMENT PAY FOR RESERVE COMPONENTS

WHEREAS, existing law inadequately provides re-enlistment incentives for members of the Reserve components of the Armed Services; and

WHEREAS, discontinuance of the draft accentuates the need for more effective Reserve forces to complement the active duty components of the Armed Services; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that to increase the efficiency and preparedness of the Reserve components of the Armed Services and to enable such components to fulfill their proper role in the nation's defense establishment, the Congress of the United States is urged to enact the following proposed legislation providing equalization of re-enlistment pay for Reserve components of the Armed Services:

That Title 37, Chapter 5, United States Code, be amended as follows:

I. By adding the following new item at the end of chapter analysis "Pay: Participation in Ready Reserve"

II. By adding the following new section, "Special Pay: Participation in Ready Reserve."

(a) An enlisted member of a Reserve component who:

(1) has completed a total of at least two years of active duty, or a total of at least six years of service, in one or more of the Armed Services;

(2) is accepted for enlistment, re-enlistment, or extension of enlistment in a Reserve component, in a pay grade above E-2, for a period of at least three years; and

(3) agrees to remain in the Ready Reserve for a corresponding period and to perform such drills or other duty as may be prescribed;

is entitled to special pay computed under subsection (b).

(b) The amount of special pay to which a person covered by subsection (a) is entitled is:

(1) $1,000 upon re-enlistment or extension of his enlistment;

(2) $200 upon completing each year under that re-enlistment or extension of enlistment of satisfactory participation in the program prescribed for his Reserve assignment, as determined by the Secretary concerned.

However, no member is entitled to incentive pay for any year of satisfactory performance that ends after he has completed 20 years of service computed under Section 1332 of Title 10.

(c) The special pay authorized by this section is in addition to any other basic pay, special pay, incentive pay, or allowance to which the member is entitled.

(d) A member who voluntarily, or because of his misconduct, does not complete the first year of service under his re-enlistment or extension of enlistment for which he was paid under subsection (b)(1) shall refund that percentage of the amount that the unexpired part of that year bears to the entire year for which the amount was paid.

(e) This section shall be administered under regulations prescribed by the Secretary of Defense for the uniformed services under his jurisdiction, and by the Secretary of Transportation for the Coast Guard when the Coast Guard is not operating as a service in the Navy.

RESOLUTION NO. 406

COMMITTEE: National Security

SUBJECT: RESERVE COMPONENTS RETIREMENT BENEFITS LEGISLATION

WHEREAS, the recent elimination of the draft and the conversion of the Nation's Armed Services to a voluntary basis now places upon the Reserve components a new and greater responsibility in its defense; and

WHEREAS, under Chapter 67, Title 10, United States Code, members of the Reserve components who have completed the requisite minimum 10 years of service nevertheless cannot begin to receive retired pay until they reach 60 years of age; and

WHEREAS, it has long been recognized that the efficiency of the public service is served by permissive early retirement of civil service employees at reduced annuities, under appropriate circumstances; and

WHEREAS, Senate Bill S-330 now pending before the Congress would similarly promote the efficiency of the Reserve components of the Armed Services by permitting optional early retirement of members, with retired pay reduced on an actuarial basis; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that it favors the enactment of Senate Bill S-330, which would provide for optional early retirement of Armed Services Reserve component members at age 50 and above, with reduced retired pay actuarially determined as set forth therein, and urges the enactment thereof.

RESOLUTION NO. 407

COMMITTEE: National Security

SUBJECT: AMEND PUBLIC LAW 92-425 TO PROVIDE SURVIVORSHIP BENEFITS TO DEPENDENTS OF ARMED SERVICES RESERVE COMPONENT MEMBERS

WHEREAS, Chapter 73 of Title 10 of the United States Code, as amended by Public Law 92-425, still does not authorize survivor benefits to survivors of members of Reserve components of the Armed Services who have completed the requisite 20 years of service but who die before having reached the age of 60 years; and

WHEREAS, this exclusion of survivors of such members from such plan constitutes a breach of faith with those loyal and faithful reservists whose continuation in Reserve service in defense of the nation is prompted in part by the expectation of the care of their loved ones by a grateful nation; and

WHEREAS, this expectation is defeated under present law when, having completed the requisite 20 years of service, they die before reaching 60 years of age, usually at a time of life when their dependents are inadequately provided for by any other program; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that Chapter 73 of Title 10 of the United States Code should be amended to provide survivorship benefits to dependents of Armed Services Reserve components members who die after having completed 10 years of service but before reaching 60 years of age.

RESOLUTION NO. 453

COMMITTEE: National Security

SUBJECT: MAINTAIN A MODERN, COMPLETE AND POWERFUL UNITED STATES NAVY AND MARINE CORPS

WHEREAS, the traditional United States supremacy on the high seas is being challenged by the rising Soviet Navy, plus its auxiliary sea going adjuncts, including commercial and oceanographic vessels; and

WHEREAS, the security, economic life and freedom of the United States and the nations of the free world depend largely upon the continued availability of the seas and the effectiveness of the U.S. Navy in protecting the economic life line of the free world against communist direct aggression and subversion; and

WHEREAS, The American Legion recognizes that in the final analysis our national survival depends on our achieving the naval strength required for strategic deterrence, control of the seas and projection of national power beyond our shores; and

WHEREAS, The American Legion recognizes that the achieving of that required naval strength is contingent upon necessary funding, even if at the expense of domestic programs which, while highly desirable, are of lower priority than the nation's survival; now, therefore, be it

RESOLVED, by The American Legion in National Convention assembled in Honolulu, Hawaii, August 21,22,23, 1973, that we petition the President and the Congress of the United States to:

1. urge the Administration and the Congress to fully fund and cooperate with the rapid development and deployment of the TRIDENT System;

2. take immediate steps to restore the United States to a position of global naval supremacy and appropriate adequate monies to ensure the fastest possible modernization of our Navy with emphasis on a balanced sea control force of aircraft carriers, aircraft, other surface ships, and submarines;

3. maintain a combat-ready Marine Corps with the appropriation of sufficient funds to support three Divisions and three air wings at full strength; and to maintain a ready Marine Reserve strength of one Division and one air wing; and to support the full application of the Marine Corps Division/Wing concept;

4. support the Navy and Marine Corps urgent requirements for a new air superiority and intercept fighter capability by continuing the development and procurement of the F-14;

5. support the development and procurement of the S-3 aircraft which represents a quantum improvement in air ASW and sea control capability;

6. actively continue the Navy research and development program, capitalizing on the advances of science and technology to provide Navy and Marine Corps forces with the mobility, versatility and flexibility to meet the challenge to U.S. security without compensatory reduction in the readiness of combat forces;

7. provide personnel support and training facilities adequate for the maintenance of a high state of readiness, effectiveness and morale;

8. provide the weapons systems required by the Navy and Marine Corps to accomplish their assigned missions, in both conventional and nuclear warfare;

9. provide and permanently maintain a modern balanced amphibious assault force capable of rapidly projecting ashore simultaneously the assault elements of two Marine Corps Division/Wing Teams;

10. provide modern sealift capabilities to support Army, Air Force and Marine Corps operations required to support our national objectives;

11. maintain strong Navy and Marine Corps Reserve Forces trained and equipped for rapid response to mobilization requirements in support of U.S. national interests;

12. maintain naval forces strong enough to insure the United States is able to fulfill its commitments to allies, and to our own forces overseas by retaining the ability to protect and use the sea lines of communications; and

13. that we call upon the President, the Congress and the Department of Defense to take all necessary steps to establish an Indian Ocean fleet of sufficient size to ensure that Soviet political and economic control of this vital area does not occur.

NATIONAL EXECUTIVE COMMITTEE MEETING
INDIANAPOLIS, INDIANA
October 17-18, 1973

RESOLUTION NO. 2

COMMITTEE: National Security

SUBJECT: Project Sanguine

WHEREAS, The American Legion was established with a primary purpose of dedication to the DEFENSE and SECURITY of The United States; and

WHEREAS, Historically, The American Legion has never hesitated to take a stand on any issue effecting the defense of our country; and

WHEREAS, The United States Navy has announced that they propose construction of PROJECT SANGUINE in the Upper Peninsula of Michigan; and

WHEREAS, The purpose of Project Sanguine is communication on an international basis with submerged submarines in the event of war; and

WHEREAS, The U. S. Navy has spent over $50,000,000 in research on Project Sanguine to determine its effectiveness and its impression on the environment; and

WHEREAS, It is a primary concern of The American Legion to promote the Defense and Security of our nation; now, therefore, be it

RESOLVED, By the National Executive Committee of The American Legion in regular meeting assembled in Indianapolis, Indiana, on October 17-18, 1973, That we do hereby endorse and support the efforts of the United States Navy to construct Project Sanguine either in the Upper Peninsula of Michigan or anywhere in the nation should a more efficient site be found.

RESOLUTION NO. 3

COMMITTEE: National Security

SUBJECT: Modernization of the U.S. Army

WHEREAS, our military forces have now been withdrawn from Vietnam following difficult and devisive conflict; and

WHEREAS, there is a natural tendency to turn hastily from war to peace and to neglect our armed forces; and

WHEREAS, if the United States Army, in concert with the other branches of our Armed Forces, is to serve as an effective deterrent to war, it must be kept modern through a dynamic research and development program and new advanced weapons; now, therefore, be it

RESOLVED, By the National Executive Committee of The American Legion assembled in Indianapolis, Indiana, October 15-16, 1973, that we support the authorization and appropriations to fund the development and eventual production of: an advanced attack helicopter; a modern, mechanized infantry combat vehicle; an advanced surface to air missile; a new battle tank and an improved tactical transport aircraft.

RESOLUTION NO. 8

COMMITTEE: National Security

SUBJECT: Expand Junior ROTC Program

WHEREAS, The American Legion has since its founding strongly supported the concept of the citizen-soldier; and

WHEREAS, The nearly 1200 Junior ROTC Units with 170,000 students in operation in secondary schools throughout the country, embody this concept; and

WHEREAS, Junior ROTC develops and promotes a sense of personal obligation of American citizenship, and instills patriotism; and

WHEREAS, This training inculcates invaluable respect of country and one's self in our youth, one of our nation's most valuable assets; now, therefore, be it

RESOLVED, By the National Executive Committee of The American Legion assembled in Indianapolis, Indiana, May 1-2, 1974, that we urge the Congress to enact legislation and approve funds to permit the expansion of all Junior ROTC programs beyond the maximum 1200 units currently prescribed by law.

RESOLUTION NO. 9

COMMITTEE: National Security

SUBJECT: Total Force Policy

WHEREAS, Despite encouraging signs of better relations with the People's Republic of China and the USSR, detente has not yet proved to be a reality; and

WHEREAS, The USSR continues to improve the size and readiness of its military forces across the entire spectrum of military preparedness; and

WHEREAS, The United States must at all times maintain a creditable military defense to protect its citizens and our vital national interests while preserving our economic stability; and

WHEREAS, There have been drastic manpower reductions in our active duty forces following our withdrawal from Vietnam; and

WHEREAS, It is a valid defense doctrine that significant reductions in active forces must be offset by strengthening and improving our reserve forces; and

WHEREAS, The Department of Defense in 1970 declared that in the future the Reserves and National Guard would be the initial and primary augmentation forces for the active forces and further that Congress in 1973 declared its intention that the Reserves would be used to meet additional manpower needs of the active forces before any inductions would be made; and

WHEREAS, The Department of Defense has developed the Total Force Policy to obtain the most defense for the least cost and with shorter delay; and

WHEREAS, Today National Guard and Reserve Unit comprise more than 30% of the force-in-being that would have to respond immediately to any future military emergency; now, therefore, be it

RESOLVED, By the National Executive Committee of The American Legion assembled in Indianapolis, Indiana, May 1-2, 1974, that we fully support the Total Force Policy and urge the Congress, the Defense Department and the Military Services to provide adequate funding and sufficient training and equipment to insure the immediate availability and combat readiness of the Reserves and the National Guard.

RESOLUTION NO. 10

COMMITTEE: National Security

SUBJECT: Retired Military Pay

WHEREAS, The United States military retirement system does not take into account life expectancy, nor does it give any credit whatsoever for reserve service to enlist men, although officers get such credit; and

WHEREAS, There are no provisions for paying any portion of Title III (Reserve, age 60) retired pay to those who have already retired under other laws, thus causing an injustice to enlisted personnel who retire from the regular forces but also have reserve service; and

WHEREAS, Such equality in "method of computation" of retired pay is consistent with current considerations to equalize matters for officers and enlisted men; and

WHEREAS, The Department of Defense indicates that it supports such legislation, however, there are indications that it does not gain support in Congress because it is very frequently confused with recomputation; now, therefore, be it

RESOLVED, By the National Executive Committee of The American Legion assembled in Indianapolis, Indiana, May 1-2, 1974, that we support legislation which would equalize the METHOD OF COMPUTATION of retired enlisted men with that which has been enjoyed by officers for many years.

RESOLUTION NO. 11

COMMITTEE: National Security

SUBJECT: Provide Air Force with Modern Aircraft

WHEREAS, The war in Southeast Asia and more recently in the Middle East demonstrated again the need for flexibility and diversity in military aircraft; and

WHEREAS, The U. S. Air Force must be kept modern, flexible and be equipped with aircraft having a broad range of capabilities equal to all current and future contingencies; and

WHEREAS, To effectively meet these requirements, the force must comprise a wide variety of specialized aircraft, ranging from the B-1 through the F-111, the A-7 to the A-10, thus enabling it to perform all missions in the entire spectrum of requirements from the intercontinental nuclear war, through all-weather capability and air support for ground forces in both high and low threat environments, and tactical airlift; and

WHEREAS, Such diversity also provides economy because of the cost differential between the various types of aircraft performing specialized missions; now, therefore, be it

RESOLVED, By the National Executive Committee of The American Legion assembled in Indianapolis, Indiana, May 1-2, 1974, that we support the authorization and appropriation of sufficient funds to insure that the U. S. Air Force possesses an adequate variety of aircraft from the B-1 through the A-10 to meet all type of contingencies.

RESOLUTION NO. 12

COMMITTEE: National Security

SUBJECT: Provide Air Guard With Modern Aircraft

WHEREAS, The Congress and the Defense Department have declared their support for the Total Force Policy whereby increased reliance is vested in the Reserve components to compensate for reductions in the Active forces; and

WHEREAS, Announced and contemplated reductions in Air National Guard units from 92 to 86 units, eliminating more than 5000 military authorizations in the Air National Guard and more than 300 in the Air Force Reserves, does violence to the letter and spirit of the Total Force Policy; and

WHEREAS, Highly motivated personnel in these units being deactivated represent extremely valuable asset that should not be wasted; and

WHEREAS, Outmoded or marginal units can be converted to new essential missions with proper training and equipment and manned by these highly motivated Guardsmen and Reservists; now, therefore, be it

RESOLVED, By the National Executive Committee of The American Legion assembled in Indianapolis, Indiana, May 1-2, 1974, that we urge the retention of all units in the Air National Guard and the Air Force Reserve together with necessary funds for modernization, training and equipment of this force.

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STATEMENT OF MRS. GRACE BAISINGER, COORDINATOR OF LEGISLATIVE ACTIVITY, NATIONAL CONGRESS OF PARENTS AND TEACHERS ASSOCIATION

PREPARED STATEMENT

Chairman MCCLELLAN. Next there will appear a statement by Mrs. Grace Baisinger of the National Congress of PTA's, who supports funds for the Overseas dependents schools.

[The statement follows:]

The National PTA and its overseas branch, the European Congress of American Parents and Teachers, request that particular consideration be given to the needs of the overseas dependents schools. Since some 120,000 American children now attend these schools in Europe alone, and many thousands more will pass through their doors, we take this opportunity to express our concern for the welfare of those families who serve abroad in our nation's defense.

Excellence of educational opportunity is an important consideration to the married serviceman who is a potential member of America's all-volunteer force. These taxpayers look to you, their "school board," for continued support of their children's right to educational programs which will enable them to take their proper place in the better school systems of our country upon their return from duty aboard.

As in the past, our overseas parents are concerned about the facilities in which these schools operate. Thirty- to sixty-year-old drafty former military barracks are all too often the environment in which classes must be conducted. This is especially depressing when our children view the modern schools their European neighbors attend. We urge your continued support of new school construction. In those instances where new facilities are planned, we urge that design input be sought from teachers, administrators, and parents at the local level.

Surveys have revealed that sixty percent of all high school children do not go on to college, and that another twenty percent do not graduate. We urge your continued support for vocational and career education programs in the overseas schools in order that these children may develop a marketable skill. While a good start has been made, and cooperative work programs are being developed, the opportunities for work experience are limited in foreign countries and "in house" programs need to be expanded.

School lunch continues to be a matter of major concern to parents. While many students can go home for lunch, many others cannot because of the distances involved. These children are exposed to programs which vary greatly in cost, quality and sanitation. Some eat in lunchrooms at the school, while others share the local snack bar with soldiers or "brown bag" in the gymnasium or other common area. Where school lunch programs exist, they are ineligible for cash subsidies under the National School Lunch Act as are their counterpart programs in the United States. Only in programs operated by the European branch of the Army and Air Force Exchange Service is some assistance provided in the form of U.S. Department of Agriculture food surplus commodities. The types of such commodities available for bulk shipment overseas makes their impact on local programs minimal. In the competition for priority in construction and renovation projects within overseas military installations, school lunchroom facilities rank low, with the result that locally operated programs are run inefficiently and often unsanitarily. Such an atmosphere is far from conducive to better health and nutritional awareness among our children.

The European PTA is undertaking a study to determine the scope and quality of school lunch programs available and to explore possible avenues for improvement. Meanwhile, we urge your support for adequate funding to establish and upgrade school lunch facilities in those communities where appreciable numbers of students must remain away from home during the lunch hour. This is an essential baseline effort for program improvement.

Overseas teachers, as teachers in some school districts in the United States, do not have a duty-free lunch period. We believe such nonprofessional tasks as lunchroom and playground duty create unnecessary burdens upon teachers. While some relief is provided by PTA volunteers or PTA-paid supervisors in the over-

seas schools, this cannot be accomplished in all communities. Funded paraprofessional help for this purpose would go far toward enhancing the effectiveness of teachers in the performance of their primary mission.

The school supply system in Europe continues to be the subject of criticism by both parents and teachers because of its poor response to local expressions of need. Although relevant budget data is not available to PTA, it is our understanding that the school administration in Europe has sought funds in the past to upgrade its woefully outmoded data processing equipment in order to deal with this problem, but that this request has been deleted from Department of Defense budget submissions.

It appears that technology alone causes processing delays of eight to ten weeks in a supply system already faced with extensive transportation delay inherent in its vast geographical spread. We urge your examination of this problem with a view toward its speedy solution, either through funding of new equipment or through assurances that the school supply system obtains sufficient priority for the use of time on military data processing equipment.

In August 1973, the Department of Defense determined that the use of CHAMPUS funds for tutorial assistance to handicapped children, especially those suffering from emotional disorders, was beyond the intended scope of Title 10, United States Code, Chapter 55. Supplemental appropriations were provided to the overseas dependents schools to fill this special educational need, but were available too late in the fiscal year to permit very effective recruitment. We have been advised that this item has been included in the fiscal year 1975 school budget and urge your support for its funding in addition to previously established special education programs.

With interest in educational improvement being addressed at the local, state, and federal level, we thank you for this opportunity to express our views on behalf of those American families who are giving an extra measure of themselves in our nation's behalf.

National Guard Association

STATEMENT OF MAJ. GEN. HENRY McMILLAN, PRESIDENT, NATIONAL GUARD ASSOCIATION OF THE UNITED STATES

PREPARED STATEMENT

Chairman McClellan. Also there will appear a statement by Maj. Gen. Henry W. McMillan of the National Guard Association.

[The statement follows:]

Mr. Chairman and members of the Committee:

The National Guard Association of the United States welcomes your invitation to present this statement to the Committee.

In this era of Total Force Policy, there are many areas in the Army and Air National Guard programs where additional funding would increase efficiency. However, I would direct the attention of the Committee only to those areas where we sincerely feel there are serious funding deficiencies.

The Army and Air Guard both have been successful in increasing their strengths in the no-draft environment through vigorous recruiting and retention. This has not been the case with the other Reserve Components. In consequence, there are strong indications that the Armed Services Committees of both Houses will establish authorized strengths for both Army and Air Guard at a level considerably higher than is sought in the FY 1975 budget request. These increases have received the concurrence of the Department of Defense.

The budget request for the Army Guard calls for an authorized paid drill strength of 379,848. Its actual assigned strength stood at 414,399 as of 30 April. With Defense concurrence, the Armed Services Committees tentatively have agreed on establishing the authorized strength at an average of not less than 408,000. Therefore, the budget request reflects a shortfall in the Army Guard personnel area of approximately $50.0 million.

The Air Guard budget request calls for an authorized paid drill strength of 89,128, as compared with an actual 30 April assigned strength of 94,099. The authorized level now sought by Department of Defense and tentatively accepted by the Armed Services Committees is an average of not less than 95,000 requiring additional appropriations of $5.6 million in the personnel area and $7.9 million in Operations and Maintenance.

Force Reductions

Department of Defense proposes a reduction in the force structure of both Army and Air Guard in FY 1975. If these are carried out, the number of Air Guard flying units would be reduced from 92 to 86. While current plans for Army guard reductions are less precise, there are strong indications that it will entail a loss of approximately 20,000 "structure

spaces" and inactivation of as many as 200 units. There are strong suggestions that the Army National Guard of almost every State would be affected.

This Association strongly opposes all such unit inactivations, and their accompanying loss of expensively-trained, highly skilled personnel and other resources. Such proposals ignore the inherent peacetime cost advantages represented in National Guard citizen-soldier forces. During the crucial period when detente is the nation's paramount foreign policy objective, National Guard forces permit us to maintain the desired defense capability at lower cost. The cost-effectiveness of Guard forces are particularly apparent in the manpower field. Manpower, as you are aware, accounts for 57 per cent of the FY 1975 defense budget. Rising manpower costs threaten to impede the modernization of both Active and Reserve forces.

We believe most strongly, therefore, that National Guard units, Army and Air, whose missions have become outdated be converted to new missions that will satisfy current Army and Air Force requirements.

The organized and trained resources of the National Guard can lead to substantial savings in many areas of defense requirements. One area in which Air Guard units have had particular success is in Tactical Air Command missions. The National Guard concept, with an Adjutant General over both Air and Army units, makes the tactical air role especially attractive for joint training of the two forces. A transfer or direct buy of additional A-7/A-10 ground support and C-130 tactical airlift aircraft would provide defense needed missions for these units and would also alleviate the peacetime air/ground training support and troop airlift problems of the active, Guard and Reserve ground forces.

Congress last year established a precedent by appropriating monies for procurement of new A-7D aircraft earmarked for the Air Guard. We hope it will follow a similar pattern this year by earmarking funds in the Active Air Force budget for an accelerated modernization of Air Guard flying units. Most particularly, we are concerned over the 500 F-100 aircraft which still remain in our inventory. Those planes are aging and are increasingly costly and difficult to maintain. We believe it is

implicit in the Total Force policy that Air Guard units be equipped along with Active units with first line aircraft such as F-15s and A-10s when they come off the production lines.

Present flying hours in the FY '75 budget for the ANG will allow an average of only 96 hours annually per pilot. This allocation is not adequate to meet the minimum number of hours prescribed by directives. A requirement exists for 419,614 hours or an add-on of 64,332 hours which will require $19.2 million additional funding.

Conversions of Air National Guard units to more complex weapons systems have created an urgent need for $54 million in FY '75 construction funds. This represents an increase of $24 million over the $30 million requested in the Defense budget. The Air Guard construction backlog continues to grow as new weapons systems are assimilated. In addition, construction costs are increasing at a rate of 6 per cent per year due to inflation, and Air Guard facilities are deteriorating at an estimated rate of $11 million per year. Thus, we require a sizable amount merely to keep even.

Shipments to Vietnam in the final weeks before our forces were withdrawn, and emergency shipments to Israel during their latest conflict with the Arab nations, led to an unexpected slowdown in the Guard modernization programs. Nevertheless, the Army Guard enjoys a much improved equipment posture over five years ago. Only in a few ARNG areas does a shortage of major items of modern equipment hamper training.

One area we feel should have particular attention is the FY '75 Army Guard budget request of $32,927,000 for organizational clothing and equipment. This amount will provide for replacement of items made unserviceable through fair wear and tear, and for a modest improvement increment to reduce the existing $95 million deficit in organizational minor equipment items required for mobilization and peacetime training and equipment maintenance. We earnestly ask that no reduction be made in this account. For several years past, ARNG requests have been reduced in the budget and appropriations process, to the point that there are now significant shortages that adversely affect mobilization readiness.

In summary, this Association urges that the following amounts be added to the FY 1975 appropriations over and above the budget request:

Army National Guard Personnel	--	$50,000,000 (approximate)
Air National Guard Personnel (higher strengths)	--	$ 5,600,000
Air National Guard O & M (higher strengths)	--	$ 7,900,000
Air National Guard O & M (increased flying hours)	--	$19,200,000
Air National Guard Construction	-	$24,000,000

In addition, we ask that:

(1) Department of Defense be urged to retain Army Guard and Air Guard force structure at the existing level, with units to be converted to new and essential missions rather than inactivated.

(2) That funds be earmarked in the Air Force budget for another direct buy of new A-7D aircraft for the Air Guard, to accelerate the modernization process.

Mr. Chairman, in conclusion, the NGAUS earnestly requests the Committee's consideration in supporting additional funding which will enable the Army and Air National Guard to contribute as viable partners with the Active Forces under the Total Force Policy.

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STATEMENT OF C. A. "MACK" McKINNEY

Chairman McCLELLAN. There will also appear at this point a statement by C. A. "Mack" McKinney, representing the Non-Commissioned Officers Association of the United States of America.

[The statement follows:]

Prologue

The NON COMMISSIONED OFFICERS ASSOCIATION of the USA (NCOA) is composed of more than 160,000 Noncommissioned and Petty Officers of the Army, Marine Corps, Navy, Air Force and Coast Guard. Nearly 85 per cent are now on active duty with the U.S. Armed Forces. The remaining balance is distributed between retired, Reserve or National Guardsmen, or former NCOs and Petty Officers in a veterans' status.

As professional military members, the majority of the Association's membership are vitally concerned with two important components of the Nation's defense posture. First is adequate troop strengths, and second is the successful recruitment and retention of qualified enlisted personnel for the U.S. Armed Forces.

The membership has voiced its mandate to the Association to support other elements of the Defense Appropriations Bill for FY 1975.

> "LET IT BE RESOLVED that the Non Commissioned Officers Association supports the Administration's Fiscal Year 1975 Defense Budget, and encourages all members of Congress to do likewise. For those who may oppose a strong defense posture, the NCOA urges that they consider the youth of our Nation and ask themselves a question that should be haunting those U.S. lawmakers following World War I, World War II, and the Korean conflict - "IS THE BLOOD OF OUR NATION'S YOUTH CHEAPER THAN MONEY?"

Troop Strengths

The U.S. Armed Services have previously submitted their justifications for the 2.1 million-member force. However, the NCOA is not certain that the number is quite enough.

The Association submits that should U.S. nuclear strength remain at least equal to that of its most dangerous and potential enemy, the world will remain free of any nuclear holocausts.

As biological and chemical warfare cross-checks have prevented their major use in post-WW I conflicts, most nations, fearing retaliatory destruction, will utilize nuclear strengths only as a show-of-force or as a last resort.

Conventional wars will continue. Since the advent of the atomic bomb, aggressive nations have constantly challenged their neighbors to conventional conlicts.

The United States cannot afford to drain off the sizes of its conventional combat and combat-support forces on the basis that they contain "fat."

The recent conflict in the Middle East has once again proved that standard wars are now being fought with highly-trained mechanized troops. With armor and air leading the way, it does take less men in less time to "gobble up" acreage, but it requires more artillerymen, more engineers, more infantry and more supply personnel to support a mechanized army.

It is also true in reverse military strategy. The requirement to defend, or counter-attack, involves numbers of troops - a greater number than we now have in the U.S. force structure.

If the officials of the United States defense department and our government lawmakers have not learned this in the study of military strategy since World War II, then the American public should replace them with qualified and knowledgable persons.

In an ever-expanding world population, the United States cannot hope to remain free of conflicts, either as the chief protector of the free-world nations, or as a potential threat to world conquest by powerful nations such as the Soviet Union or Red China.

To support the NCO Association's concern with the strengths of the U.S. Armed Forces, the membership assembled at the 13th Annual

NCOA International Convention, on April 19, 1974 at San Antonio, Texas, passed as its No. One Legislative Resolution, the following mandate:

"LET IT FURTHER BE RESOLVED that until the Soviet Union, by deeds and not mere promises, either stabilizes or decreases its armed might, the United States should:

1 - Maintain an active duty force of not less than 2.3 million members,

2 - Maintain a national guard and reserve force of not less than 1 million members,

3 - Develop and procure sufficient nuclear and conventional weapons that are superior to those of any other nation,

4 - Rebuild the U.S. Army and Navy so that their combat potential is at least equal to that of the Soviet Union.

5 - Authorize the U.S. Navy to counter the growing Soviet naval presence in the Indian Ocean area, and

6 - Insure that the U.S. maintains sovereignty over the Panama Canal."

Overseas Commitments

The NCO Association urges the members of Congress to support appropriations for American troops overseas. It is opposed to reducing the size of the present forces for the following reasons:

1 - The presence of U.S. troops in foreign nations acts as a deterrent to an attack against the United States, or its allies;

2 - U.S. troops maintain a balance of power for free-world nations throughout the Eastern Hemisphere;

3 - The presence of U.S. troops assist this Nation in the procurement of vital and strategic materials from foreign nations - to allow the Soviet influence in the Eastern Hemisphere to go unchecked by a U.S. show-of-force, can very well cause the smaller

nations to stop important exports to those countries not in favor with the Soviet Union; and

4 - MBFR negoiations would seriously be affected by reductions of U.S. troops. (The value of the MBFR talks, and their subsequent success, is an important part of the world's hope for eventual peace. To jeopardize the U.S. position by giving the Soviets something for nothing - a reduction of U.S. troops without a like move by the U.S.S.R. - would be a most grievious error on the part of this Nation's lawmakers.)

Recruiting

The art of success in recruiting qualified persons is one that involves more than "hit-and-run" practices. Many of the Nation's largest corporations are conscientiously aware that they must place their talents and provide sufficient obligations for the procurement of employees at all levels and at all times.

Unfortunately the Armed Forces have not previously given sufficient thought to copying their civilian brothers, and concentrating efforts on recruiting personnol as a science.

A highly-skillfull and/or motivated military member, by virtue of talent or time in service, does not necessarily make a good recruiter. All the tools, money and advertising will not assist him if he cannot sell the product - enlistments in the U.S. Armed Forces.

The procurement of people cannot be attained through random assignments of quotas, or by a six-week, crash-schooling program for potential recruiters, or by continual changes in recruiters, or by pressuring recruiters to accomplish other tasks that are not related to procurement, or by placing them in a civilian economy without the necessary compensation.

The life of an average military recruiter is a most difficult one. To begin with, he or she is placed in a strange environment and is not offered sufficient time to prepare for the assignment or the community life that will surround him or her over the next few years. Most important is the failure of the Services to prepare the recruiter for the social and economical factors in the civilian community that are necessary, directly or indirectly, for the success in "selling" the Armed Forces.

The second major problem facing the Armed Forces and their present recruiting methods is the practice of changing recruiters every 2 to 5 years. Naturally it is best to rid one's staff of non-producers, but the constant change-over of good management and sales persons does not contribute to a successful venture. Successful recruiters, whether in management or "sales," should be aware that they may stay on the job as long as they are producing and desire to continue with the assignment.

Further, they should not be plagued with thoughts that their careers might be adversely affected by remaining on recruiting duty.

Last but not least is the social and family obligations. Recruiters should be provided with good housing - which should be the federal government's responsibility - and sufficient monies appropriated to permit recruiters to participate in community social activities.

A successful business will not send their salesmen out on the road without sufficient expenses to get the job done. It should be no different in the Armed Forces.

The NCO Association supports the efforts of the U.S. Army to provide recruiters with additional pay. It encourages the members of Congress to appropriate adequate funds that will provide all Armed Forces recruiters with a specialty pay of $100 monthly, and a superior

performance pay of $100 per month for each recruiter who exceeds his or her assigned quota.

Quality in Recruiting

Recently much has been said against the Armed Forces heavily relying on the procurement of non-high school graduates as opposed to high school graduates, particularly for the Army and Marine Corps.

The NCO Association is opposed to Congressional mandates of educational qualifications for enlistments in the Armed Forces. This should be the choice of an individual branch based on their requirements.

An all-volunteer force will always attract two elements of society - the low-skilled and the adventurer - and such will continue regardless of increases in pay, promises of rapid promotions, or better housing conditions.

The Nation has listed millions of great military men and women on its rolls of patriots. Many have not had the educational advantages offered in today's society, yet they have served their country with pride and honor.

Many of them have been trained in the Armed Forces. Their "education" had been the successful attainment of a "degree" in infantry tactics, artillery, communications and etc. There was nothing greater for a man to stand tall and boast that he was the "best damned infantryman in the whole U.S. Army."

These were men trained in the skills of military knowledge, and they were happy and content to work with their hands and with their buddies in whom they felt a deep comradeship.

In many other cases, the same men who entered the Services without a high school education, went on to receive commissions as officers. Many became outstanding military leaders.

If a prospective recruit is mentally and physically qualified, he or she should be allowed to voluntarily serve this great Nation. Whether or not they are high school graduates - or even grade school graduates - should have no bearing on their qualifications for enlistment.

What should be the concern of Congress is to return good discipline and morale to the Armed Forces. The NCO Association submits that once this has been accomplished, the professional NCOs and Petty Officers can make good troopers out of the majority of youths enlisting in the Services.

The NCOA recommends:

1 - The return of authority to NCOs and Petty Officers to regulate and train subordinates without interference from the civilian community and the commissioned officers corps;

2 - The reinstatement of "unit integrity" - once a man joins a division/wing/force unit, do all that is possible to keep him in that organization - a pure matter of having the sense of belonging; and

3 - Encouraging the first-term enlistee, who is not a high school graduate, to obtain a high school diploma.

Retention

It is not surprising that the U.S. Armed Forces retains but 10 per cent of its military members as career-professionals.

Many factors may be contributed to the problem. For example, previous inductions of men brought in far too many not motivated by the military.

Others might have been; poor pay, inadequate housing, unfulfilled promises of assignments, frequent transfers, unsuitability, and so on for pages and pages.

But a review of fact and a comparison of the retention of regular-volunteer enlisted versus regular commissioned officers might prove that the latter group has a much better record.

Regular commissioned officers, after three years of continuous active duty, are protected by law. They have protections for tenure of service, for promotions, reductions-in-force, additional pay and allowances, and etc. - and are further provided with additional benefits and compensations not normally afforded to enlisted members.

The regular enlisted military member is not protected under the law from the first day of enlistment until the first day of his or her retirement.

It is time for the Nation's lawmakers to take a hard-look at these laws and do what they can to offer equal protection to regular enlisted members of the military forces.

In addition, military members, both officers and enlisted, should not be burdened with the ever-increasing problem of who, what, where, when or why will their promised pay, allowances, benefits and entitlements be curtailed, reduced, cut-off, or changed while they are in the service of their Nation. What has been promised to them should be honored by their Nation, its lawmakers and the executive officers of the United States government.

They should at least be treated with the same respect, and to comparable compensations, as that accorded to federal employees, postal service workers, and federally-subsidized railroad workers.

A Beginning

To begin the program of equity in law, the NCO Association recommends that appropriations be approved for Fiscal Year 1975 that will:

1 - Provide severance pay for regular enlisted members of the U.S. Armed Forces. (Estimated costs $31 to $70 million.)

2 - Provide equalization of retired pay computation for certain enlisted members as is now afforded certain commissioned officers. (Estimated costs are $2.5 million.)

3 - Provide for recomputation of retired or retainer pay to reflect later active duty. (Estimated costs are $1.4 million.)

Recomputation

The NCO Association concludes its testimony by seeking the support of this distinguished subcommittee, and of Congress, for recomputation of retired pay.

Credibility of the Nation's promises to its members of the Armed Forces has been stretched to the limits by the failure of Congress to pass some form of recomputation for military retirees.

The NCOA recommends that appropriations be provided in the amount of $343 million for FY 1975 to offer recomputation of retired pay as recommended in H.R. 14081, 93rd Congress.

STATEMENT OF EUGENE A. MARCH, VICE PRESIDENT, COLT INDUSTRIES

Chairman McCLELLAN. A statement by Eugene A. March on specialty metals will appear at this point in the record.

[The statement follows:]

My name is Eugene A. March. I am vice president of Colt Industries Inc. Through its Materials Group, Colt is a major producer of the specialty metals which are essential to the national defense and vital to the civil sector. I am Group Executive for the Materials Group.

Mr. Chairman, I appreciate the opportunity to submit this statement. In support of what Mr. H.O. Beaver has said in his testimony, I request re-enactment of the specialty metals provision in Section 724 of the 1974 Defense Appropriations Act.

Two years of experience with the law enables us to evaluate it quite clearly. I think that your Committee is to be complimented on the results the law has brought and continues to bring. The inclusion of specialty metals in Section 724 of the 1973 and 1974 Defense Appropriations Acts has benefited the specialty metals industry of the United States and the labor working in that industry and the American consumers of specialty metals products. Particularly, it has provided the United States Defense Establishment with an assured and certain source at home of those specialty metals which are essential in the making of naval vessels, bombs, missiles, tanks, and military aircraft.

In a time of concern about shortages, Section 724 limits the impact of the shortage problem on procurement of weaponry requiring product from the specialty metals industry. The availability of defense orders enables the industry to obtain raw materials needed to fill those orders, and encourages American suppliers selling in the international market to provide the domestic industry with its requirements. A further Section 724 safeguard against the impact of shortage lies in the authorization to defense agencies and defense contractors to buy abroad when the material or product required is not available in the United States. The law is realistically flexible.

Above all, the enactment and reenactment of Section 724 has strengthened the domestic specialty metals industry in the competition against imports for domestic specialty metals industry in the competition against imports for the

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domestic market. Such a strengthening gives the defense agencies assurance that this industry which is essential to the national security will be available to them. Imports were severely threatening the stability of the industry two years ago, when the inclusion of specialty metals in Section 724 was first considered by the Congress. Since then, imports' invasion of the domestic market has diminished. There is a variety of reasons for that, but it should be understood that the only effective legislative contribution to fending off imports came from your Committee and the companion House Committee. Your contribution through Section 724 helped maintain the specialty metals base for the benefit of our national defense.

Before its first enactment, we expected that this legislation would stimulate investment in plant, and that expection has been realized. The investment increased since 1972 and the capacity of the industry today exceeds what it was then.

For the future, assurance that this particular shield of protection will continue to exist is one of the important factors in encouraging a continuation of investment for expansion of plant in the specialty metals industry. Expansion provides the capacity to increase production and add to the industry's ability to protect defense agencies from the impact of shortages. On the contrary, refusal to retain the sp-cialty metals provision in the law can becloud the prospect with uncertainty, causing reluctance to commit funds to investment.

Also with respect to the future, the present high level of production in the specialty metals industry can be reversed by general economic circumstance without long forewarning. The national interest in general and the defense interest in particular is better served if helpful law is already in the code when circumstances shift. If the conditions of early 1972 suddenly returned to specialty metals, and no law were on the books, the lag time between the appearance of the problem and its remedy

by passing a new law could be too long. Obviously it is advantageous to keep the present law.

Foreign specialty metals makers like the United States market. Even though as I mentioned earlier in this statement the general level of steel imports today is less than it was two years ago, imports are trending up in hi-speed and tool steels and stainless bars. News reports about Japan predict a ten per cent increase in Japan steel exports. The Section 724 provision can moderate the consequences of that trend.

I have seen no indication that the administration of the law causes hardship to the defense agencies or to defense contractors, in spite of unsubstantiated reports that there is hardship. The competence of the defense agencies in administering procurement statutes and regulations of varying complexity over the years has won admiration. The agencies will not be and have not been thrown by Section 724. Moreover, the complaint that Section 724 runs counter to the State Department's liberal foreign trade policies has not been substantiated by protest or action on the part of any of America's trading partners abroad. There appears to me no validity in the Defense Department's omission of the provision from its 1975 budget.

In summary, the criticisms of Section 724 lack reality, and the benefits are many. We like the law and ask you to keep it in the Code.

STATEMENT OF DAVID B. LINDSAY, JR., ON CLOSE AIR SUPPORT

Chairman McCLELLAN. The testimony of Mr. David B. Lindsay, Jr., will be placed in the record at this point.

[The statement follows:]

Mr. Chairman, members of the Committee, I appreciate this opportunity today to give you certain facts about a privately designed and produced weapons system, and its advantages and potential for Close Air Support, which I feel relates critically to the nation's defense.

I should make it clear I am expressing opinions of my own, not those of any of the defense oriented companies which have invested their funds, in addition to my own not inconsiderable outlay, in development of the ENFORCER and its related systems. This story is unique; the ENFORCER represents—for the first time in the history of the Defense Department—a complete aircraft weapons system designed, built and tested without any government funding whatsoever.

The ENFORCER is a one-man high, one-man wide, single engine, conventional gear, low-wing aircraft, made entirely of standard aircraft aluminum and the world's most effective composite armor. It has ten underwing weapons stations and six internal fifty calibre machine guns and is essentially a platform to deliver ordnance. Senator Thomas McIntyre has called it "a flying arsenal". Its unrefueled range or loiter is greater than that of any comparable aircraft. Its speed range is 80 to more than 400 knots (which makes it, incidentally, capable of both faster and slower speeds than the Air Force's proposed close support aircraft, the A-10).

Some of you may wonder why an artillery officer of World War II, a newspaper publisher for the past quarter century, is here discussing a close support aircraft weapons system.

To explain as briefly as possible, I have been a pilot since 1941. In 1957 I purchased the first of a number of F-51D Mustangs which had remained in service from World War II until that year. The Mustang—our best air superiority fighter of the Second World War—has impressed all who flew it with its remarkable range and overall performance, and how forgiving it is to pilots with limited experience.

Two years later my company, Cavalier Aircraft, began rebuilding and improving Mustangs—for the civilian market. I bought additional aircraft and parts as they became available in the United States, Canada, Australia, Italy and in other countries. Cavalier eventually became so well known through its development of new ideas and modifications to Mustangs that the original designer, North American Aviation, which had built 15,000 of the aircraft, purchased one from Cavalier for test pilot Bob Hoover's famous aerial demonstrations.

LIMITATIONS OF JET AIRCRAFT

Though this is the jet age, the Air Force, and we at Cavalier, soon learned that many countries were unable to achieve effective military operations using only jet aircraft.

Pure jets had, and still have, certain disadvantages which make them inherently less than ideally suited for Close Air Support work. Not the least of these is a high rate of fuel consumption at low altitude and at reduced speeds necessary for precise delivery of ordnance very close to our own troops. Another is an excessively large turn-radius. Another is slow acceleration. Also, with their characteristically small nose wheel, they are unable to operate from unpaved, rocky or muddy fields. They have difficulty conducting sustained maneuvers or searches at low altitude in difficult, mountainous terrain, or under low ceilings.

Many friendly foreign countries, particularly in South America and Asia, have a very limited number of paved, jet-capable fields, and vast areas to be kept under surveillance; their only feasible operational technique is for their aircraft to land, refuel and rearm on a pasture, road or clearing.

Recognizing this, the Air Force requested Cavalier to build a number of advanced F-51's, known as Cavalier Mustangs, for the Military Assistance Program. A classic example is Indonesia, a nation of some 3000 islands, spanning 3000 miles of the Pacific, which today is still operating Cavalier Mustangs recently supplied by the U.S. Air Force—although it possesses Russian, American and Australian pure jets, which are unable to perform many of the Mustangs' missions.

GENESIS OF ENFORCER

Cavalier never achieved profitability under these military contracts but the experience proved invaluable. U.S. and foreign pilots sent to Cavalier were recently experienced in combat. Their advice and realistic concept of the requirements for an ideal Close Air Support machine convinced me I could build a superior state-of-the-art weapons system for Close Air Support, utilizing a number of my own patents for simplified aircraft construction and weapons systems.

In speaking of Close Air Support I am not discussing interdiction, deep strike or long-range bombing missions. I am speaking of Close Air Support as defined by the Joint Chiefs of Staff Dictionary as follows: *"Air attacks against hostile targets which are in close proximity to friendly forces and which require detailed integration of each air mission with the fire and movement of those forces."*

In the early seventies Deputy Secretary of Defense David Packard, in a widely applauded move, challenged private companies to initiate prototype efforts at their own expense; this encouraged me in my efforts.

Most combat officers whose ideas I sought agreed the jet-prop, or turboprop as it's also called, is the ideal propulsion system for Close Air Support.

FIRST PROTOTYPE

I built my first prototype around a Rolls-Royce Dart commercial turboprop engine, and though we were able to prove the soundness of the concept with experimental flying, actual weapons delivery, etc., the engine was both too large and too lightly stressed for combat maneuvers.

That necessitated a careful search for a perfectly-suited engine. I finally decided on the Lycoming T-55-L-9, a variant of the basic engine used today in all Army and Marine CH-47 Chinook helicopters. The difference between the helicopter engine and ours is merely that the helicopter engine drives a gear train for the rotor-propeller above while ours turns a gear box for a forward propeller.

After a nationwide investigation, I located a T-55-L-9 lying unused at Wright-Patterson Air Force Base. It was not airworthy, and was stored in an abandoned wind tunnel. After eight months of legal effort, I managed to negotiate a lease with the U.S. Air Force on this engine, prorated on its full new acquisition cost to the government. Lycoming, the engine's manufacturer, demonstrated its faith in the ENFORCER program by overhauling it to airworthy condition at its own expense, and by assigning technical representatives to work with me without charge.

Around this engine I designed a new aircraft and built a flying prototype, retaining, of course, proven features of the F-51, utilizing components from other aircraft, new avionics systems, and a major portion of newly manufactured parts based on my own design patents. The first prototype, for reasons of economy, was therefore a composite. Production aircraft, would, of course, be of completely new manufacture.

PIPER AND PAVE COIN

Realizing my role as designer, inventor, test pilot and prototype builder didn't extend into the high-cost and labor-intensive field of large-scale manufacturing, in 1970 I sold the new ENFORCER project to Piper Aircraft Company for a modest down payment, and additional funds to come from aircraft produced and sold in the future.

While still in the process of moving parts from Cavalier to Piper, we received a request from the Air Force to participate in a completely unfunded project called PAVE COIN. The purpose was to select a Close Air Support aircraft for the Vietnamization Program and to replace the A-1 Skyraider, whose numbers were rapidly being reduced by attrition.

In reliance on the clearly stated intent of the Air Force to select and procure aircraft in at least the minimum quantities set forth in the Request for Proposal, we immediately accelerated to a seven-day overtime schedule, using all in house and consulting

engineering talent available. Piper spent well over a million dollars to prepare hundreds of drawings, hundreds of pages of specifications and to flight-qualify the ENFORCER for the various weapons and munitions specified for PAVE COIN.

In August 1971, the ENFORCER was flown at Piper's expense to Eglin Air Force Base. For all the time it was in Air Force custody, it performed all flight and weapons tests, by day and at night, with outstanding operational results and a remarkable record of zero maintenance.

As no other competing aircraft actually flew the test missions successfully, we fully expected an order for the minimum requested quote of 400 aircraft, at Piper's offered fly-away price of $0.61 million each. No selection or purchase of anyone's aircraft ever resulted from this operation, however. All of the companies participating simply lost their investment.

FURTHER IMPROVEMENTS

Despite the disappointments of PAVE COIN, we remained convinced the critical need for a specialized close support, forward deployable aircraft, remained acute. We therefore continued to improve the ENFORCER's performance, weapons capability, armor, and survivability—to cope with the increasing lethality of the Close Air Support environment, brought about by striking advances in Russian radar-directed automatic weapons and heat-seeking missiles.

The most recently added innovation is being successfully tested by the Marine Corps at China Lake this week! It utilizes my concept and patents for mounting the 106 mm. recoilless cannon, standard weapon of the Army and Marine Corps infantry against tanks, on the ENFORCER's wing tips.

With the backing of the Naval Office of Research, Development, Test and Evaluation, and support and supplies from the Army, firing of the 106 mm. was completed earlier this year—history's first successful firing of a recoilless cannon from an aircraft. The cost of a 106 round, incidentally, is only about $70—and there's no question about its ability to kill any tank.

LOCKHEED AND TECHNICAL EVALUATION

In August 1973 Lockheed Aircraft purchased manufacturing rights to the ENFORCER, lending its considerable high-technology engineering expertise to an evaluation program then underway by the Marine Corps, the Naval Air Systems Command and the Joint Technical Coordinating Group for Air Survivability. This study was initiated in 1973 by Deputy Secretary of Defense William Clements at the suggestion of a number of

concerned members of the Appropriations and Armed Services Committees of both Houses.

Earlier that year I had undertaken an extensive effort to acquaint members of these committees of the availability of the ENFORCER, and of a disturbing gap in the air operations spectrum between jet fighters and armed helicopters. This very dangerous gap is not officially recognized by the Air Force. However, we have encountered a number of experienced officers, in all the Services, who admit deep concern over its existence.

The Air Force remains adamantly dedicated to pure jets for attack aircraft—ruling out utilization of the ENFORCER or any other prop-jet—whatever its merits and advantages.

SERVICE RIVALRY

And since, under an obsolete agreement made in 1957 between the then Army and Air Force Chiefs of Staff, the Air Force continues to retain responsibility for providing Close Air Support for the Army, this inflexible policy also bars the Army from utilizing fixed-wing, attack prop-jets. In my considered opinion, based on years of work in this specialized field, this insistence on jets means the nation is taking unacceptable security risks in the field of Close Air Support. I might add that a number of Army officers with whom we have talked feel it is totally unjustified for the Air Force to object to Army's acquisition of an aircraft the Air Force doesn't want.

Of almost equal significance to this Committee is a very recent, still unreleased Pentagon study which proves the ENFORCER would cost only a fraction of other Close Air Support weapons such as the Harrier and the A-10. Both of these utilize jet engines which are not as effective or efficient in close support work as prop-jet engines—but many times more costly and vulnerable.

INSURANCE THROUGH NUMBERS

Even if viewed only as a standby option should present hopes and performance estimates in the Close Air Support weapons field prove overly optimistic, the ENFORCER offers prudent and economical insurance for the nation.

General George S. Brown points out in this month's issue of AIR FORCE magazine that aircraft of "long endurance, high survivability, and great firepower" will be needed to "offset the massive numerical armor advantages of the Warsaw Pact compared to NATO."

Last year in Germany I had the opportunity to discuss this NATO defense problem with General Guenther Rall, General Adolph Galland, and others. They pointed out that it must be assumed all jet-capable airfields are pre-targeted and that within an hour of a major attack, all airbases in the forward combat zone will be rendered inoperable.

A relatively large number of prop-jets, capable of operating from short and unimproved fields, requiring no external starters or other support equipment and minimum maintenance, equipped with stand-off missiles such as Mavericks, 30 mm. gun pods, and 106 mm. recoilless cannons, may offer our only aerial weapon capable, under these conditions, of effectively assisting NATO ground forces in checking the tens of thousands of tanks now deployed against them. No matter how capable, a relatively few multi-million dollar aircraft cannot cope with the numbers and distances involved. As Senator Barry Goldwater said in U.S. NEWS a few weeks ago: "One expensive aircraft may be better than one inexpensive plane, but it is not better than five."

At Lockheed's proposed cost of $0.76 million per copy, fly-away, in a quantity buy of only 250, the ENFORCER is the only existing Close Air Support weapon which can provide the numbers capability at an affordable price. For example, the acquisition cost of 2000 ENFORCERS at $700,000 per copy would be $1.4 billion.

FLIGHT TESTS NEEDED

Because of the ENFORCER's unique operating capabilities and low price, a number of well-informed members of the Senate and House have persisted in urging the Department of Defense to conduct operational flight tests with two to four prototypes. They have not, and we have not, asked that the ENFORCER be put into production or into any Service's inventory. Therefore I am not here today to urge appropriation of funds to open a production line. I am, however, pleading with the committee to help us obtain meaningful flight tests, the only way to demonstrate the ENFORCER concept and capability to the Congress and to the Nation. To quote Senator Goldwater again: "There is no way a computer can fly an airplane. Someone with eyes and a brain has to do that." General George Brown agreed when he said that, after all paper evaluation, "all we've got is the point at which an experimental test pilot has to strap on a piece of hardware, take it into the real world, apply all his hard-earned knowledge and skill—and tell us what we really have."

Last year we seemed very near our flight test goal. Deputy Secretary of Defense Clements had ordered a full engineering and survivability evaluation. To avoid disagreement over roles and missions, he tasked the Marines to conduct the evaluation. Mr. Clements told me and others in our meeting that if a full "paper" evaluation proved promising, we would then move on to flight tests. Before this very Committee last May, Marine Commandant Robert Cushman, in answer to Congressman Robert Sikes' question,

"Is this another paper study?" replied "No sir, I think we will have to fly it to get all the determinations."

The evaluation conducted by the Marines, the Naval Air Systems Command, and Joint Test Coordinating Group for Air Survivability was certainly a thorough one, consuming more than a year. Opponents claimed to have discovered one deficiency after another. But the study disproved all these objections. It's now officially admitted the ENFORCER will do everything we have claimed.

Lockheed has quoted a flight test package price of $6 million for a full engineering program, the existing prototype plus three other prototypes, company flight tests, and engineering support of military flight tests. But each time we neared a decision to proceed, Air Force representatives, as jealous custodians of the role of Close Air Support of ground forces, intervened in various ways to block a favorable decision.

THE "NO REQUIREMENT" BARRIER

We are at the point today where the Pentagon has been forced to admit after its own exhaustive study that the ENFORCER will do all we have claimed it will do, and at very low acquisition cost. The bar now to operational flight tests is a remarkable conclusion—that because there is no sponsoring Service, there is therefore no "Requirement" for the aircraft. We are therefore back to square one—there was no official "Requirement" when our effort began, but a very obvious *need.* That need becomes more obvious almost daily as doubts accumulate about overly sophisticated close support systems.

APPEAL TO CONGRESS

Mr. Chairman, and members, let me repeat here that I do not appear today to ask you to fund the ENFORCER for production. I do believe, however, it's going to require from Congress something more than the usual inquiries to the Pentagon to end this calculated pattern of delay in which the Services are protecting one another's pet concepts and projects. In fact, we have reluctantly come to the conclusion only strong Congressional direction, admittedly an approach Congress prefers to avoid, will end this exercise in semantics and produce the factual data and meaningful close-support comparisons Congress and the American people are entitled to.

In this connection, only last week Chairman F. Edward Hebert of the House Armed Services Committee told the House his Committee was asking $200 million to keep F-111 production lines open, as insurance in case the troubled B-1 Bomber program is cancelled.

Surely $6 million to build, test-fly, and demonstrate the new, economical close-support concept represented by the ENFORCER is a reasonable price for insurance that our ground soldiers will have effective and sufficient Close Air Support in case the also-troubled A-10 or Harrier programs are cancelled or prove fiascoes.

We have, in this connection, discussed flight testing the ENFORCER with both Chairman Hebert and Chairman John Stennis of the Senate Armed Forces Committee. Both assured us they would support a request from the Pentagon for flight test funds—requests which have never been forthcoming.

Gentlemen, Congress is the American people's Court of Last Resort, and in the ultimate, the custodian of the security of the Nation. It is in recognition of this awesome responsibility that I have appeared before you today.

LETTER FROM MR. DONALD W. MACLEOD ON SPECIALTY METALS

Chairman MCCLELLAN. In accordance with the request of Mr. Donald W. MacLeod, Division of American Gage Machine Company, I am inserting his letter in the record at this point.

(The letter follows:)

ELGILOY COMPANY

DIVISION OF AMERICAN GAGE & MACHINE CO. • A KATY INDUSTRIES, INC. Subsidiary

1565 Fleetwood Drive, Elgin, Illinois 60120 • (312)-695-1900

May 17, 1974

Hon. John L. McClellan, Chairman
Senate Committee on Appropriations
3241 Dirksen Building
Washington, D.C. 20510

Dear Mr. Chairman:

This has reference to a restriction carried in the Department of Defense Appropriation Acts for both Fiscal Year 1973 and 1974 (PL-92-570 and PL-93-238) which required the DoD to purchase "specialty metals" and "manufactured articles" containing "specialty metals", exclusively from domestic producers (See Title VII, Section 724, of each Act).

Prior to enactment of PL-92-570, approved October 26, 1972, the domestic specialty metals industries were able to conclusively convince the Congress of the defense essentiality of maintaining domestic sources of the vital materials and products produced by this industrial family. Subsequently, when the Budget for Fy 1974 was formally introduced to the Congress this important restriction was deleted from the presentation. However, when PL-93-238 was finally approved on January 2, 1974 the specialty metals procurement restriction was included.

Between the time the initial specialty metals procurement restriction was enacted, in October of 1972, and the time this restriction was reenacted, in January 1974, the essentiality of this provision was exhaustively reviewed, by and with the affected industries, the DoD and the Congress. The extent of this review and its conclusiveness are clearly set forth in the House Appropriations Committee Report of November 26, 1973 (HR-93-662) on the 1974 DoD Appropriation Bill. Pages 225 and 226 of this report are reproduced and attached hereto as a means of respectfully bringing to your attention the solid basis for, and the conviction with which, the specialty metals procurement restriction was enacted into law for the current fiscal year.

Nevertheless, despite the carefully established basis for an indefinite continuation of the specialty metals procurement restriction in DoD appropriations, as has been the case for many years for agricultural commodities, the restriction has again been deleted from the Budget for Fiscal Year 1975 as presented to the Congress in January 1974. We should like to think that this was primarily due to the lateness of the hour when the 1974 DoD appropriation was finally approved (January 2, 1974).

Whatever the reason for its repeated deletion, it is essential to the defense of the United States and to defense supporting industries producing specialty metals and specialty metal products that the specialty metals procurement restriction as

contained in the DoD Appropriation Acts for Fy 1973 and 1974 be restored to the DoD Appropriation for Fy 1975 and subsequent annual appropriation measures.

It is accordingly requested that this letter be made a part of the record for consideration of the DoD appropriation bill for Fy 1975. If there is any further way in which we can be of assistance in the restoration of this procurement restriction to the DoD appropriation now or in the future, please call on us.

Respectfully yours,

Donald W. MacLeod
President

SUBCOMMITTEE RECESS

Chairman McClellan. I must recess this hearing to attend a vote in the Senate Chamber. It will be necessary to schedule additional hearings.

Thank you very much. The subcommittee will recess and reconvene at a later date.

[Whereupon, at 12:28 p.m., Thursday, May 16, the subcommittee was recessed to reconvene at the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

MONDAY, JUNE 3, 1974

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 2 p.m. in room S–126, the Capitol, Hon. John L. McClellan (chairman) presiding.

Present: Senators McClellan and Young.

DEPARTMENT OF DEFENSE

OPERATION AND MAINTENANCE, DEFENSE AGENCIES

STATEMENT OF HON. DAVID O. COOKE, DEPUTY ASSISTANT SECRETARY OF DEFENSE (ADMINISTRATION)

ACCOMPANIED BY:

MARK C. SNYDER, CHIEF, BUDGET BRANCH, BUDGET AND FINANCE DIRECTORATE, OFFICE OF THE DEPUTY ASSISTANT SECRETARY OF DEFENSE (ADMINISTRATION)

DR. ANTHONY CARDINALE, DIRECTOR OF DEPENDENTS EDUCATION, OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE (MANPOWER AND RESERVE AFFAIRS)

RALPH G. NESTOR, CHIEF, FINANCIAL MANAGEMENT BRANCH, DIRECTORATE OF ADMINISTRATIVE SERVICES, ORGANIZATION OF THE JOINT CHIEFS OF STAFF

JOHN C. BROGER, DIRECTOR, OFFICE OF INFORMATION FOR THE ARMED FORCES, OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE (MANPOWER AND RESERVE AFFAIRS)

PROGRAM AND FINANCING

Chairman MCCLELLAN. We will come to order.

This afternoon the subcommittee will hear testimony in support of fiscal year 1975 budget requests for various Department of Defense agencies.

We hope this is to be the conclusion of our initial hearings on the Defense budget this year, but I do anticipate there will be the necessity for some followup hearings. If we can get this behind us, we will have completed the initial hearings scheduled for the Defense budget.

The first appropriation to be considered will be various segments of that for "Operation and Maintenance, Defense Agencies."

At this point in the record there will appear certain programing and financing information from the justifications.

[The information follows:]

Justification

OPERATION AND MAINTENANCE, DEFENSE AGENCIES

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 07-10-0100-0-1-051	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:			
DIRECT PROGRAM:			
3. INTELLIGENCE AND COMMUNICATIONS			
DEFENSE INVESTIGATIVE SERVICE	12,677	22,122	25,541
DEFENSE MAPPING AGENCY	143,253	157,506	170,157
DEFENSE NUCLEAR AGENCY	10,960	19,285	21,266
INTELLIGENCE AND COMMUNICATIONS ACTIVITIES	454,016	475,955	527,987
7. CENTRAL SUPPLY AND MAINTENANCE			
DEFENSE SUPPLY AGENCY	700,787	745,576	773,096
8. TRAINING, MEDICAL, AND OTHER GENERAL PERSONNEL ACTIVITIES			
OFFICE OF INFORMATION FOR THE ARMED FORCES	9,664	11,429	14,773
ARMED FORCES INSTITUTE	6,403	5,757	.....
9. ADMINISTRATION AND ASSOCIATED ACTIVITIES			
SECRETARY OF DEFENSE	42,806	50,263	266,243
JOINT CHIEFS OF STAFF	8,191	8,831	11,414
DEFENSE CONTRACT AUDIT AGENCY	58,958	62,717	66,323
TOTAL DIRECT PROGRAM	1,447,715	1,559,441	1,876,800
REIMBURSABLE (TOTAL)	64,620	133,102	137,800
10 TOTAL OBLIGATIONS	1,512,335	1,692,543	2,014,600
FINANCING:			
RECEIPTS AND REIMBURSEMENTS FROM:			
11 FEDERAL FUNDS	-52,364	-54,270	-52,632
14 NON-FEDERAL SOURCES	-16,235	-78,981	-85,193
21 UNOBLIGATED BALANCE AVAILABLE, START OF YEAR	.....	-3,979	-4,128
22 UNOBLIGATED BALANCE TRANSFERRED FROM OTHER ACCOUNTS	-4,055	.....	.....
24 UNOBLIGATED BALANCE AVAILABLE, END OF YEAR	3,979	4,128	4,153
25 UNOBLIGATED BALANCE LAPSING	3,230	.....	.....
BUDGET AUTHORITY	1,446,889	1,559,441	1,876,800
BUDGET AUTHORITY:			
40 APPROPRIATION	1,295,046	1,454,898	1,876,800
41 TRANSFERRED TO OTHER ACCOUNTS	-120	-1,999	.....
42 TRANSFERRED FROM OTHER ACCOUNTS	151,963	13,792	.....
43 APPROPRIATION (ADJUSTED)	1,446,889	1,466,691	1,876,800
44.10 PROPOSED SUPPLEMENTAL FOR WAGE-BOARD PAY RAISES	.....	2,591	.....
44.20 PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	90,159	.....
RELATION OF OBLIGATIONS TO OUTLAYS:			
71 OBLIGATIONS INCURRED, NET	1,443,736	1,559,292	1,876,775
72 OBLIGATED BALANCE, START OF YEAR	85,223	126,929	82,051
74 OBLIGATED BALANCE, END OF YEAR	-126,929	-82,051	-131,826
77 ADJUSTMENTS IN EXPIRED ACCOUNTS	-3,743	.....	.....
90 OUTLAYS, EXCLUDING PAY RAISE SUPPLEMENTAL	1,398,287	1,516,520	1,821,900
91.10 OUTLAYS FROM WAGE-BOARD PAY RAISE SUPPLEMENTAL	.....	2,491	100
91.20 OUTLAYS FROM CIVILIAN PAY RAISE SUPPLEMENTAL	.....	85,159	5,000

INTRODUCTION OF ASSOCIATES

Chairman McClellan. Our first witness is Mr. David O. Cooke, Deputy Assistant Secretary of Defense for Administration. The Secretary is accompanied by Maj. Gen. D. H. Richards, Deputy Director of the Defense Supply Agency; Lt. Gen. Gordon T. Gould, Jr., Director of the Defense Communications Agency; Lt. Gen. Howard W. Penney, Director of the Defense Mapping Agency; Lt. Gen. Warren D. Johnson, Director of the Defense Nuclear Agency; Mr. Bernard B. Lynn, Director of the Defense Contract Audit Agency; and Brig. Gen. Joseph J. Cappucci, Director of the Defense Investigative Service.

Gentleman, I suggest this to you: We are expected to start rollcall voting on the floor of the Senate at about 3:30 this afternoon. I don't want to deprive anyone of the full opportunity to make his presentation, but please bear that in mind so we can try to finish by that time, if we can do so without denying anyone the right to present his case.

Proceed, Mr. Cooke.

Mr. Cooke. Thank you, Mr. Chairman.

It is a pleasure to appear before you again. May I introduce my colleague, Dr. Cardinale, Director of Overseas Dependents Education. I am up here to present the budget not only for the Office of the Secretary of Defense, but the Organization of the Joint Chiefs of Staff and Office of Information for the Armed Forces, and this year for the first time we have in the OSD budget the money which previously has been funded for overseas dependents education in the three military departments. You will recall this is being done because of last year's direction by the Congress.

As a matter of fact, our total budget request is some $266 million. $204 million represents Dr. Cardinale's share as overseas dependent education.

I also have with me Mr. John Broger, who has been before you many times. He is in the Office of Information for the Armed Forces. On my far left is Mr. Nestor from the Organization of the Joint Chiefs of Staff. and the Chief of the Budget Branch in the Office of the Secretary of Defense. Mr. Snyder.

I have a brief statement.

PREPARED STATEMENT

Chairman McClellan. Your statement will be printed in the record in full at this point.

[The statement follows:]

Mr. Chairman and Members of the Committee:

I am pleased to appear again before this committee to present the budget requirements of the Office of the Secretary of Defense, the Organization of the Joint Chiefs of Staff and the Office of Information for the Armed Forces. If they have not already done so, representatives of other activities included in the Operation and Maintenance, Defense Agencies appropriation will make their individual presentations to you.

The pay, allowances, and permanent change of station costs for military personnel assigned to these activities are not included in the estimates I will address. Such costs are contained in the military personnel appropriation estimates of the military departments and will be addressed by their witnesses. These estimates do include, however, all other support costs for military personnel assigned to these activities, such as temporary duty travel, supplies, and office equipment.

OFFICE OF THE SECRETARY OF DEFENSE

Over the years the budget requests for the Office of the Secretary of Defense have been predominantly for personnel salaries and related benefits, usually amounting to more than eighty (80) percent of the total request. This year our request for FY 1975 includes slightly over sixty (60) percent for personnel compensation. The drop is a result of the transfer of funding, directed by the Congress, of the Overseas Dependents Education program into the OSD budget. The funding for this program was formerly included in the separate budgets of each Military Department and includes a significant amount of funds for support costs, such as school maintenance and services, supplies and transportation. Even so, our budget is significantly affected by legislation increasing salaries and the cost of personnel benefits.

The FY 1975 budget request of $266,243,000 represents an increase of $215,971,000 over our current year requirements. Of this increase $203,932,000 is attributable to the transfer of funding for the Overseas Dependents Education program. The majority, or $128,258,000, is for teachers' salaries and salaries of other support personnel as well as cost of personnel benefits.

With respect to the remaining increase of $12,039,000 directly related to the operations of the Office of the Secretary of Defense, a large portion, or $5,782,000, is a result of the enactment of Public Law 92-313 which requires us to reimburse the General Services Administration for building rent commencing on July 1, 1974. A net increase of $2,961,000 in the other services area is primarily a result of an increase of $3,100,000 in contracts. The funds for the research conducted by the Logistics Management Institute have been increased by $600,000. This amount was formerly budgeted equally by the Military Departments. The remainder, $2,500,000, which was formerly included in the Defense Intelligence Agency budget, is for the classified utilization of advanced technology in the solution of intelligence and intelligence management problems. This change in funding is a result of congressional action taken during the FY 1974 budget review. There is a net reduction of $139,000 in other services. In the personnel area, Attachment 1 shows an increase of $3,366,000 required primarily for annualization of the October 1973 pay raise, conversion of military to civilian positions, additional day of paid employment in FY 1975, normal within grade salary raises and related cost to the government for personnel benefits.

Attachment 2 provides a summary of our projected personnel requirements.

ORGANIZATION OF THE JOINT CHIEFS OF STAFF

Next, Mr. Chairman, I invite your attention to the budget requirements of the Organization of the Joint Chiefs of Staff. You will find attached to this statement two (2) charts pertaining to the OJCS, a summary of financial requirements (Attachment 3) and a summary of personnel requirements (Attachment 4).

The FY 1975 fund request for this organization is $11,414,000, an increase of $2,577,000 over the revised FY 1974 estimate. This increase is primarily attributable to the requirement to reimburse the General Services Administration for building rent, a result of the enactment of P.L. 92-313. $2,027,000 is included for this purpose. In the area of civilian personnel, an increase of $244,000 is required for the annualization of the October 1973 pay raise, an additional day of pay beyond the normal 260 work days, normal within grade salary raises, and related costs to the government for employee benefits.

The only other increases are attributable to increased cost of postal services, purchased services and deferred equipment purchases from FY 74. These increases are partially offset by reductions in travel of personnel and telephone service.

OFFICE OF INFORMATION FOR THE ARMED FORCES

The FY 1974 budget estimate for this program is $11,480,000. Direct obligational authority of $14,773,000 is requested for FY 1975, a net increase of $3,293,000 over FY 1974. Increases are requested in support of the following: (1) $236,000 in civilian personnel cost primarily for

annualization of the October 1973 pay raise, for the civilianization of seven military positions in FY 75 and for within-grade salary increases; (2) $520,000 to annualize the cost of audio tape service to ships at sea and for radio contract price increases; (3) $1,560,000 to provide weekly TV film packages for two additional Navy circuits; (4) $416,000 for news and information service for Navy ships and TV stations; (5) $247,000 for the functional transfer of CHAMPUS information program; and (6) $152,000 for reimbursement to GSA for space rental in accordance with PL 92-313. The remaining portion of the net increase or $162,000 is to cover inflation and other cost increases and for various miscellaneous items all of which are outlined in the justification document furnished to you earlier.

For your convenience, the detailed summary of the Office of Information for the Armed Forces financial requirements is provided as Attachment 5.

Attachment 1

Secretary of Defense Activities
Summary of Financial Requirements
(in thousands of dollars)

Type of Expense	FY 1973 Actual	FY 1974 President's Budget	FY 1974 Adjustments	FY 1974 Revised Estimate	FY 1975 Adjustments OSD	FY 1975 Adjustments Dependents Schools	FY 1975 Budget Estimate
Civilian Personnel Costs	34,784	37,484	+ 956	38,440	+3,366	+128,258	170,064
Travel & Transportation of persons	1,800	2,025	+ 100	2,125	- 161	+ 955	2,919
Transportation of things	161	100	+ 85	185	-	+ 4,655	4,840
Utilities and Rents	222	238	- 18	220	+5,782	+ 7,450	13,452
Communications	1,094	1,280	- 51	1,229	+ 91	-	1,320
Purchased Equipment Maintenance (intra-DoD)	70	55	+ 15	70	-	-	70
Purchased Equipment Maintenance (Commercial)	127	165	- 15	150	-	-	150
Printing and reproduction	1,156	1,100	+ 150	1,250	-	-	1,250
Other Services:	2,860	3,322	+2,731	6,053	+2,961	+ 51,588	60,602
Building maintenance and repairs	(216)	(214)	(-)	(214)	-	(-)	(214)
Official representation	(116)	(100)	(-)	(100)	-	(-)	(100)
Management/Technical Contracts	(855)	(845)	(+2,500)	(3,345)	(+3,100)	(-)	(6,445)
Other	(1,673)	(2,163)	(+231)	(2,394)	(-139)	(+51,588)	(53,843)
Supplies and materials	282	250	+ 50	300	-	+ 7,887	8,187
Equipment purchases	250	230	+ 20	250	-	+ 3,139	3,389
Total (Direct Obligations)	42,806	46,249	+4,023	50,272	+12,039	+203,932	266,243

Attachment 2

Office of the Secretary of Defense
Summary of Personnel Requirements

	FY 1973 Actual	FY 1974 President's Budget	FY 1974 Adjustments	FY 1974 Revised Estimate	FY 1975 Budget Estimate
Year End Strength					
Civilian					
Full-time	1,423	1,653	+29	1,682	1,717
Temporary Employees	50	37	-	37	37
When actually employed	61	42	-	42	42
Sub-Total-Civilian	1,534	1,732	+29	1,761	1,796
Military	656	593	-63	530	519
Total-Year End	2,190	2,325	-34	2,291	2,315
Average Employment:					
Civilian					
Full-time	1,479	1,598	-29	1,569	1,674
Temporary Employees	13	11	-	11	11
When actually employed	25	31	-6	25	25
Sub-Total-Civilian	1,517	1,640	-35	1,605	1,710
Military	659	601	-18	583	519
Total-Average Employment	2,176	2,241	-53	2,188	2,229

Attachment 3

Organization of the Joint Chiefs of Staff
Summary of Financial Requirements
(In thousands of dollars)

Type of Expense	FY 73 Actual	FY 74 President's Budget	FY 74 Adjustments	FY 74 Revised Estimate	FY 75 Budget Estimate
Civilian Personnel Cost	5,767	6,019	+564	6,583	6,827
Travel and Transportation of Personnel and Things	471	477	+170	647	629
Utilities and Rents	295	330	- 23	307	2,384
Communications	555	583	- 22	561	562
Purchased Equipment Maintenance (Commercial)	92	99	-0-	99	110
Printing and Reproduction	67	70	-0-	70	77
Other Services:	378	263	-88	175	340
Building Maintenance & Repairs	(234)	(96)	(-40)	(56)	(168)
Official Representation	(28)	(28)	(+ 5)	(33)	(33)
Other	(116)	(139)	(-53)	(86)	(139)
Supplies and Materials	365	315	-0-	315	315
Equipment Purchases	201	149	-69	80	170
Total (Direct Obligation)	8,191	8,305	+532	8,837	11,414
Reimbursable Obligations (Not Included Above)	-0-	-0-	-0-	-0-	-0-

Attachment 4

Organization of the Joint Chiefs of Staff
Summary of Personnel Requirements

	FY 73 Actual	FY 74 President's Budget	FY 74 Adjustments	FY 74 Revised Estimate	FY 75 Budget Estimate
Year End Strength					
Civilian					
Full-time	362	391	-	391	391
Temporary Employees	14	20	-	20	20
When actually employed	7	10	-	10	10
Sub-Total-Civilian	383	421	-	421	421
Military	1,308	1,336	-41	1,295	1,304
Total-Year-End	1,691	1,757	-41	1,716	1,725
Average Employment					
Civilian					
Full-time	371	378	-	378	378
Temporary Employees	6	5	-	5	5
When actually employed	4	6	-	6	6
Sub-Total-Civilian	381	389	-	389	389
Military	1,316	1,336	-5	1,331	1,304
Total Average Employment	1,697	1,725	-5	1,720	1,693

Attachment 5

Office of Information for the Armed Forces
Summary of Financial Requirements
(in thousands of dollars)

Type of Expense	FY 1973 Actual	FY 1974 President's Budget	FY 1974 Adjustments	FY 1974 Revised Estimate	FY 1975 Budget Estimate
Civilian Personnel	2,414	2,586	+ 183	2,769	3,005
Travel of Personnel	68	62	-	62	72
Transportation of Things	3	2	+ 1	3	3
Utilities and Rents	84	127	+ 5	132	435
Communications	1,113	1,518	- 83	1,435	1,688
Purchased Equipment Maintenance (Intra DoD)	7	6	-	6	6
Purchased Equipment Maintenance (Commercial)	28	66	+ 6	72	76
Printing and Reproduction	772	788	+ 21	809	1,063
Other Purchased Services	4,521	6,765	-1,947	4,818	7,348
Supplies	580	1,011	+ 286	1,297	1,026
Equipment	74	74	+ 3	77	51
Total (Direct Obligations	9,664	13,005	-1,525	11,480	14,773

Mr. COOKE. The things I would call to your attention are, one, the inclusion of overseas dependents education in the amount of $204 million. The other matters of increase——

Chairman MCCLELLAN. How do the present expenditures compare with last year's budget for the same purpose?

Dr. CARDINALE. This would be $13.1 million more.

Chairman MCCLELLAN. Tell us why it has to be more.

Dr. CARDINALE. In the total program we have some salary increases for teachers that amount to about $3.8 million. We have within grade increases for teachers and administrative personnel in the amount of $3.1 million.

Chairman MCCLELLAN. Grade increases?

Dr. CARDINALE. Within grade increase. The raise in salary.

Chairman MCCLELLAN. That is $7 million for increases in teachers salaries. That is what it amounts to.

Dr. CARDINALE. That is right, sir.

Chairman MCCLELLAN. Proceed.

Dr. CARDINALE. Increases related to personnel salaries and cost of living.

Chairman MCCLELLAN. Are you referring to teaching personnel?

Dr. CARDINALE. Teacher personnel and administrative personnel. These are the increases related to the cost of living, quarters allowance.

Chairman MCCLELLAN. What does that amount to?

Dr. CARDINALE. $1.1 million.

Chairman MCCLELLAN. What else?

Dr. CARDINALE. Change in the requirement for enrollment. We have some changes in mixes of students. That is $0.5 million.

Chairman MCCLELLAN. Why do you need $500,000 for change in enrollment procedures?

Dr. CARDINALE. We have increases in number of students in the European area and a decrease of a few students in the Pacific area.

Chairman MCCLELLAN. Why does that require additional funding?

Dr. CARDINALE. The cost for operating schools in the European area runs higher than in the Pacific area and in the Atlantic area. That is $0.5 million there.

Then we have an increase in tuition fee schools, private schools around the world where we do not have dependents schools.

Chairman MCCLELLAN. How much is that?

Dr. CARDINALE. $1.2 million for that.

Then the program and the price increase for supplies and textbooks and all the materials related to the education program, $3.8 million.

Chairman MCCLELLAN. $3.8 million.

Dr. CARDINALE. That would equal $13.5 million. We are forecasting a decrease of $0.4 million in military personnel costs associated with the program, which brings us to the $13.1 million increase. I mentioned earlier.

Chairman MCCLELLAN. In considering your enrollment in the Government overseas schools, how does that compare with the present year?

Dr. CARDINALE. It will be on the worldwide basis around 2,500 fewer students this year than last year.

Chairman McCLELLAN. And in private schools?

Dr. CARDINALE. That runs about 100 less.

Chairman McCLELLAN. Only about 100 fewer.

Dr. CARDINALE. Yes, we had 7,000 last year in the Canal Zone schools. We have 6,900 this time, for 1975, and then in the tuition fee schools we had 10,045. We have about 9,045 now. So we have a total of about 1,000 fewer students in these tuition fee schools.

Chairman McCLELLAN. I asked you that and you said 100.

Dr. CARDINALE. I was looking at my figures here for the Canal Zone. We have two categories.

Chairman McCLELLAN. I did not ask you about the Canal Zone. Worldwide.

Dr. CARDINALE. One thousand fewer students.

Chairman McCLELLAN. Worldwide.

Dr. CARDINALE. Yes, sir.

Chairman McCLELLAN. And 2,500 worldwide in government schools?

Dr. CARDINALE. In DOD schools.

Chairman McCLELLAN. How much do you save by that reduction of 1,000 worldwide in fees for students' tuition?

Dr. CARDINALE. Average of about $1,500 for the students that go to the tuition fee schools around the world.

Chairman McCLELLAN. You will save $1½ million there.

Dr. CARDINALE. That is not quite true. Because of the increase in the cost, they are increasing 22 percent over last year in these tuition fee schools.

Chairman McCLELLAN. You are saving more than that.

Dr. CARDINALE. That is true, sir, from the reduction in people.

Chairman McCLELLAN. How many teachers would be required to teach the 2,500 you do not anticipate will be enrolled in overseas dependents schools?

Dr. CARDINALE. We average about 25 to 1.

Chairman McCLELLAN. It will take 100 teachers.

Dr. CARDINALE. Yes.

Chairman McCLELLAN. How many administrators?

Dr. CARDINALE. For 100 teachers about 6 administrators.

Chairman McCLELLAN. You should have some reduction there. What is that total reduction? Suppose you had the same cost next year you have for this year. How much would this save you? Have you figured that out?

Dr. CARDINALE. No, sir.

Chairman McCLELLAN. Why don't you?

Dr. CARDINALE. Well——

Chairman McCLELLAN. Why don't you compile this information? We have the duty, not only duty but we are under pressure to economize, particularly in the military establishment. We have to try to defend the Defense Department constantly for its expenditures. This is one area of it. What I wish you to do is to testify as to the cold facts and so help us to do the job. We want to defend your requests where we can. I want to be in that position. I want to be your advocate. But I want you to be mine. I want you to give us reliable and full information. You say you want $12.7 million more than you

required last year. Yet you have fewer students to accommodate. If you add increased costs to what you are saving as a result of a smaller workload, how much would that increase over last year?

That is the way you determine a real increase. You testify you need $12.7 million more than last year. On the face of it, that seems proper, but when we analyze what services are to be performed as compared to last year, the number to be accommodated against the student load this year, then your increase in budget requests is more than $12.7 million. How much more? Figure that out and submit it for the record.

Dr. CARDINALE. All right.

[The information follows:]

The portion of the above testimony regarding enrollments is incorrect. The chart below outlines the total enrollment picture in DOD operated, Canal Zone, and other tuition fee schools and provides a comparison of enrollments in FY 1974 with FY 1975.

	Fiscal year—		
	1974	1975	Difference
DOD operated schools	144,740	145,490	+750
Canal Zone schools	6,925	6,900	−25
Other tuition fee schools	9,645	9,045	−600
Total	161,310	161,435	+125

These totals are reflected in the Overseas Dependents Education budget estimates as presented on page 2–129 of our justification material.

The effect of these enrollment changes, which were incorporated in our FY 1975 budget request, is as follows:

	Enrollment change	Cost per pupil	Dolla impac
DOD operated schools	+750	$1,120	+$840,000
Canal Zone schools	−25	1,400	−35,000
Other tuition fee schools	−600	1,266	−760,000
Total	+125	(1)	+45,000

[1] Not applicable.

JUSTIFICATION INFORMATION

Chairman MCCLELLAN. I believe this would be the proper place to provide information from the justifications on the request for funds for the overseas dependents education program.

[The information follows:]

OVERSEAS DEPENDENTS EDUCATION

	($ in Thousands)		
	FY 1973*	FY 1974*	FY 1975
1. Administrative Costs	6,570	7,443	7,690
a. Salaries of Personnel Above School Level	5,570	6,418	6,621
b. Personnel Benefits	424	462	479
c. Travel	375	381	369
d. Supplies and Services	201	182	221
2. Education Costs	105,332	109,655	116,575
a. Salaries of Teachers	67,833	69,240	74,181
b. Salaries of Principals	4,967	5,555	5,689
c. Salaries of Clerical Personnel	5,776	7,387	8,795
d. Salaries of Other Employees	6,555	6,980	7,846
e. Personnel Benefits	6,907	7,218	7,736
f. Instructional supplies, textbooks, library books and equipment	10,835	10,534	9,579
g. Innovations and Research	370	385	398
h. Summer School Teachers Salaries	495	499	511
i. Other Costs (Compensation for extra school activities, TDY travel, miscellaneous)	1,594	1,857	1,840
3. Support Costs	35,396	43,173	47,325
a. Salaries of Support Personnel	1,827	2,057	2,637
b. Personnel Benefits	-	-	49
c. Custodial Services at School Facilities	6,165	8,163	8,669
d. Repair, Maintenance and Minor Construction	6,855	7,410	8,416
e. Transportation	13,842	16,445	17,620
f. Rents and Utilities	4,841	6,617	7,450
g. Supplies, equipment and Miscellaneous Contracts	1,866	2,481	2,484

	($ in Thousands) Cont'd		
	FY 1973*	FY 1974*	FY 1975
Subtotal Costs of DoD Schools	147,298	160,271	171,590
Less Reimbursements for Non-DoD Students	-7,820	-8,243	-8,606
Net Costs of DoD Schools	139,478	152,028	162,984
(Estimate Number of Pupils in DoD Schools)	149,421	144,740	145,490
(Cost Per Pupil - Dollars)	933	1,050	1,120
4. Costs Unique to DoD Schools	16,059	18,067	19,000
a. Host Nation Teachers	2,671	3,437	3,626
b. Costs of Living and Quarters Allowance, Foreign Post Differentials	6,561	7,457	8,257
c. PCS Travel of Civilian Personnel	4,418	4,705	4,655
d. Cost of Dormitories (Room & Board, Monitors)	1,816	1,935	1,842
e. Inter-Curricular Programs	593	533	620
5. Panama Canal Zone Company Schools Tuition Fees	10,799	11,465	12,674
6. Tuition Fees for Other Tuition Fee Schools	8,889	9,612	9,685
Total Costs DoD and Tuition Schools	175,225	191,172	204,343
O&M Appropriations	(174,299)	(190,356)	(203,932)
Military Personnel Appropriations	(926)	(816)	(411)
(Estimate Number of Pupils Including Tuition)	166,312	161,310	161,435
(Cost Per Pupil - Dollars)	1,054	1,185	1,266

* Shown for comparative purposes only. These costs appeared in the budgets of the Military Departments in previous years.

Overseas Dependents Education

The budget request for fiscal year 1975 for the operation and maintenance of overseas dependents schools is appearing in the budget request of the Office of the Secretary of Defense for the first time. In prior years, funds were requested in the budget of each Military Department. This change in funding, from the individual Military Departments' budget to a consolidated Office of the Secretary of Defense budget, was directed by Congress.

Pending a determination of organizational structure, personnel strengths will remain in the Military Departments' accounts and will be funded on a reimbursable basis.

We anticipate that, for FY 1974, the expenditure for overseas dependents schools will be $191.2 million. The request for FY 1975 will amount to $204.3 million, an increase of $13.1 million.

These funds will provide for the continuation of the educational programs conducted in FY 1974 and provides for increased costs of the program, such as teacher salary increases, educational and logistical support costs, tuition-fee schools, transportation and costs unique to operating overseas dependents schools.

The estimated student enrollment is 161,435, broken down as follows:

Service-operated Schools, 1-12	145,490
Canal Zone Schools	6,900
Tuition-fee Schools	9,045
TOTAL	161,435

OFFICE OF THE SECRETARY OF DEFENSE

Mr. COOKE. Turning back to the Office of Secretary of Defense, less the dependents' education that you just discussed, we have an increase of $12,039,000 this year. Let me detail the nature of the increase.

A large portion of this or $5,782,000 is a result of enactment of Public Law 92-313 which requires us to reimburse the General Services Administration for building rents commencing July 1, 1974.

There is a net increase of $2,961,000 in the other service areas and this is primarily the result of an increase of $3.1 million in contracts. We have actually cut down in other than the contract area.

INCREASE IN CONTRACTS

Let me explain the increase in contracts. There is an increase of $2.5 million for defense intelligence or for the Assistant Secretary of Defense (Intelligence) for classified research intelligence contracts. There is a shift in funding for the Logistics Management Institute of $600,000. Previously that $600,000 had been funded $200,000 Army, $200,000 Navy, $200,000 Air Force. This year that amount has been put into the OSD budget for the Logistics Management Institute, making the total for the Institute $1.4 million. Last year we had only $800,000 in the OSD budget, while each of the military departments had $200,000. So that is not an increase but just a shift from the service budgets.

Besides this increase in contracts, there are other areas of central services which have been reduced somewhat because the net increase is not $3.1 million but only $2.961 million.

PERSONNEL INCREASE

The last major item of increase is $3.366 million and that has to do with increased personnel costs.

That is the explanation of the total of slightly in excess of $12 million.

Chairman MCCLELLAN. How many personnel do you have?

Mr. COOKE. The total number of civilian personnel in the fiscal year 1975 estimate is 1,796.

Chairman MCCLELLAN. How many did you have last year?

Mr. COOKE. We show 1,761 in the revised FY 1974 estimate. One of the reasons for the increase is that we are civilianizing some military billets. Of course, the military pay and allowances do not show up in our OSD budget. We are coming down from 530 military in fiscal year 1974 to 519 in fiscal year 1975.

Chairman MCCLELLAN. You are increasing personnel by 35 and you are asking for $12 million more this year.

Mr. COOKE. Let me say this increase is not primarily the increase in our number of civilian personnel.

Chairman MCCLELLAN. What is it?

Mr. COOKE. It includes the annualization of the last pay raise, as well as one additional day of paid employment in fiscal year 1975 that we did not have in fiscal year 1974. We also have normal within grade salary increases where a man moves from GS-11 step 3 to GS-11 step 4, for example. There have been some increased costs for related personnel benefits as well. When you cost them all out, sir, it comes to $3.366 million.

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Chairman McCLELLAN. I am going to ask the staff to go into this in some more detail. I am not sure about this particular item. Go into it in detail and show me exactly how it works out.

SUMMARY OF INCREASES IN OSD CIVILIAN PERSONNEL[1]

Office	Fiscal year 1974 revised civilian end strength	Increases	Fiscal year 1975 estimated civilian end strength
Deputy Secretaries of Defense	10	+2	12
ASD:			
Comptroller	558	+13	571
Health and environment	23	+1	24
Installations and logistics	222	+2	224
Intelligence	33	+12	45
International security affairs	131	+1	132
Manpower and reserve affairs	128	+3	131
Public affairs	82	+1	83
Activities with no increase	574		574
Total	1,761	+35	1,796

[1] Military personnel estimates for OSD show a decrease from 530 in fiscal year 1974 to 519 in fiscal year 1975.

ORGANIZATION OF THE JOINT CHIEFS OF STAFF

Mr. COOKE. I will now turn to the Organization of the Joint Chiefs of Staff, Mr. Chairman. The total fiscal year 1975 request for this organization is $11,414,000, an increase of $2,577,000 over our 1974 revised estimate. This is almost exclusively a result of Public Law 92–313, where we have to pay rent to GSA for, among others, the Pentagon Building. That increase——

Chairman McCLELLAN. Do you have to pay rent for the Pentagon?

GSA RENTALS

Mr. COOKE. Yes. We have to pay rent to GSA for space assigned in any building under its control.

Chairman McCLELLAN. I wonder about this procedure. It is one way of bookkeeping but it may be more expensive to keep books this way. It is all Government money.

Mr. COOKE. This is our first experience, or will be, in fiscal year 1975 with the application of Public Law 92–313.

For your information, overall, out of O. & M. funds there will be about $181 million in our budget. That is for Defense, including Army, Navy, Air Force, and Defense agencies.

Chairman McCLELLAN. The armed services will be paying $181 million in rent to GSA?

Mr. COOKE. May I correct that. It is $182.5 million O. & M. plus an additional $20 million requested for space occupied by Army civil functions.

Chairman McCLELLAN. It saves about $2.5 million if we pay rent out of the military appropriations to GSA.

Mr. COOKE. That is correct.

Chairman McCLELLAN. This is the first year this has been done?

Mr. COOKE. Yes, sir.

Chairman McCLELLAN. Is this rent reflected in your budget throughout?

Mr. COOKE. Yes.

Chairman MCCLELLAN. It is added to this year's expense?

Mr. COOKE. Yes, sir.

Chairman MCCLELLAN. We did not have it last year. It is a new item.

Mr. COOKE. It is a new item.

Senator YOUNG. Does that rent involve all Federal buildings?

Mr. COOKE. It involves all Federal buildings either leased by GSA or under GSA's control. It does not involve, as far as Defense is concerned, buildings on military installations. For example, the buildings at Fort Myer or Fort McNair.

Chairman MCCLELLAN. Where they are built and owned by the military departments.

Mr. COOKE. Or are on military installations. But it will involve the Pentagon and the Forrestal Building which are the two major examples in the Washington area.

Senator YOUNG. You have to pay rent on the Pentagon?

Mr. COOKE. Indeed we do. Commencing the first of July, the new fiscal year.

Chairman MCCLELLAN. This is where we might criticize Congress. I don't know if this was a wise move or not.

Senator YOUNG. How much is the rent of the Pentagon alone?

Mr. COOKE. These figures are subject to some change because there were some last minute adjustments in the total amount of rent for DOD, but in essence the—I can give you—the National Capital region will cost us slightly in excess of $76 million. That is more than the Pentagon. That is for Defense space in the Forrestal and other GSA owned and leased buildings.

Chairman MCCLELLAN. Does this include all the buildings in the Capital area?

Mr. COOKE. Yes, sir. And the Pentagon. The building total looks like about slightly in excess of $25 million.

Senator YOUNG. It looks like it will be very difficult to meet their demands to cut defense by $14.5 million.

Chairman MCCLELLAN. We must try to chip away where we find excess fat and then total it up. I don't know how much the fat will weigh when we get it on the scales.

Senator YOUNG. I share the chairman's concern, we are going to have a terrible problem.

Mr. COOKE. This will be our first experience with the new public law. The rates vary throughout the country because as you know, the law says that GSA will charge comparable commercial rates. So the commercial rates here, I am sure, are somewhat different than the commercial rates in other areas of the country.

[The following information was subsequently received:]

The total FY 1975 Department of Defense Estimate for General Services Administration rent is $202.835 million.

Chairman MCCLELLAN. There were some tables in connection with your prepared statement, were there not?

Mr. COOKE. Yes, sir.

Chairman MCCLELLAN. Let those be printed in the record together with your statement.

Senator YOUNG. There have been several costly items added to the Defense budget. You mentioned this rental thing and we are paying for

equipment we sent to the Middle East war and many big items we did not have before.

OFFICE OF INFORMATION FOR THE ARMED FORCES

Mr. COOKE. Turn to the last of the major items, the Office of Information for the Armed Forces. This shows a request in fiscal year 1975 for $14.773 million of obligational authority. That is a net increase of $3.293 million over fiscal year 1974. I have with me Mr. Broger, Director of that Office.

If you would, Mr. Broger, would you detail the reasons for the increase.

INCREASE IN NAVY CIRCUITS

Chairman MCCLELLAN. Explain why $1.6 million is required to provide weekly TV packages for two additional Navy circuits?

Mr. BROGER. Mr. Chairman, the major part of this increase is an offset for the Navy budget and personnel ceilings. The Navy has gone into a fairly extensive program to provide radio and television facilities aboard ships for the Navy personnel who are out for long periods and to increase habitability aboard the ships. $1.56 million is to provide television service for 133 ships of the Navy. All we provide, Mr. Chairman, are the television programs. The Navy has in their budget——

CIRCUITS BEING SERVICED

Chairman MCCLELLAN. How many circuits are now being serviced?

Mr. BROGER. Over the past 2 years we have started six Navy circuits. The increase of two additional circuits will provide a total of eight circuits for Navy ships.

Chairman MCCLELLAN. Couldn't existing film packages be used?

Mr. BROGER. The Navy system is designed to use video tape because it is more economical and occupies less space aboard ship. Also, the present film packages which are circuited to land-based stations are not usable after being bicycled through so many stations. We could not recover sufficient films from these circuits to service Navy ships.

Chairman MCCLELLAN. Are these commercial programs you buy?

Mr. BROGER. Yes, sir. We don't buy the programs, they are provided to us free by the networks, but we have to duplicate them on 16 mm film and get them out to the ships. So this is just to provide the film service.

Chairman MCCLELLAN. How much do they spend altogether for that, including television for Navy ships?

Mr. BROGER. This is all. They have had very little in the past.

Chairman MCCLELLAN. Just $1 million?

Mr. BROGER. $1.5 million.

Chairman MCCLELLAN. $1.5 million and what was the $520,000 for?

Mr. BROGER. About $520,000 is for radio service for the Navy.

Chairman MCCLELLAN. Of that total?

Mr. BROGER. No, sir.

Chairman MCCLELLAN. Another $520,000?

Mr. BROGER. Yes, sir. But this is for 553 ships. This covers all the ships of the Navy. Basically this is tape service which is again bicycled to the 553 ships of the Navy.

Chairman McClellan. How long have we been providing this service?

Mr. Broger. We are just starting that, sir. We have been doing it for the Army and Air Force for some years but this is the first year that we have started a major effort to support the Navy in this area.

Chairman McClellan. It is hard to argue against it. If I were a serviceman out there, I would want it. At the same time, I don't know where we are going to wind up if we keep on spending money. It is a problem. It gives us concern.

Mr. Broger. This is an offset from the Navy budget. In other words, the Navy asked for this much less money in their budget this year.

Chairman McClellan. From what?

Mr. Broger. From what their normal submission would have been.

Chairman McClellan. In what area? It came from something.

Mr. Broger. I can not answer that.

Chairman McClellan. How do you know that there was a reduction in the Navy?

Mr. Broger. They assured us that it did.

Chairman McClellan. Didn't you inquire where?

Mr. Broger. No, sir.

Chairman McClellan. Aren't you the auditor?

Mr. Broger. No, sir.

Chairman McClellan. What is your position?

Mr. Broger. I work for the Office of Secretary of Defense in this area to supply the service.

Chairman McClellan. Somebody ought to inquire what it came from.

Mr. Broger. We will be glad to ask that question.

Chairman McClellan. Those are the things that would concern me. You came up here with——

Mr. Broger. The offset is taken from the Navy O. & M. ceiling. In other words the Navy budget would be approximately $2.3 million more if the offset were not required for our budget. This is approximately the total amount of money in our budget in support of the new programs for Navy ships.

Chairman McClellan. Those are the things that would concern me.

Mr. Broger. The offset is taken from the Navy O. & M. ceiling.

Chairman McClellan. This is a small matter, I know that. But some of these small things are ridiculous.

Senator Young. Do all ships receive this service?

Mr. Broger. This takes into consideration the ships in port that do not receive the service. Only ships at sea receive the service.

Senator Young. We have reduced the number of ships.

Mr. Broger. This is for the active ships. This is not for ships that have been cut from the Navy active force.

Chairman McClellan. You spoke of a $3.3 million increase. You have now accounted for two of the increases.

INCREASE IN NEWS INFORMATION MATERIALS

Why is there a $416,000 increase for news and information service for Navy ships and TV stations?

Mr. BROGER. The $416,000 is for news and information materials to support this service. The first item I gave you was just the network programs. The additional support for the service is $416,000 which has to do with slides for news and information spot announcements. In other words, we cannot give the Navy live news to the ships. All we can give them is what you would see on your television set. When they are reporting a news story they have a slide service of the various personalities that are involved. All we can do is get pictures from the various wire services.

$200,000 of this increase is to provide TV news slides and library materials for Navy ships at sea. $216,000 is to provide news slide service for all other television outlets and a partial replacement of those library materials which badly need replacement. This will be a consolidated and centralized service and allow individual stations to discontinue more costly independent and separate contracts which they have at the present time.

COST OF NAVY NEWS AND INFORMATION SERVICES

Chairman MCCLELLAN. What is the present cost of news and information services for Navy ships and TV stations?

Mr. BROGER. Our fiscal year 1975 requirement will be $624,000 for this service. This is the service that develops our internal information support announcements for radio and television and covers such subjects as safety, alcohol and drug abuse, educational opportunities, race relations and equal opportunity, and other similar subjects. These announcements replace the commercials which must be deleted from the radio and TV programs per our agreements with the U.S. broadcast industry. We consider this area to be a high priority since it gives us the opportunity to use radio and TV media in support of our internal information objectives.

Chairman MCCLELLAN. I don't think too much of that. Wouldn't radio do as well or better to give them the news?

Mr. BROGER. The problem is that they don't switch from one to the other on board ship. If the troops are in their living quarters watching television, that is all they have at that point. If they give them radio, that is all right——

Chairman MCCLELLAN. Aren't the ships equipped with radio to get the news and broadcast it to every quarter?

Mr. BROGER. Yes, sir.

Chairman MCCLELLAN. They can turn on the radio when news time comes.

Mr. BROGER. They can do that.

Chairman MCCLELLAN. You will have to find a way to economize. You can economize. This is a relatively small amount, but I think you could economize here a little. They would get all the news probably better on radio than with this slide service that you are proposing. It seems to me something that you ought to think about.

Mr. BROGER. It can be done.

Chairman MCCLELLAN. We are reaching a point where all of us are going to have to find ways to reduce. I hope you folks will do it, and come here and show us where you are making reductions. This situation is becoming tighter every day.

Mr. BROGER. Yes, sir, and we understand that. The problem of being aboard ship for long periods of time is a difficult one and we are doing all we can to make the volunteer force work.

Chairman MCCLELLAN. I think they ought to have the news. They ought to have television if you can supply it. But this would amount in my judgment to a duplication, and a poor duplication at that, if all you can do is to show slides, because it, whatever you get, is going to be recorded isn't it?

Mr. BROGER. That is true. That is not the entire purpose of this because there are other programs that we like to give them so they can keep them in a permanent library to show.

Chairman MCCLELLAN. I am not objecting to them having television, but I don't see that it is necessary if you give them news on both television and radio. If the ship is so equipped, you can turn on the ship radio and get all the regular news at news time.

Mr. BROGER. Yes, sir.

Chairman MCCLELLAN. Proceed.

Mr. BROGER. Another element is to try to get a better news service to Korea and Japan. We would like to get in a more direct news service which we do not have now. We do not have circuits into Korea. So we are hoping to put in an initial circuit into Korea and Japan to give the troops there better news. That item is $172,000.

Chairman MCCLELLAN. Do they receive the service over there now?

Mr. BROGER. The only way we can get it to them now is through shortwave, and you cannot depend on it. Sometimes it comes in and sometimes it does not. We have a difficult time getting news to these troops.

Chairman MCCLELLAN. If that is all it is going to cost to get news to them, I have no objection. I think it is very wise for them to have at least one substantially reliable access to news coverage.

Senator YOUNG. How many military personnel do we have in Japan now?

Mr. BROGER. I don't know. I am not sure at this point. It seems to me somewhere around 30,000. I will check that for the record.

Senator YOUNG. 32,000 at the end of December. And that includes Air Force and Army.

Mr. BROGER. It is a fairly large number. And they are isolated. That is our reason for wanting to get better news to them because of the isolation.

Chairman MCCLELLAN. I see no objection to that.

Mr. BROGER. The last major item we have in that, sir, is the CHAMPUS program, the health and medical benefits for military people. This is a $247,000 item which is a functional transfer from the services, primarily from the Army to my office to supply the basic information that is necessary on CHAMPUS. For some time that program was under the executive agent of the Army. The services had some problem being amply supported in the program so it was decided we should, in my office, take this program back as a total DOD matter to insure that the appropriate information was put out at the right time to the serviceman and his dependents on this subject.

That is a functional transfer and would be reflected in our budget from 1975.

Chairman MCCLELLAN. It would be a comparable reduction?

Mr. BROGER. Yes, sir.

CIVILIAN AND MILITARY INCREASES

Chairman McCLELLAN. Why is the increase of 6 civilian and 21 military personnel required in fiscal year 1975 over fiscal year 1974?

Mr. BROGER. The civilian increase is brought about by a civilianization program wherein seven military positions will be converted to civilian positions. This increase is offset partially by one civilian space in our overall ceiling, thus, we show a net increase of 6 civilian employees. However, these are actually seven converted military positions. The increase in military strength is offset in the Navy and is required to support the radio and television service for Navy ships at sea.

Mr. COOKE. That completes my presentation.

Chairman McCLELLAN. Thank you.

Do either of you have anything to offer?

Mr. SNYDER. No, sir.

Mr. NESTOR. No, Mr. Chairman.

JUSTIFICATION

Chairman McCLELLAN. At this point in the record there will be found the justification information pertinent to the previous presentation.

[The information follows:]

Justification

Summary of Defense Agency Personnel* and Funds
in the FY 1975 Congressional Budget
(Dollars in Thousands; Strengths in Whole Numbers)

	FY 1973 Actual			FY 1974 Estimate			FY 1975 Estimate		
	Military End Strength	Civilian End Strength	Total Obligational Authority 1/	Military End Strength	Civilian End Strength	Total Obligational Authority	Military End Strength	Civilian End Strength	Total Obligational Authority
Defense Investigative Service:									
Operation & Maintenance	1,642	1,173	12,677	1,602	1,248	22,134	1,315	1,315	25,541
Procurement	-	-	50	-	-	138	-	-	674
Military Personnel 2/	-	-	14,279	-	-	21,957	-	-	19,408
Total	1,642	1,173	27,006	1,602	1,248	44,229	1,315	1,315	45,623
Defense Mapping Agency:									
Operation & Maintenance	1,018	7,606	143,253	876	7,807	157,563	829	7,851	170,157
Procurement	-	-	150	-	-	6,078	-	-	5,217
RDT&E	-	11	10,985	-	-	11,603	-	-	14,500
Military Personnel 2/	-	-	11,470	-	-	12,435	-	-	10,848
Subtotal, DoD Appropriation Bill	1,018	7,617	165,858	876	7,807	187,679	829	7,851	200,722
Family Housing	-	-	18	-	-	18	-	-	18
Military Construction	-	-	-	-	-	-	-	-	3,243
Total	1,018	7,617	165,876	876	7,807	187,697	829	7,851	203,983
Defense Nuclear Agency:									
Operation & Maintenance	453	458	10,960	391	492	19,297	488	492	21,266
Procurement	-	-	446	-	-	178	-	-	273
RDT&E	222	189	123,514	239	203	117,467	244	203	123,000
Military Personnel 2/	-	-	9,864	-	-	11,873	-	-	12,084
Subtotal, DoD Appropriation Bill	675	647	144,784	630	695	148,815	732	695	156,623
Military Construction	-	-	2,596	-	-	574	-	-	5,458
Total	675	647	147,380	630	695	149,389	732	695	162,081

	FY 1973 Actual			FY 1974 Estimate			FY 1975 Estimate		
	Military End Strength	Civilian End Strength	Total Obligational Authority[1]	Military End Strength	Civilian End Strength	Total Obligational Authority	Military End Strength	Civilian End Strength	Total Obligational Authority
Defense Communication Agency:									
Operation & Maintenance	1,476	1,358	58,594	1,542	1,398	60,478	1,586	1,423	65,546
Procurement	-	-	12,815	-	-	1,370	-	-	3,625
RDT&E	36	90	13,216	50	101	18,163	50	101	31,000
Military Personnel[2/] [3/]	-	-	19,468	-	-	22,663	-	-	24,681
Subtotal, DoD Appropriation Bill	1,512	1,448	104,093	1,592	1,499	102,674	1,636	1,524	124,852
Defense Industrial Fund	57	202	-	54	208	-	52	208	-
Total	1,569	1,650	104,093	1,646	1,707	102,674	1,688	1,732	124,852
Defense Intelligence Agency:									
Operation & Maintenance	2,166	2,707	75,621	1,992	2,379	76,088	1,951	2,316	78,265
Procurement	-	-	5,620	-	-	2,650	-	-	4,604
RDT&E	-	-	1,594	4	23	4,786	4	23	7,300
Military Personnel[2/]	-	-	34,577	-	-	37,158	-	-	34,605
Subtotal, DoD Appropriation Bill	2,166	2,707	117,412	1,996	2,402	120,682	1,955	2,339	124,774
Military Construction	-	-	1,600	-	-	-	-	-	-
Family Housing	-	-	2,509	-	-	3,290	-	-	3,995
Total	2,166	2,707	121,521	1,996	2,402	123,972	1,955	2,339	128,769

	FY 1973 Actual			FY 1974 Estimate			FY 1975 Estimate		
	Military End Strength	Civilian End Strength	Total Obligational Authority 1/	Military End Strength	Civilian End Strength	Total Obligational Authority	Military End Strength	Civilian End Strength	Total Obligational Authority
Defense Supply Agency:									
Operation & Maintenance	1,116	49,908	700,787	1,155	53,575	746,208	1,155	52,358	773,096
Procurement	-	-	8,392	-	-	5,256	-	-	14,607
RDT&E	-	456	12,337	3	463	13,102	3	463	14,500
Military Personnel 2/	-	-	22,289	-	-	28,055	-	-	27,218
Subtotal, DoD Appropriation Bill	1,116	50,364	743,805	1,158	54,038	792,621	1,158	52,821	829,421
Military Construction	-	-	6,087	-	-	9,515	-	-	6,336
Family Housing	-	-	140	-	-	170	-	-	143
Defense Industrial Fund	-	1,624	-	-	1,650	-	-	1,650	-
Total	1,116	51,988	750,032	1,158	55,688	802,306	1,158	54,471	835,900
Office of Information for the Armed Forces:									
Operation & Maintenance	84	138	9,664	67	158	11,480	88	164	14,773
Military Personnel 2/	-	-	892	-	-	1,221	-	-	1,255
Total	84	138	10,556	67	158	12,701	88	164	16,028
United States Armed Forces Institute:									
Operation & Maintenance	-	198	6,403	-	-	5,757	-	-	-
Secretary of Defense Activities:									
Operation & Maintenance	656	1,513	42,806	530	1,761	50,272	519	1,796	266,243
Procurement	-	-	263	-	-	422	-	-	900
RDT&E	50	33	14,355	40	39	17,013	40	39	18,800
Director, Test & Evaluation, Defense	-	-	27,000	-	-	24,600	-	-	27,000
Military Personnel 2/ 4/	-	-	16,063	-	-	16,266	-	-	14,546
Subtotal, DoD Appropriation Bill	706	1,546	100,487	570	1,800	108,573	559	1,835	327,489
Military Construction	-	-	1,800	-	-	23,378	-	-	38,500
Military Assistance	10	41	1,064	9	11	276	9	11	282
Total	716	1,587	103,351	579	1,811	132,227	568	1,846	366,271

	FY 1973 Actual			FY 1974 Estimate			FY 1975 Estimate		
	Military End Strength	Civilian End Strength	Total Obligational Authority 1/	Military End Strength	Civilian End Strength	Total Obligational Authority	Military End Strength	Civilian End Strength	Total Obligational Authority
Organization, Joint Chiefs of Staff:									
Operation and Maintenance	1,308	380	8,191	1,295	421	8,837	1,304	421	11,414
Military Personnel 2/	-	-	24,887	-	-	27,411	-	-	27,865
Total	1,308	380	33,078	1,295	421	36,248	1,304	421	39,279
Defense Contract Audit Agency:									
Operation and Maintenance	-	3,576	58,958	-	3,614	62,732	-	3,647	66,323
Defense Advanced Research Projects Agency:									
RDT&E	35	110	199,743	43	123	197,790	52	123	216,800
Military Personnel 2/	-	-	893	-	-	1,022	-	-	1,212
Total	35	110	200,636	43	123	198,812	52	123	218,012
Defense Civil Preparedness Agency:									
Military Personnel 2/ 5/	-	-	57	-	-	91	-	-	92
Operation and Maintenance	2	686	59,027	3	656	59,994	3	653	64,300
Research Shelter Survey and Marking	-	-	23,200	-	-	22,000	-	-	22,000
Total	2	686	82,284	3	656	82,085	3	653	86,392
Defense Security Assistance Agency:									
Military Personnel 2/ 6/	-	-	154	-	-	39	-	-	22
Military Assistance	7	62	1,767	2	74	1,996	1	75	2,050
Total	7	62	1,921	2	74	2,035	1	75	2,072
Other Appropriation (In DoD Bill):									
Claims, Defense	-	-	44,653	-	-	49,100	-	-	54,600
Contingencies, Defense	-	-	3,514	-	-	5,000	-	-	5,000
Court of Military Appeals, Defense:	-	30	753	-	40	917	-	40	1,065
Total	-	30	48,920	-	40	55,017	-	40	60,665

1/ Except for the one year appropriations (Operation and Maintenance, Military Personnel, Claims, Contingencies, and the Court of Military Appeals) which are on an actual obligations basis for the actual year.

2/ Military personnel funds are appropriated directly to each military department. Except where indicated otherwise, the data on these lines represent only the obligations for the military personnel related to appropriations included in the Department of Defense Appropriation Bill.

3/ Includes the following for Military Personnel related to Defense Industrial Fund: FY 1973 $778; FY 1974 $884; and FY 1975 $855.

4/ Includes the following for Military Personnel related to Military Assistance Program: FY 1973 $547; FY 1974 $367; and FY 1975 $275.

5/ All Military Personnel related to Operation and Maintenance, DCPA.

6/ All Military Personnel related to Military Assistance Programs.

* Civilian end strengths include only direct line. Indirect line are summarized on page 3-6.

Total Defense Agencies Civilian Employment
Military Functions and Military Assistance

	30 June 1973		30 June 1974		30 June 1975	
	E/S	M/Y	E/S	M/Y	E/S	M/Y
DIRECT HIRE						
Operation and Maintenance	69,015	65,573	72,853	70,569	71,783	70,350
Court of Military Appeals	30	35	40	35	40	35
RDT&E	889	884	952	921	952	829
O&M, DCPA	686	672	656	666	653	701
Defense Industrial Fund	1,826	1,698	1,858	1,713	1,858	1,713
Military Assistance	103	103	85	81	86	81
Total Direct Hire 1/	72,549	68,965	76,444	73,985	75,372	73,709
INDIRECT HIRE FOREIGN NATIONALS						
Operation and Maintenance	399	105	659	656	659	656
Defense Industrial Fund	9	9	10	10	10	10
Total Indirect Hire 2/	408	114	669	666	669	666

1/ The distribution of total direct hire civilian employment by component is indicated in the Summary of Defense Agency Personnel and Funds (pp 3-1 to 3-5).

2/ The distribution of total indirect line civilian employment by component is indicated below.

	30 June 1973		30 June 1974		30 June 1975	
	E/S	M/Y	E/S	M/Y	E/S	M/Y
Operation and Maintenance						
Defense Supply Agency	385	91	642	642	642	642
Defense Contract Audit Agency	13	12	16	13	16	13
Defense Mapping Agency	1	2	1	1	1	1
Total, O&M	399	105	659	656	659	656
Defense Industrial Fund						
Defense Communications Agency	9	9	10	10	10	10
Total Indirect Hire	408	114	669	666	669	666

Public Affairs Activities
(Dollars in Thousands; Strengths in Whole Numbers)

	FY 1973 Actual				FY 1974 Estimate				FY 1975 Estimate			
	Military Personnel		Operation & Maintenance		Military Personnel		Operation & Maintenance		Military Personnel		Operation & Maintenance	
	End Strength	Obligations	End Strength	Obligations	End Strength	Obligations	End Strength	Obligations	End Strength	Obligations	End Strength	Obligations
Secretary of Defense Activities	76	1,521	56	1,172	71	1,684	63	1,325	70	1,653	64	1,329
Defense Supply Agency	-	-	14	248	-	-	-	-	-	-	-	-
Defense Nuclear Agency	2	20	6	63	1	32	6	71	2	33	6	74
National Security Agency	-	-	1	32	-	-	1	33	-	-	1	33
Total	78	1,541	77	1,515	72	1,716	70	1,429	72	1,686	71	1,436

Most of the public affairs effort is expended in the Office of the Assistant Secretary of Defense (Public Affairs). He is the principal staff assistant to the Secretary of Defense for all public information activities and for community relations. He performs functions in his assigned fields of responsibility, such as: (1) advising and assisting officials of the Department of Defense on public information and public relations aspects of Defense policies, plans and programs; (2) recommending policies and providing appropriate guidance and assistance to assure fulfillment of the Department's affirmative obligation to keep the public adequately informed about its activities; (3) providing for the review from a security standpoint under the provisions of Executive Order 10501 of all material originated within the Department of Defense, including testimony before Congressional Committees, or by its contractors for public release or for publication by departmental personnel as individuals, and of material submitted by sources outside the Department for such review; (4) providing for the review of official speeches, press releases, and other information originated within the Department of Defense for public release, or similar material submitted for review by other Executive agencies of the Government; and (5) monitoring military participation in public exhibitions, demonstrations and ceremonies of national or international significance.

The FY 1974 column of this budget provides for three less end strength than the FY 1974 President's Budget. With one exception the FY 1975 personnel levels for each Agency are the same as the FY 1974 levels. The table shows an increase of one military end strength for the Defense Nuclear Agency because the position was vacant at the end of fiscal year 1974 even though it had been filled for most of the year. The table indicates no personnel in FY 1974 and FY 1975 for the Defense Supply Agency. This is in keeping with the concept that only personnel devoting 50 percent or more of their time to public affairs activities will be included in this category. DSA personnel spend less than 50 percent of their time on public affairs activities. The estimates include $.044 million in FY 1974 and $.049 million in FY 1975 for the classified employees pay raises effective in January 1973 and October 1974.

OFFICE OF THE SECRETARY OF DEFENSE

Summary of Legislative Activities - Fiscal Year 1975

Function	Av. No. Civ. Emps.	Total Salary	Av. No. Mil. Pers.	Pay & Allowances	All Other Costs	Total Cost
Legislative Liaison	-	-	-	-	-	-
Congressional Liaison (indiv. members)	-	-	-	-	-	-
Congressional Information Centers (House and Senate)	-	-	-	-	-	-
Legislative (Committee Liaison)	8	177,747	4	121,847	-	299,594
Congressional Investigation Liaison	-	-	-	-	-	-
Sub-Total	8	177,747	4	121,847	-	299,594
Other Legislative Affairs						
Legislative Program Coordination						
Congressional Inquiries						
Administration						
Supervision	5	85,603	2	68,249	-	153,852
Planning and Coordination	7	98,333	6	115,107	-	213,440
Analysis and Digests	2	56,526	-	-	-	56,526
Travel	1	13,791	1	30,208	-	43,999
Records and Services	-	-	-	-	-	-
Other Costs	-	-	-	-	81,000	81,000
Sub-Total	15	254,253	9	213,564	81,000	548,817
Total	23	432,000	13	335,438	81,000	848,438

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LEGISLATIVE AFFAIRS ACTIVITIES

The FY 1974 increase of four civilian manyears reflects the manning of four of six positions not provided for in the FY 1974 President's Budget. The FY 1975 increase of three civilian man years reflects annualization of the positions added in FY 1974 and a modest improvement in the basic lapse rate.

In April 1973 the Office of the Assistant to the Secretary of Defense (Legislative Affairs) was upgraded to the Office of the Assistant Secretary of Defense (Legislative). Subsequently, this function was augmented by six civilian positions--a Deputy Assistant Secretary of Defense (Senate Affairs) and a Deputy Assistant Secretary of Defense (House Affairs) together with two secretarial positions and two assistants to the Deputy Secretaries. However, since realignment of the office structure has not been completed, the two assistant positions are vacant at this time.

The FY 1975 Operation and Maintenance increase of $106,000 includes $13,000 for annualization of the October 1973 classified employees pay raise, $10,000 for cost to the government for personnel benefits and the additional day of paid employment and $94,000 for within grade raises and the three additional man years noted above. These increases are partially offset by a reduction of $10,000 in consultant services and $1,000 in travel costs. The FY 1975 Military Personnel increase of $18,000 is for annualization of the October 1973 military personnel pay raise.

DEPARTMENT OF DEFENSE
OPERATION AND MAINTENANCE, DEFENSE AGENCIES

Personnel Summary

Code: 07-10-0100-0-1-051	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Total Number of Permanent Positions.....	67,226	70,960	70,002
Full-Time Equivalent of Other Positions.....	1,722	1,820	1,774
Average Paid Employment.....	65,573	70,569	70,350
Average GS Grade.....	8.4	8.4	8.4
Average GS Salary.....	$13,915	$14,504	$14,577
Average Salary of Ungraded Positions.....	$9,508	$10,184	$10,144

APPROPRIATION: Operation and Maintenance, Defense Agencies, FY 1975

Introductory Statement

This appropriation account was established in FY 1963 and consolidates under one account (a) the overall management and direction of the Department of Defense; (b) the common supply and service functions consolidated in a single agency directly under the Secretary of Defense; (c) Defense communications activities for the control of world-wide strategic and administrative long-haul, point-to-point communications services of the Department of Defense; (d) joint atomic weapons technical operations of the Department of Defense; (e) intelligence functions consolidated in a single agency reporting to the Secretary of Defense through the Joint Chiefs of Staff; (f) information and education programs for members of the Armed Forces; (g) the mapping, charting and geodesy functions consolidated in a single agency reporting to the Secretary of Defense through the Joint Chiefs of Staff; (h) the personnel security investigations and contract audit functions consolidated in separate agencies reporting directly to the Secretary of Defense; and (i) classified activities.

In FY 1973 the budget activity structure was aligned with the structure of the Department of Defense Five Year Defense Program. Congress subsequently appropriated funds by individual agency. In this budget the activities are still aligned with Five Year Defense Program structure but individual agencies are identified as formal budget sub-activities. This year's budget includes resources for the new programs indicated below.

New Programs in O&M Appropriation
(Dollars in Millions)

Identification and Description	Estimate
FY 1974	
Johnston Atoll - This covers the transfer of management responsibility for Johnston Atoll from the Air Force to the Defense Nuclear Agency.	8.800
National Industrial Equipment Reserve (NIER) - The DoD Appropriation Authorization Act, 1974, provided for the transfer of the responsibility for the NIER from the General Services Administration (GSA) to the DoD (Defense Supply Agency).	.700

Identification and Description	Estimate
FY 1975	
GSA Space Charges - Public Law 92-313 requires the Administrator of GSA to change government agencies for space occupied in GSA - controlled buildings beginning in FY 1975.	36.523
Overseas Dependent's Education - The Congressional Appropriations Committees' reports on the FY 1974 DoD appropriation recommended that this activity be budgeted in O&M Defense Agencies rather than the military departments beginning in FY 1975.	203.932
Logistics Management Institute (LMI) - This covers the transfer of $.200 million from each of the three military departments to the Office of the Secretary of Defense. Centralized budgeting for LMI studies will provide greater flexibility in applying resources to higher priority efforts.	.600
Eniwetok Atoll - This covers the transfer of responsibility for on-going housekeeping and cleanup operations at Eniwetok Atoll from the Air Force to the Defense Nuclear Agency.	.888
Mission Transfers to the Defense Supply Agency - This covers the transfer of six mission assignments from the military departments to DSA (see page 2-69 for a listing). Service financing in FY 1974 was on a reimbursable basis.	6.185
Mission Transfers to the Defense Mapping Agency - This covers the transfer of six mission assignments from the military departments to DMA (see pp. 2-19 to 2-27 for a listing). Service financing in FY 1974 was on a direct basis.	2.375
Automatic Secure Voice Communication (AUTOSEVOCOM) - Beginning in FY 1975 AUTOSEVOCOM users will begin paying for a pro rata share of the switching costs formerly paid for by the Air Force.	.105

Summary of Civilian Manpower Increases
Fiscal Year 1974 to Fiscal Year 1975
(Full-Time Permanent Employees)

Operation or Activity [1]	Year End Increases
Defense Investigative Service	
Conversion of Military Positions	+175
Improved Productivity	-108
Total Increase	+67
Defense Mapping Agency	
Conversion from Military to Civilian Manning	+47
Reduced Manning in the Product Districution System	-3
Total Increase	+44
Defense Communications Agency	
Joint Technical Support Activity	+11
National Military Command System	+14
Total Increase	+25
Office of Information for the Armed Forces	
American Forces Radio and Television Service	+7
Armed Forces Information Service	-1
Total Increase	+6
Defense Contract Audit Agency	
Cost Accounting Standards	+33
Secretary of Defense Activities	
Deputy Secretary of Defense	+2
Assistant Secretary of Defense Comptroller	+13
Assistant Secretary of Defense Health and Environment	+1
Assistant Secretary of Defense Installations and Logistics	+2
Assistant Secretary of Defense Intelligence	+12
Assistant Secretary of Defense Internal Security Affairs	+1
Assistant Secretary of Defense Manpower and Reserve Affairs	+3
Assistant Secretary of Defense Public Affairs	+1
Total Increase	+35

1/ Civilian manpower increases are requested only for activities in the Agencies indicated. The number of full-time permanent employees in the other Agencies in FY 1975 is either the same as or less than the number in FY 1974.

APPROPRIATION: Operation and Maintenance, Defense Agencies, FY 1975

Budget Activity: Training, Medical and Other General Activities

Budget Project: Office of Information for the Armed Forces

Purpose & Scope

The basic mission of the Office of Information for the Armed Forces (IAF) is to support the Armed Forces Information Program (AFIP) of the Department of Defense. These objectives are:

1. To increase knowledge, professionalism and pride in the military and to stimulate awareness of the military as a rewarding and productive career;

2. To establish policy and operational guidance throughout DoD to assure free flow of information to military personnel;

3. To assist the individual citizen in uniform to:

- o Appreciate the freedoms he is called upon to defend;
- o Realize his responsibilities under those freedoms;
- o Comprehend the values of our Government and National heritage;
- o Understand the threats to the nation's security.

4. To provide commanding officers policy guidance and information for dissemination to Service personnel including, but not limited to, personal military benefits during and after service in the Armed Forces (All-Volunteer Force); Drug and Alcohol Abuse; Citizenship and Voting; Equal Opportunity and Race Relations; Orientation for Overseas Duty; Code of Conduct; Ecology and Environment; Domestic Action; Health and Physical well-being; World Affairs; and to provide Service personnel a continuous coverage of international; national; seat of government; and local U.S. news, military and sports news, and special events.

5. To provide information materials of common Service interest to commanding officers for use in their individual information programs; policy and technical guidance, along with supporting materials, to Armed Forces newspapers; policy guidance for civilian enterprise publications and American Forces Radio and Television stations including program materials representing the best from American networks and industry; and other audio or visual materials as necessary. Maintain liaison with the broadcast industry, Military Departments, JCS, White House, State Department, and other government and civilian agencies; provide policy and program guidance to Defense Information School.

6. To survey, review and evaluate resources, plans, programs, and materials used throughout the Department of Defense in support of the AFIP for effectiveness and the elimination of duplication.

A. American Forces Radio and Television Service

1. AFRTS-Los Angeles - provides the basic program materials which are used by the AFRTS outlets overseas. A weekly AM radio program package provides 80 hours of music, drama, fine arts and information materials, and a 5 hour library of latest hits and specials to 887 radio outlets including 553 Navy ships at sea. A 12 hour package is produced monthly for authorized FM stereo automated outlets. The Television Service provides a weekly television package of 62 1/2 hours to 6 land based circuits and 6 circuits to Navy ships at sea for a total of 244 television outlets. The weekly TV package includes 50 hours of regular programming plus 12 1/2 hours of highly rated and timely entertainment, information programs and sporting events. An additional 19 hours of filler film and holiday commemorative programs are sent annually to each station. A special unrestricted TV package of 20 hours per week is sent to 8-10 stations with heavy restrictions on regular TV programming. This Activity annually produces 1500 radio spot announcements supporting military themes concentrating on four main thought areas; Supplemental Benefits, Drug Abuse, Alcoholism, Human Goals, for insertion into regular radio programs. Television Spot Announcements, Information Shorts, Promo Slides, Specials, are produced on such subject areas as Human Goals, Retirement, Credit and Financial Affairs, Drug Misuse and Abuse, CHAMPUS and other medical subjects for insertion in programs or release directly to outlets. A total of 244 television outlets are provided this service annually.

2. AFRTS-Washington - Provides continuous transmittal of international, national, seat of government, military and sports news and special events. This news, gathered from the major U.S. commercial networks, wire services and military correspondents, is transmitted 24 hours a day, seven days a week, by shortwave, direct voice cable, satellite, and teletype to American Forces Radio and Television networks and outlets worldwide. Provides facsimile photo service to American Forces Television stations.

B. Armed Forces Information Service

1. Commanders Digest - Provides official information to Commanders and key personnel on matters related to Defense policies, goals and interest, to create better understanding and teamwork within the Department of Defense. Commanders Digest is the journal of record for the Department of Defense to communicate with members of the Defense Establishment. It is distributed weekly to top-level members (0-4 and above officers, E-8 and E-9 enlisted men, top civilians of the four Services, DoD and Reserve and National Guard) of the Department of Defense.

2. American Forces Press Service - Provides news, policy, feature materials, art and photographic illustrations to approximately 1,800 Service newspapers worldwide. Stencils, matrices and offset reproducibles are furnished to each

editor according to his needs. AFPS provides editors with those materials not readily available or within the capabilities of their limited staffs: Editorials, cartoons, photo art, and promotional materials to support local, command and Department of Defense objectives.

3. Defense Information Guidance Series - Provides information and policy guidance with multi-media supporting material for use in internal information programs of the Military Services. The Series is designed to disseminate quickly to Armed Forces commanders and personnel current information and policy that will contribute to a better understanding of National defense programs and aid them in accomplishing their missions through increased professional knowledge.

4. Publications and Printing Service - Provides books, pamphlets, pocket guides to foreign countries, folders, brochures, and other printed informational materials to the Military Departments for their use in Armed Forces information programs. Principal information subject areas are Citizenship (including Voting), Servicemen's Rights and Benefits (including Supplemental Benefits), Overseas Area Orientation, World Affairs, Forces for Freedom, Health, Equal Opportunity, Education, The Geneva Conventions, Drug and Alcohol Abuse, etc.

C. Armed Forces Motion Picture and Publications Service

Includes the annual procurement or production and distribution of common-use films required to support Service internal Information Programs. Funding will provide media materials which include motion pictures, trailers, books, pocket guides to foreign countries, folders, brochures, posters and slides dealing with joint or common interest areas.

D. Policy and Program Analysis Division

Monitors and coordinates the Armed Forces Information Program (AFIP) to insure maximum effectiveness within the DoD. Develops recommendations for policy, management, staffing, procurement and procedures to support IAF's mission in the Armed Forces Information Programs; special and contingency plans for implementing DoD Internal Information Programs; plans and manages special projects as required by the Director; and evaluates the effectiveness of IAF and Service Internal Information Programs and materials.

E. Federal Voting Assistance Division

Assists all eligible persons covered by the Federal Voting Assistance Act of 1955 (P.L. 296, 84th Congress), as amended, to register and vote by absentee process in their respective States, the District of Columbia, the Commonwealth of Puerto Rico, and the Territories of Guam and the Virgin Islands. These persons include members of the Armed Forces and their spouses and dependents, and all U.S. citizens temporarily residing overseas and their spouses and dependents when residing with or accompanying them.

Assists 50 States, District of Columbia, Puerto Rico, to take legislative or administrative action to enable qualified voters (persons listed above) who are absent from their voting residences, to register and vote by absentee process.

Obtains essential voting rules, procedures, and information from the States, District of Columbia, Puerto Rico, and the above listed Territories, and to disseminate it to all persons covered by the Federal Voting Assistance Act, as amended.

SUMMARY OF RESOURCES

A. Obligations ($ Thousands)	FY 1973	FY 1974	FY 1975
Direct	$9,664	$11,480	$14,773
Reimbursable	648	317	60
TOTAL	$10,312	$11,797	$14,833

	FY 1973		FY 1974		FY 1975	
B. Personnel	End Strength	Man Years	End Strength	Man Years	End Strength	Man Years
Civilian	142	141	158	155	164	165
Military	84	77	67	89	88	88
TOTAL	226	218	225	244	252	253

Summary by SubActivity
($ Thousands)

A. Obligations by SubActivity	FY 1973	FY 1974	FY 1975
1. Office of the Director	$ 117	$ 110	$ 112
2. Policy and Program Analysis	202	232	400
3. American Forces Radio and Television Svc.	6,896	8,688	11,437
4. Armed Forces Information Service	690	622	1,042
5. Armed Forces Motion Picture and Publications Service	1,731	1,681	1,671
6. The Federal Voting Assistance Task Force	28	147	111
Subtotal, Direct	$9,664	$11,480	$14,773
Reimbursable	648	317	60
Total	$10,312	$11,797	$14,833

B. Personnel End Strength by SubActivity	FY 1973			FY 1974			FY 1975		
	Civ	Mil	Total	Civ	Mil	Total	Civ	Mil	Total
1. Office of the Director	4	1	5	4	1	5	4	1	5
2. Policy and Program Analysis	8	3	11	10	3	13	10	3	13
3. American Forces Radio and Television Svc.	112	71	183	126	55	181	133	76	209
4. Armed Forces Information Service	16	4	20	16	3	19	15	3	18
5. Armed Forces Motion Picture and Publications Service	1	2	3	1	2	3	1	2	3
6. The Federal Voting Assistance Task Force	1	3	4	1	3	4	1	3	4
Total	142	84	226	158	67	225	164	88	252
C. Personnel Manyears by SubActivity									
1. Office of the Director	4	1	5	4	1	5	4	1	5
2. Policy and Program Analysis	8	3	11	10	3	13	10	3	13
3. American Forces Radio and Television Svc.	115	67	182	125	77	202	131	76	207
4. Armed Forces Information Service	12	3	15	14	3	17	18	3	21
5. Armed Forces Motion Picture and Publications Service	1	2	3	1	2	3	1	2	3
6. The Federal Voting Assistance Task Force	1	1	2	1	3	4	1	3	4
Total	141	77	218	155	89	244	165	88	253

Summary of Increases and Decreases
($ Thousands)

	O/D	PPAD	AFRTS	AFIS	AFMPPS	FVATF	TOTAL
Current Year	$110	$232	$8,688	$622	$1,681	$147	$11,480
1. Increases							
A. Civilian Personnel							
Annualization of October 1973 Pay Raise	1	3	47	4			55
Civilianization Program			75				75
Functional Transfer (CHAMPUS)				45			45
Within-grade Promotions	1	1	15	2		1	20
Increase in Manpower Employment		11		6			17
Increase in Night Differential & Overtime			5				5
Terminal Leave			5	5			10
Extra Paid Day			8	1			9
Sub-Total	2	15	155	63		1	236
B. Reimbursement to GSA		152					152
C. Radio Service			520				520
D. TV Service			1,560				1,560
E. Information and Liaison			416				416
F. Broadcast Service			123				123
G. Communications			172				172
H. Printing Cost Increases				115	24		139
I. Functional Transfer (CHAMPUS)				247			247
J. Other Minor Adjustments		1	107				108
2. Decreases							
A. Supplies			-277				-277
B. Equipment			-27				-27
C. Film Production					-34		-34
D. Other Minor Adjustments				-5		-37	-42
Budget Year	112	400	11,437	1,042	1,671	111	14,773

Summary of the Requirements by Sub-Activity and Type of Cost
(In Thousands of Dollars)

	FY 1973			Estimated FY 1974			FY 1975			Change (+) or (-)		
	Pos	Man Years	Amt.	Pos	Man Years	Amt	Pos	Man Years	Amt	Pos	Years	Amt
Office of the Director												
Civilian Personnel	4	4	$99	4	4	$100	4	4	$102			$+2
Travel of Personnel						10			10			
Other Costs (contracts, administrative equipment, supplies)			8									
TOTAL	4	4	$117	4	4	$110	4	4	$112			$+2

The $2,000 increase in personnel costs is necessary to provide within-grade salary increases and to annualize the October 1973 civilian pay increase.

	FY 1973			Estimated FY 1974			FY 1975			Change (+) or (-)		
	Pos	Man Years	Amt	Pos	Man Years	Amt	Pos	Man Years	Amt	Pos	Man Years	Amt
Policy and Program Analysis												
Civilian Personnel	8	8	$117	10	10	$147	10	10	$162			$ 15
All Other Administrative Costs (telephone service, printing, supplies, travel, etc).			85			85			238			+153
TOTAL	8	8	$202	10	10	$232	10	10	$400			$+168

	FY 1973	FY 1974	Change
Civilian Personnel	$147	$162	$+15

A net increase of $15,000 in FY 1975 is required as follows: $1,000 for within-grade increases; $11,000 for an increase in man-year employment; and $3,000 to annualize the October 1973 pay raise.

	FY 1974	FY 1975	Change
All Other Administrative Costs	$85	$238	$+153

Of the $153,000 increase requested, $152,000 is to provide reimbursement to GSA for rental of buildings. Funds for this purpose are included in this budget activity for the first time in accordance with Public Law 92-313.

	FY 1973			Estimated FY 1974			Estimated FY 1975			Change (+) or (-)		
	Pos	Man Years	Amt	Pos	Man Years	Amt	Pos	Man Years	Amt	Pos	Man Years	Amt
American Forces Radio and Television Service												
Civilian Personnel	112	115	$1,897	126	125	$2,184	133	131	$2,339	+7	+6	$+155
Other Than Personnel Costs												
Radio Service-LA			597			990			1,510			+520
Television Service-LA			2,624			2,518			4,078			+1,560
Information and Liaison Service-LA			156			208			624			+416
Broadcast Service-Washington			718			797			920			+123
Communications			282			513			685			+172
Travel			40			33			33			-
Supplies			241			944			667			-277
Equipment			64			72			45			-27
All Other Radio and Television Service			277			429			536			+107
TOTAL	112	115	$6,896	126	125	$8,688	133	131	$11,437	+7	+6	$+2,749

American Forces Radio and Television Service

	FY 1974	FY 1975	Change
Civilian Personnel	$2,184	$2,339	$+155

An increase of $155,000 in FY 75 is requested for the following: $47,000 to annualize the October 1973 pay raise; $75,000 to convert seven (7) military positions to civilian status; $15,000 to cover within-grade promotions; $5,000 for night differential and overtime pay increases resulting from expanded radio and television service to Navy ships; $8,000 for the extra paid day in FY 1975; and $5,000 for anticipated terminal leave payments for FY 1975.

	FY 1974	FY 1975	Change
Radio Service-Los Angeles	$ 990	$1,510	$+520

Of the $520,000 increase for radio service, $477,000 is to annualize the cost of radio tape service initiated in FY 74 for Navy ships at sea, $39,000 is for price increases in contracts for recordings and syndicated programs, $4,000 for FM service to 10 additional outlets.

	FY 1974	FY 1975	Change
Television Service-Los Angeles	$2,518	$4,078	$+1,560

The $1,560,000 increase for television service provides for the continued phasing of television service to Navy ships at sea. Two circuits will be added for a total of eight television circuits of TV programming all of which will be bicycled among 133 Navy ships. The phasing will be completed in FY 76. The funds will be used as follows:

$ 794	TV programs for two additional Navy circuits
650	Annualize cost of Navy service initiated in FY 74
80	Annualize cost of unrestricted circuit initiated in FY 74
36	Increased cost of feature films
$1,560	

	FY 1974	FY 1975	Change
Information and Liaison Service	$208	$624	$+416

The $416,000 increase for Information and Liaison is primarily to furnish information materials including a library of spot announcements, slides and special programs to new Navy ships ($125,000); annualize service initiated in FY 74 for Navy ships ($75,000); news slide service for all TV outlets ($120,000) and partial replacement of information library materials ($96,000).

	FY 1974	FY 1975	Change
Broadcast Service, Washington	$797	$920	$+123

The $123,000 increase in Broadcast Service is to provide a voice circuit of news, sports and special events to AFRT outlets in Korea and Japan, the only two major areas overseas that do not receive a reliable audio service of news, sports and information from the U.S.

	FY 1974	FY 1975	Change
Communications	$513	$685	$+172

The $172,000 increase in communication represents an increase of $119,000 for reimbursement to the Postal Service due to postal rate increases and additional service for Navy ships. The remaining $53,000 is made up of increased cost of leased audio circuits and news wire services.

	FY 1974	FY 1975	Change
Supplies and Equipment	$1,016	$712	$-304

The decrease of $277,000 in supplies and $27,000 in Equipment is the result of one time only costs incurred in FY 74 in support of the radio and TV program for Navy ships.

	FY 1974	FY 1975	Change
All Other	$429	$536	$+107

The $107,000 increase in all other radio and television service represents a $67,000 increase in rents and utilities, $4,000 in purchased equipment maintenance, $1,000 in printing and $35,000 in other administrative areas.

Summary of the Requirements by Sub-Activity and Type of Cost
(In Thousands of Dollars)

	FY 1973			Estimated FY 1974			FY 1975			Change (+) or (-)		
Armed Forces Information Service	Pos	Man Years	Amt	Pos	Man Years	Amt	Pos	Man Years	Amt	Pos	Man Years	Amt
Civilian Personnel	16	12	$247	16	14	$281	15	15	$344			$ +63
American Forces Press Service			294			235			340			+105
DoD Information Guidance Series			19			20			30			+10
All Other (travel, graphic support, etc.)			130			86			328			+242
TOTAL	16	12	$690	16	14	$622	15	15	$1,042			$+420

Civilian Personnel	FY 1974	FY 1975	Change
	$281	$344	$+63

This increase is primarially attributable ($45,000) to the functional transfer of information responsibilities for the CHAMPUS program from the Army to OIAF and it also provides for within-grade salary increases and for the annualization of the October 1973 civilian pay raise.

American Forces Press Service	FY 1974	FY 1975	Change
Commanders Digest	$165	$260	$+95
Press Service	70	80	+10
	$235	$340	$105

Funds requested under this category are to cover printing costs of Commanders Digest and Press Service. The funds requested for FY 1975 will provide for increased paper and labor costs associated with the printing industry and to fund the distribution of our major publication (Commanders Digest) at a level with actual experience in FY 1973.

	FY 1974	FY 1975	Change
DoD Information Guidance Series	$ 20	$ 30	$+10

This increase is necessary to support increased printing costs attributed to labor and paper price increases.

	FY 1974	FY 1975	Change
All Other	$ 86	$328	$+242

Funds under this category provide for travel, maintenance of equipment, and graphic supplies. The major portion of this net increase ($247) is associated with the functional transfer of information responsibilities for the CHAMPUS program, while other changes result in a net decrease of $5,000.

Summary of the Requirements by Sub-Activity and Type of Cost
(In Thousands of Dollars)

	FY 1973			Estimated FY 1974			FY 1975			Change (+) or (-)		
Armed Forces Motion Picture and Publications Service	Pos	Man Years	Amt.	Pos	Man Years	Amt.	Pos	Man Years	Amt.	Pos	Man Years	Amt.
Civilian Personnel	1	1	$ 30	1	1	$ 32	1	1	$ 32			$ -
Travel			3			3			3			-
Publications			441			420			444			+24
Motion Pictures			945			886			852			-34
All Other			312			340			340			-
TOTAL	1	1	$1,731	1	1	$1,681	1	1	$1,671			$-10

This program includes the annual procurement or production and distribution of common-use films and publications for use in formal Service information programs and Commander's Calls. Distribution of products will range from 1,000 prints of some motion pictures to 1,000,000 copies of publications, depending on priority and emphasis and Service requirements.

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The minor decrease of $10,000 results from the production costs associated with the various film projects funded from this activity. In FY 1975 we will deemphasize the film output for drug and alcohol abuse and add emphasis to a less costly film project on traffic safety.

Summary of the Requirements by Sub-Activity and Type of Cost
(In Thousands of Dollars)

	FY 1973			Estimated FY 1974			FY 1975			Change (+) or (-)		
The Federal Voting Assistance Task Force	Pos	Man Years	Amt.	Pos	Man Years	Amt.	Pos	Man Years	Amt.	Pos	Man Years	Amt.
Civilian Personnel	1	1	$24	1	1	$ 25	1	1	$ 26			$+ 1
Travel			4			6			10			+ 4
Printing			-			116			73			-43
All Other												+ 2
TOTAL	1	1	$28	1	1	$147	1	1	$111			$-36

The Federal Voting Assistance Task Force was established to implement the Federal Voting Assistance Act of 1955 - Public Law 84-296 (amended in 1968 by Public Laws 90-343 and 90-344). Under Executive Order 10646, November 22, 1955, the President designated the Secretary of Defense "as the official to discharge Federal responsibilities under the Federal Voting Assistance Act of 1955." The Secretary of Defense delegated the authority to administer the program to the Assistant Secretary of Defense (Manpower and Reserve Affairs). Responsibility for the program has been assigned to the Director, Office of Information for the Armed Forces (IAF). Manpower resources previously provided by the Military Services have now been absorbed within the authorized ceiling for IAF.

The net decrease of $36,000 is attributable to the printing of a Voting Officers Guide/Manual in FY 1974 that will not be printed in FY 1975.

Summary of Obligations by Element of Expense

	(In Thousands of Dollars)		
	Actual	Estimated	Estimated
Civilian Personnel:	FY 1973	FY 1974	FY 1975
Compensation	$ 2,221	$ 2,554	$ 2,774
Benefits	193	215	231
Travel of Personnel	68	62	72
Transportation of Things	3	3	3
Utilities and Rents	84	132	435
Communications	1,113	1,435	1,688
Purchased Equipment Maintenance-Intra DoD	7	6	6
Purchased Equipment Maintenance-Commerical	28	72	76
Printing and Reproduction	772	809	1,063
Other Purchased Services	4,521	4,818	7,348
Other Supplies	580	1,297	1,026
Equipment	74	77	51
Total Direct Obligations	$9,664	$11,480	$14,773
Reimbursable Obligations	648	317	60
Total Obligations	$10,312	$11,797	$14,833

Summary of Civilian Personnel by Grade

	FY 1973	FY 1974	FY 1975
General Schedule Grades			
GS-16	1	1	1
GS-15	3	3	3
GS-14	8	9	9
GS-13	19	20	19
GS-12	13	13	13
GS-11	35	38	42
GS-10	2	2	2
GS- 9	3	5	4
GS- 8	4	5	5
GS- 7	4	4	4
GS- 6	12	13	13
GS- 5	10	12	12
GS- 4	9	9	10
Sub-total, general schedule	123	134	137
Ungraded Positions	22	24	27
Total permanent Positions	145	158	164
Unfilled positions, June 30	-7		
Total permanent employment, end of year	138	158	164
Temporary part-time and intermittent employees	4		
Total employment, end of year	142	158	164

Summary of Military Personnel by Rank

	FY 1973	FY 1974	FY 1975
Officers:			
Col. /Capt.	6	6	6
Lt. Col. /Cdr.	6	4	7
Maj. /LCdr.	6	3	3
Capt. /Lt.	2	2	2
1st Lt. /Lt. (jg)			
2nd Lt. /Ens.			
Warrant Officers			
Subtotal, Officers	20	15	18
Enlisted Personnel	72	52	70
Total positions	92	67	88
Unfilled positions, June 30	-8	—	—
Total employment, end of year	84	67	88

Budget Activity: Administration and Associated Activities Budget Subactivity: Secretary of Defense Activities

Statement of Purpose & Scope

Included in this budget subactivity are civilian salaries and other necessary expenses for the Office of the Secretary of Defense, Deputy Secretaries of Defense, the Director of Defense Research and Engineering, the Assistant Secretaries of Defense, the General Counsel of the Department of Defense and such special assistants as the Secretary requires to advise him in specialized fields.

Pay and allowances for the military personnel assigned to these activities are not included in the estimates for this appropriation, but are provided in the military personnel appropriation estimates under Title I. Other necessary expenses include the transportation and per diem expenses for both civilian and military personnel assigned, their office supplies and equipment, communication expenses, printing and reproduction, and contractual services.

Office, Secretary of Defense

Summary of Resources

A. Obligations ($ thousands)	FY 1973	FY 1974	FY 1975
Direct	42,806	50,272	266,243
Reimbursable	722	300	8,906
Total	43,528	50,572	275,149

	FY 1973		FY 1974		FY 1975	
B. Personnel	End Strength	Man Years	End Strength	Man Years	End Strength	Man Years
Civilian	1,534	1,517	1,761	1,605	1,796	1,711
Military	656	659	530	583	519	519
Total	2,190	2,176	2,291	2,188	2,315	2,230

(Summary by Program Element)
($ Thousands)

A. Obligations by Program Element

	FY 1973	FY 1974	FY 1975
Direct:			
OSD	40,640	47,837	263,745
Communications	994	1,110	1,170
Public Affairs	1,172	1,325	1,328
Sub-Total, Direct	42,806	50,272	266,243
Reimbursable (OSD)	722	300	8,906
TOTAL	43,528	50,572	275,149

B. Personnel End Strength by Program Element

	FY 1973			FY 1974			FY 1975		
	Civ.	Mil.	Total	Civ.	Mil.	Total	Civ.	Mil.	Total
OSD	1,478	580	2,058	1,699	459	2,158	1,732	449	2,181
Communications	-	-	-	-	-	-	-	-	-
Public Affairs	56	76	132	62	71	133	64	70	134
TOTAL	1,534	656	2,190	1,761	530	2,291	1,796	519	2,315

C. Personnel Man-years by Program Element

OSD	1,458	584	2,042	1,542	512	2,054	1,649	449	2,098
Communications	-	-	-	-	-	-	-	-	-
Public Affairs	59	75	134	63	71	134	62	70	132
TOTAL	1,517	659	2,176	1,605	583	2,188	1,711	519	2,230

Summary of Obligations by Sub-Project

(In Thousands of Dollars)

Sub-Project	Actual FY 1973	Estimate FY 1974	Estimate FY 1975
Secretary of Defense	297	248	239
Deputy Secretaries of Defense	144	270	334
Defense Research and Engineering	4,367	4,485	5,108
ASD(Comptroller)	12,202	13,228	13,837
ASD(Health & Environment)	472	568	574
ASD(Installations & Logistics)	6,712	6,692	7,701
ASD(Intelligence)	687	3,462	6,100
ASD(International Security Affairs)	1,958	2,911	3,216
ASD(Legislative Affairs)	287	407	513
ASD(Manpower & Reserve Affairs)	2,551	2,848	3,033
ASD(Public Affairs)	1,487	1,710	1,785
(Security Review)	(333)	(410)	(481)
ASD(Telecommunications)	799	920	1,024
General Counsel	1,122	1,134	1,211
Defense Program Analysis and Evaluation	2,432	2,681	2,853
Special Staff Assistants	1,427	1,758	1,947
ATSD(Atomic Energy)	167	211	328
Bicentennial Commission	-	39	63
Overseas Dependents Education	-	-	203,932
Central Services	5,695	6,700	12,445
Total Direct Obligations	42,806	50,272	266,243
Reimbursable Obligations	722	300	8,906
Total Obligations	43,528	50,572	275,149

Summary of Year End Personnel Requirements by Sub-Project

Sub-Project	Actual Year End Strength FY 1973			Estimated Year End Strength FY 1974			Estimated Year End Strength FY 1975		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Secretary of Defense	5	2	7	5	2	7	5	2	7
Deputy Secretaries of Defense	4	2	6	10	4	14	12	5	17
Defense Research & Engineering	146	55	201	183	50	233	183	50	233
ASD(Comptroller)	502	118	620	558	113	671	571	107	678
ASD(Health & Environment)	20	27	47	23	22	45	24	22	46
ASD(Installations & Logistics)	201	45	246	222	4[illegible]	264	224	39	263
ASD(Intelligence)	36	18	54	33		[illegible]0	45	17	62
ASD(International Security Affairs)	87	96	183	131			132	73	205
ASD(Legislative Affairs)	16	15	31	23	[illegible]		23	13	36
ASD(Manpower & Reserve Affairs)	103	76	179	128	[illegible]		131	70	201
ASD(Public Affairs)	71	95	166	82	8[illegible]		83	86	169
(Security Review)	(15)	(19)	(34)	(19)	(16)		(19)	(16)	(35)
ASD(Telecommunications)	31	13	44	39	17		39	17	56
General Counsel	44	1	45	49	1		49	1	50
Defense Program Analysis & Evaluation	105	47	152	115	37		115	37	152
Special Staff Assistants	44	29	73	64	33	[illegible]7	64	33	97
ATSD(Atomic Energy)	8	17	25	14	22	3	14	22	36
Bicentennial Commission	-	-	-	3	-	[illegible]	3	-	3
Intermittent Consultants	14	-	14	17	-	17	17	-	17
Central Services	97	-	97	62	-	62	62	-	62
Sub-Total Personnel Requirements	1,534	656	2,190	1,761	605	2,366	1,796	594	2,390
Undistributed Reductions	-	-	-	-	-75	-75	-	-75	-75
Total Personnel Requirements	1,534	656	2,190	1,761	530	2,291	1,796	519	2,315

Sub-Project	Average FY 1973 Civilian	Military	Total	Average FY 1974 Civilian	Military	Total	Average FY 1975 Civilian	Military	Total
Secretary of Defense	8	2	10	7	2	9	7	2	9
Deputy Secretaries of Defense	5	2	7	9	4	13	12	5	17
Defense Research and Engineering	162	60	222	158	50	208	181	50	231
ASD(Comptroller)	514	122	636	531	113	644	551	107	658
ASD(Health & Environment)	19	24	43	24	22	46	23	22	45
ASD(Installations & Logistics)	219	46	265	211	42	253	222	39	261
ASD(Intelligence)	27	19	46	35	17	52	43	17	60
ASD(International Security Affairs)	87	88	175	120	74	194	129	73	202
ASD(Legislative Affairs)	16	14	30	20	13	33	23	13	36
ASD(Manpower & Reserve Affairs)	107	82	189	117	71	188	125	70	195
ASD(Public Affairs)	72	93	165	80	87	167	81	86	167
(Security Review)	(13)	(18)	(31)	(17)	(16)	(33)	(19)	(16)	(35)
ASD(Telecommunications)	31	10	41	35	17	52	37	17	54
General Counsel	47	2	49	46	1	47	48	1	49
Defense Program Analysis & Evaluation	104	47	151	108	37	145	111	37	148
Special Staff Assistants	52	29	81	57	31	88	64	33	97
ATSD(Atomic Energy)	9	19	28	10	20	30	15	22	37
Bicentennial Commission	-	-	-	1	-	1	3	-	3
Intermittent Consultants*	(4)	-	(4)	(7)	-	(7)	(7)	-	(7)
Central Services	38	-	38	36	-	36	36	-	36
Sub-Total Avg. Personnel Requirements	1,517	659	2,176	1,605	601	2,206	1,711	594	2,305
Undistributed Reductions	-	-	-	-	-18	-18	-	-75	-75
Total Avg. Personnel Requirements	1,517	659	2,176	1,605	583	2,188	1,711	519	2,230

*Averages included in respective employing activities

Summary of Increases and Decreases
($ Thousands)

	OSD	Communi-cations	Public Affairs	Total
Current Year (Direct Obligations)	47,718	1,229	1,325	50,272
Increases				
Personnel Costs:				
Annualization of Oct. 1973 pay raise	+810	-	+35	+845
Transfer of Overseas Dependents' Schools	+128,258	-	-	+128,258
Conversion Program	+176	-	+64	+240
Other Personnel Compensation	+188	-	+9	+197
Benefits	+260	-	+8	+268
Additional day of paid employment	+119	-	+6	+125
Additional man-years of employment	+1,825	-	-	+1,825
Travel of Personnel	+800	-	-	+800
Transportation of Things	+4,655	-	-	+4,655
Utilities and Rents	+13,232	-	-	+13,232
Communications (Telephone and Postal Service)	-	+91	-	+91
Other Purchased Services	+51,449	-	-	+51,449
Service Support Contracts	+3,100	-	-	+3,100
Supplies	+7,887	-	-	+7,887
Equipment	+3,139	-	-	+3,139
Total Increases	+215,898	+91	+122	+216,111
Decreases				
Personnel Costs:				
Other Personnel Compensation	-22	-	-3	-25
Reduction in employment	-	-	-109	-109
Travel	-	-	-6	-6
Total Decreases	-22	-	-118	-140
Budget Year (Direct Obligations)	263,594	1,320	1,329	266,243

Explanation of Estimates

The Secretary and Deputy Secretaries of Defense

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	17	7	24	19	7	26	573
FY 1974	15	6	21	16	6	22	518
FY 1973	9	4	13	13	4	17	441

The Secretary of Defense is the principal assistant to the President in all matters affecting the Department of Defense and he exercises direction, authority and control over the Department of Defense.

The estimate of $573,000 for FY 1975 provides for the civilian salaries, related benefits and other necessary expenses for the Secretary and two (2) Deputy Secretaries of Defense together with their assistants.

An increase of $55,000 is requested for FY 1975, $40,000 of which is needed to provide for three (3) additional man-years of employment. The remaining amount is for such costs as annualization of the October 1973 pay raise, within-grade costs and an extra paid day of employment.

Director of Defense Research and Engineering

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	183	50	233	181	50	231	$5,108
FY 1974	183	50	233	158	50	208	4,485
FY 1973	146	55	201	162	60	222	4,367

The Director of Defense Research and Engineering is the principal adviser and staff assistant to the Secretary of Defense in the functional fields of scientific and technical matters; basic and applied research; research, development, test and evaluation of weapons, weapons systems and defense material; and design and engineering for suitability, producibility, reliability,

maintainability and environmental services. He supervises all research and engineering activities in the Department of Defense. He exercises administrative direction over the Weapons Systems Evaluation Group and assures that this Group is responsive to the needs of the Organization of the Joint Chiefs of Staff and Defense staff offices for operations analysis.

These estimates provide the civilian salaries, related benefits and other necessary expenses for the Office of the Director of Defense Research and Engineering; the Principal Deputy Director of Defense Research and Engineering; six other deputy directors with responsibilities for acquisition management, plans and assessment, research and advanced technology, strategic and space systems, tactical warfare programs, and test and evaluation as well as assistants in specialized fields.

The estimates for FY 1975 provide for an increase of $649,000 in personnel costs and a decrease of $26,000 in travel costs for a net change in resource requirements of $623,000. The change in personnel costs is primarily attributed to the following: $100,000 is required to annualize the October 1973 civilian pay raise, $13,000 is needed for within-grade salary increases and $537,000 is required to support the estimated increase in average employment. This organization effected a minor reorganization in FY 1974 which resulted in many personnel vacancies pending the new organizational structure. A new Director is now on-board and the new organization is being staffed. Although the authorized strength for ODDR&E is now five fewer than presented in the FY 1974 budget the average strengths are expected to increase by 23 man-years over the reduced level of FY 1974.

Comptroller

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	571	107	678	551	107	658	$13,837
FY 1974	558	113	671	531	113	644	13,228
FY 1973	502	118	620	514	122	636	12,202

The Assistant Secretary of Defense (Comptroller) advises and assists the Secretary of Defense in the performance of the Secretary's programming, budgeting, auditing, and fiscal functions; provides for the design and installation of resource management systems throughout DoD; and collects, analyzes and reports resource management information for the Secretary of Defense. He is also the principal staff assistant to the Secretary of Defense in the functional areas of administration, management and organization. In his assigned area of responsibility, the Comptroller (1) recommends to the Secretary of Defense principles, policies and procedures for the establishment of resource management systems throughout the

Department of Defense and supervises the implementation of approved systems; (2) coordinates and controls the programming process; (3) supervises, directs and reviews the preparation and execution of the Department of Defense budget; (4) establishes and supervises the implementation policies and procedures pertaining to the expenditure and collection of funds, international financial matters, prices for transactions involving the exchange of goods and services, contract audit and internal audit, and uniform terminologies, classifications and procedures relating to programming, budgeting, funding, accounting, reporting, auditing, economic analysis, program evaluation, output measurement, resource management, management of DoD automatic data systems, and management and control of DoD information requirements; (5) performs operating audit functions; (6) processes General Accounting Office or external audit reports; (7) provides and administers services in support of the Office of the Secretary of Defense pertaining to automatic data processing and central data services; (8) establishes policies, plans and programs for physical, investigative, industrial, and personnel security matters; (9) serves as Chairman of the Defense Investigative Review Council; (10) directs and administers the DoD Information Security Program; (11) oversees the administration of and overall policy guidance for the DoD Industrial Personnel Security Clearance Program; (12) acts for the Secretary of Defense as United States Security Authority for NATO, SEATO, and CENTO, and as the National Security Authority for security agreements; (13) conducts research, develops plans, and recommends organizational structures and management practices that will achieve efficient and economical operation; (14) reviews and validates organizational arrangements and manning levels of offices within the organization and the Defense Agencies; (15) provides administrative support; (16) coordinates on all matters relating to the improvement of Federal-State relations; (17) represents the Secretary in providing for continuity of Government, military participation in civil and domestic emergencies, and related emergency planning and coordination within the DoD; (18) establishes policy for and supervises DoD audio-visual activities; (19) insures that all matters presented to the Secretary for signature reflect established Presidential and DoD policies and are consistent with interdepartmental and interagency agreements; (20) provides policy, guidance, coordination, and supervision for the operation of administrative facilities and services common to all Defense activities at the Seat of Government; (21) establishes standards and provides policy guidance, coordination, and evaluation of the operation of administrative facilities and services in support of DoD Components as necessary; (22) establishes, controls, and manages the DoD Directive System; (23) prepares, maintains and coordinates historical records and reports for the Office of the Secretary of Defense; and (24) processes requests to the Secretary for Special Air Mission transportation other than for Congressional travel.

The estimates provide for the civilian salaries and other necessary expenses for the Office of the Assistant Secretary of Defense and the principal deputy assistant secretary and five deputy assistant secretaries with responsibilities for program/budget, systems policy and information, audit, administration and security policy.

The estimates for FY 1975 provide for a net increase of $609,000. $273,000 of the increase is required to fund annualization costs of the October 1973 pay raise and $184,000 is needed for twenty man-years of increased civilian employment. $70,000 is required for cost to the government for personnel benefits. Included also are other minor adjustments for items of expense, such as the additional day of paid employment and within-grade salary increases as well as a reduction of $39,000 in travel costs related to the Secretary's program to reduce all forms of travel to minimum levels because of the energy shortage.

Health and Environment

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	24	22	46	23	22	45	$574
FY 1974	23	22	45	24	22	46	568
FY 1973	20	27	47	19	24	43	472

The Assistant Secretary of Defense (Health and Environment) is the principal staff adviser and coordinator for the Secretary of Defense for health and sanitation matters, including care and treatment of patients, preventive medicine, clinical investigations, hospitals and related health facilities, medical material, nutrition, drug and alcohol abuse control, and health personnel and the procurement, education and training, and retention of such personnel. He is also responsible for environmental quality matters. He performs functions in his assigned fields of responsibility such as (1) recommending policies and guidance governing Department of Defense planning and program development; (2) developing systems and standards for the administration and management of approved plans and programs; (3) reviewing and evaluating programs of the Department of Defense for carrying out approved policies and standards; (4) recommending appropriate steps which will provide for more effective, efficient and economical administration and operation in the Department of Defense, including the elimination, transfer, reassignment, and consolidation of functions; (5) promoting close cooperation and mutual understanding between the Department of Defense, other Federal agencies, and the civil health and medical professions; and (6) providing specific policy and guidance for the procurement, professional development, and retention of medical and dental personnel, as well as such other personnel as may be required to discharge Department of Defense health and environmental quality responsibility; (7) providing policy guidance, management control, and coordination for the DoD Drug Abuse Control Program and the DoD Alcohol Abuse Control Program; and (8) insuring identification of environmental quality problems associated with the development, production and use of new materials and providing for their abatement and control, and consulting with responsible officials in other Federal agencies to ensure that insofar as practical, the latest antipollution techniques and methods are used in the protection of the environment.

The estimates provide for the civilian salaries and other necessary expenses for the offices of the Assistant Secretary of Defense and the principal deputy assistant secretary; two deputy assistant secretaries with responsibilities for drug and alcohol abuse, health resources and programs, and other assistants in specialized fields.

The FY 1975 request provides for a net increase of $6,000. Increases of $8,000 for annualization of the October 1973 pay raise and $4,000 for such items as one extra paid day of employment and within-grade salary increases are offset by a decrease of $6,000 in travel costs.

Installations and Logistics

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	224	39	263	222	39	261	$7,701
FY 1974	222	42	264	211	42	253	6,692
FY 1973	201	45	246	219	46	265	6,712

The Assistant Secretary of Defense (Installations and Logistics) is the principal staff assistant to the Secretary of Defense in the functional fields of materiel requirements, production planning and scheduling; acquisition, inventory management, storage, maintenance, distribution, movement and disposal of materiel, supplies, tools and equipment; small business matters; transportation, petroleum and other logistical services; supply cataloging, standardization and quality control; commercial and industrial activities and facilities; military construction, including Reserve Forces Facilities; family housing; real estate and real property, including general purpose space; and industrial relations. He is also responsible for assessing the vulnerability of resources to attack damage and for international civil emergency planning.

These estimates provide for the civilian salaries and related benefits and other expenses for the Assistant Secretary of Defense; a principal deputy assistant secretary; four deputy assistant secretaries having responsibility for supply, maintenance and services; procurement; installations and housing; production engineering and materiel acquisition; and assistants in specialized fields.

A net increase of $1,009,000 is requested in FY 1975. $600,000 of this increase is to provide total DoD funding of the Logistics Management Institute from the Office of the Assistant Secretary of Defense (Installations and Logistics) rather than by the military departments and OASD(I&L). Offsetting reductions of $200,000 were made in each of the military service FY 1975 budget estimates. The remaining portion of the net increase is comprised of a $425,000 increase in personnel costs and a $16,000 decrease in travel cost estimates. Personnel cost increases include $117,000 to annualize the October 1973 civilian pay raise, $25,000 for within-grade salary increase of currently employed personnel, $21,000 for the extra paid day of employment in FY 1975, while the remaining portion will provide for twelve (12) additional man-years of employment and personnel benefits related to these cost increases.

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	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	45	17	62	43	17	60	$6,100
FY 1974	33	17	50	35	17	52	3,462
FY 1973	36	18	54	27	19	46	687

The Assistant Secretary of Defense (Intelligence) is the principal staff adviser and assistant to the Secretary of Defense for the management of intelligence resources, programs and activities, including those for intelligence, warning, reconnaissance, and other related areas which may be designated by the Secretary of Defense. He is also responsible for staff supervision of the intelligence aspects of command and control.

In his assigned area of responsibility, he (1) recommends objectives, priorities, plans, and planning guidance for intelligence resources; (2) reviews proposed intelligence resource programs and recommends resource allocations to these programs; (3) monitors approved intelligence resource programs and supervises their implementation; (4) establishes requirements for intelligence support of all research and development programs of the Military Departments and Defense Agencies; (5) coordinates intelligence activities within DoD and coordinates, as appropriate, intelligence programs for the DoD with other U.S. Government entities; (6) provides for DoD representation for international and interdepartmental intelligence organizations and activities; and (7) recommends to the Secretary of Defense requirements and priorities for net threat assessments of U.S. versus opposing foreign weapons systems.

The estimates for FY 1975 provide for the civilian salaries, related benefits and other necessary expenses for the Office of the Assistant Secretary and three deputy assistant secretaries with responsibilities for resources and management, intelligence and warning systems, and intelligence assessment.

A net increase of $2,638,000 is requested for FY 1975. Of this amount $2,500,000 is required for contractual effort to assist in the utilization of advanced technology in the solution of intelligence and intelligence management problems. Personnel costs include $107,000 for eight additional man-years of employment, $21,000 for annualization of the October 1973 pay raise, and minor amounts for personnel benefits and an extra paid day of employment which are partially offset by a reduction of $4,000 in travel costs.

International Security Affairs

	Year End Strength			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	132	73	205	129	73	202	$3,216
FY 1974	131	74	205	120	74	194	2,911
FY 1973	87	96	183	87	88	175	1,958

The Assistant Secretary of Defense (International Security Affairs) is the principal staff assistant to the Secretary of Defense in the functional field of international security. He has primary staff supervision of the Defense Security Assistance Agency. He performs functions in his assigned field of responsibility such as (1) monitoring Department of Defense participation in National Security Council affairs, including development, coordination and recommendation of the positions of the DoD and the provision of staff support for the Defense member of the Council; (2) conducting such political military planning studies as the Secretary of Defense directs; (3) initiating appropriate actions and measures within the Department of Defense for implementing approved National Security Council policies; (4) developing and coordinating Defense positions, policies, plans and procedures in the field of international politico-military and foreign economic affairs, including arms control and disarmament, agreements with foreign governments and international organizations on military facilities, operating rights, status of forces and other international politico-military matters; (5) providing policy guidance to Department of Defense representatives on United States Missions and to international organizations and conferences; (6) developing, coordinating and establishing DoD positions, plans and procedures pertaining to the Security Assistance Program, and other activities of interest to the DoD under the Mutual Security Program; (7) planning, organizing and monitoring the activities of Military Assistance Group insofar as security assistance functions are concerned; (8) evaluating the administration and management of approved policies and programs; and (9) providing policy direction and primary staff supervision to the Director, Defense Security Assistance Agency with regard to security assistance matters.

These estimates provide for the civilian salaries and related benefits and other expenses for the offices of the Assistant Secretary of Defense; a principal deputy assistant secretary and six deputy assistant secretaries with responsibilities for policy plans and National Security Council affairs; Inter-American, foreign trade disclosure and military rights affairs; East Asia and Pacific affairs; European and NATO affairs; near Eastern African and South Asian affairs and international economic affairs; and other assistants in specialized fields. The office of the deputy assistant secretary for security assistance continues to be funded from the Military Assistance appropriation and is not included in these estimates.

The FY 1975 increase of $305,000 includes $60,000 required for annualization of the October 1973 pay raise, $24,000 for cost to the government for personnel benefits, $12,000 for normal within-grade increases, $10,000 for an additional day of paid employment, and $220,000 for nine (9) man-years of increased employment. These increases are partially offset by a reduction of $21,000 in travel costs related to the Secretary's program to reduce all forms of travel to minimum essential levels because of the energy shortage.

Legislative Affairs

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	23	13	36	23	13	36	$513
FY 1974	23	13	36	20	13	33	407
FY 1973	16	15	31	16	14	30	287

The Assistant Secretary of Defense (Legislative Affairs) is the principal staff assistant to the Secretary of Defense for Department of Defense relations with the Congress. He advises and assists the Secretary of Defense and other Defense officials on Congressional aspects of Department of Defense policies, plans and programs; coordinates Department of Defense actions relating to Congressional consideration of the legislative program of the Department; coordinates the development, clearance and furnishing of information in response to requests received in the Defense staff offices from members of the Congress, Congressional committees, and their staffs; arranges for the designation and appearance of witnesses from the Department at Congressional hearings on Defense matters; and maintains direct liaison with the Congress, the Executive Office of the President and other government agencies with regard to legislative investigations and other pertinent matters affecting relations of the Department of Defense with Congress.

These estimates provide for the civilian salaries and related benefits and other expenses for the offices of the Assistant Secretary of Defense, a principal deputy assistant secretary and two (2) deputy assistant secretaries with responsibilities for Senate affairs and House affairs.

The FY 1975 increase of $106,000 includes $13,000 for annualization of the October 1973 pay raise, $10,000 for cost to the government for personnel benefits and the additional day of paid employment and $94,000 for three (3) man-years of increased

employment and within-grade raises. These increases are partially offset by a reduction of $10,000 in consultant services and $1,000 in travel costs.

Manpower and Reserve Affairs

	Year End Strength			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	131	70	201	125	70	195	$3,033
FY 1974	128	71	199	117	71	188	2,848
FY 1973	103	76	179	107	82	189	2,551

The Assistant Secretary of Defense (Manpower and Reserve Affairs) is the principal staff assistant to the Secretary of Defense for manpower, personnel, and reserve matters with responsibility for developing policies and legislative proposals in the following areas: (1) quantitative and qualitative force review of all active and reserve component forces; (2) programs designed to attract and retain military individuals; (3) equal opportunity and race relations/human relations, education for military and civilian, male and female, personnel; contractor compliance with equal opportunity requirements of Defense contracts; (4) Armed Forces Information Program which includes all internal information materials and resources used in communications support of DoD internal programs or policies; (5) labor management relations; (6) military and civilian personnel policies; (7) nonappropriated fund policies, salary and wage fixing authority; (8) personal commercial affairs, life and motor vehicle insurance, operation of credit unions, commissaries and post exchanges, and morale support services; (9) religious, morale, discipline and welfare matters; (10) safety and accident prevention; (11) Federal voting assistance programs; (12) community services program; (13) National Guard and Reserve Affairs of the DoD; and (14) representing the Secretary of Defense on the Board of Governors of USO, Inc., the American National Red Cross and Inter-Service and Agency Coordinating Committee on In-Service Veteran's Educational Benefits.

These estimates provide for the civilian salaries and related benefits and other necessary expenses for the offices of the Assistant Secretary of Defense; the principal deputy assistant secretary and six deputy assistant secretaries with responsibilities for education, military personnel policy, reserve affairs, manpower research and utilization, equal opportunity and civilian personnel policy; the Reserve Forces Policy Board; and the Armed Forces Chaplains Board.

The estimate for FY 1975 provides for an increase of $185,000. $59,000 is required for annualization of the October 1973 pay raise, $15,000 for cost to the government for personnel benefits, $10,000 for normal within-grade salary increases, $10,000 for an additional day of paid employment, and $106,000 for eight (8) man-years of increased employment.

These increases are partially offset by a reduction of $15,000 in travel costs related to the Secretary's program to reduce all forms of travel to minimum essential levels because of the energy shortage.

Public Affairs

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	83	86	169	81	86	167	$1,785
FY 1974	82	87	169	80	87	167	1,710
FY 1973	71	95	166	72	93	165	1,487

The Assistant Secretary of Defense (Public Affairs) is the principal staff assistant to the Secretary of Defense for all public information activities and for community relations. He performs functions in his assigned fields of responsibility, such as: (1) advising and assisting officials of the Department of Defense on public information and public relations aspects of Defense policies, plans and programs; (2) recommending policies and providing appropriate guidance and assistance to assure fulfillment of the Department's affirmative obligation to keep the public adequately informed about its activities; (3) providing for the review from a security standpoint under the provisions of Executive Order 11652 of all material originated within the Department of Defense, including testimony before Congressional Committees, or by its contractors for public release or for publication by departmental personnel as individuals, and of material submitted by sources outside the Department for such review; (4) providing for the review of official speeches, press releases, and other information originated within the Department of Defense for public release, or similar material submitted for review by other Executive agencies of the Government; and (5) monitoring military participation in public exhibitions, demonstrations and ceremonies of national or international significance.

These estimates provide for the civilian salaries and related benefits and other necessary expenses for the Assistant Secretary of Defense; a Principal Deputy Assistant Secretary; a Deputy Assistant Secretary; and four directorates with responsibilities for defense information, plans and programs, community relations and security review.

A net increase of $75,000 is requested in FY 1975. $81,000 is required for civilian personnel costs to annualize the October 1973 civilian pay raise, to provide within-grade salary increases, to provide one (1) additional man-year of employment and to provide the government's share of increased employee benefits as a result of the higher pay rates to be in effect in FY1975. The increases in personnel costs are partially offset by a decrease of $6,000 in travel requirements.

Telecommunications

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	39	17	56	37	17	54	$1,024
FY 1974	39	17	56	35	17	52	920
FY 1973	31	13	44	31	10	41	799

The Office of the Assistant Secretary of Defense (Telecommunications) was established as a result of the enactment of Public Law 91-125 which approved an additional Assistant Secretary of Defense for the Department of Defense. The Assistant Secretary of Defense (Telecommunications) is the principal staff assistant to the Secretary of Defense on telecommunications matters and is the principal assistant for the National Communications System. He also has primary staff responsibility in the Office of the Secretary of Defense for the World-Wide Military Command and Control System and the National Military Command System.

The functions of the Assistant Secretary include acting as DoD coordinator in the area of telecommunications and developing, coordinating, and recommending DoD telecommunications policy; reviewing Military Department, Joint Chiefs of Staff and other DoD component validated telecommunications requirements; acting as the DoD coordinator for special telecommunications of a sensitive nature; acting as the DoD coordinator for general purpose radio navigation matters; serving as the DoD central point of contract on telecommunications matters for organizations external to DoD; and serving as a central point for coordination and review of telecommunications plans and programs of the NCS, Services and DoD agencies.

These estimates provide for the civilian salaries, related benefits and other necessary expenses of the office of the Assistant Secretary and three (3) deputy assistant secretaries with responsibilities for operations and engineering, systems, and management.

An increase of $104,000 is requested in FY 1975. This increase includes $18,000 for annualization of the October 1973 pay raise, $7,000 for cost to the government for personnel benefits, $71,000 for two (2) additional man-years of employment and other minor increases. A reduction of $3,000 in travel costs is also included which relates to the Secretary's program to reduce all forms of travel to minimum levels because of the energy shortage.

General Counsel

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	49	1	50	48	1	49	$1,211
FY 1974	49	1	50	46	1	47	1,134
FY 1973	44	1	45	47	2	49	1,122

The General Counsel is the chief legal officer of the Department of Defense and is responsible for all legal services to be performed within and involving the Department of Defense. He advises and assists the Secretary and Deputy Secretary of Defense on legal aspects of Department of Defense activities, renders legal opinions or interpretations on such matters as required, and represents the Secretary and Deputy Secretary of Defense with other governmental, non-governmental and international organizations on legal matters involving the Department. He is also responsible for monitoring the development of the legislative program of the Department of Defense, the development of the Department of Defense position on other items of legislation affecting the Department, including assignment of responsibility for preparation and internal coordination, clearance with the Office of Management and Budget, and submission to the Congress.

These estimates provide for the civilian salaries and other necessary expenses for the offices of the General Counsel and the Deputy General Counsel; four (4) assistant general counsels with responsibilities for logistics, manpower and reserve affairs, fiscal matters and international affairs; and the Director of Legislative Reference Service.

The estimate of $1,211,000 for FY 1975 is an increase of $77,000 over the current program. Included in this increase are $23,000 for annualization of the October 1973 pay raise and $43,000 for an estimated increase of two(2) man-years of civilian employment. Other minor increases are also included for such items as within-grade salary adjustments, extra day of paid employment and cost to the government for personnel benefits as well as a partial offsetting reduction in travel costs.

Defense Program Analysis & Evaluation

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	115	37	152	111	37	148	$2,853
FY 1974	115	37	152	108	37	145	2,681
FY 1973	105	47	152	104	47	151	2,432

The Director, Defense Program Analysis and Evaluation reviews, for the Secretary of Defense, quantitative requirements including forces, weapon systems, equipment, personnel and nuclear weapons; assists the Secretary in the initiation, monitoring, guiding, and reviewing of requirements studies and cost-effectiveness studies; encourages the use of the best analytical methods throughout the Department of Defense; and conducts or participates in special studies as directed by the Secretary of Defense.

These estimates provide for the civilian salaries and related benefits and other necessary expenses for the Director; a Principal Deputy Director; four (4) Deputy Directors with responsibilities for general purpose programs, regional programs, resource analysis, and strategic programs.

A net increase of $172,000 is requested for FY 1975. Of this amount $85,000 is needed for an estimated three (3) additional man-years of employment and $56,000 for annualization of the October 1973 pay raise. The increase also includes $18,000 for normal within-grade salary adjustments, $12,000 for personnel benefits, and $9,000 for an extra day of paid employment. These increases are partially offset by a reduction of $8,000 in travel costs related to energy conservation.

Special Staff Assistants

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	64	33	97	64	33	97	$1,947
FY 1974	64	33	97	57	31	88	1,758
FY 1973	44	29	73	52	29	81	1,427

This budget project provides for the offices of the Special Assistant to the Secretary and Deputy Secretary of Defense, Assistant to the Secretary and Deputy Secretary and the Defense Advisor, U.S. Mission to NATO. New offices have also been added for the SALT Task Force, the Director of Net Assessment and the Assistant to the Secretary for Resource Utilization.

The FY 1975 estimate provides for an increase of $189,000. The major portion of this is required for annualization of the October 1973 pay raise and financing the seven (7) man-years of employment associated with the new offices. Also

included is a reduction of $8,000 in costs related to the Secretary's program to reduce all forms of travel to minimum essential levels because of the energy shortage.

Assistant to the Secretary (Atomic Energy)

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	14	22	36	15	22	37	$328
FY 1974	14	22	36	10	20	30	211
FY 1973	8	17	25	9	19	28	167

The Assistant to the Secretary of Defense (Atomic Energy) is the principal staff assistant to the Secretary of Defense on atomic energy matters. He performs functions in his assigned field of responsibility such as: (1) recommending policies and guidance governing Department of Defense planning and program development; (2) developing systems and criteria for the execution of approved plans and policies; (3) reviewing programs of the military departments for carrying out approved policies; (4) evaluating the administration and management of approved policies and programs; (5) advising and assisting other officials of the Department of Defense on atomic energy aspects of Defense policies, plans and programs; and (6) developing policies and procedures for the transmission of information to the Joint Committee on Atomic Energy, as required by the Atomic Energy Act of 1954, as amended, and coordinating such information, where appropriate, with other officials and agencies of the Department of Defense and with the Chairman of the Atomic Energy Commission. He also serves as the Chairman of the Military Liaison Committee to the Atomic Energy Commission.

The estimates provide for the civilian salaries and other necessary expenses for the Offices of the Assistant to the Secretary, the Deputy Assistant to the Secretary and Special Assistants.

An increase of $117,000 is requested for FY 1975. Of this amount, $105,000 is needed for five (5) additional man-years of employment. The remaining increase of $12,000 is a result of minor adjustments for such items as cost to the government for personnel benefits, annualization of the October 1973 pay raise and an extra paid day, and it includes a reduction in travel costs related to energy conservation.

Bicentennial Commission

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	3	-	3	3	-	3	$ 63
FY 1974	3	-	3	1	-	1	39
FY 1973	-	-	-	-	-	-	-

Public Law 89-491 created the American Revolution Bicentennial Commission and provides that the Secretary of Defense serve as an ex officio member. Accordingly a DoD Bicentennial Committee has been established to ensure efficient and equitable use of limited Armed Forces resources in major related events throughout the country, as well as the coordination of inter-Service and inter-Agency action on requests for such use.

The FY 1974 budget provided for a small staff to accomplish this important function and it is anticipated the staff will be fully operational in FY 1975, hence the increase of two (2) man-years of employment at an additional cost of $24,000.

Central Services

	Year End Personnel			Average Personnel			Obligations
	Civ.	Mil.	Total	Civ.	Mil.	Total	$000
FY 1975	62	-	62	36	-	36	$12,445
FY 1974	62	-	62	36	-	36	6,700
FY 1973	97	-	97	38	-	38	5,695

This budget sub-project provides support services for all Secretary of Defense Activities. These services include housekeeping items, equipment purchases, communication services, rental of machines, supplies, printing, reproduction, etc., as well as personnel compensation for employees (WAE secretaries and summer employees) whose services are used by various offices.

The FY 1975 fund request of $12,445,000 is an increase of $5,745,000 over the current program. Outside of minor adjustments in various categories of expense the major portion of the increase is a result of Public Law 92-313 and the requirement that the Office of the Secretary of Defense reimburse the General Services Administration $5,782,000 for building rent.

SUMMARY OF OBLIGATIONS BY ELEMENT OF EXPENSE

($ Thousands)

	FY 1973	FY 1974	FY 1975
Personnel Compensation	31,993	35,225	158,229
Benefits	2,791	3,215	11,835
Travel of Personnel	1,800	2,125	2,919
Transportation of Things	161	185	4,840
Utilities and Rents	222	220	13,452
Communications	1,094	1,229	1,320
Purchased Equipment Maintenance - Intra-DoD	70	70	70
Purchased Equipment Maintenance - Commercial	127	150	150
Printing and Reproduction	1,156	1,250	1,250
Other Purchased Services	2,860	6,053	60,602
Aircraft POL	-	-	-
Ship POL	-	-	-
Other Supplies	282	300	8,187
Equipment	250	250	3,389
Other Expense	-	-	-
Service Credits	-	-	-
Direct Obligations	42,806	50,272	266,243
Reimbursable Obligations	722	300	8,906
TOTAL Obligations	43,528	50,572	275,149

Summary of Civilian Personnel by Grade

Executive Level Positions General Schedule Grades	FY 1973 25	FY 1974 25	FY 1975 25
GS-18	32	44	44
GS-17	41	39	39
GS-16	88	96	96
GS-15	353	368	378
GS-14	116	125	130
GS-13	70	79	81
GS-12	54	57	57
GS-11	34	36	36
GS-10	19	20	20
GS- 9	76	82	82
GS- 8	82	83	84
GS- 7	234	248	252
GS- 6	182	209	218
GS- 5	59	61	63
GS- 4	19	18	18
GS- 3	12	12	12
GS- 2	1	1	1
Sub-total, general schedule	1,497	1,603	1,636
10 U.S.C. 1581 Positions	56	53	55
22 U.S.C. 2385 Positions			
FD-1	1	1	1
FD-2	5	4	4
Sub-total, FD schedule	6	5	5
Ungraded Positions	19	21	21
Total Permanent Positions	1,578	1,682	1,717
Unfilled Positions, June 30	-155	-	-
Total Permanent Employment, End of Year	1,423	1,682	1,717
Temporary Part-time and Intermittent Employees	111	79	79
Total Employment, End of Year	1,534	1,761	1,796

Summary of Military Personnel by Rank

	FY 1973	FY 1974	FY 1975
Lt. Gen. /Vice Admiral	7	7	7
Maj. Gen. /Rear Adm. (UH)	12	12	12
Brig. Gen. /Rear Adm. (LH)	18	19	19
Col. /Capt.	262	213	212
Lt. Col. /Cdr.	168	135	133
Maj. /LCDR.	28	23	23
Capt. /Lt.	15	11	11
1st Lt. /Lt. (JG)	3	3	3
2nd Lt. /Ens.	-	-	-
Warrant Officers	1	1	1
Sub-total, Officers	514	424	421
Enlisted Personnel	142	106	98
Total Positions	656	530	519
Unfilled Positions, June 30	-	-	-
Total Employment, End of Year	656	530	519

Budget Activity: Administration and Associated Activities

Budget Subactivity: Organization of the Joint Chiefs of Staff

Statement of Purpose and Scope

This budget project provides the civilian salaries and other necessary expenses for the Organization of the Joint Chiefs of Staff. The Joint Chiefs of Staff are the principal military advisors to the President, the National Security Council and the Secretary of Defense.

Pay and allowances for the military personnel assigned to the Organization of the Joint Chiefs of Staff are not included in the estimate for this appropriation, but are provided in the military personnel appropriations. Other necessary costs include the transportation and per diem expenses for both civilian and military personnel assigned, their office supplies and equipment, communication expenses, printing and reproduction, and miscellaneous purchased services.

The Chairman serves as a member of and presides over the Joint Chiefs of Staff. He is responsible for the Organization of the Joint Staff, the subordinate structure of the Joint Chiefs of Staff, and the management of the Joint Staff and its Director on behalf of the Joint Chiefs of Staff. The Chairman furnishes the Secretary of Defense with periodic reports on important considerations of the Joint Chiefs of Staff and provides military advice to the Office of the Secretary of Defense.

The Joint Staff is composed of the Director, Joint Staff and five directorates responsible for providing assistance to the Joint Chiefs of Staff in the fields of personnel, operations, logistics, plans and policy, and communications-electronics.

The other JCS activities include the Joint Secretariat, the Directorate of Administrative Services, the JCS Representatives for International Negotiations, the U.S. Delegation, United Nations Military Staff Committee and the Studies, Analysis and Gaming Agency. In addition, there are four Deputy Directors for Operations responsible for providing assistance to the Operations Directorate in the fields of command and control, environmental services, reconnaissance and electronic warfare and counterinsurgency and special activities..

SUMMARY OF RESOURCES

A. Obligations ($ thousands)	FY 73	FY 74	FY 75
Direct	8,191	8,837	11,414
Reimbursable	-	-	-
Total	8,191	8,837	11,414

	FY 73		FY 74		FY 75	
B. Personnel	End Strength	Man Years	End Strength	Man Years	End Strength	Man Years
Civilian	383	381	421	389	421	389
Military	1,308	1,316	1,295	1,331	1,304	1,304
Total	1,691	1,697	1,716	1,720	1,725	1,693

SUMMARY BY PROGRAM ELEMENT
(In thousands of dollars)

A. Obligations by Program Element	FY 73	FY 74	FY 75
Office, Joint Chiefs of Staff Headquarters	8,191	8,837	11,414
Subtotal, Direct	8,191	8,837	11,414
Reimbursable	-	-	-
Total	8,191	8,837	11,414

B. Personnel End Strength by Program Element	FY 73 (Act)			FY 74 (Est)			FY 75 (Est)		
	Civ	Mil	Total	Civ	Mil	Total	Civ	Mil	Total
National Military Command System-Wide Support	-	364	364	-	366	366		375	375
Office, Joint Chiefs of Staff Headquarters	383	944	1,327	421	929	1,350	421	929	1,350
Total	383	1,308	1,691	421	1,295	1,716	421	1,304	1,725

C. Personnel Manyears by Program Element									
National Military Command System-Wide Support	-	356	356	-	366	366	-	375	375
Office, Joint Chiefs of Staff Headquarters	381	960	1,341	389	965	1,354	389	929	1,318
Total	381	1,316	1,697	389	1,331	1,720	389	1,304	1,693

Summary of Personnel by Organizational Unit

Year-end Strength	FY 1973			FY 1974			FY 1975		
Direct Hire:	Civ	Mil	Total	Civ	Mil	Total	Civ	Mil	Total
Office of the Chairman	10	35	45	11	33	44	11	33	44
Joint Staff	187	378	565	196	396	592	196	396	592
Other JCS Activities	186	895	1,081	214	866	1,080	214	875	1,089
Total	383	1,308	1,691	421	1,295	1,716	421	1,304	1,725
Average Employment									
Office of the Chairman	12	35	47	11	33	44	11	33	44
Joint Staff	195	388	583	181	392	573	181	392	573
Other JCS Activities	174	893	1,067	197	906	1,103	197	879	1,076
Total	381	1,316	1,697	389	1,331	1,720	389	1,304	1,693

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Summary of Increases and Decreases

Program Element: Office of Joint Chiefs of Staff Headquarters		Total
Fiscal Year 1974 Estimate		8,837
Civilian Personnel:		+244
Annualization of Pay Raise	(+ 95)	
Normal Within-grade Increases	(+116)	
Extra day of pay	(+ 25)	
Government contribution increase to employees health benefits	(+ 8)	
Travel of Personnel		(- 18)
Communications:		+ 1
Telephone	(- 9)	
Postal	(+ 10)	
Utilities and Rents		+2,077
Purchased Equipment Maintenance		+ 11
Printing and Reproduction		+ 7
Other Services		+165
Equipment		+ 90
Fiscal Year 1975 Estimate		11,414

Explanation of Increases and Decreases

The FY 1975 estimate of $11,414,000 provides a net increase of $2,577,000 over the current fiscal year. This increase includes $244,000 in civilian personnel cost to provide for civilian employees normal within-grade salary advances, the annualization effect of the October 1973 legislative civilian pay raise, one extra day of pay beyond the normal 260 paid days, and an increase in cost to the government for federal employees health insurance. $2,077,000 in rents and utilities is required primarily for payment of building space charges to the General Services Administration as provided by PL 92-313. The remaining increases totaling $283,000 are attributable to increased postal rates, cost of purchased services and materials plus the replacement of equipment items which are unserviceable and worn beyond economical repair and use. The increases are partially offset by reducing travel and transportation of personnel by $18,000 and telephone costs by $9,000.

Summary of Obligations by Element of Expense
(In thousand dollars)

Direct Obligations	FY 1973	FY 1974	FY 1975
Civilian Personnel	5,767	6,583	6,827
Travel of Personnel	469	645	627
Transportation of Things	2	2	2
Utilities and Rents	295	307	2,384
Communications	555	561	562
Purchased Equipment Maintenance (Commercial)	92	99	110
Printing and Reproduction	67	70	77
Other Services	378	175	340
Supplies	365	315	315
Equipment	201	80	170
TOTAL - DIRECT OBLIGATIONS	8,191	8,837	11,414
Reimbursable Obligations	-0-	-0-	-0-
TOTAL OBLIGATIONS	8,191	8,837	11,414

Summary of Civilian Personnel by Grade

Category	FY 73	FY 74	FY 75
General Schedule Grades			
GS-17	1	1	1
16	2	2	2
15	17	17	17
14	19	19	19
13	9	10	10
12	23	22	22
11	16	16	16
10	1	1	1
9	21	23	23
8	18	17	17
7	94	97	97
6	112	110	110
5	53	52	52
4	2	1	1
3	1	-	-
Subtotal General Schedule	389	388	388
Ungraded Positions	2	3	3
Total, permanent positions	391	391	391
Unfilled positions, June 30	-29	-	-
Total permanent employment, end of year	362	391	391
Temporary part-time and intermittent employees	21	30	30
Total employment, end of year	383	421	421

Summary of Military Personnel by Rank

Officers:	FY 73	FY 74	FY 75
General/Admiral	1	1	1
Lieutenant General/Vice Admiral	6	6	6
Major General/Rear Admiral	10	10	10
Brigadier General/Rear Admiral (LH)	23	23	23
Colonel/Captain	372	368	368
Lieutenant Colonel/Commander	335	331	337
Major/Lieutenant Commander	48	47	47
Captain/Lieutenant	7	7	7
First Lieutenant/LTJC	0	0	0
Second Lieutenant/Ensign	0	0	0
Warrant	2	2	2
Subtotal Officers	804	795	801
Enlisted Personnel	517	500	503
Total Positions	1,321	1,295	1,304
Unfilled Positions, June 30	-13	-0-	-0-
	1,308	1,295	1,304

PROCUREMENT JUSTIFICATION

Chairman McCLELLAN. Also at this point there will appear justification material on procurement for the various Defense agencies.

[The justification follows:]

Justification

PROCUREMENT, DEFENSE AGENCIES

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

	IDENTIFICATION CODE 07-15-0300-0-1-051	BUDGET PLAN (AMOUNTS FOR PROCUREMENT ACTIONS PROGRAMED)			OBLIGATIONS		
		1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:						
	DIRECT:						
	1. MAJOR EQUIPMENT	69,530	66,000	102,017	70,056	80,316	95,083
	REIMBURSABLE (TOTAL)	7,880	9,672	12,467	6,509	8,885	12,467
10	TOTAL	77,410	75,672	114,484	76,565	89,201	107,550
	FINANCING:						
	RECEIPTS AND REIMBURSEMENTS FROM:						
11	FEDERAL FUNDS	-7,880	-9,672	-12,467	-5,614	-9,760	-12,467
21	UNOBLIGATED BALANCE AVAILABLE, START OF YEAR						
	FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-34,561	-24,797	-11,356
	REPROGRAMING FROM (-) OR TO PRIOR YEAR BUDGET PLANS	-2,402	.....	.....	.....	.....	.....
22	UNOBLIGATED BALANCE TRANSFERRED FROM OTHER ACCOUNTS	-7,700	.....	.....	-7,700	.....	.....
23	UNOBLIGATED BALANCE TRANSFERRED TO OTHER ACCOUNTS	.....	.....	.....	5,942	.....	.....
24	UNOBLIGATED BALANCE AVAILABLE, END OF YEAR						
	FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	24,797	11,356	18,290
25	UNOBLIGATED BALANCE LAPSING						
	UNOBLIGATED BALANCE LAPSING, BUD PLAN	2,402	.....	.....	2,402	.....	.....
40	BUDGET AUTHORITY (APPROPRIATION)	61,830	66,000	102,017	61,830	66,000	102,017
	BUDGET AUTHORITY:						
40	APPROPRIATION	62,030	66,000	102,017	62,030	66,000	102,017
41	TRANSFERRED TO OTHER ACCOUNTS	-200	.....	.....	-200	.....	.....
43	APPROPRIATION (ADJUSTED)	61,830	66,000	102,017	61,830	66,000	102,017
	RELATION OF OBLIGATIONS TO OUTLAYS:						
71	OBLIGATIONS INCURRED, NET				70,951	79,441	95,083
72	OBLIGATED BALANCE, START OF YEAR				20,865	43,675	69,116
74	OBLIGATED BALANCE, END OF YEAR				-43,675	-69,116	-94,199
90	OUTLAYS				48,141	54,000	70,000

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

	1973 Actual	1974 Estimate	1975 Estimate
Defense Communications Agency	$ 12,815	$ 1,370	$ 3,625
Defense Intelligence Agency		[Deleted]	
Defense Investigative Service	50	138	674
Defense Mapping Agency	150	6,078	5,217
Defense Nuclear Agency		[Deleted]	
Defense Supply Agency	8,392	5,256	14,607
National Security Agency		[Deleted]	
Office Secretary of Defense	263	422	900
TOTAL DIRECT PROGRAM	$ 69,530	$ 66,000	$ 102,017
Reimbursable program	7,880	9,872	12,467
TOTAL	$ 77,410	$ 75,872	$ 114,484
Less: Portion of program to be obligated in subsequent fiscal years	21,711	9,637	14,540
Plus: Obligations incurred against prior year program funds	20,866	22,966	7,606
TOTAL OBLIGATIONS	$ 76,565	$ 89,201	$ 107,550

Defense Communications Agency

	($ in Thousands)
FY 1975 Estimate	3,625
FY 1974 Estimate	1,370
FY 1973 Estimate	12,815

Purpose and Scope of Work

These funds provide for initial procurement of mission essential and replacement items for the Defense Communications Agency.

Justification of Funds

1. World-Wide Military Command and Control System ADP Systems: The FY 1975 program for the World-Wide Military Command and Control System (WWMCCS) ADP Systems is comprised of $1,600,000 to upgrade the Joint Technical Support Activity's (JTSA) computer system purchased in FY 1973 with capabilities that have been added to the computers now being delivered to the WWMCCS ADP sites, and $785,000 for procurement of data processing equipment for the National Military Command System Support Center and the Alternate National Military Command Center to provide required additional computer capacity and enhancements.

3. Items less than $500,000 each: The FY 1975 program for this line item includes $646,000 to purchase communications equipment for a classified activity, $489,000 for communications, ADP and related equipment required for the Defense Communications Agency to exercise operational and management direction over the Defense Communications System and $105,000 to purchase general purpose and office equipment for the various DCA components.

Defense Intelligence Agency

	($ in Thousands)
FY 1975 Estimate	(deleted)
FY 1974 Estimate	(deleted)
FY 1973 Estimate	(deleted)

Purpose and Scope of Work

These funds provide for the purchase of mission essential and replacement items for the Defense Intelligence Agency. These items include, Passenger Carrying and Special Purpose Vehicles, Electronic and Communication Equipment, Photographic Laboratory and Interpretation Equipment, Other Major Equipment, Modification of In-Service Equipment and Spares and Repair Parts.

Defense Investigative Service

	($ in Thousands)
FY 1975 Estimate	674
FY 1974 Estimate	138
FY 1973 Estimate	50

Purpose and Scope of Work

These funds provide for the cost of replacing general-purpose vehicles used for mission requirements and for initial procurement of other mission essential items for the Defense Investigative Service.

($ in Thousands)

Defense Mapping Agency

FY 1975 Estimates	5,217
FY 1974 Estimates	6,078
FY 1973 Estimates	150

Purpose and Scope of Work

These funds provide for the procurement of Automatic Data Processing Equipment, Passenger Carrying Vehicles and Other Mission essential and replacement items for the Defense Mapping Agency.

($ in Thousands)

Defense Nuclear Agency

FY 1975 Estimate	[deleted]
FY 1974 Estimate	[deleted]
FY 1973 Estimate	[deleted]

Purpose and Scope of Work

These funds provide for the procurement of mission essential capital equipment and the cost of replacing general and special purpose vehicles, material handling equipment, and R&U mobile equipment used at DNA installation for mission requirements.

($ in Thousands)

Defense Supply Agency

FY 1975 Estimate	14,607
FY 1974 Estimate	5,256
FY 1973 Estimate	8,392

Purpose and Scope of Work

These funds provide for the procurement of mission essential and replacement items for the Defense Supply Agency. These items include Mobile Material Handling Equipment, Automotive Vehicles, Mechanized Material Handling Systems, Automatic Data Processing Equipment, Other Major Equipment and Items Less Than $500,000 each.

($ in Thousands)

Office of the Secretary of Defense

FY 1975 Estimate	900
FY 1974 Estimate	422
FY 1973 Estimate	263

Purpose and Scope of Work

These funds provide for initial procurement and for replacement items of equipment of an investment nature for the Office of the Secretary of Defense, the Office of Information for the Armed Forces, and the Organization of the Joint Chiefs of Staff.

Research, Development, Test, and Evaluation
JUSTIFICATION

Chairman McClellan. In addition, there will also appear at this point in the record justification material dealing with the research, development, test, and evaluation requests for the defense agencies.

[The justification follows:]

Justification

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 97-20-0400-0-1-051	BUDGET PLAN (AMOUNTS FOR RDT&E ACTIONS PROGRAMED)			OBLIGATIONS		
	1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:						
DIRECT:						
1. MILITARY SCIENCES	14,355	15,588	18,800	15,225	16,651	18,768
7. OTHER EQUIPMENT	.....	.....	.....	1,247	.....	.....
TOTAL DIRECT	14,355	15,588	18,800	16,472	16,651	18,768
REIMBURSABLE (TOTAL)	32	.....	.....	32	.....	.....
10 TOTAL	14,387	15,588	18,800	16,504	16,651	18,768
FINANCING:						
RECEIPTS AND REIMBURSEMENTS FROM:						
11 FEDERAL FUNDS	-32	.....	.....	-32	.....	.....
21 UNOBLIGATED BALANCE AVAILABLE, START OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-3,618	-1,219	-156
REPROGRAMING FROM (-) OR TO PRIOR YEAR BUDGET PLANS	-282	.....	.....	.....	.....	.....
24 UNOBLIGATED BALANCE AVAILABLE, END OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	1,219	156	188
25 UNOBLIGATED BALANCE LAPSING						
UNOBLIGATED BALANCE LAPSING, BUD PLAN	282	.....	.....	282	.....	.....
BUDGET AUTHORITY	14,355	15,588	18,800	14,355	15,588	18,800
BUDGET AUTHORITY:						
40 APPROPRIATION	14,355	15,558	18,800	14,355	15,558	18,800
44.20 PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	30	.....	.....	30	.....
SUMMARY BY PROGRAM CATEGORY						
6.1 RESEARCH	-	-	-			
6.2 EXPLORATORY DEVELOPMENT	-	-	-			
6.3 ADVANCED DEVELOPMENT	-	-	-			
6.4 ENGINEERING DEVELOPMENT	-	-	-			
6.5 MANAGEMENT AND SUPPORT	14,355	15,588	18,800			
TOTAL RESEARCH & DEVELOPMENT (PROGRAM 6)	14,355	15,588	18,800			
TOTAL OPERATIONAL SYSTEMS PROGRAM	-	-	-			
TOTAL-DIRECT	14,355	15,588	18,800			
REIMBURSABLE	32	-	-			
TOTAL PROGRAM	14,387	15,588	18,800			

THIS EXHIBIT INCLUDES FY 1974 PAY SUPPLEMENTAL BUT DOES NOT INCLUDE FY 1974 PROGRAM SUPPLEMENTAL WHICH IS DISPLAYED ON THE SEPARATE EXHIBIT FOLLOWING THE FY 1975 PROGRAM AND FINANCING SCHEDULE.

DETAIL BY PROGRAM OF PROPOSED FY 1974 SUPPLEMENTAL ESTIMATES

Program Element Number	Title	Base Estimate	Program Supplemental	Civ. Pay Incr. Costs Supplemental	Adjusted Estimate
Military Sciences					
65101D	Studies and Analyses	$ 7,308	$ 625	$30	$ 7,963
65102D	Net Technical Assessment	6,900	800	-	7,700
	Sub-Total Military Sciences	14,208	1,425	30	15,663
	All Other Programs	1,350	-	-	1,350
	TOTAL PROGRAM	$15,558	$1,425	$30	$17,013

Federal Contract Research Center

Summary by Appropriation and Element
(In Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
RDT&E, Defense Agencies			
	Institute for Defense Analyses		
Studies and Analyses			
Weapons Systems Evaluation Group	2,723	4,327	4,200
International Security Affairs	96	85	200
Program Analysis and Evaluation	70	182	300
Telecommunications	-	160	160
Sub-total - Studies and Analyses	2,889	4,754	4,860
Net Technical Assessment	450	480	500
Manpower	54	-	-
Total IDA	3,393	5,234	5,360

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
		RAND Corporation	
RDT&E, Defense Agencies			
Studies and Analyses			
International Security Affairs	75	75	40
Program Analysis and Evaluation	275	250	400
Sub-total - Studies and Analyses	350	325	440
Net Assessment	-	-	300
Net Technical Assessment	600	600	660
Total RDT&E, Defense Agencies	950	925	1,400
O&M, Defense Agencies			
ASD(Intelligence)	-	50	250
Net Assessment	-	150	-
Total O&M Defense Agencies	-	200	250
Total RAND	950	1,125	1,650
		MITRE	
RDT&E, Defense Agencies			
Studies and Analyses			
Telecommunications	170	-	-
Sub-total - Studies and Analyses	170	-	-
Net Technical Assessment	150	150	150
Total RDT&E	320	150	150
O&M, Defense Agencies			
ASD(Intelligence)	-	400	450
Total O&M, Defense Agencies	280	400	450
Total MITRE	600	550	600
		CNA	
RDT&E, Defense Agencies			
Studies and Analyses			
Sub-total - Studies and Analyses	-	-	-
Net Technical Assessment	90	-	-
Total CNA	90	-	-

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
		Aerospace Corporation	
O&M, Defense Agencies			
ASD(Intelligence)	-	250	700
Total Aerospace Corp.	-	250	700
RDT&E, Defense Agencies			
Telecommunications	-	300	210
Total Lincoln Lab	-	300	210
GRAND TOTAL	5,033	7,459	8,520

Installation Analysis - FCRC's .

FCRC & Location	FY	TOA ($ in thousands) RDT&E Funds Mgt. Bur. Etc.	Other Parent Dept	Other DoD	All Other Funds	Subtotal	Mil Pers	Total	PERSONNEL Professional Paid From Parent Dept RDT&E	Paid From Other RDT&E	Paid From Other	Support Paid From Parent Dept RDT&E	Paid From Other RDT&E	Paid From Other	Mil Pers Asgnd	Total
Institute for Defense Analyses	1973		3,393	-	-	3,393	973	4,366	48	-	-	72	-	-	35	155
	1974		5,234	-	-	5,234	1,022	6,256	75	-	-	112	-	-	35	222
	1975		5,360	-	-	5,360	788	6,148	77	-	-	115	-	-	27	219
RAND Corpo-ration	1973		950	-	-	950	-	950	16	-	-	11	-	-	-	27
	1974		925	-	200	1,125	-	1,125	16	-	3	11	-	1	-	31
	1975		1,400	-	250	1,650	-	1,650	23	-	4	13	-	1	-	41
MITRE	1973		320	-	280	600	-	600	5	-	4	3	-	3	-	15
	1974		150	-	400	550	-	550	3	-	6	2	-	3	-	14
	1975		150	-	450	600	-	600	3	-	7	2	-	3	-	15
Center for Naval Analyses	1973		90	-	-	90	-	90	2	-	-	2	-	-	-	4
Research Aerospace Corp.	1973		-	-	-	-	-	-		-	-	-	-	-	-	-
	1974		-	-	250	250	-	250	-	-	5		-	3	-	8
	1974		-	-	700	700	-	700	-	-	10		-	4	-	14
Lincoln Lab	1974		300	-	-	300	-	300	3	-		2	-			5
	1975		210	-	-	210	-	210	2	-		1	-			3

RDT&E, DEFENSE AGENCIES

PROJECT LISTING
($ in Thousands)

Element Code	Project Number	Title	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
MILITARY SCIENCES					
6.5 MANAGEMENT AND SUPPORT					
65101D		STUDIES AND ANALYSES			
		Weapons Systems Evaluation Group	3,780	5,833	5,200
		International Security Affairs	1,000	200	700
		Program Analysis and Evaluation	1,005	950	1,800
		Telecommunications	300	475	980
		Organization of the Joint Chiefs of Staff	120	190	320
		Research and Engineering	-	315	400
		Sub-Total - Studies and Analyses	6,205	7,963	9,400
65102D		NET TECHNICAL ASSESSMENT	6,800	7,700	7,900
65103D		MANPOWER STUDIES	1,350	1,350	1,500
			14,355	17,013	18,800

DEFENSE SUPPLY AGENCY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

	IDENTIFICATION CODE 07-20-0400-0-1-051	BUDGET PLAN (AMOUNTS FOR ROT+E ACTIONS PROGRAMED)			OBLIGATIONS		
		1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:						
	DIRECT:						
	8. PROGRAMWIDE MANAGEMENT AND SUPPORT	12,337	13,066	14,500	12,072	13,526	14,500
	REIMBURSABLE (TOTAL)	540	690	700	540	690	700
10	TOTAL	12,877	13,756	15,200	12,612	14,216	15,200
	FINANCING:						
	RECEIPTS AND REIMBURSEMENTS FROM:						
11	FEDERAL FUNDS	-508	-690	-700	-508	-690	-700
14	NON-FEDERAL SOURCES	-32	.....	.....	-32	.....	.....
21	UNOBLIGATED BALANCE AVAILABLE, START OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-296	-560	-100
	REPROGRAMING FROM (-) OR TO PRIOR YEAR BUDGET PLANS	-1	.....	.....	.....	.....	.....
24	UNOBLIGATED BALANCE AVAILABLE, END OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	560	100	100
25	UNOBLIGATED BALANCE LAPSING UNOBLIGATED BALANCE LAPSING, BUD PLAN	1	.....	.....	1	.....	.....
	BUDGET AUTHORITY	12,337	13,066	14,500	12,337	13,066	14,500
	BUDGET AUTHORITY:						
40	APPROPRIATION	12,337	12,500	14,500	12,337	12,500	14,500
44.20	PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	566	.....	.....	566	.....
	SUMMARY BY PROGRAM CATEGORY						
6.1	RESEARCH	-	-	-			
6.2	EXPLORATORY DEVELOPMENT	-	-	-			
6.3	ADVANCED DEVELOPMENT	-	-	-			
6.4	ENGINEERING DEVELOPMENT	-	-	-			
6.5	MANAGEMENT AND SUPPORT	12,337	13,066	14,500			
	TOTAL RESEARCH & DEVELOPMENT (PROGRAM 6)	12,337	13,066	14,500			
	TOTAL OPERATIONAL SYSTEMS PROGRAM	-	-	-			
	TOTAL-DIRECT	12,337	13,066	14,500			
	REIMBURSABLE	540	690	700			
	TOTAL PROGRAM	12,877	17,756	15,200			

THIS EXHIBIT INCLUDES FY 1974 PAY SUPPLEMENTAL BUT DOES NOT INCLUDE FY 1974 PROGRAM SUPPLEMENTAL WHICH IS DISPLAYED ON THE SEPARATE EXHIBIT FOLLOWING THE FY 1975 PROGRAM AND FINANCING SCHEDULE.

32-382 O - 74 - 66

INSTALLATION ANALYSIS - IN-HOUSE

		TOA (IN THOUSANDS OF DOLLARS)							PERSONNEL (Man-Years)							
		RDT&E Funds							Civil Service			Contractor		Mil Pers		
Installation & Location	FY	Mgt. Agency	Other Parent Dept	Other DoD	All Other Funds[1/]	Sub-Total	Mil Pers RDT&E Other	Total	Paid from Parent Agency RDT&E	Paid from Other RDT&E	Paid from Other	Paid from RDT&E	Paid from Other	In RDT&E Work	Other	Total
Defense Documentation	73	9,549				9,549		9,549	476							476
Center, Cameron Station	74	10,191				10,191		10,191	477							477
Alexandria, Virginia	75	11,205				11,205		11,205	477							477

This installation analysis reflects the financing and manpower required to support the Defense Supply Agency RDT&E mission, to provide scientific and technical information services required by the Defense R&D Community. The funds and man-years reported cover direct costs.

1/ Excludes Military Personnel and Military Construction

FEDERAL CONTRACT RESEARCH CENTERS

Program Element #65802S

Title: Information Analysis Centers

A portion of the RDT&E funds for Program Element #65802S, Information Analysis Centers, is used for direct funding of the Chemical Propulsion Information Agency (CPIA), operated by the Applied Physics Laboratory, Johns Hopkins University, a Federal Contract Research Center. The total amount of DSA direct funding of CPIA is as follows:

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Chemical Propulsion Information Agency	290	290	300

INSTALLATION ANALYSIS - FCRCs

FCRC & Location	FY	TOA ($ in Thousands)							PERSONNEL							
		RDT&E Funds			All Other Funds	Sub-total	Mil. Pers.	Total	Professional			Support			Mil. Pers. Assigned	Total
		Mgt. Bureau Etc.	Other Parent Dept.	Other DoD					Paid From Parent Dept. RDT&E	Paid From Other RDT&E	Paid From Other	Paid From Parent Dept. RDT&E	Paid From Other RDT&E	Paid From Other		
Chemical Propulsion Information Agency, Johns Hopkins University Silver Spring, Md.	73	290				290		290	9			9				18
	74	290				290		290	9			8				17
	75	300				300		300	9			8				17

PROJECT LISTING
(IN THOUSANDS OF DOLLARS)

Element Code	Project Number	Title	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Program-wide Management and Support					
65801S	1.0	RDT&E Information Services	1,721	1,847	2,577
65801S	2.0	Technical Report Services	4,395	4,506	4,696
65801S	3.0	Development	787	911	864
65801S	4.0	System Maintenance & Operational Imprv	1,026	1,076	1,162
65801S	5.0	Management & Support	2,243	2,424	2,479
		Subtotal - Direct (DDC)	10,172	10,764	11,778
65802S	1.0	Information Analysis Centers	2,165	2,338	2,722
		Total - DIRECT	12,337	13,102	14,500
		Plus Reimbursements			
65801S	6.0	DDC	66	60	25
65802S	2.0	IAC	474	630	675
		Total REIMBURSEMENTS	540	690	700

DEFENSE NUCLEAR AGENCY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 07-20-0400-0-1-051	BUDGET PLAN (AMOUNTS FOR RDT&E ACTIONS PROGRAMED)			OBLIGATIONS		
	1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:						
DIRECT:						
7. OTHER EQUIPMENT	123,514	117,467	123,000	123,344	117,450	122,871
REIMBURSABLE (TOTAL)	9,459	17,540	5,000	9,459	17,540	5,000
10 TOTAL	132,973	135,007	128,000	132,803	134,990	127,871
FINANCING:						
RECEIPTS AND REIMBURSEMENTS FROM:						
11 FEDERAL FUNDS	-331	-1,540	-2,000	-331	-1,540	-2,000
14 NON-FEDERAL SOURCES	-9,128	-16,000	-3,000	-9,128	-16,000	-3,000
21 UNOBLIGATED BALANCE AVAILABLE, START OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-78	-100	-117
REPROGRAMING FROM (-) OR TO PRIOR YEAR BUDGET PLANS	-148	.....	.....	.....	.....	.....
24 UNOBLIGATED BALANCE AVAILABLE, END OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	100	117	246
25 UNOBLIGATED BALANCE LAPSING						
UNOBLIGATED BALANCE LAPSING, BUD PLAN	148	.....	.....	148	.....	.....
BUDGET AUTHORITY	123,514	117,467	123,000	123,514	117,467	123,000
BUDGET AUTHORITY:						
40 APPROPRIATION	123,514	115,398	123,000	123,514	115,398	123,000
44.20 PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	2,069	.....	.....	2,069	.....
SUMMARY BY PROGRAM CATEGORY						
6.1 RESEARCH	-	-	-			
6.2 EXPLORATORY DEVELOPMENT	123,514	117,467	123,000			
6.3 ADVANCED DEVELOPMENT	-	-	-			
6.4 ENGINEERING DEVELOPMENT	-	-	-			
6.5 MANAGEMENT AND SUPPORT	-	-	-			
TOTAL RESEARCH & DEVELOPMENT (PROGRAM 6)	123,514	117,467	123,000			
TOTAL OPERATIONAL SYSTEMS PROGRAM	-	-	-			
TOTAL-DIRECT	123,514	117,467	123,000			
REIMBURSABLE	9,459	17,540	5,000			
TOTAL PROGRAM	132,973	135,007	128,000			

DETAIL BY PROGRAM OF PROPOSED FY 1974 SUPPLEMENTAL ESTIMATES

($ Thousands)

Program Element Number	Title	Base Estimate	Program Supplemental	Civilian Pay Incr. Costs Supplemental	Adjusted Estimate
Other Equipment					
62704H	Nuclear Weapons Effects Development	54,427		1,429	55,856
62710H	Nuclear Weapons Effects Test	60,971		640	61,611
	Subtotal - Other Equipment	115,398		2,069	117,467
	TOTAL PROGRAM	115,398		2,069	117,467

PERFORMER DISTRIBUTION
RESEARCH, DEVELOPMENT, TEST AND EVALUATION
(Thousands of Dollars)

Appropriation: RDT&E, Defense Agencies	Total Obligational Authority		
	FY 1973	FY 1974	FY 1975
1. For operation of installations of the reporting DoD Component Government operated	4,678	4,739	4,833
2. For operation of installations of the reporting DoD Component Contractor operated	—	—	—
3. For contract directly in support of work actually performed at installations of the reporting DoD Component	—	—	—
4. For work assigned to other Department of Defense activities	35,900	37,558	41,426
5. For work assigned to activities of other Government agencies	25,585	12,440	17,942
6. For work performed by industrial contractors ("profit" Organizations).	45,613	52,140	48,731
7. For work performed by educational institutions			
a. Designated Federal Contract Research Centers	—	—	—
b. Other Institutions	5,209	3,983	3,255
8. For work performed by other "non-profit" organizations			
a. Designated Federal Contract Research Centers	250	260	365
b. Other Institutions	6,279	6,347	6,448
9. Total R&D appropriation	123,514	117,467	123,000

Analysis of Reimbursable Program
(Thousands of Dollars)

	FY 73 ACT	FY 74 EST	FY 75 EST
Customer			
Other DOD Components			
Army	140	456	610
Navy	120	511	670
Air Force	61	472	620
TOTAL DOD Components	321	1,439	1,900
Activities Outside DOD			
Military Sales	9,128	15,925	2,920
National Institute of Health		156	155
Department of Transportation	10	20	25
TOTAL Activities Outside DOD	9,138	16,101	3,100
GRAND TOTAL	9,459	17,540	5,000

The United Kingdom is the principal source of funds for the DNA reimbursable program. Amounts indicated for other DOD components are earned by DNA sponsored facilities (the Advanced Research Electromagnetic Pulse Simulator (ARES), the Transportable Electromagnetic Pulse Simulator (TEMPS), the Gamma Ray Simulation Facility (AURORA) and the Armed Forces Radiobiology Research Institute.

INSTALLATION ANALYSIS - IN-HOUSE

The Defense Nuclear Agency operates two installations pursuant to two program elements entitled "Nuclear Weapons Effects Development" and "Nuclear Weapons Effects Test." Nuclear Weapons Effect Development is defined as the Combined DOD program for research and development in the effects of nuclear weapons. Developed through joint efforts of the Military Services and DNA, this program element provides DOD with nuclear weapons effects information using all research and development means short of actual nuclear weapons tests and certain large-scale field simulation tests. Nuclear Weapons Effects Test relates to the DOD portion of the joint AEC-DOD Nuclear Weapons Testing Programs. Program element supports the execution of underground nuclear test events; the execution of non-nuclear simulation test events; the operation of nuclear weapon effects simulation facilities; and a modified readiness program for nuclear weapons effects test events in environments presently prohibited by the Limited Test Ban Treaty.

Resources requested for the Armed Forces Radiobiology Research Institute include those required for administration, logistics support and conduct of research.

Resources requested for the Field Command Test and Logistics Directorates represent in-house DNA efforts and are required for program management below Headquarters DNA level and operation of facilities located at Albuquerque, New Mexico and Camp Mercury, Nevada.

		TOA ($ in Thousands)							PERSONNEL (Man-Years)							
									Civil Service			Contractor		Mil. Pers.		
Installation & Location	FY	Commands	Other DNA	Other DOD	All Other Funds	Subtotal	Mil. Pers. R&D Other	Total	Paid From DNA RDT&E	Paid From Other RDT&E	Paid From Other	Paid From RDT&E	Paid From Other	in RDT&E Work	Other	TOT
Armed Forces	73	3,354		180	10	3,544	1,184	4,728	144					85		229
Radiobiology	74	3,153		325	175	3,653	1,421	5,074	150					97		247
Research Inst.	75	3,233		370	180	3,783	1,499	5,282	150					97		247
Field Command	73	1,3~~45~~ 24		-	-	1,3~~45~~ 24	1,657	~~3,002~~ 2,981	~~37~~ 46					127		~~164~~ 173
Test Direc-	74	1,586		-	-	1,586	2,179	3,765	42					150		192
torate	75	1,600		-	-	1,600	2,074	3,674	42					147		189
Totals	73	4,678		180	10	4,8~~89~~ 68	2,841	7,7~~30~~ 09	190					212		402
	74	4,739		325	175	5,239	3,600	8,839	192					247		439
	75	4,833		370	180	5,383	3,573	8,956	192					244		436

SUMMARY OF FEDERAL CONTRACT RESEARCH CENTERS BY APPROPRIATIONS (Thousands of Dollars)

HEADQUARTERS DEFENSE NUCLEAR AGENCY

RDT&E, DEFENSE AGENCIES

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
AEROSPACE CORPORATION			
RDT&E	202	210	215
MITRE CORPORATION			
RDT&E	-0-	-0-	100
RAND CORPORATION			
RDT&E	48	50	50
TOTAL FCRC	250	260	365

INSTALLATION ANALYSIS - FEDERAL CONTRACT RESEARCH CENTERS

Federal Contract Research Center and Location	FY	TOA (In Thousands of Dollars) RDT&E Funds Mgmt. Agency	Other DNA	Other DOD	All Other Funds	Sub-total	Mil. Pers.	Total	PERSONNEL (Man-Years) Professional Paid From RDT&EDA	Paid From RDT&E	Paid From Other	Support Paid From RDT&EDA	Paid From RDT&E	Paid From Other	Mil.Pers. Assigned	Total
Aerospace Corp. Los Angeles, Cal.	73	202	-	-	-	202	-	202	3	-	-	2	-	-	-	5
	74	210	-	-	-	210	-	210	4	-	-	2	-	-	-	6
	75	215	-	-	-	215	-	215	3	-	-	2	-	-	-	5
Mitre Corp Bedford, Mass.	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	75	100	-	-	-	100	-	100	-	-	-	-	-	-	-	-
Rand Corp. Santa Monica, Cal.	73	48	-	-	-	48	-	48	1	-	-	1	-	-	-	2
	74	50	-	-	-	50	-	50	1	-	-	1	-	-	-	2
	75	50	-	-	-	50	-	50	1	-	-	1	-	-	-	2
Total, Federal Contract Research Centers	73	250	-	-	-	250	-	250	4	-	-	3	-	-	-	7
	74	260	-	-	-	260	-	260	5	-	-	3	-	-	-	8
	75	365	-	-	-	365	-	365	6	-	-	3	-	-	-	9

DEFENSE MAPPING AGENCY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 07-20-0400-0-1-051	BUDGET PLAN (AMOUNTS FOR RDT&E ACTIONS PROGRAMED)			OBLIGATIONS		
	1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:						
DIRECT: 7. OTHER EQUIPMENT						
10 TOTAL	10,985	11,603	14,500	10,913	11,675	14,500
FINANCING:						
21 UNOBLIGATED BALANCE AVAILABLE, START OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	.....	-72	.....
24 UNOBLIGATED BALANCE AVAILABLE, END OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	72	.....	.....
BUDGET AUTHORITY	10,985	11,603	14,500	10,985	11,603	14,500
BUDGET AUTHORITY:						
40 APPROPRIATION	.....	11,286	14,500	.....	11,286	14,500
42 TRANSFERRED FROM OTHER ACCOUNTS	10,985	.....	.....	10,985	.....	.....
43 APPROPRIATION (ADJUSTED)	10,985	11,286	14,500	10,985	11,286	14,500
44.20 PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	317	.....	.....	317	.....

SUMMARY BY PROGRAM CATEGORY

6.1 RESEARCH	-	-	-
6.2 EXPLORATORY DEVELOPMENT	-	-	-
6.3 ADVANCED DEVELOPMENT	7,520	7,622	8,849
6.4 ENGINEERING DEVELOPMENT	3,465	3,981	5,651
MANAGEMENT AND SUPPORT	-	-	-
TOTAL RESEARCH & DEVELOPMENT (PROGRAM 6)	10,985	11,603	14,500
TOTAL OPERATIONAL SYSTEMS PROGRAM	-	-	-
TOTAL-DIRECT	10,985	11,603	14,500
REIMBURSABLE	-	-	-
TOTAL PROGRAM	10,985	11,603	14,500

DETAIL BY PROGRAM OF PROPOSED FY 1974 SUPPLEMENTAL ESTIMATES

($ in Thousands)

Program Element Number	Title	Base Estimate	Program Supplemental	Civilian Pay Incr. Costs Supplemental	Adjusted Estimate
1.	Military Sciences	-	-	-	-
2.	Aircraft and Related Equipment	-	-	-	-
3.	Missiles and Related Equipment	-	-	-	-
4.	Military Astronautics and Related Equipment	-	-	-	-
5.	Ships, Small Craft and Related Equipment	-	-	-	-
6.	Ordnance, Combat Vehicles and Related Equipment	-	-	-	-
7.	Other Equipment				
	63701B Advanced Development	7422	-	200	7622
	64701B Engineering Development	3864	-	117	3981
9.	All Other Programs	-	-	-	-
	TOTAL PROGRAM	11286	-	317	11603

ANALYSIS BY PERFORMING AGENCY
RESEARCH, DEVELOPMENT, TEST AND EVALUATION
($ in Thousands)

Appropriation: RDT&E, Defense Agencies

	Total Obligation Authority		
	FY 1973	FY 1974	FY 1975
1. For operation of installations of the reporting DoD Component Government operated	299	0	0
2. For operation of installations of the reporting DoD Component Contractor operated	-	-	-
3. For contracts directly in support of work actually performed at installations of the reporting DoD Component	-	-	-
4. For work assigned to other Department of Defense activities	10,501	10,323	13,350
5. For work assigned to activities of other Government agencies	80	500	0
6. For work performed by industrial contractors ("profit" organizations)	30	530	300
7. For work performed by educational institutions			
a. Designated Fed Contract Res Centers	75	250	850
b. Other Institutions	-	-	-
8. For work performed by other "non-profit" organizations			
a. Designated Fed Contract Res Centers	-	-	-
b. Other Institutions	-	-	-
9. Total RDT&E appropriation	10,985	11,603	14,500

FEDERAL CONTRACT RESEARCH CENTERS

SUMMARY OF FEDERAL CONTRACT RESEARCH CENTERS BY APPROPRIATIONS

(Thousands of Dollars)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Applied Physics Laboratory, Johns Hopkins University			
RDT&E	75	250	800*
O&M, Defense Agencies	768	800	800*
Aerospace Corporation			
RDT&E	0	0	50
O&M, Defense Agencies	0	0	0
Total, Program Summary by Appropriation			
RDT&E	75	250	850*
O&M, Defense Agencies	768	800	800*
Total, Federal Contract Research Center	843	1,050	1,650
RDT&E Appropriation			
Supporting Program/Agency			
Advanced Engineering, DMA	75	250	850*
Total, Applied Physics Laboratory, Johns Hopkins Univ.	75	250	800*
Total, Aerospace Corporation	0	0	50

* Includes subcontractor effort of $600K RDT&E; $300K O&M.

INSTALLATION ANALYSIS - FEDERAL CONTRACT RESEARCH CENTERS

Federal Contract Research Center and Location	FY	TOA ($ in thousands)							PERSONNEL (Man-Years)							
		RDTE Funds			All Other Funds	Sub-total	Mil Pers	Total	Professional			Support				
		Mgmt Agency	Other Parent Dept	Other DoD					Paid From Parent Dept RDTE	Paid From Other RDTE	Paid From Other	Paid From Parent Dept RDTE	Paid From Other RDTE	Paid From Other	Mil Pers Assigned	Total
Applied Physics Laboratory, Johns Hopkins University Baltimore, Maryland	73	75	--	--	768	843	--	843	2	--	8	1	--	15	--	26
	74	250	--	--	800	1,050	--	1,050	5	--	10	3	--	18	--	36
	75	800	--	--	800	1,600	--	1,600	12	--	9	4	--	17	--	42
Aerospace Corp Los Angeles, California	73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	75	50	--	--	--	50	--	50	1	--	--	--	--	--	--	1
Total Federal Contract Research Centers	73	75	--	--	768	843	--	843	2	--	8	1	--	15	--	26
	74	250	--	--	800	1,050	--	1,050	5	--	10	3	--	18	--	36
	75	850	--	--	800	1,650	--	1,650	13	--	9	4	--	17	--	43

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PROJECT LISTING
($ in thousands)

PROGRAM ELEMENT CODE	PROJECT NUMBER		FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
7. OTHER EQUIPMENT					
6.3 A		ADVANCED DEVELOPMENT			
63701B		MC&G INVESTIGATIONS AND PROTOTYPE DEVELOPMENT			
	3201	MC&G Investigations	607	858	879
	3202	MC&G Production Technology	2078	1521	2665
	3203	MC&G Products and Services	549	464	455
	3204	MC&G Data Bank Concepts	703	546	410
	3205	MC&G Data Collection	486	2185	2580
	3206	Bottom Topography Survey System	2862	1438	1360
	3208	Hydrographic Survey and Charting	235	610	500
		Subtotal ADVANCED DEVELOPMENT	7520	7622	8849
6.4		ENGINEERING DEVELOPMENT			
64701B		MC&G DEVELOPMENT AND TEST			
	4301	All Weather Topographic Mapping System	425	248	0
	4302	Data Reduction Hardware/Software	592	977	2017
	4303	Automated Cartography	1458	1752	2570
	4304	MC&G Equipment Improvement and Tests	990	1004	964
	4305	MC&G Data Collection	0	0	100
		Subtotal ENGINEERING DEVELOPMENT	3465	3981	5651
		TOTAL	10985	11603	14500

DEFENSE INTELLIGENCE AGENCY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 07-20-0400-0-1-051	BUDGET PLAN (AMOUNTS FOR RDT&E ACTIONS PROGRAMED)			OBLIGATIONS		
	1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:						
DIRECT: 7. OTHER EQUIPMENT						
10 TOTAL	1,594	4,786	7,300	1,470	5,111	7,202
FINANCING:						
21 UNOBLIGATED BALANCE AVAILABLE, START OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-248	-373	-48
24 UNOBLIGATED BALANCE AVAILABLE, END OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	373	48	146
BUDGET AUTHORITY	1,594	4,786	7,300	1,594	4,786	7,300
BUDGET AUTHORITY:						
40 APPROPRIATION	1,594	4,761	7,300	1,594	4,761	7,300
44.20 PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	25	.....	.....	25	.....
SUMMARY BY PROGRAM CATEGORY						
6.1 RESEARCH	-	-	-			
6.2 EXPLORATORY DEVELOPMENT	-	-	-			
6.3 ADVANCED DEVELOPMENT	-	-	-			
6.4 ENGINEERING DEVELOPMENT	-	-	-			
6.5 MANAGEMENT AND SUPPORT	-	-	-			
TOTAL RESEARCH & DEVELOPMENT (PROGRAM 6)	-	-	-			
TOTAL OPERATIONAL SYSTEMS PROGRAM	1,594	4,786	7,300			
TOTAL-DIRECT	1,594	4,786	7,300			
REIMBURSABLE	-	-	-			
TOTAL PROGRAM	1,594	4,786	7,300			

DETAIL BY PROGRAM OF PROPOSED FY 1974 SUPPLEMENTAL ESTIMATED
($ In Thousands)

Program Element Number	Title	Base Estimate	Program Supplemental	Civilian Pay Incr. Costs Supplemental	Adjusted Estimate
Other Equipment					
31021L	Intelligence and Production Activities	$3,171	-	25	$3,196
	All Other Programs	1,590	-	-	1,590
		$4,761	-	25	$4,786

PERFORMER DISTRIBUTION (IN THOUSANDS OF DOLLARS)	Total Obligational Authority 1973	1974	1975
1. For operations of installations of the Defense Intelligence Agency Government operated	-	320	532
2. For operations of installations of the Defense Intelligence Agency contractor operated	-	-	-
3. For contracts directly in support of work actually performed at installations of the Defense Intelligence Agency	-	2,651	3,145
4. For work assigned to other DoD activities	-	-	-
5. For work assigned to activities of other Government agencies	250	300	490
6. For work performed by industrial contractors	1,269	1,360	2,933
7. For work performed by educational institutions:			
a. Designated Federal Contract Research Centers	-	-	-
b. Other institutions	-	-	-
8. For work performed by other "non-profit" organizations:			
a. Designated Federal Contract Research Centers	75	155	200
b. Other institutions	-	-	-
9. Total R&D Appropriations	1,594	4,786	7,300

INSTALLATION ANALYSIS

This installation analysis indicates the resources and manpower to be utilized by the Defense Intelligence Agency for the establishment of a Systems Management office which will monitor the experimental research for the design, implementation, testing and evaluation of the worldwide DoD Operational Intelligence Modernization Program which is being developed with the assistance of external assistance contractors.

The Systems Management office establishes policy, exercises supervision and evaluates results of all R&D efforts undertaken in the Operational Intelligence Modernization Program. These responsibilities include:

a. Review and validate external assistance requirements, work statements, design configuration, equipment selection and configurations, software requirements, communication requirements, and test/evaluation capabilities.

b. Participates directly with the external assistance contractors in the development, testing and evaluation of all I&W experimental developments to determine if the resulting capabilities will benefit the worldwide Indications and Warning System.

c. Act as DIA focal point to assure that R&D efforts to modernize the National Military Indication System will provide the best attainable capabilities to support the National Command Authority through the National Military Command System as set forth in DoD Directive 5100.30.

INSTALLATION ANALYSIS - IN HOUSE

Installation and Location	FY	TOA (IN THOUSANDS OF DOLLARS) RDT&E Funds Mgmt Bureau	Other Parent Dept	Other DoD	All Other Funds 1/	Sub-Total	Mil. Pers. RDT&E	Other	Total	Personnel (Man-Years) Civil Service Paid From Parent Dept RDT&E	Paid From Other RDT&E	Paid From Other	Contractor Paid From RDT&E	Paid From Other	Mil. Pers. In RDT&E Work	Other	Total
Defense Intelligence Agency Arlington, Virginia	73	-				-	-		-	-					-		-
	74	320				320	89		409	15					3		18
	75	532				532	102		634	23					4		27

1/ Excludes TOA for external assistance contractor support for above years.

SUMMARY OF FEDERAL CONTRACT RESEARCH CENTERS BY APPROPRIATION AND PROGRAM

(In Thousands of Dollars)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Analytical Services, Inc.			
Research, Development, Test and Evaluation, Defense Agencies			
3.10.26.L Resource Allocation Methodology	75	80	125
Operation and Maintenance, Defense Agencies			
3.10.26.L GDIP Manpower Reduction Study	-	20	-
Total Analytical Services, Inc.	75	100	125
Institute for Defense Analysis			
Research, Development, Test and Evaluation, Defense Agencies			
3.10.26.L Resources Allocation Methodology	-	75	75
Operation and Maintenance, Defense Agencies			
3.10.26.L Net Threat Assessment of NATO Warsaw Pact	150	-	-
3.10.26.L Warning System Concept	90	-	-
Total Institute for Defense Analysis	240	75	75
Mitre Corporation			
Operation and Maintenance, Defense Agencies			
3.10.26.L Worldwide Military Command and Control System (WWMCCS)	300	-	-
Rand Corporation			
Operation and Maintenance, Defense Agencies			
3.10.26.L Soviet Cybernetics Review	11	22	-

INSTALLATION ANALYSIS - FCRCs

FCRC and Location	FY	TOA (IN THOUSANDS OF DOLLARS) RDT&E Funds: Mgmt Agency	RDT&E Funds: Other Parent Dept	RDT&E Funds: Other DoD	All Other Funds	1/ Sub-Total	Mil. Pers. RDT&E	Other	Total	Personnel: Professional: Paid From Parent Dept RDT&E	Professional: Paid From Other RDT&E	Professional: Paid From Other	Support: Paid From Parent Dept RDT&E	Support: Paid From Other RDT&E	Support: Paid From Other	Mil. Pers. Assigned	Total
Analytical Services	73	75			-	75			75	2		-	1		-		3
Inc., Falls	74	80			20	100			100	2		1	1		-		4
Church, Virginia	75	125			-	125			125	3		-	1		-		4
Institute for	73	-			240	240			240	-		4	-		2		6
Defense Analysis,	74	75			-	75			75	2		-	1		-		3
Arlington, Va.	75	75			-	75			75	2		-	1		-		3
Rand Corporation,	73	11			-	11			11	-		-	-		-		-
Santa Monica,	74	22			-	22			22	1		-	-		-		1
California	75	-			-	-			-	-		-	-		-		-
Mitre Corporation	73	-			300	300			300	-		6	-		3		9
McLean,	74	-			-	-			-	-		-	-		-		-
Virginia	75	-			-	-			-	-		-	-		-		-

Remarks: The funds reflected in the "All Other Funds" column are included in the Operation and Maintenance, Defense Agencies appropriation. The numbers shown in the "Paid From Other" columns are estimates of the number of contractor personnel paid from the associated O&M funds.

(In Thousands of Dollars)

Total Program Summary By Appropriation	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Research, Development, Test and Evaluation, Defense Agencies	75	155	200
Operation and Maintenance, Defense Agencies	551	42	-
Total Federal Contract Research Centers	626	197	200

Remarks: The funds reflected in the FY 1973 column include the funding of the Assistant Secretary of Defense Intelligence (ASD(I)) external assistance contacts. Funds for ASD(I) contract studies for FY 1974 and FY 1975 are included in the OSD activities budget.

Defense Supply Agency

STATEMENT OF MAJ. GEN. D. H. RICHARDS, U.S. ARMY, DEPUTY DIRECTOR

ACCOMPANIED BY:

WILLIAM J. CASSELL, COMPTROLLER
RICHARD G. BRUNER, EXECUTIVE DIRECTOR, TECHNICAL AND LOGISTICS SERVICES
JAMES R. JONES, SR., OPERATIONS BUDGET DIVISION, OFFICE OF THE COMPTROLLER

PREPARED STATEMENT

Chairman McClellan. The next activity to be considered as part of the "Operation and maintenance, defense agencies" appropriation is the Defense Supply Agency.

General Richards, come around, please.

You have a prepared statement. Do you want to insert it in the record?

General Richards. Yes, sir, I can insert it in the record and I have an abbreviated statement.

[The statement follows:]

Mr. Chairman and Members:

My statement highlights the missions, workloads and related appropriations requests of the Defense Supply Agency (DSA).

NATURE AND SCOPE OF OPERATIONS

As a common service organization under the direct cognizance of the Secretary of Defense, DSA is responsible for providing responsive and economical logistics support in three principal areas.

- First, we provide world-wide wholesale level supply support for a wide range of consumable materiel and repair parts to the Military Services and, upon request, to other Federal agencies including the Coast Guard, Federal Aviation Administration and Veterans Administration.
- Second, we perform contract administration services for a major portion of the purchase actions executed by centralized buying organizations throughout the Defense Department and the National Aeronautics and Space Administration.
- Third, we administer several Defense-wide logistics services programs, including:
  - -- Systems for Federal cataloging and providing technical item identification data necessary for Defense-wide logistics operations.
  - -- Maintenance, storage and reutilization of idle industrial plant equipment.
  - -- Scientific and technical documentation and information services in support of the Defense research and development community.
  - -- World-wide reporting, utilization and disposition of excess and surplus personal property.

The scope of these varied mission programs is indicated by the following ongoing annual workloads:

- -- Management of about one-half of the 3.6 million supply items used by the Defense Department.
- -- Procurement involving 2.3 million line item awards valued at $5.0 billion.
- -- Processing of 17.9 million supply requisitions.

-- Processing of 16.6 million materiel receipt and issue transactions. In physical volume, this involves 1.7 million short tons.

-- Administration of 209,000 contracts. Their face value is $51 billion.

-- Quality assurance surveillance over contractor production valued at $14.7 billion.

-- Payments to contractors involving 1.3 million invoices.

-- Maintenance of item identification data for 4.4 million cataloged items.

-- Management of a $1 billion inventory of industrial plant equipment.

-- Reutilization and disposal processing of property having an acquisition value of $8 billion.

-- Maintenance of scientific and technical information on over one million completed and ongoing research and development efforts.

WORKLOAD DEVELOPMENTS

DSA resource requirements are governed by the workloads generated by the needs and actions of the Military Services and other agencies which we support. We do not control these support requirements nor, consequently, the workloads they generate. Recently, DSA has been experiencing workload increases greater than budgeted.

Last year, when we testified in support of our Fiscal Year 1974 request, we said that the FY 1974 workloads were at that time expected to be 6 percent greater than the estimates contained in the Budget. FY 1974 is just about over, and it appears that the workload actually will be 5.5 percent higher than initially budgeted.

We will accomplish the high FY 1974 workloads essentially through increased productivity. In addition to sustaining the significant FY 1974 achievement, we expect, and have budgeted for, further productivity improvement in FY 1975.

For FY 1975, we are currently estimating that workload will be higher than what was anticipated when this appropriation request was prepared. If, as was the case last year, the revised estimate proves to be highly accurate, we will be faced with a serious problem. Because 85 percent of our Operation and

Maintenance appropriation is for pay of personnel and the balance is for programs that are essentially fixed, our capacity for internal reprogramming is limited.

In FY 1974 the problem was solved principally because productivity rates were higher than budgeted. That remedy is not likely to be available in FY 1975 because of the high productivity rates we have budgeted for. The Committee may be assured, however, that maximum efforts will be taken to adjust to the higher workloads while still sustaining acceptable mission performance.

O&M EMPLOYMENT

Fiscal Year 1974 civilian employment is programmed at 53,575. This employment level is greater than initially budgeted primarily because of functional transfers from the Military Services to DSA which have resulted in corresponding decreases in the Military Services' employment programs. Were it not for these functional transfers, the DSA civilian employment program for Fiscal Year 1974 would be 47,957. Fiscal Year 1975 civilian employment has been reduced by 1,217 spaces due to budgeted workload reductions and productivity improvements.

MILITARY PERSONNEL

Fiscal Year 1974 military personnel authorizations from the Military Services to DSA were initially programmed at 1,197. During this year, 288 additional billets were authorized, of which 286 were identified to property disposal activities transferred to DSA from the Military Services.

As we have previously reported to the Committee, continuing review of military personnel requirements is made on a position basis against governing Department of Defense criteria for assignment of military personnel. As a result of these reviews, 327 military personnel positions have been abolished with only 156 positions identified for civilianization. Accordingly, we have programmed military personnel authorization for DSA for Fiscal Years 1974 and 1975 of 1,158. This reduction requires abolishing approximately 22 percent of the Agency's military personnel positions. Because of the significance of this change, we have not programmed further military personnel adjustments.

FISCAL YEAR 1975 APPROPRIATIONS

The DSA request in the Defense Agencies Appropriations for Fiscal Year 1975 includes: $773.1 million in Operation and Maintenance; $14.5 million in Research, Development, Test, and Evaluation; and $14.6 million in Procurement. I will address these requests in that order.

Operation and Maintenance: The Operation and Maintenance request for Fiscal Year 1975 is $773.1 million. This is a net increase of $26.9 million over the adjusted availability for Fiscal Year 1974 resulting from specific increases of $45.6 million, offset by $18.7 million in decreases. The majority of increases, some $34.6 million, represent unavoidable pricing increases and appropriation adjustments. These and the other increases are:

-- $13.3 million for annualization of civilian pay increases, provision for ordinary within grade step increases in the Federal pay system, and increased Government contribution for medical health insurance premiums.

-- $13.9 million for increased payments to other Federal Agencies for leased space, postal service, and payments under the Federal Employees Compensation Act.

-- $7.4 million for functions transferred from the Military Services and GSA to DSA. Offsetting decreases have been made in the Military Services' and GSA's budget estimates.

-- $4.3 million for annualization of the Fiscal Year 1974 initiated Contractor Quality Improvement Program. This DSA investment will be more than offset by Military Service reduction of losses resulting from acceptance of defective materiel.

-- $6.7 million is the sum of small amounts for several programs in which the level of effort is being increased to meet specific effectiveness objectives. We believe each case holds definite potential for good return of the investment involved. Briefly, these are:

- Expand Cost Accounting Standards Program efforts as a result of

reduction in the dollar threshold requiring additional contractors to file Disclosure Statements.

- Expand the Industrial Mobilization Planning Program to achieve improved production base planning for emergency conditions and increase the inventory of idle industrial plant equipment to improve DoD Industrial Preparedness.
- Improve communication capability. $1.2 million of the requested $1.7 million increase is required for increased AUTODIN backbone charges.
- Support to the Defense Energy Information System by making available current petroleum fuel information Defense-wide.
- Improve procurement efforts necessitated by materiel shortages impacting DSA items of supply.
- Prepare cataloging and technical information products, presently the responsibility of the Military Services. These products, when available, will permit Military Service reductions greater than the DSA required investment.

The $18.7 million in decreases for Fiscal Year 1975 are:

-- $10.3 million for a budgeted 2.4 percent decrease in workloads.

-- $3.7 million for a 1 percent increase in productivity. This improvement is in addition to sustaining Fiscal Year 1974 achievement.

-- $2.6 million for reduced ADP costs primarily due to conversion of leased equipment to purchase.

-- $2.1 million for reduced travel and transportation costs as part of the Agency's program to conserve energy resources.

Research, Development, Test and Evaluation: DSA does not conduct research and development activities, but provides information services in support of the Defense research and development community through the Defense Documentation Center (DDC) and eight Information Analysis Centers(IACs). The FY 1975 Research, Development, Test and Evaluation request of $14.5 million includes $11.8 million for the DDC and $2.7 million for the IACs. The $11.8 million for DDC is an increase of $1 million over the FY 74 program. Of this, $0.8 million is required for computer support equipment related to customers' remote access terminal

expansion, and the remainder associates with the approved pay increases. The capability to support users' remote access terminals is a major improvement in DDC services which permits users to search DDC data banks in minutes and view available information at their terminals. Application of the funds requested will provide DDC with the capability of handling 96 on-line terminals by the end of FY 1975, an increase of 32 terminals.

The $2.7 million requested for the IACs includes an increase of $0.3 million for the expansion of reliable analysis operations by the addition of nonelectronic devices to this program, and an increase in the general development support task. It also includes an increase of $0.1 million for the increased costs of IAC operations due to inflation.

Procurement: The FY 1975 Procurement Appropriation request for DSA is $14.6 million as compared to the approved FY 1974 program of $5.3 million, a net increase of $9.3 million. The FY 1975 increase relates principally to two areas--$4 million is required to replace overaged and/or uneconomically reparable equipment which was recently transferred to DSA with the world-wide property disposal mission, and $6 million is required to purchase ADP equipment which is currently being leased. Conversion of this equipment from leased to Government-owned will result in an annual estimated savings of $3.1 million in FY 1975 and $3.5 million annually thereafter. The balance of $4.6 million is required for normal replacement of overaged equipment and for minimum augmentations during FY 1975, and is $0.6 million less than the FY 1974 Procurement level.

CONCLUSION

Mr. Chairman, the FY 1975 appropriations request for DSA reflects continuing management attention to the basic goal of maximum operating efficiency and economy in the performance of our assigned tasks. I assure the Committee that these estimates represent minimum resourcing to provide adequate logistical support to the Military Services.

This concludes my prepared statement. I will be pleased to respond to your questions.

WORKLOADS

General RICHARDS. 1974 is just about over and it appears our initial workload projections will be exceeded by approximately 5.5 percent in our Agency.

In 1975 we are actually looking for an even higher workload. In 1974 we accommodated this increase essentially through increased productivity. We hope to do the same in 1975.

Our appropriation requests this year are a bit higher than last year, not only because of functional transfers but because of price escalation and other factors in the economy that have made it more costly for us to do business.

We think our requests this year are fully supported and we submit them to you.

ESTIMATE OF WORKLOAD

Chairman MCCLELLAN. For the record, estimate your workload—and provide the specific measures used in making such estimates—for fiscal years 1973, 1974, and 1975. For 1975, show workload used in the fiscal year 1975 budget estimate and your present estimate of fiscal year 1975 workload.

General RICHARDS. Yes, sir.

[The information follows:]

Workload indicators	Fiscal year—			
			1975	
	1973 actual	1974 current estimate	President's budget	Current estimate
Procurement line items (thousands)	2,384	2,322	2,404	2,230
Requisition lines (thousands)	18,374	17,850	17,833	17,500
Depot system lines received and shipped (thousands)	16,799	16,048	16,413	16,110
Contracts:				
Production (average)	130,194	148,800	130,284	150,000
Administration (average)	186,087	209,000	188,268	210,000
Quality assurance, value (millions)	$14,766	$14,712	$14,444	$14,740
Contractor invoices (thousands)	1,265	1,296	1,252	1,275
Change from fiscal year 1975 President's budget (percent)				+1.8

Note: The workload levels in this request are the result of continuing critical review of demands, both past and projected, and reflect recent experience in the relationships between DSA workload and military strengths, deployments, and general activity levels.

INCREASES

Chairman MCCLELLAN. How much is your increase over last year?

General RICHARDS. In gross, $31.2 million for all appropriations.

Chairman MCCLELLAN. Is any of that transferred?

General RICHARDS. Yes, sir, $31.2 million.

Chairman MCCLELLAN. How much of it is transferred?

General RICHARDS. About $7.4 million.

Chairman MCCLELLAN. So that leaves $23.8 million. That is an increase.

General RICHARDS. Yes, sir. I can give you some of the increases and offsetting decreases. Would you like me to run that through?

Chairman MCCLELLAN. Yes, sir.

General RICHARDS. We have $13.3 million for annualization of civilian pay increases.

Chairman McCLELLAN. That is the civilian pay increase?
General RICHARDS. Which has been authorized by the Congress.

CIVILIAN EMPLOYMENT

Chairman McCLELLAN. Is there any increase in personnel costs?
General RICHARDS. There are slightly fewer personnel.
Chairman McCLELLAN. How much?
General RICHARDS. We have reduced personnel by increased productivity and other resources management programs 1,217, so in fact the actual total pay although higher is for a fewer number of people.
Chairman McCLELLAN. How many fewer personnel are budgeted for 1975 than you had in 1974?
General RICHARDS. I have a gross figure of 1,250 less. Mr. Cassell has the net figure.
Mr. CASSELL. 1,217 people fewer in 1975 than in 1974. I have the absolute numbers.
Chairman McCLELLAN. Then those that you retain will receive an increase in pay.
Mr. CASSELL. Yes, sir.
Chairman McCLELLAN. How many personnel do you have total?
Mr. CASSELL. 54,471.
Chairman McCLELLAN. 54,471. All of those will get an increase in pay?
Mr. CASSELL. Yes, sir.
Chairman McCLELLAN. How much do you save by the reduction of the 1,217?
Mr. CASSELL. I don't have that number with me.
Chairman McCLELLAN. You should have that. Show what that saves, what it would cost you if you retained that number.
Mr. JONES. We have budgeted $10.3 million in view of some reduction in workloads and $3.7 million as a decrease because of increased productivity. That $14 million would associate with the 1,217 fewer people.
Chairman McCLELLAN. But you are asking for $13.3 more.
Mr. JONES. Our gross increase is for $45.6 million but we had offset that by $18.7 million in decreases for a net increase of $26.9 million.
Mr. CASSELL. That $13.3 million related to the increased pay in civilian salaries—the average grade is the same in both years.
Chairman McCLELLAN. The point is you asked for $13.3 million increase to pay personnel with. Yet you have 1,217 fewer personnel this year than you had last year. So you get some reduction. That offsets it some.
Mr. CASSELL. Yes, sir.
Chairman McCLELLAN. I would like to find out how much that reduction of 1,217 personnel saves. When you get that and add the $13.3 million then we can tell what your increase is actually amounting to.
Mr. JONES. I have done that. You would add $14 million to the $13.3 million.
Chairman McCLELLAN. In other words, you will save $14 million as a result of a reduction in personnel.
Mr. JONES. Yes, sir.

Chairman McClellan. That is $27.3 million increase for the personnel you retain. That is how much their salary increase is: $27.3 million for 54,000 personnel. Presented that way I can understand it. I don't know if it is exactly correct, but it is what you say it actually costs.

PAYMENTS TO OTHER FEDERAL AGENCIES

General Richards. There is another $13.9 million which is increased payments to other Federal agencies for example, leased space which you discussed with Mr. Cooke.

Chairman McClellan. You rent space?

General Richards. Yes, sir. About $13 million——

Chairman McClellan. That is new this year.

General Richards. Yes, sir.

And $7.4 million for functions transferred from the military services and GSA to us.

Chairman McClellan. What functions would be transferred from GSA to you?

General Richards. Commissary support system for overseas and the——

Chairman McClellan. GSA.

General Richards. I'm sorry. I was going down the military services and GSA was there. The national industrial equipment reserve was transferred from GSA to us this year. The other transfers were from the services.

TRANSFERS FROM MILITARY SERVICES

Chairman McClellan. Is that $7.4 million?

General Richards. No, that $7.4 includes the services as well.

Chairman McClellan. What is for the services and what is for GSA?

General Richards. $1.18 is the GSA portion of that.

Chairman McClellan. Then the service is the balance?

General Richards. Yes, sir.

FUNCTIONS TRANSFERRED FROM MILITARY SERVICES

Chairman McClellan. For the record show what functions have been transferred to your Agency from the military services.

[The information follows:]

Direct commissary support system	$2,279,000
Item coding for 24 Federal supply classes	2,473,000
Industrial Defense program	900,000
Receipt, storage, and shipment of perishable subsistence item	702,000
Telecommunications facilities at O'Hara International Airport	69,000
Contract Administration plant cognizance	−238,000
Net transfers from military services	6,185,000
Transfer from GSA for National Industrial Equipment reserve program	1,180,000
Total Transfers to Defense Supply Agency	7,365,000

Chairman McClellan. Anything else?

CONTRACT ADMINISTRATIONS

General Richards. We have $4.3 million for annualization of our quality improvement program. In other words, by putting more re-

sources, or a higher level of effort, into assuring that the items that are produced for the Defense Department are in fact up to specification and standards. We have annualized the improvement program at a $4 million increased level in this budget.

Chairman McClellan. Is your procurement all shop service? Or do you contract items that are to be produced?

General Richards. Yes, sir, DSA alone, but I am referring here to our contract administration service for the entire Defense Department and we administer approximately——

Chairman McClellan. You don't administer contracts for weapons?

General Richards. Yes, sir, we have quite a few weapons systems contracts which are delegated to us for administration by the military service.

Chairman McClellan. The smaller contracts?

General Richards. Some of the smaller contracts and some of the larger ones like Safeguard, for example.

Chairman McClellan. Why do you just handle some of them? Isn't there some agency or department that handles all of them? Why is it fragmented?

General Richards. Essentially the military services determine which programs they wish to administer themselves and they delegate to us those which they feel can best be handled for administration by a common support agency.

We have approximately $50 billion worth of Defense procurement in the contracts we are administering. Little of that is DSA's own procurement. Most of it is Army, Navy, or Air Force procurement.

Chairman McClellan. Staple items that you purchase all the time?

General Richards. These are our own DSA items.

Chairman McClellan. Do you purchase the fuel?

General Richards. Yes, sir.

Chairman McClellan. All the fuel?

General Richards. That is essentially correct. We also administer for the other procuring officers in the military services those contracts which they delegate to us and at the present moment, as I mentioned, that is about a total of $50 billion worth of Government procurement which is affected by this quality assurance program.

Chairman McClellan. So you need this to update and improve your ability to determine the quality?

General Richards. Yes, sir.

Chairman McClellan. Of the product that is being produced.

General Richards. For all these services, yes, sir.

Chairman McClellan. That includes inspection service and so forth?

General Richards. Yes, sir.

Chairman McClellan. You request $4.4 million for that. How much do you have appropriated this year for it?

General Richards. Our total level of effort for improvement is at the $7 million level. Last year it was three. We were just getting our program off the ground. We feel that this level of effort——

Chairman McClellan. You just started this a year ago?

General Richards. We augmented it. We in effect energized it because we were not satisfied that we were doing all we could do——

Chairman McClellan. How much are you spending on it in fiscal 1974?

General RICHARDS. In fiscal 1974 it is $3.47 million.

Chairman MCCLELLAN. Now you want to increase it.

General RICHARDS. To. $7.74 million.

Chairman MCCLELLAN. That is about double.

General RICHARDS. Yes, sir. This is an improvement program which really had its inception about 2 years ago. We brought it before the Congress last year at about a $9 million program level and we now are bringing it up to what we consider a sustained plateau of about $7 million.

Chairman MCCLELLAN. Explain what the duties of this function are.

General RICHARDS. In the quality assurance—in these plants we have production inspection and testing, inspectors who actually look over the product that is coming off the assembly line for delivery to the services and to our other customers.

Chairman MCCLELLAN. That takes experts in a given field, does it not?

General RICHARDS. Yes, and they also have to be trained, those experts, and that is covered in this appropriation. Of course they have to travel from time to time and there are many other factors which enchance the capability of these people in the plant. In addition to that, there is a management—or let's say an appeal to management—to increase their own quality assurance. In other words, leverage the situation so that our people in fact gain many times the results of their efforts by the increase in effort that we hope the management of these companies devote to asuring the quality of our product.

Chairman MCCLELLAN. Any questions, Senator?

Senator YOUNG. Yes, sir. How many of your personnel are civilian?

General RICHARDS. We have a very small military contingent, 1,158 out of 55,000.

Senator YOUNG. Mostly civilians.

General RICHARDS. Essentially civilian.

SAFEGUARD PROGRAM

Senator YOUNG. What did you have to do with the safeguard program.

General RICHARDS. We administer many of the Army's Safeguard contracts for them.

Senator YOUNG. Which contracts?

General RICHARDS. I am not sure exactly which contracts but I can furnish that for the record. It is a sizable proportion of the contracts. Their procurement people let the contract and then they turned it over to us for administration.

Senator YOUNG. I wish you would explain that for the record and then send me a copy.

[The information follows:]

CONTRACT PLACEMENT FUNCTION

The Defense Supply Agency is the contract administration agency for Safeguard contracts with industry. The contract placement function is performed by the Safeguard command office in Huntsville, Alabama and then transferred to the contract administration office in close proximity to the place of performance for administration. The primary functions involved in this administration are: quality assurance, delivery surveillance and general administration of contract provisions (including payment). We do not have authority to change the contract price or the delivery schedule.

The Defense Supply Agency administers the systems contract with Western Electric Company, and performs key contract administration functions at all of the major subsystems plants except McDonnell-Douglas Corporation on the SPARTAN subsystem. This plant is under Air Force cognizance and these key contract administration functions are performed by the Air Force plant office.

Chairman McClellan. Anything further?

General Richards. I will go on if you want me to.

OTHER PROGRAM INCREASES

We have $6.7 million, small amounts of several programs in which the level of effort is being increased to meet specific objectives. These programs are—in fact, I could enumerate them for you.

Chairman McClellan. That will be inserted in the record in your prepared statement.

[The information follows:]

Cost accounting standards	$1,317,000
Industrial preparedness planning	374,000
Industrial plant equipment reserve	934,000
Autodin—Communications	1,652,000
Defense energy information system	1,000,000
Procurement of energy and material shortages	680,000
Identification and management data lists	718,000
Total program increases	6,675,000

DECREASES

General Richards. Then we have the offsets. We have $18.7 million decreases in this fiscal year from our previous level. We have $10 million budgeted for a reduction in workload including the material and supply area. With reduced force level of course there has been a decrease in that workload. We have also reduced our estimates by $3.7 million on the basis of increased productivity of the Agency. $2.6 million for reduced automatic data processing costs, ADP costs.

Senator Young. What page are you on?

General Richards. Page 6 in my statement. At the bottom. $2.6 million.

Senator Young. Go ahead.

General Richards. Then $2.1 million for reduced travel and transportation costs. Where we have tried to cut down to minimum essential travel for both energy conservation and austerity purposes. That is the offset referred to earlier.

This brings us to the net $26.9 million in O. & M. against the $45.6 million increases less $18.7 million decreases.

Chairman McClellan. That covers it pretty well?

General Richards. Yes, sir.

Chairman McClellan. Any further questions?

Senator Young. No, sir.

Chairman McClellan. Thank you very much.

General Richards. Thank you, Mr. Chairman.

JUSTIFICATION

Chairman McClellan. At this point in the record there will appear certain information from the justifications.

[The information follows:]

Justification

DEPARTMENT OF DEFENSE
APPROPRIATION: Operation and Maintenance, Defense Agencies, FY 1975

Budget Activity: Central Supply and Maintenance — Defense Supply Agency

Statement of Purpose and Scope

The Defense Supply Agency was established by the Department of Defense on 1 October 1961 pursuant to authority vested in the Secretary of Defense and the provisions of the National Security Act of 1947 as amended.

The primary objectives of the Defense Supply Agency are:

First, to insure effective and timely support of the operating forces in war and peace.

Second, to furnish this support at the lowest practicable cost.

The FY 1975 estimate provides for a net increase of $26,888 thousand over FY 1974. The principal increases are for (1) annualization of classified and wage board pay rate changes (2) assumption of financial responsibility for leased office and special storage space occupied by the Defense Supply Agency and (3) directed programs including new mission assignments and other changes to improve the effectiveness of logistics support to the Military Services. The FY 1975 estimate also includes decreases related to workload reductions, productivity improvements, automatic data processing systems, and travel of personnel. Each area of increase or decrease is explained in a subsequent section of this justification. The following reflects the organization, functions, and related workloads for FY 1975:

Organizations

Supply Centers (6)	Procurement and inventory management of medical, fuel and subsistence, clothing, general, industrial, construction, and electronics materiel	17.8	Million Requisitions
		$4.7	Billion Stock Fund Sales
		$4.6	Billion Stock Fund Procurements
		$2.7	Billion Inventory
		1.7	Million Items Managed
		2.4	Million Procurement Line Items Awarded
Supply Depots (7)	Receipt, storage and issue of DSA materiel	16.4	Million Line Items Received and Shipped
		1.6	Million Short Tons Received and Shipped
		.9	Million Short Tons in Store

Service Centers (3)	Support of DoD-wide cataloging, inventory utilization, surplus disposal programs and inventory management of industrial plant equipment.	.6	Million Catalog Numbers Added or Deleted
		$8.9	Billion Material Utilization and Disposal
		$1.0	Billion IPE Inventory
Contract Administration Services (CAS Regional Offices (11)	Contract Administration, Quality Assurance, Production Surveillance and Industrial Security	188.3	Thousand Contracts Administered
		$14.4	Billion Value of Materiel Inspected for Shipment
		1.2	Million Invoices Paid

DEFENSE SUPPLY AGENCY
SUMMARY OF RESOURCES

	Actual FY 1973	Estimate FY 1974	Estimate FY 1975
A. Obligations ($ Thousands)			
Direct	700,787	746,208	773,096
Reimbursable	46,255	113,961	110,704
Total	747,042	860,169	883,800

	Actual FY 1973		Estimate FY 1974		Estimate FY 1975	
	End Strength	Man Years	End Strength	Man Years	End Strength	Man Years
B. Personnel						
Civilian	49,908	46,866	53,575	51,400	52,358	51,373
Military	1,116	1,064	1,155	1,137	1,155	1,155
Total	51,024	47,930	54,730	52,537	53,513	52,528

DEFENSE SUPPLY AGENCY
SUMMARY BY PROGRAM ELEMENT
($ Thousands)

A. Obligations by Program Element	Actual FY 1973	Estimate FY 1974	Estimate FY 1975
Direct:			
1. Inventory Control Points	73,131	77,473	78,855
2. Procurement Operations	37,986	37,545	37,945
3. Supply Depot Operations	114,281	113,962	122,016
4. Contract Administration Services	272,174	298,601	297,973
5. Base Operations	203,215	218,627	236,307
Subtotal, Direct	700,787	746,208	773,096
Reimbursable	46,255	113,961	110,704
Total	747,042	860,169	883,800

DEFENSE SUPPLY AGENCY
SUMMARY BY PROGRAM ELEMENT

	FY 1973 Actual			FY 1974 Estimate			FY 1975 Estimate		
B. Personnel End Strength by Program Element	Civ	Mil	Total	Civ	Mil	Total	Civ	Mil	Total
1. Inventory Control Points	5,226	127	5,353	5,381	128	5,509	5,244	128	5,372
2. Procurement Operations	2,935	73	3,008	2,799	59	2,858	2,705	59	2,764
3. Supply Depot Operations	9,504	75	9,579	10,128	83	10,211	9,907	83	9,990
4. Contract Administration Services	17,911	426	18,337	19,446	398	19,844	18,782	398	19,180
5. Base Operations	14,332	415	14,747	15,821	487	16,308	15,720	487	16,207
Total	49,908	1,116	51,024	53,575	1,155	54,730	52,358	1,155	53,513
C. Personnel Manyears by Program Element									
1. Inventory Control Points	5,285	120	5,405	5,334	128	5,462	5,258	128	5,386
2. Procurement Operations	2,837	68	2,905	2,717	66	2,783	2,679	59	2,738
3. Supply Depot Operations	9,544	77	9,621	9,716	79	9,795	9,956	83	10,039
4. Contract Administration Services	18,016	403	18,419	18,473	412	18,885	18,311	398	18,709
5. Base Operations	11,184	396	11,580	15,160	452	15,612	15,169	487	15,656
Total	46,866	1,064	47,930	51,400	1,137	52,537	51,373	1,155	52,528

DEFENSE SUPPLY AGENCY
EXPLANATION OF INCREASES AND DECREASES
($ Thousands)

	Inventory Control Points	Procurement Operations	Supply Depot Operations	Contract Administration Services	Base Operations	Total
FY 1974 Estimate	77,473	38,225	113,962	298,601	217,947	746,208
1. Increases						
a. Pay Increases	1,203	592	3,587	4,608	3,359	13,349
b. Mission Transfers to DSA	1,412	399	4,823	530	201	7,365
c. Payments to Other U.S. Agencies					13,921	13,921
d. Contractor Production Quality Improvement				4,270		4,270
e. Additional Logistic Support		49	934	1,642	4,050	6,675
Total Increases	2,615	1,040	9,344	11,050	21,531	45,580
2. Decreases						
a. Workload	-754	-908	-547	-7,657	-465	-10,331
b. Productivity Improvement	-370	-366	-712	-1,206	-986	-3,640
c. Automatic Data Processing System				-1,573	-1,011	-2,584
d. Travel	-109	-46	-31	-1,242	-709	-2,137
Total Decreases	-1,233	-1,320	-1,290	-11,678	-3,171	-18,692
FY 1975 Estimate	78,855	37,945	122,016	297,973	236,307	773,096

DEFENSE SUPPLY AGENCY
EXPLANATION OF INCREASES AND DECREASES

Item 1a. Pay Increases - The increase of $13,349 thousand represents (1) annualization of classified and wage board employee pay raises granted in FY 1974 (2) within grade pay increases anticipated in FY 1975 for classified and wage board employees and (3) annualization of personnel benefits for increased cost of medical health insurance premiums effective 1 Jan 1974. The specific increases by category are summarized below:

		($ Thousands) FY 1974	FY 1975	Change
(1)	FY 1974 Pay Increases:			
	General Schedule	19,017	25,444	+6,427
	Wage Board	1,148	4,781	+3,633
(2)	FY 1975 Within Grade Increases:			
	General Schedule	-	2,475	+2,475
	Wage Board	-	524	+524
(3)	Medical Health Insurance Premiums	280	570	+290
	Total Increases	20,445	33,794	+13,349

Item 1b. Mission Transfers to DSA - The net increase of $7,365 thousand reflects funding authority for missions transferred to DSA from the Military Services and the General Services Administration. Offsetting decreases in the budget estimates of the Military Services and GSA have occurred. The specific mission transfers and corresponding FY 1975 funding amounts are as follows:

		($ Thousands)
(1)	Direct Commissary Support System	2,279
(2)	Item Coding for 24 Federal Supply Classes	2,473
(3)	Industrial Defense Program	900
(4)	Receipt, Storage, and Shipment of Perishable Subsistence Items	702
(5)	Telecommunications Facilities at O'Hare International Airport	69
(6)	Contract Administration Plant Cognizance	-238
(7)	National Industrial Equipment Reserve Program	1,180
	Total	7,365

Item 1c. Payments to Other U. S. Agencies - The budget request includes an additional $13,921 thousand (1) for payment to the General Services Administration for leased office and special storage space to be occupied by the Defense Supply Agency in FY 1975 (2) for increased cost of reimbursing the U. S. Postal Service for indicia mail service, including the cost of postal rate increases effective in FY 1974 and (3) for payments made to the Department of Labor under the Federal Employee's Compensation Act. The specific increases by U. S. Agency are summarized below:

	($ Thousand)		
	FY 1974	FY 1975	Change
GSA for Leased Space	-	13,195	+13,195
U. S. Postal Service	5,223	5,840	+617
U. S. Department of Labor	1,181	1,290	+109
Total	6,404	20,325	+13,921

Item 1d. Contractor Production Quality Improvement - The budget request contains an additional $4,270 thousand to annualize the quality improvement program begun in Fiscal Year 1974. This program was recognized in the Congressional action upon the Defense Supply Agency FY 1974 budget request. Defense Supply Agency embarked upon this program as a result of a joint Military Services and Defense Supply Agency in-depth review of Defense Supply Agency Quality Assurance operations. The review revealed the need for substantial improvement. These improvements took the form of both changes in procedure and additional manpower requirement. The result of these efforts are providing a substantial reduction in losses sustained through acceptance of defective material from contractors and the additional cost to the Military Services of correcting those deficiencies. The increased investment in DSA will be more than offset by the reduction of losses to the Military Services. The plan for improvement included, but was not limited to, the following actions:

a. Increase the level of physical product inspection. Procedures now place more emphasis on physical inspection of first articles and initial production items.

b. Strengthening first line supervision by reducing the numeric and geographic span of control. Also, we narrowed the range of commodity expertise required of the first line supervisor.

c. Placing greater emphasis on quality assurance representative product-oriented technical training.

d. Increasing the quality assurance surveillance at the sub-contract level.

e. Intensifing the quality assurance representative follow-up action when defective material is identified so as to require more positive corrective action by the contractor.

Item 1e. Additional Logistic Support - An increase of $6,675 thousand is requested for annualization and extension of logistics support programs directed by the Secretary of Defense for accomplishment in FY 1975. These include the Uniform Cost Accounting Standards ($1,317 thousand), Industrial Preparedness Planning ($374 thousand), Industrial Plant Equipment Reserve ($934 thousand), AUTODIN backbone and terminal equipment requirements ($1,652 thousand), Support to Defense Energy Information System ($1,000 thousand), Procurement of Energy and Material Shortage items ($680 thousand) and Publication of Identification and Management Data Lists by Defense Logistics Support Center ($718 thousand). A brief description of these programs and increases is given below:

Cost Accounting Standards

As a result of Public Law 91-379, a Cost Accounting Standards Board was constituted to establish cost accounting standards designed to achieve uniformity and consistency in the cost accounting practices followed by defense contractors. Most negotiated defense contracts in excess of $100,000 must include a cost accounting standard clause and contractors must then comply with the standards that are in effect. In addition, certain contractors must file Disclosure Statements. It is estimated that approximately 800 contractor profit centers will be required to file Disclosure Statements. The Cost Accounting Standards Board reduced the threshold to $10 million dollars effective for contracts after 1 April 1974, which resulted in an additional 500 profit centers (100 contractors) being required to file. This brings the total number of Contractor Profit Centers to 1300 in FY 1975.

The administrative contracting officers, assisted by pricing analysts, auditors and other technical specialists are responsible for implementation of the cost accounting standards program within the Department of Defense. Our responsibilities include determining adequacy of contractors' Disclosure Statements, assuring contractor compliance with standards and negotiating contract pricing adjustments. There is no overlap in this area with Defense Contract Audit Agency responsibilities. The decision with regard to contractor conformity to standards is the responsibility of DSA. This program requires an increase of $1,317 thousand.

Industrial Preparedness Planning (IPP)

This Department of Defense (DoD) program is designed to maintain the readiness posture necessary for an immediate transition of industry to a war time production base. More importance is being given to the Industrial Preparedness Program as a peace time function. Emphasis is being placed on in-depth planning for all components of major weapons systems, for logistic support and survival items during emergency periods, validation of requirements with the Military Services, and uniform planning cycles with standardization of forms and procedures. Industrial capability studies on a national scale will be conducted in conjunction with the Department of Commerce. In Procurement, the approved IPP list items for the Defense Supply Centers has increased by 21%. These items are those which require a guaranteed production base in the event of mobilization. This increase in items requiring preparedness planning is the basis of the request for an increase of $.49 thousand.

In Contract Administration Services an increase of $325 thousand is required to respond to accelerated needs of the Military Services in this area.

Industrial Plant Equipment Reserve

The Defense Supply Agency acts for the Department of Defense in managing the acquisition, storage, maintenance, and issue of the DoD General Reserve of industrial plant equipment (IPE). Such equipment may be issued to contractors producing materiel for the Military Services or to government-operated facilities such as arsenals and shipyards. The use of government-owned equipments eliminates the need for acquisition of new equipment thus lowering the cost of materiel being produced. It has been determined that the inventory of IPE should be increased so that the DoD Industrial Preparedness may be improved. The storage space within DSA activities may be either inadequate or uneconomical because of geographic location in relation to point of generation or potential use, because of transportation costs or potential backhauling costs.

To avoid these unnecessary transportation costs, storage space of the Military Services will be used when required. The Defense Supply Agency is required to reimburse the Military Services for warehousing services provided. An increase of $934 thousand will be required to finance this effort.

AUTODIN Costs

Communications - The $1,652 thousand increase in FY 1975 is principally for the Automatic Digital Network (AUTODIN). Of this total increase, $1,191 thousand is to reimburse the Defense Communications Agency Industrial Fund for AUTODIN backbone charges. The remainder is for lease of AUTODIN terminal equipment required to implement the Defense Integrated Data System at Defense Logistics Services Center and DSA Inventory Control Activities.

Support to Defense Energy Information System

In response to recommendations of the Defense Energy Task Group which is working with the National Energy Task Group, the Defense Supply Agency was directed to provide support to the Defense Energy Information System. This Information System will gather information Defense-wide at the base level and unified specified command level on a world-wide basis. Information will be gathered on all forms of petroleum fuels used in the Department of Defense. Information will indicate stock on hand, deliveries to be made, anticipated weekly consumption and short fall anticipated for each reporting organization. In addition, DSA will include stock on hand, anticipated weekly demand, stocks to be delivered for Defense Fuel Supply Center procurements and terminals, and indicate amounts procured under the Defense Production Act. These reports will be consolidated by DSA and provided to the Department of Defense Directorate for Energy. The budget estimate includes an increase of $1.000 million to support this system.

Energy and Material Shortages

The Defense Supply Agency has experienced difficulty in procurement of bulk petroleum, raw materials, and finished products of DSA items of supply. Because of this the procurement function has been forced to exert extra effort to overcome lack of vendor response, longer production lead time, and market place shrinkage. To overcome these difficulties, DSA must apply an additional $680 thousand.

IL & ML Publications

The Defense Supply Agency has undertaken a considerable effort to mechanize most of the cataloging and technical information work on Defense Department items of supply. As a result of this effort the Defense Supply Agency is now prepared to provide through the computer some of the cataloging and technical data previously prepared manually by the Defense Supply Centers and the Military Services. The identification list containing technical characteristics information on items of supply will now be prepared centrally and by computer operations. Another product which will be provided by means of computerized product is the management data list. This provides to the Services such information as source of supply, acquisition advice code, shelf life information, reparability code, security classification, unit of pack quantity and many other similar items of information which are usable in many ways. Some examples of the use of this information are transportation decisions, material management decisions, means of protecting the material and the economic order levels. Since DSA will now provide this information from a central point there will be cost reductions within the Military Services. These reductions have not yet been fully identified but they will exceed considerably the increase of $718 thousand being requested.

Item 2a. Workload - As a logistics service organization, our resource estimates are based primarily on workload demands anticipated from the Military Services. The workload levels in this request are the result of continuing critical review of demands, both past and projected, and reflect recent experience in the relationships between DSA workload and military strengths, deployments, and general activity levels within Defense. These factors result in FY 1974 and FY 1975 workload changes of +1.2% and -2.4%, respectively, from those of the prior year. The FY 1974 workloads currently anticipated are 5.5% above those forecast in the budget estimate submitted last year. The table below provides a comparison of key workload indicators for FY 1973 actual and the current estimates for FY 1974 and FY 1975. This budget request reflects a reduction of $10,331 thousand for decreases in workload forecast for FY 1975.

Workload Indicators	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Requisition Lines (000)	18,374	18,200	17,833
Procurement Line Items (000)	2,384	2,461	2,404
Depot Line Items Received and Shipped (000)	16,799	16,532	16,413
Contracts for Administration (000)	186	195	188
Quality Assurance - $ Value (Bil)	14.8	14.9	14.4
Contractor Invoices (000)	1,265	1,296	1,252
Composite Change from Prior Year		+1.2%	-2.4%

Item 2b. Productivity Improvement - FY 1974 demand workloads will exceed initially budgeted levels by 5.5%. The financing of these workloads will require productivity accomplishment significantly greater than programmed. The FY 1975 decrease of $3.640 thousand based on productivity improvement requires that we not only sustain the FY 1974 achievement, but also effect further improvement of 1.0% in FY 1975.

Item 2c. Automatic Data Processing System - A decrease of $2,584 thousand is reflected in the budget request for automatic data processing systems, as follows:

ADP System	FY 1974 Estimate	Adjustment for System Being Replaced	Adjusted FY 1974 Costs	FY 1975 Estimate	Change ($ Thousands) Total	Pay Increase	System Improvement
SAMMS	21,289	+2,877	24,166	21,342	-2,824	+138	-2,962
MOWASP	7,999		7,999	9,276	+1,277	+66	+1,211
MOCAS	12,418		12,418	10,829	-1,589	+99	-1,688
DIDS	8,976	+1,268	10,244	10,643	+399	+100	+299
DAAS	4,242		4,242	4,539	+297	+24	+273
APCAPS	3,476	+657	4,133	4,257	+124	+45	+79
NON-UADPS	20,542	-4,802	15,740	16,051	+311	+107	+204
TOTAL	78,942	0	78,942	76,937	-2,005	+579	-2,584

SAMMS - The Standard Automated Materiel Management System in the uniform data system at DSA's Defense Supply Center. The system embraces inventory management functions in the areas of distribution, requirements and supply control, procurement and production, cataloging and provisioning, and financial management. SAMMS is currently operational at the Defense Construction Supply Center (DCSC), Defense General Supply Center (DGSC), Defense Electronics Supply Center (DESC) and the Defense Industrial Supply Center (DISC). The system has been approved for installation at the remaining inventory control point, the Defense Personnel Support Center. Efforts are currently underway to implement SAMMS in three phases for the commodities managed by DPSC. The system provides required backup capability, eliminates redundant data systems effort, and improves DSA capability to meet established schedules for other DoD programs. The FY 1975 resource estimate encompasses a reduction of $2,962 thousand achieved through management improvement from SAMMS offset by $138 thousand for annualization of 1 October 1973 pay increase for a net reduction of $2,824 thousand.

MOWASP - The Mechanization of Warehousing and Shipment Processing System is the uniform data system at the seven DSA depots. MOWASP mechanizes receipt processing, shipment planning, freight consolidation, shipment status, stock locator files, workload forecasting and preparation and control of shipment documentation. The system also provides for inquiry into the depot computer data base from various locations at the depot. The increase of $1,277 thousand provides for annualization of ADP augmentation to support subsystem improvements in the Base Operating System, Depot Inventory System, Work Planning and Control, Bin Automated Replenishment System, and Mechanization of Freight and Shipping Terminal (MOFAST). The FY 1975 estimate also includes $66 thousand for annualization of the 1 October 1973 pay increase.

MOCAS - The Mechanization of Contract Administration Services is the uniform system at the eleven Defense Contract Administration Services Regions (DCASRs). MOCAS mechanizes the post award administration of defense contracts and modification, contract shipment status, financial payment of contractors and termination of contracts. The MOCAS system, operational since 1968, had been scheduled for replacement in conjunction with the FY 1974 implementation of the Defense-wide Military Standard Contract Administration Procedures (MILSCAP) which was deferred for system redesign. As a result, the current MOCAS system with some additional enhancements is not planned for replacement until the FY 1978-79 timeframe. The net decrease of $1,589 thousand, after consideration of the $99 thousand pay increase, is primarily due to planned conversion of currently installed MOCAS ADP equipment from lease to purchase.

DIDS - The Defense Integrated Data System (DIDS), scheduled for September 1974 at the Defense Logistics Services Center, provides a data system for the generation, receipt, validation, storage, control, surveillance, processing, dissemination and disposition of selected types and kinds of DoD/Federal logistics management information. The DIDS system will support the six functional areas of Item Identification; Interchangeability and Substitutability; Utilization and Marketing; Supply Management; Publications; and Statistical Reporting. It will provide faster responses to Military and Civil Agency customer logistics management data inquiries, transaction processing, improved retrieval system, lower item description reject rates, more immediate access to logistics data files, more timely files maintenance, and increased logistics data storage capacity. $100 thousand is required for annualization of the 1 October 1973 pay increase and $299 thousand is required for annualization of rental for DIDS ADPE installed in FY 1974.

DAAS - The Defense Automatic Addressing System is an ADP system for transmission of requisitions and related supply transactions to a single designated point for application of computer techniques for addressing and destination routing. It is used universally by DoD requisitioning activities for the routing of requisitions to the proper source of supply. Due to age and extended use, and in order to sustain reliable operations, the DAAS ADPE is being upgraded on a phased basis in FY 1974. The increase of $297 thousand includes annualization of rental for ADP equipment installed in FY 1974 and $24 thousand for annualization of the 1 October 1973 pay increase.

APCAPS - The Automated Payroll, Cost and Personnel System is a uniform data system which mechanizes civilian payroll, labor cost accounting, and selected personnel management functions and performance data. Of the $124 thousand increase, $45 thousand is for annualization of the 1 October 1973 pay increase and $79 thousand is for additional resources to expand the system in the O&M allotment accounting area.

Non-UADPS - In the area of systems not being replaced by uniform systems, $107 thousand is required for annualization of the 1 October 1973 pay increase. The increase of $204 thousand is related to expansion of DSA's newly acquired mission of world-wide property disposal.

Item 2d. Travel - A reduction of $2,214 thousand is reflected in the budget estimate for Travel and Transportation of Persons. This decrease is approximately 20% of the current year's estimate of $11,383 thousand and is based on an austere minimum essential level of $9,169 thousand to conserve energy resources. The reduction of $2,214 thousand includes a $77 thousand decrease reflected in the estimate for ADP systems (item 2c above) and $2,137 thousand for decreases in other travel of personnel, including costs for permanent change of station of civilian employees performing Contract Administration functions.

DEFENSE SUPPLY AGENCY

SUMMARY OF OBLIGATIONS BY ELEMENT OF EXPENSE
(In Thousands of Dollars)

	Actual FY 1973	Estimate FY 1974	Estimate FY 1975
Direct Obligations			
Personnel compensation	540,523	579,023	589,950
Personnel benefits	48,204	54,498	56,216
Travel and transportation of persons	10,227	11,383	9,169
Transportation of things	1,825	1,404	1,340
Utilities and Rents	16,538	23,928	36,174
Communications	17,323	19,875	21,827
Printing and reproduction	3,215	3,504	3,401
Purchased Equipment Maintenance	4,554	3,466	3,319
Other Purchased Services	31,683	27,329	30,018
Supplies and materials	23,849	21,315	21,248
Equipment	2,846	483	434
Total direct obligations	700,787	746,208	773,096
Total Reimbursable Obligations	46,255	113,961	110,704
Total Obligations	747,042	860,169	883,800

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Explanation of significant changes by element of expense for FY 1975:

The increase of $12,645 thousand in personnel compensation and benefits includes increases of $27,532 thousand for annualization of civilian pay increases, within grade promotions, medical insurance premiums for civilian employees, mission functional transfers, Quality Assurance improvements, and additional or augmented logistics support programs, offset by reductions of $14,887 thousand for workload decreases, improved productivity, and automatic data processing systems, all of which are explained elsewhere in this justification.

The decrease of $2,214 thousand in travel is based on minimum essential requirements with the objective of conserving scarce energy resources.

The increase of $12,246 thousand for utilities and rents includes $13,195 thousand for leased space payments to GSA less $949 thousand for rental of automatic data processing equipment.

The increase of $1,952 for communications includes $617 thousand for payment to the U. S. Postal Service and $1,335 thousand AUTODIN backbone and leased terminal equipment.

The increase of $2,689 thousand for other purchased services includes annualization of requirements for the National Industrial Equipment Reserve, the Industrial Production Equipment General Reserve, and payments to the U. S. Department of Labor under the Federal Employees' Compensation Act.

DEFENSE SUPPLY AGENCY
SUMMARY OF CIVILIAN PERSONNEL BY GRADE

	FY 1973	FY 1974	FY 1975
General Schedule Grades			
GS-18	1	1	1
GS-17	6	6	6
GS-16	14	14	14
GS-15	284	284	284
GS-14	611	611	611
GS-13	1,743	1,777	1,737
GS-12	3,806	3,856	3,768
GS-11	6,714	6,780	6,625
GS-10	162	165	162
GS-9	6,441	6,511	6,357
GS-8	292	298	292
GS-7	3,194	3,291	3,221
GS-6	1,322	1,350	1,321
GS-5	5,308	5,539	5,452
GS-4	5,396	5,540	5,422
GS-3	2,561	2,615	2,559
GS-2	560	574	562
GS-1	99	101	99
Ungraded Positions	9,863	12,704	12,419
Total Permanent Positions	48,377	52,017	50,912
Unfilled Positions, June 30	484	520	509
Total permanent employment, end of year	47,893	51,497	50,403
Temporary, part-time and intermittent employees	2,015	2,078	1,955
Total employment, end of year	49,908	53,575	52,358

DEFENSE SUPPLY AGENCY
SUMMARY OF MILITARY PERSONNEL BY RANK

	FY 1973	FY 1974	FY 1975
Officers:			
Lt Gen/Vice Adm	1	1	1
Maj Gen/Rear Adm (upper half)	11	11	11
Brig Gen/Rear Adm (lower half)	7	7	7
Colonel/Captain	188	186	186
Lt Col/Commander	376	356	356
Major/Lt Commander	274	271	271
Captain/Lieutenant	149	100	100
First Lt/Lieutenant (j.g.)	17	3	3
Warrant Officer	12	3	3
Total Officer Positions	1,035	938	938
Enlisted Positions	145	217	217
Total Positions	1,180	1,155	1,155
Unfilled Positions, 30 June	64	0	0
Total Employment, End of Year	1,116	1,155	1,155

Defense Communications Agency

STATEMENT OF MAJ. GEN. ROBERT D. TERRY, U.S. ARMY, VICE DIRECTOR, DEFENSE COMMUNICATIONS AGENCY

ACCOMPANIED BY:

DR. ESTIL V. HOVERSTEN, PRINCIPAL DEPUTY TO ASSOCIATE DIRECTOR, TECHNOLOGY, DEFENSE COMMUNICATIONS AGENCY

RAYMOND M. EAGAN, BUDGET OFFICER, DEFENSE COMMUNICATIONS AGENCY

C. HERBERT LUCERO, DEPUTY COUNSEL, DEFENSE COMMUNICATIONS AGENCY

PREPARED STATEMENT

Chairman McClellan. Maj. Gen. Robert D. Terry is Vice Director of Defense Communications Agency.

I see you have a long prepared statement. Let it be inserted in the record in full at this point and you may proceed.

[The statement follows:]

General Terry. Mr. Chairman and Members of the Committee, it is a pleasure to appear before you to present the budget request of the Defense Communications Agency (DCA) for FY 1975.

Budget Summary

The Defense Communication Agency request for FY 1975 is $100.2 million in three appropriations as shown on Chart 1. My statement will explain the highlights of the request which has been covered in detail in the justification material.

(Chart I follows:)

CHART 1

SUMMARY OF DCA BUDGET

[In millions of dollars]

Appropriation	Fiscal year—		
	1973	1974	1975
Operation and maintenance	58.6	60.5	65.5
Procurement	12.8	1.4	3.6
Research, development, test and evaluation	13.2	18.2	31.0
Total	84.6	80.0	100.2

Operation and Maintenance

General Terry. Operation and Maintenance funds are requested to meet the operating costs of the DCA Headquarters, and field activities through which DCA carries out its operational responsibilities in support of the Defense Communications System (DCS) and the Worldwide Military Command and Control System (WWMCCS) including the National Military Command System (NMCS). For FY 1975 $65.5 million is requested, a net increase of $5.1 million over FY 1974.

In the DCA Headquarters program element $13.2 million are requested, a decrease of $526 thousand below the estimate for FY 1974. This decrease is primarily the result of a reduction in headquarters civilian man years.

In the Defense Communications System program element we are requesting $25.5 million, an increase of $759 thousand over FY 1974. This increase includes (1) $434 thousand for the first year cost of reimbursement to the General Services Administration for space occupied, (2) $200 thousand for contractual software support for a plan to achieve greater efficiency and economy in multiplexing, and (3) annualization of the cost of the civilian pay increase of October 1973.

The request for the National Military Command System (NMCS) is $19.0 million, a net increase of $1.8 million over FY 1974. Increases are attributed chiefly to pay of personnel and contracts, and reimbursement to GSA for Pentagon space. The increases are offset in part by reduction in ADP leases and in software conversion effort. The additional funds for FY 1975 primarily support new requirements of the Worldwide Military Command and Control System (WWMCCS) for standardization of certain applications software and contractual assistance to provide technical support for the conduct of exercises of the National Military Command System and the Worldwide Military Command and Control System.

WWMCCS/NMCS Exercises

Chairman McClellan. What is included in your FY 1975 budget for technical support of exercises of the National Military Command System and the Worldwide Military Command and Control System? Compare with FY 1973 and FY 1974.

General Terry. I will be glad to provide the information for the record.

[The information follows:]

WWMCCS/NMCS EXERCISES

[In thousands of dollars]

Appropriation	Fiscal year—		
	1973	1974	1975
O. & M.	300	0	1,000
R.D.T. & E.	0	0	1,000
Total	300	.....	2,000

Chairman McClellan. Proceed.

General Terry. In connection with our technical support of the Standard Worldwide Military Command and Control System ADP System—that is the work performed by DCA's Joint Technical Support Activity (WWMCCS–JTSA)—we are requesting $7.9 million, an increase of $3.0 million over FY 1974. In FY 1975, the JTSA is expected to become fully operational in providing centralized support to the new standard WWMCCS computers which have recently been put in service. The increase in funding is due primarily to the cost of full year employment of additional civilian employees including converted military positions, added contractual services for acceleration of internetting of WWMCCS computers, and an increased level of standard system software changes and enhancements.

Procurement

The FY 1975 request for procurement is $3.6 million, an increase of $2.2 million over FY 1974. The major portion of this request, $2.4 million, will provide equipment to increase the capacity and capabilities of the Joint Technical Support Activity and National Military Command System Support Center data processing systems.

The purpose of the $1.6 million JTSA computer center upgrade is (1) to provide a physical environment which can simulate configurations of other WWMCCS ADP sites for evaluation and resolution of operational problems at those sites and (2) provide an up-to-date facility for development test and evaluation of new standard system software. The minimum hardware configuration purchased in FY 1973 for JTSA does not contain capabilities that have been added to computers currently being delivered to other WWMCCS sites. Thus, without the up-

grade JTSA will lack the technological capability required to support the WWMCCS community.

The additional core and drum capacity and other replacement items provided in the $785 thousand for the NMCSSC data processing system will provide more effective and efficient use of the current ADP equipment.

DCA requirement for normal replacement and modification of present equipment is contained in the line for items less than $500 thousand which reflects a net decrease from FY 1974 of $130 thousand. These funds are primarily for communications and related equipment required for the Agency to carry out its worldwide Defense Communications System responsibilities.

Research, Development, Test and Evaluation (RDT&E)

For FY 1975, the RDT&E requirements of DCA are estimated at $31.0 million. This is an increase of $12.8 million above the amount appropriated for FY 1974, $4.6 million for the Defense Communications System (DCS) and $8.2 million for Command and Control. I will discuss these in turn.

Duplication of Funding

Chairman McClellan. Many of the programs funded in your Agency's budget appear to be duplicative of those being funded in the research and development programs of the military departments. For each program you have where a military department has similar funding (i.e., Minimum Essential Emergency Communications Network), explain whether there is duplication or why there is none.

General Terry. I will be pleased to provide the information on each program for the record.

[The information follows:]

Minimum Essential Emergency Communications Network—DCA

DCA is responsible for providing the overall system engineering for the Minimum Essential Energy Communications Network (MEECN). Included are system analysis, engineering, integration, test, evaluation and planning necessary to insure an effective and survivable MEECN. Major technical and program recommendations for MEECN-related Mil Dep assets are reflected in an annually updated MEECN Master Plan (MMP). The Mil Deps then use the MMP as the basis for programming the necessary hardware development, implementation and other support activities. The extensive coordination process employed by DCA for MEECN with the JCS, Mil Deps and the other Defense Agencies precludes duplication.

Joint Technical Support Activity—DCA

JTSA is the only organization in the WWMCCS ADP community that provides RDT&E capabilities to the total WWMCCS ADP program. Its efforts are directed toward the development of advances in the state-of-the-act and required capabilities to achieve a responsive secure ADP information system for support of the National Command Authorities and the WWMCCS users. The objectives of the R&D are directed by the JCS and the tasks coordinated by the WWMCCS ADP Project Manager, OJCS, as well as by DCA to preclude duplication with any other ADP related R&D by the Mil Deps.

National Military Command System—Wide Support—DCA

DCA is charged with providing the system engineering, technical support and technical supervision of the implementation of the National Military Command System (NMCS). The NMCS includes assets of the individual Mil Deps, which are integrated as the results of DCA's efforts. Accordingly, direct coordination is required and effected by DCA among the JCS, Mil Deps, NSA, DIA, DCA and the Commanders-in-Chiefs of the Unified and Specified Commands to preclude any duplication. In addition JCS publishes annually the Five Year Master Objectives Plan which is fully coordinated with the Military Departments and Defense Agencies and defines the NMCS improvement program for the next five years.

Defense Communications System—DCA and DCS Test and Evaluation

The DCA and Military Departments RDT&E programs related to the Defense Communications System, DCS, are planned to complement one another. The DCA–DCS RDT&E resources are used to address DCA related requirements, conduct studies, develop techniques, perform system engineering, and define and verify the system architecture. The DCA–DCS RDT&E efforts provide the overall system architecture and the functional specifications of the hardware and software needed to implement various DCS subsystems. These functional specifications provide the basis for the Military Departments' efforts in developing the required technology and in performing the necessary development, test, and evaluation tasks to specify the hardware and software required to implement DCS subsystems.

DCA, as the DCS system engineer, has the overall responsibility to ensure that all the RDT&E efforts related to the DCS are complementing and nonduplicative. Continuity and time phasing are maintained between the DCA military departments' DCS RDT&E efforts by means of such documents as the DCS System Improvement Plan. This document not only describes the continuity of program effort, but also describes the DCA, military departments, and other government agencies' specific areas of responsibility for each program effort including funding. The System Improvement Plan is coordinated with the military departments prior to submission to the Joint Chiefs of Staff and Director of Telecommunications and Command and Control Systems for approval. This coordination and approval cycle not only definitizes the RDT&E effort but further assures that there is no duplication of effort between DCA and the military departments RDT&E program.

Total R.D.T. & E. Program

In addition to the above mentioned safeguards against duplicative RDT&E efforts, the entire RDT&E program of DCA and the other defense components are examined during the program and budgetary reviews by such offices as Director of Defense Research and Engineering, the Assistant Secretary of Defense (Comptroller) and the Office of Management and Budget.

Chairman McClellan. Proceed.

Defense Communications System

General Terry. The DCS must undergo major change to exploit the fruits of technology, accommodate to the growing demands for machine-to-machine information transfer, and meet the increased demands for improved command and control to support the National Command Authorities (NCA). While our efforts will continue to address a range of activities that open the broad base of communications technology, there are some major projects which will receive priority attention and effort, I refer to the areas of communiications satellites, data communications, and secure voice communications. Advances in space technology have produced satellite communications with extensive capabilities which are extremely difficult to fit into structured communications systems. Progress in computer technology has generated a rapid escalation in data communication requirements which we are not now prepared to meet. These requirements for rapid and free exchange of information indicate that the future of computers is practically interlocked with communications. Reduction in military forces inevitably leads to more centralized control, which in turn increases the urgency for providing secure voice communication. The need for total security for military voice communication has been confirmed by experience in Vietnam. Not only is our present equipment too expensive but the voice quality on long distance circuits is not acceptable to many users.

DCA requirements for support of the Defense Communications System are contained in two program elements—DCS Research and Development and DCS Test and Evaluation.

Defense Communications System Research and Development

The FY 1975 requirement for the DCS R&D program is $13.6 million, divided among four basic objectives.

The first objective is modification and improvement of the near-term system estimated at $1.3 million which is approximately the same as FY 1974.

The second objective is advancement of major projects to increase the reliability, capability, and security of the DCS at an estimated cost of $6.2 million. This is an increase of $2.4 million over FY 1974, of which $1.3 million is for work transferred from the Army program to DCA. Increased funding is required to support the development of a new high capacity data network to enhance the current system; componentry for new and improved communication satellites; a new secure voice system; and digital transmission improvements needed to upgrade existing facilities, enhance communication security, and start the evolution of the DCS to its future digital posture.

The third objective includes studies and exploratory R&D required to provide the technology needed for the DCS of the future for which $5.1 million is requested, $1.7 million more than FY 1974. Work on the future DCS includes both in-house and contractual effort. The in-house effort is estimated at $3.0 million, the same level as last year. The contractual effort of $2.1 million with industry and universities which consists of in-depth studies reflects the increased emphasis on definitizing system control concepts which provide for high DCS utilization efficiency under crises and damage conditions, minimzng costs associated with enhanced survivability of command and control communications, and delineation of lower cost approaches for greater communications security.

The fourth objective is support of a new military satellite communications systems effort for which $1.0 million is requested. DCA is responsible for system architecture of all military satellite communications systems. A primary responsibility is to develop a system framework so that the total communication satellite capability will be effective from both an operational and cost standpoint. FY 1974 funds of $600 thousand are being used to start the necessary efforts. The FY 1975 requirement of $1 million is requested to define in cooperation with the Air Force the next generation super high frequency satellite for the 1980's and to develop a system architecture plan in coordination with all military departments for military satellite communications covering the 1975–1990 period.

Defense Communications System Test and Evaluation

DCA and the Defense Nuclear Agency (DNA) have established a joint program regarding the effects of high altitude electromagnetic pulse (HEMP) created by exoatmospheric nuclear detonations.

In FY 1975, DCA will require $3.0 million which is about the same level as FY 1974. The overall objective of this program is to decrease the HEMP vulnerability of the present DCS and to provide design guidance for the future DCS to insure that the resultant HEMP vulnerability will be known and will be at an acceptable level.

Command and Control Systems

DCA RDT&E requirements of $14.4 million for support of Command and Control Systems are contained in three program elements—National Military Command System, Joint Technical Support Activity, and Minimum Essential Emergency Communications Network.

National Military Command System

As the priority component of the Worldwide Military Command and Control System (WWMCCS), the National Military Command System (NMCS) must be designed and continually improved to meet the command and control requirements of the National Command Authorities (NCA) and the Joint Chiefs of Staff (JCS) in the most effective and efficient manner.

The Secretary of Defense's recently announced new nuclear strategy, with its emphasis on flexible response, accentuates the need for expanded information and command and control requirements by the NCA and JCS. I want to emphasize that an essential element in a "flexible response" strategy is a reliable, comprehensive, and survivable command and control system.

The $4.6 million RDT&E program requested in FY 1975 is an increase of approximately $3 million over FY 1974. Major NMCS engineering in FY 1975 will focus on the development and expansion of alternative subsystem configurations and implementation approaches for the NMCS to provide the NCA with adequate information support for flexible response under the full spectrum of military operations. Two new efforts are (1) detailed, in-depth design studies and analysis in the area of non-nuclear crisis management, and (2) the development of auto-

mated aids to be used in the design, production, conduct, analysis and evaluation of WWMCCS/NMCS exercises. The automated aids developed are expected to add realism, to provide a better measure of the performance of the WWMCCS/NMCS under various stress conditions ranging from day-to-day operations to general war, and to enhance the design concepts proposed for the future implementation of the NMCS.

Joint Technical Support Activity

It is the responsibility of the Joint Technical Support Activity (JTSA) to provide technical support of WWMCCS Automated Data Processing (ADP) system software and to serve as a technical clearinghouse for the users of the new standard WWMCCS computers. Starting in FY 1975, JTSA will assume a new role of providing quality assurance testing for WWMCCS ADP standard applications software. All 35 of the new standard Honeywell computers were installed by December 1973 and are now achieving operational status.

FY 1975 RDT&E funds of $4.6 million are requested, an increase of $2.9 million over FY 1974. This increased funding will permit $2.5 million being directly applied to acceleration of the WWMCCS ADP Intercomputer Network Project to achieve early application of the network for improved operational command and control of US Forces at the national level. The remaining $2.1 million is required for R&D in such areas as: multilevel security; total system performance evaluation methodology; concept formulation of the target WWMCCS ADP system for the FY 1978–1980 time frame; WWMCCS ADP transferability from one computer language to another; and the development of WWMCCS System Interface Standards which will result in improved operational capability and economy.

Minimum Essential Emergency Communications Network

The Minimum Essential Emergency Communications Network (MEECN) is an evolving network of diverse, weapons system oriented communications assets designed to transmit Emergency Action messages to U.S. Forces deployed worldwide under all emergency defense conditions. This program provides the system engineering necessary to ensure the compatibility and interoperability of the several subsystems which will comprise an operationally and technically integrated and survivable MEECN.

The $5.2 million program requested in FY 1975 is approximately $1.8 million above the FY 1974 program. The additional resources will provide the capability to (1) explore the two-way communications requirements needed to implement new strategic options; (2) augment major efforts in communications security analysis and planning; (3) provide more detailed analysis of system survivability particularly to the effects of electromagnetic pulse; (4) provide for development of a communications satellite/MEECN Integration Plan; (5) more thoroughly evaluate the network performance through increased test and evaluation efforts as prescribed by the JCS.

Summary

In summary, Mr. Chairman, the DCA budget request reflects the increased emphasis on WWMCCS, improvements in command and control to meet the needs of a flexible response strategy, and improvements in the DCS which are basic to its role as a supporting element of command and control. To a significant extent the additional funds requested reflect real improvement in the planning and management of our command control and communication efforts. Long range requirements as well as the system planning necessary to meet them are becoming better defined. Related development efforts are becoming better integrated and the need for related applied research appropriately identified. The end product will be improved command, control, and communications.

Mr. Chairman, this concludes my prepared remarks. We are ready to respond to your questions.

OPERATIONS AND MAINTENANCE APPROPRIATIONS

General Terry. In the O. & M. appropriation we are requesting $65.5 million. That is an increase of $5 million from fiscal year 1974. That is broken down as follows:

In the DCA headquarters program element we are asking $13.2 million, a decrease of $526,000 below fiscal year 1974 estimate. This decrease is primarily the result in headquarters civilian manpower.

Chairman McCLELLAN. You are giving us the offsets first.

General TERRY. I am going to bring the total out to the $5 million increase. That just happens to be the order in which these elements are listed.

Chairman McCLELLAN. You gave us a decrease first. How much was that?

General TERRY. That decrease is $526,000.

Chairman McCLELLAN. Proceed.

DEFENSE COMMUNICATIONS SYSTEM

General TERRY. In the Defense Communications System program elements we are requesting $25.5 million, which is an increase of $759,000. That increase is broken down into $434,000 for first year cost of reimbursement to the General Services Administration.

Chairman McCLELLAN. That is rent?

General TERRY. Yes, sir, the next segment is $200,000 for software support for a multiplex planning mission.

Chairman McCLELLAN. What is that?

General TERRY What we are doing is embarking on an effort to plan and utilize multiplex equipment owned by the Department of Defense. This is the equipment which lets us insert many channels of communication over a single-voice circuit for example, or over a specific communication channel that we can lease from the A.T. & T.

Chairman McCLELLAN. How do you use it and what is the need for it?

General TERRY. The need for it is so we an reduce the net cost to the Department of Defense for these circuits. Instead of each department or each agency buying a single teletype circuit, for example, from the common carrier, the A.T. & T. in many cases, the Defense Department can use this equipment I am talking about, put it on a single channel leased from A.T. & T., a single-voice channel and then provide 12 teletype channels to different users within the Defense Department at lower rates than they could individually obtain them.

Chairman McCLELLAN. Where will these be located?

General TERRY. It will be spread throughout the country.

Chairman McCLELLAN. It will go to different installations?

General TERRY. Yes, sir.

Chairman McCLELLAN. General headquarters.

General TERRY. Activities requiring communications service throughout the United States.

Chairman McCLELLAN. A dozen won't meet the requirements, will it?

General TERRY. That was only an example. We are leasing right now—we are expending through our commercial office something in the order of $400 million a year.

Chairman McCLELLAN. That is $200 million, you said a minute ago.

General TERRY. This is just a small software support effort to assist in the planning.

Chairman McCLELLAN. This is planning. How much was it?

General TERRY. $200,000.

Chairman MCCLELLAN. This is not ready for procurement. It is an idea you want to develop.

General TERRY. The first step is to utilize Multiplex equipment the Government already owns more efficiently. So we are making a better use of money already spent to buy this kind of equipment. It may ultimately expand into being additional equipment but we are not at that stage yet.

Chairman MCCLELLAN. You are trying to make more efficient what you already have. Is that the idea of it?

General TERRY. Yes, sir.

Chairman MCCLELLAN. Proceed.

General TERRY. A third point is the annualization of cost of civilian pay increase as of October 1973. That is $102,000.

Chairman MCCLELLAN. How many people are involved?

General TERRY. In the O. & M. appropriation, 1,423.

Chairman MCCLELLAN. Do you plan any reduction in personnel from last year?

General TERRY. For the entire agency, we are asking for an increase of 25 civilian spaces.

Chairman MCCLELLAN. Proceed.

NATIONAL MILITARY COMMAND SYSTEM (NMES)

General TERRY. A request for National Military Command System is $19 million, a net increase of $1.8 million over fiscal year 1974.

Chairman MCCLELLAN. Why is that necessary?

General TERRY. This breaks down into reimbursement to GSA for Pentagon space.

Chairman MCCLELLAN. How much?

General TERRY. $437,000.

Senator YOUNG. Mr. Chairman, I wonder if at this point we could get a statement from Defense as to how much the Defense Department is paying General Service Administration for space.

[The information follows:]

The total FY 1975 Department of Defense Estimate for General Services Administration rent is $202.835 million.

Chairman MCCLELLAN. They gave that a while ago. About $200 million altogether. What was it here in the Washington area?

Mr. MCCONNELL. $76 million, with the Pentagon being about $25 million, was what they said before.

General TERRY. Mr. Cook gave that testimony and I don't have that.

Chairman MCCLELLAN. That is roughly what the figures are.

General TERRY. The additional portion of that $1.8 million increase is attributed to pay of personnel and to contract increases.

Chairman MCCLELLAN. There is a pay increase of $102,000.

General TERRY. That is under another line item and now I am breaking out the increases of $1.8 million in the National Military Command System.

Chairman MCCLELLAN. What is the pay increase for that?

General TERRY. $105 thousand. The balance are contract increases.

Chairman MCCLELLAN. What do you mean "contract increases"? Services that you contract for?

General TERRY. Yes, sir. We do not have enough people in house to take care of all of the support requirements that we handle under the National Military Command System.

Chairman MCCLELLAN. What is your contract cost this year?

Mr. EAGAN. In this appropriation, $10,450,000.

Chairman MCCLELLAN. What part of that is for contract services?

Mr. EAGAN. That is for contract services. $10,450,000.

Chairman MCCLELLAN. You want to add to that how much this year?

Mr. EAGAN. We add $4 million.

Chairman MCCLELLAN. You are sure you mean $4 million?

Mr. EAGAN. $4 million.

General TERRY. The $1.8 million includes——

Chairman MCCLELLAN. That is what we are trying to determine.

General TERRY. The $1.7 million that is too high a figure. There is $1.7 million increase in support contracts as part of the $1.8.

Chairman MCCLELLAN. What I asked you is what was your contract allowance for 1974. What did you have in your budget for 1974?

General TERRY. In the 1974 budget for—we are talking about the $1.8 increase?

Chairman MCCLELLAN. You have given me $542,000 of the $1.8 million so far.

General TERRY. Our total figure for 1974 was $17.1 million and the total figure for this year is $18.963 million which is approximately a $1.8 million increase.

Chairman MCCLELLAN. That is all right. I am trying to get now a breakdown of what was the cost of contract services. You started breaking it down. First rent and then something else, $105,000. Then you mentioned contract service. Let's stick to that and get that figure. You got the others without any problem.

General TERRY. The contract services increased from $7.4 million to $9.1 million or approximately $2 million. A little less than that.

Chairman MCCLELLAN. We only had $1.8 million to start with. That is an increase though. How much is that increase?

General TERRY. That increase is $1.7 million.

Chairman MCCLELLAN. $1.7 million won't work out correctly. That amounts to over $2 million in increases.

General TERRY. The point that I have not mentioned and have to is that in this same appropriation we have reduced our computer lease cost and the net reduction in utilities and rents is about $1.3 million.

Chairman MCCLELLAN. So you have $1.3 million instead of $1.7.

General TERRY. That increase is $1.7 million. There is a reduction of $1.3 million that is offsetting the increases I just mentioned, sir.

Chairman MCCLELLAN. $1.3 million offsets $1.7 million? That leaves a $4 million increase. Is that right, $400,000 over last year; is that right?

General TERRY. No, sir. There is a $1.8 million approximate increase. Let me go down very precisely so the figures will come out exactly right.

NMCS WIDE SUPPORT

Chairman MCCLELLAN. Do you have a table of it there?

General TERRY. Yes, sir.

Chairman MCCLELLAN. Insert it in the record.

General TERRY. All right.

[The table follows:]

NMCS WIDE SUPPORT

($ In Thousands)

	FY 74	FY 75	Difference
Civilian Pay & Benefits	5,166	6,208	+1,042
(Annualization of 1 Oct 73 Pay Raise			+ 105)
(Cost of full year employment of FY74 Civilian increases including contract conversion			+ 759)
(Cost of new FY75 End Strength Increases for one half year			+ 128)
(Within Grade Raises; one extra days pay and Health Benefit Increases			+ 50)
Travel & Transportation	122	151	+ 29
(Support of additional Man Years			+ 29)
Utilities & Rents	2,581	1,267	-1,314
(Annualization of Savings in ADP leases resulting from equipment purchases			-1,751)
(Reimbursement to GSA for building costs			+ 437)
Communications	100	107	+ 7
(Support of additional man years			+ 7)
Purchased Equipment Maintenance	1,029	1,370	+ 341
(Annualization of Maintenance costs for Government owned Computers			+ 341)
Printing	75	82	+ 7
(Inflation from Fall of 72 to Fall of 73			+ 7)
Other Purchased Services	7,731	9,437	+1,706
(New Contractual Requirements for WWMCCS functional software and WWMCCS/NMCS Exercises			+1,706)
Supplies	280	301	+ 21
(Inflation from Fall of 72 to Fall of 73			+ 21)
Equipment	37	40	+ 3
(Inflation from Fall of 72 to Fall of 73			+ 3)
TOTAL NMCS	17,121	18,963	+1,842

JOINT TECHNICAL SUPPORT ACTIVITY

Chairman McCLELLAN. Go ahead.

General TERRY. The next element of O. & M. appropriations is support of the joint technical support activities. This has to do with providing standard ADP systems, software support for the Worldwide Military Command and Control System, ADP system. We are requesting $7.9 million which is an increase of $3 million over 1974.

Chairman McCLELLAN. Why is that such a substantial increase?

General TERRY. We have increases in civilian pay and benefits.

Chairman McCLELLAN. How much?

General TERRY. Mr. Chairman, I have a whole list of figures and may I suggest I insert them for the record?

Chairman McCLELLAN. I expect we had better. Insert them for the record.

[The list follows:]

WWMCCS JTSA

($ In Thousands)

	FY 74	FY 75	Difference
Civilian Pay & Benefits	1,440	2,075	+ 635
(Annualization of 1 Oct 73 Pay Raise			+ 49)
(Cost of full year employment of FY74 civilian increases including mil/civ conversion			+ 402)
(Cost of new FY75 Eng Strength Increases for one half year			+ 134)
(Within grade raises; one extra days pay; and Health Benefit Increases			+ 50)
Travel & Transportation	165	175	+ 10
(Support of additional man years			+ 10)
Utilities & Rents	290	350	+ 60
(Increased Rent on Leased Buildings			+ 60)
Communications	94	105	+ 11
(Support of additional man years			+ 11)
Purchased Equipment Maintenance	130	219	+ 89
(Annualization of maintenance costs for government owned computers			+ 89)
Printing	25	29	+ 4
(Inflation from Fall of 72 to Fall of 73			+ 4)
Other Purchased Services	2,635	4,792	+2,157
(Contractual effort for acceleration of internetting WWMCCS Computer projects and increased level of system software and enhancements			+1,904)
(Increased Host/Tenant costs to support added personnel			+ 253)
Supplies	100	120	+ 20
(Support of additional man years			+ 20)
Equipment	75	82	+ 7
(Support of additional man years			+ 7)
TOTAL JTSA	4,954	7,947	+2,993

PROCUREMENT APPROPRIATION

Chairman McClellan. The staff will examine these figures. Proceed.

General Terry. Under the procurement appropriation we are requesting $3.6 million which is an increase of $2.2 million over fiscal year 1974. The major portion of this request, that is of the $3.6 million, will provide equipment to increase the capacity and capabilities of the joint technical support activity. What we have here is a computer center which has types of equipment, ADP equipment, purchased as part of the Worldwide Military Command Control System, ADP program, so that for every type of service, every type of software program, we can test it, provide a quality control function and duplicate the kinds of problems that the 35 installations, systems installations in the field have.

Chairman McClellan. What did you say that was?

General Terry. JTSA is a computer installation. It is built of hardware but it is designed to test software.

SOFTWARE

Chairman McClellan. Define software.

General Terry. Software is the programs that are written and are used to run computers in order to produce the results we want. For example, a program to manipulate certain kinds of arithmetical data to produce answers of the type the program is designed to produce, a program to run a war game, a computerized war game, so we can crank certain inputs into the game and test different solutions to the war game.

And software is the term that is applied to this analytical programming that lets us get what the computer can do.

Chairman McClellan. Why do you need that $2.2 million? Why is there a need for that substantial increase over last year?

General Terry. $1.6 of that $2.2 will buy additional items for this computer center so that we will have in effect one of each kind of item procured within the Worldwide Command and Control System, ADP program. JTSA can then develop programs, quality test the contracts or deliverables and identify and correct troubles that develop in the performance of the system worldwide.

Senator Young. This does not save money but supposedly increases the efficiency.

General Terry. Overall, this is a program designed to save money. When the Defense Department designed the Worldwide Military Command and Control System, ADP program, it was a centralized buy to procure computers for the Army, Navy, and Air Force, and the joint headquarters throughout the world.

The idea being by standardization, lower unit cost could be obtained and the JTSA then is the standardized support element for software so that as different programs are prepared, standard programs, one organization prepares them, one organization develops additional programs to enhance the capabilities of these computers. And we do not have the different military departments all doing the same thing

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and coming in for their individual request for money for this purpose.

Senator YOUNG. Less duplication then.

General TERRY. Yes, sir.

Senator YOUNG. I am trying to think how we would explain this on the floor if someone asked how you save money by increasing.

General TERRY. In this case we are spending the money in a single organization to meet a problem that is common to the services and we expect to get the most for our money.

Chairman MCCLELLAN. Have you considered a reduction in the appropriation for the services in this area?

General TERRY. I don't have the data on that point. We do in fact review the program for the communications side of it.

Chairman MCCLELLAN. I will have someone review it to see there is no duplication, and that we are not also giving the money to the services for the same thing.

General TERRY. The Department of Defense has kept a pretty good control on this.

Chairman MCCLELLAN. I want to know it is controlled, so that there is a corresponding reduction. If you are going to do all the work for all the services, you should save them money. You have not been doing that heretofore and you have now asked for an increase for it.

General TERRY With respect to the ADP program, the data does exist and can be provided to you.

Chairman MCCLELLAN. Put that in the record.

[The information follows:]

PRIOR SAVINGS IN WWMCCS ADP COSTS
RESULTING FROM CENTRALIZED PURCHASE

Cost comparison of the minimum configuration of the 35 HIS-WWMCCS* computers purchased under the WWMCCS ADP Update Program.

No. of Computers	Type	Contract Price	Approx FY 73 GSA Price
25	GSS/M	$15,270,125.	$36,824,325.
4	GSS/L	4,824,720.	12,343,760
6	FC	7,345,830.	23,717,880.
	Subtotal	$27,440,675.	$72,885,965.
Value of 95 analyst for six weeks		0	$22,800,000.
12,025 student weeks of training initial		0	3,625,500.
5,064 student weeks of follow-on training for 6 1/2 years		0	9,874,800.
Total		$27,440,675.	$109,186,265.

The HIS-WWMCCS contract price for the purchase of the minimum configuration of 35 HIS-WWMCCS computers and related support services (analyst support and training is 25.13% of the approximate GSA price list cost for the same or similar items.

* HIS - Honeywell Information Systems, Inc.

PROJECTED SAVINGS IN WWMCCS ADP COSTS

Within the WWMCCS ADP Community (Army, Navy, Air Force, Joint Headquarters, Defense Agencys) there is a projected reduction of 160 man years in the planned software effort for FY 1976. For FY 1975, the total man years involved in the software effort is 2560. In FY 1976, this figure will be reduced to 2400. This off-set is due in large measure to the development and testing of standard system software by the JTSA and in fact is dependent upon that organization being given the capability to perform as planned in the area of hardware procurement and increased analytical support. This 6% decrease in manyears will result in a cost savings of 4.8 million dollars.

Current projections show a drop in total obligational authority in all appropriations for the WWMCCS ADP Community of 8.3 million dollars in FY 76. This reduction should continue in future years as the JTSA software effort, the analyst and training support and other standardization techniques continue to impact on the WWMCCS ADP Community.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION

Chairman McCLELLAN. Let's go to Research and Development. That is an increase of about $13 million. Is that right?

General TERRY. Yes, sir.

Chairman McCLELLAN. That means you are doubling what you spent in fiscal year 1973. A little more than doubling it.

General TERRY. It was $13.2 million in fiscal 1973.

Chairman McCLELLAN. Two years later you are asking for $31 million; $31 million is $13 million over what you had last year.

General TERRY. I would like to address that generally first and then in specific detail, sir.

Chairman McCLELLAN. Proceed.

SYSTEMS ENGINEERING AND PLANNING

General TERRY. We have been endeavoring to increase the emphasis on forward planning and systems engineering for the past 3 years. Literally the expenditures in the R. & D. area; identify the progress that we have made in looking ahead to what our problems are going to be and taking the appropriate preliminary steps to solve them before we are confronted with the problem and have to make hasty and ill-advised decisions on how to meet them. It is against this general background then that I would like to discuss the specifics.

Chairman McCLELLAN. Proceed.

DEFENSE COMMUNICATIONS SYSTEM—R.D.T. & E.

General TERRY. First, with respect to the Defense Communications System, we have two program elements. One relates to the Defense Communications System R. & D. support and that is increased by an amount of $4.5 million. The second is a test and evaluation element and that is substantially the same as last year. I will concentrate on the $4.5 million increase. That is broken into four elements. A minor amount of the increase is associated with near-term modifications, $146,000. This is in essence the normal level of funding. That does not represent any particular increase.

The major increase relates to major projects support. We are laying the groundwork for an additional and future effort in a data network, AUTODIN II, which will address the requirement of trying to transmit information from a large and increasing population of computers employed by the Defense Department for such things as logistics, personnel, intelligence, operations, the whole gamut of major functions.

SECURE VOICE

In addition to the data network project, and further support and implementation of communications satellites, we want to increase our effort for secure voice. As you know we have only something in the order of 1,830 terminals in the present secure voice program. This R. & D. effort will increase the quality—reduce the cost and increase the quantity ultimately of the secure voice capability within the Department of Defense.

Chairman McClellan. What is the Secure Voice?

General Terry. We have equipment that can be used to take your voice when you speak into a telephone, scramble it all up using certain cryptographic systems so if it is intercepted by a foreign radio monitor, the intelligence that you are talking about cannot be reconstituted by that foreign government.

Chairman McClellan. Unless they are very capable. I would hope we can unscramble some of their transmissions.

General Terry. I am not prepared to comment on that. I would believe it is an accurate statement but the people in intelligence ought to advise you accurately on that.

Chairman McClellan. I guess both sides try to unscramble the other. That is an accurate statement.

General Terry. Yes, sir.

Chairman McClellan. Proceed.

DIGITAL TRANSMISSION

General Terry. Finally we spend sums on digital transmission. By digital transmission we are talking about a different transmission technique from that currently used. Let me again use a telephone conversation. Throughout most of the United States what is called an analog signal is used to transmit your voice as you speak over the telephone. This is sort of an electric pattern of your voice. Now when we use digital transmission that analog signal is measured and it is coded and then a series of electrical bits are transmitted which carry the information that says the voice is high at this point in time or the voice is low at this point in time, and carries the additional information on the different qualities of the voice.

Chairman McClellan. What difference does that make?

General Terry. It make this difference, sir. Once you can——

Chairman McClellan. What difference does it make whether my voice is high or low?

General Terry. It identifies all the characteristics of that voice.

Chairman McClellan. Why do you have to have all the characteristics?

General Terry. In order to reproduce it at the other end, you have to transmit what your voice sounds like here in order that some individual you are speaking to in San Francisco——

Chairman McClellan. A simple telephone does that.

General Terry. Yes, sir, and the simple telephone uses an analog technique.

Chairman McClellan. Why do we require anything different from the telephone equipment?

General Terry. Two reasons. First, to encipher that voice and make it secure. We can do it a great deal cheaper if we can make it digital because then it is just a question of scrambling some signals.

Chairman McClellan. Another scrambling process?

General Terry. Yes, sir; only——

Chairman McClellan. Do we need both processes?

General Terry. No, sir; we will phase one out. By and large——

Chairman McClellan. Which one are we phasing out?

General TERRY. The analog one will be on the decline and will be just used for special purposes as we increase the availability of digital transmission.

Chairman MCCLELLAN. Why do we need the digital transmission?

General TERRY. It is a more cost-effective way of enciphering the human voice, and it is a more cost-effective way of transmitting a lot of different types of information over the same transmission path. So it is ultimately——

Chairman MCCLELLAN. You think it is an improvement over the other?

General TERRY. Yes, sir.

Chairman MCCLELLAN. So you propose to phase the other one out?

General TERRY. Over a period of time—and I am talking 10 years, the time it will take to develop it and so forth—analog will phase down and the digital will phase up, and we will basically have a digital system.

Chairman MCCLELLAN. Do you feel it is imperative we do that?

General TERRY. Yes, sir; I do.

Chairman MCCLELLAN. Why?

General TERRY. Because I don't see how we are going to be able to pay the cost of these secure systems or to buy the transmission capabilities we require for the increased automated data and types of data that we are transmitting or will be required to transmit if we do not do that.

Chairman MCCLELLAN. I don't fully understand it, but I will take your word for it.

General TERRY. There are many people that are paying a great deal of attention to the technical details, sir, and the answer keeps coming out just as I explained it to you.

Senator YOUNG. Who would use it? All the services?

General TERRY. The Defense Communications System will be used by all the services.

Senator YOUNG. And Intelligence?

General TERRY. And the Intelligence Service.

Senator YOUNG. And the State Department?

General TERRY. To some extent, although you realize State Department has its own system. We help them in some cases, and they help us in other cases. This kind of thing.

Chairman MCCLELLAN. Proceed.

General TERRY. Along with an increase in the effort devoted to defining the transitional/integrated DCS. That is the key to that increase, along with the increase in the effort devoted to defining the transitional/integrated DCS. There are also increases in the WMM CCS related—National Military Command System—the Joint Technical Support Activity and MEECN.

NMCS INCREASES—R.D.T. & E.

With respect to the National Military Command System, we are asking an additional $3.4 million, and this money will be spent for architectural design studies, subsystem engineering, and on automated support for exercises for the WWMCCS. What we are trying to do here is better design the future system, and design better exercises so we know how bad or how good it is and what has to be done about the system. I am talking now about automated support for exercises such

as "High Heels" and Nickel Plate, which involve command headquarters throughout the world.

JTSA INCREASES—R.D.T. & E.

For JTSA, we are asking $2.8 million increase, and this effort is largely to try to develop the procedures, techniques, and methods by which we can internet these computers which are part of the WWMCCS, ADP system. We are using the money for two primary purposes. One, this internetting effort; and second, an effort to do the R. & D. for improved security and the normal functions involved in software support for a large system.

Again, these people are doing it for the whole system. It is not broken down into the different departments.

Chairman McClellan. Are we making any savings in appropriations heretofore made? Any offsets to this?

General Terry. It is my belief we are indeed saving over what——

Chairman McClellan. Are there any offsets?

General Terry. I cannot provide you an offset in terms of what each military department might have spent, had the program not existed.

Chairman McClellan. On the basis of this 1975 request for appropriations, are there any reductions anywhere from what you received in 1974 in order to accommodate this increase?

General Terry. In the R. & D. appropriation, we have made adjustments in contract support where one contract phases down and another phases up.

Chairman McClellan. What I am trying to say is this: Are we asked to appropriate for everything in 1975 as we did in 1974 aside from this?

General Terry. No, sir, changes in contractual support have already been taken into consideration in asking for this increase in——

Chairman McClellan. We will have to study this further.

MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS

General Terry. Finally, sir, there is the minimum essential emergency communications network. This is a network of which DCA is the system engineer where we take the communications systems that are most survivable that have been built, for example, as part of the ballistic missile submarine program and others, and endeavor to enhance their survivability and to insure that the emergency action message can be transmitted by the President under any and all conditions. We are asking for $1.8 million increase in this program to explore additional facets of the emergency communications network directed by the Secretary which involve two-way communications.

Chairman McClellan. Are they not working now? Are they not adequate?

General Terry. They are not adequate now, sir. The whole effort is to try to increase the survivability of a series of communications systems which were built as part of different programs and at a time when the importance of survivability was not as well understood nor as urgent as it is today.

This is the Minimum Essential Emergency Communications Network.

Chairman McClellan. In other words, you are going to try to beef them up?

General Terry. Make it harder, make it more redundant, compress the type of information that is being transmitted so just a little bit will get through and accomplish the same purpose; use the Airborne Command Post as the relay; use the Navy Tacamo aircraft which are to extend the range of communications with the ballistic missile submarines; use every facet which has grown up for each particular program which has some degree of survivability. We are endeavoring to net it together so that it can in effect be an alternate route for the type message I mentioned.

Chairman McClellan. You talk about survivability. Are some of them wearing out or becoming so obsolete they are useless?

General Terry. In terms of weapons systems, there is always a weapons system build-up and then it phases out. The communications network we are talking about is trying to make use of the communications that have been built as part of these weapon systems.

Chairman McClellan. You are saying it will prolong the usefulness and the service capability of them?

General Terry. Yes, sir; there would be that aspect to it.

Chairman McClellan. What is the other aspect?

General Terry. The other aspect is——

Chairman McClellan. To improve the quality?

General Terry. The key aspect is the national strategy, sir. If we are going to have a believable strategy of flexible response in a nuclear parity situation, we must have some kind of survivable communications so that we can get the word to our attack forces or it is not believable.

Chairman McClellan. The idea is to improve the survival aspects of communications so that if some are knocked out others will be available? That is what we are talking about?

General Terry. Yes, sir; exactly.

Chairman McClellan. Now I understand. That is the purpose of this money.

General Terry. Yes, sir.

Chairman McClellan. All right; go ahead.

SUMMARY OF DCA R.D.T. & E. REQUEST

General Terry. That, sir, winds up the total of the $8.1 million increase that we have asked for and that is in the R. & D. program. I think the R. & D. program is a step in the right direction.

Chairman McClellan. That is the R. & D. program?

General Terry. Yes, sir.

Chairman McClellan. $1.8 million?

General Terry. $1.8 million is just for MEECN. We had $3.4 for the NMCS, $2.8 for JTSA and $1.8 for the emergency network.

Chairman McClellan. Any questions?

Thank you, General.

JUSTIFICATION

Chairman McClellan. Certain justification information dealing with the Defense Communications Agency will appear in the record at this point.

[The information follows:]

Justification

DEPARTMENT OF DEFENSE

APPROPRIATION: Operation and Maintenance, Defense Agencies, FY 1975

Budget Subactivity: Intelligence and Communications Budget Project: Defense Communications Agency

Statement of Purpose and Scope

The continuing responsibilities of the Defense Communications Agency (DCA) include: systems engineering; management control and operational direction of the Defense Communications System; technical support for the National Military Command System; support of the World-Wide Military Command and Control System (WWMCCS) standard ADP systems.

The budget estimates furnished herewith provide for the operation and maintenance costs of the Headquarters, Defense Communications Agency and its field activity complex. These estimates include civilian personnel salaries and benefits, travel and transportation, reimbursements to host activities, leased communications services and equipment, printing and reproduction, installation and maintenance of communications equipment, rental and operating costs of automatic data processing equipment, other contractual services, and operating supplies and equipment.

SUMMARY OF RESOURCES

	FY 1973 Actual		FY 1974 Estimate		FY 1975 Estimate	
O&M Obligations ($ In Thousands)						
Direct	$58,594		$60,478		$65,546	
Reimbursable	168		300		0	
Total	$58,762		$60,778		$65,546	
	End Str	Man Years	End Str	Man Years	End Str	Man Years
Civilian	1,358	1,314	1,398	1,356	1,423	1,391
Military	1,476	1,508	1,542	1,521	1,586	1,586
Total	2,834	2,822	2,940	2,877	3,009	2,977

DEFENSE COMMUNICATIONS AGENCY
Summary by Program Element
($ In Thousands)

O&M Obligations by Program Element	FY 1973	FY 1974	FY 1975
Direct:			
DCA Headquarters	13,623	13,701	13,175
DCA-DCS	23,318	24,702	25,461
NMCS-Wide Support	16,295	17,121	18,963
WWMCCS-JTSA	5,358	4,954	7,947
Subtotal, Direct	$58,594	$60,478	$65,546
Reimbursable	168	300	0
Total	$58,762	$60,778	$65,546

Personnel End Strength by Program Element	FY 1973			FY 1974			FY 1975		
	Civ	Mil	Total	Civ	Mil	Total	Civ	Mil	Total
DCA Headquarters	559	196	755	483	199	682	483	201	684
DCA-DCS	469	997	1,466	488	1,030	1,518	488	1,072	1,560
NMCS-Wide Support	277	259	536	330	285	615	344	285	629
WWMCCS-JTSA	53	24	77	97	28	125	108	28	136
Total	1,358	1,476	2,834	1,398	1,542	2,940	1,423	1,586	3,009
Personnel Manyears by Program Element									
DCA Headquarters	539	195	734	516	198	714	479	201	680
DCA-DCS	471	1,040	1,511	481	1,021	1,502	481	1,072	1,553
NMCS-Wide Support	254	254	508	284	275	559	328	285	613
WWMCCS-JTSA	50	19	69	75	27	102	103	28	131
Total	1,314	1,508	2,822	1,356	1,521	2,877	1,391	1,586	2,977

DEFENSE COMMUNICATIONS AGENCY
SUMMARY OF INCREASES AND DECREASES
(Dollars in Thousands)

	DCA-HQ	DCA-DCS	NMCS-WIDE SUPPORT	WWMCCS-JTSA	TOTAL
FY-1974	$13,701	$24,702	$17,121	$4,954	$60,478
INCREASES					
Annualization of 1 October 1973 civilian pay raise	+ 85	+ 102	+ 105	+ 49	+ 341
Cost of full year employment of FY-74 civilian increases including military conversion			+ 759	+ 403	+1,162
FY-75 end strength increases funded for one half year			+ 127	+ 134	+ 261
Within grade raises; one extra days' pay, and annualization of Health Benefit Increases	+ 53	+ 57	+ 50	+ 52	+ 212
Postal rate increase annualization	+ 40				+ 40
Reimbursement to GSA for building occupancy costs		+ 434	+ 437		+ 871
Inflation from Fall of 1972 to Fall of 1973	+ 37	+ 57	+ 44	+ 20	+ 158
Increased cost per manyear of contractual effort			+ 352	+ 95	+ 447
Contract on Software Support for DOD Multiplexing Plan		+ 200			+ 200
Contract requirements for WWMCCS functional Software and WWMCCS/NMCS exercises			+1,756		+1,756
Contract for NMCS information processing system and Strategic Analysis Gaming Agency			+ 680		+ 680
Contractual effort for acceleration of internetting WWMCCS computer projects and increased level of system software changes and enhancements				+1,904	+1,904
Housekeeping costs to support additional manyears and end strength			+ 40	+ 127	+ 167
Host/tenant costs				+ 142	+ 142
Annualization of maintenance costs for Government owned computers			+ 327	+ 77	+ 404
TOTAL INCREASES	+ 215	+ 850	+4,677	+3,003	+8,745
DECREASES					
Man year reductions	- 673				- 673
Average grade reductions	- 4	- 4	- 4	- 3	- 15
Travel and other miscellaneous decreases	- 64	- 87	0	- 7	- 158
Annualization of savings in ADP lease resulting from equipment purchases			-1,781		-1,781
Decrease in WWMCCS software conversion contract			-1,050		-1,050
TOTAL DECREASES	- 741	- 91	-2,835	- 10	-3,659
FY 1975	$13,175	$25,461	$18,963	$7,947	$65,546

DEFENSE COMMUNICATIONS AGENCY

Explanation of Increases and Decreases

DCA Headquarters

This program provides for the operation and maintenance expense of the Headquarters, Defense Communications Agency. Included are salaries of civilian personnel and personnel benefits, travel and transportation, rents, utilities, reimbursements to host activities, printing and reproduction, other contractual services, and operating supplies and equipment. Pay and allowances for the military personnel assigned to the Headquarters, Defense Communications Agency are not included in this estimate but are provided for in the military personnel appropriation estimates of the respective military services.

The decrease of $526 thousand from FY 1974 to FY 1975 is primarily in civilian pay as a result of a reduction in civilian manyears .

DCA Defense Communications System

This program provides for the operation and maintenance expenses of DCA field activities financed by the O&M appropriation, excluding the National Military Command System Support Center and the Joint Technical Support Activity which are in separate program elements. Included are salaries of civilian personnel and personnel benefits, travel and transportation; leased communications services and equipment; lease, programming, and maintenance costs for the data handling and display facilities, contractual engineering services, reimbursements to host activities, supplies and equipment and other expenses incident to operation and maintenance of field activities. Pay and allowances for the military personnel assigned to the Defense Communications Agency field activities are not included in this estimate, but are provided for in the military personnel appropriation estimates of the respective military services.

The principal increases in FY 1975 are: $102 thousand for the annualization of the 1 October 1973 civilian pay raise; $434 thousand for the new requirement to reimburse the General Services Administration for building occupancy costs; and $200 thousand in other purchased services to provide Software support for the DoD multiplexing plan. The multiplex system will be an effective tool to reduce the total cost of Federal communications.

NMCS-Wide Support-DCA

This program provides for the operation and maintenance expenses of the DCA support to the National Military Command System. Included are salaries of civilian personnel and personnel benefits, travel and transportation, supplies and equipment, maintenance and lease of automatic data processing equipment, contractual support and other expenses incident to operating the National Military Command Support Center which provides a technical support to the Office Secretary of Defense and the Joint Staff. Pay and allowances for the military personnel assigned to the National Military Command Support Center are not included in this estimate, but are provided for in the military personnel appropriation estimate of the respective military services.

The net increase of $1,842 thousand from FY 1974 to FY 1975 is attributed chiefly to increases in pay of personnel and in contracts, offset in part by a decrease in utilities and rents. The increases are primarily in support of new requirements related to the Worldwide Military Command and Control System (WWMCCS) ADP program for standardization of functional software and a new contractual effort to plan and conduct WWMCCS/NMCS exercises.

WWMCCS-JTSA

This program provides for the operation and maintenance expenses of the Joint Technical Support Activity. Included are salaries of civilian personnel and personnel benefits, travel and transportation, supplies and equipment, lease and maintenance of automatic data processing equipment, contractual support and other expenses incident to operating the Joint Technical Support Activity which has been established to provide centralized technical support to the Joint Chiefs of Staff (JCS), Military Services, Defense Agencies, and the Unified and Specified Commands for the Worldwide Military Command and Control System (WWMCCS) standard ADP systems which includes planning, design, development, maintenance, test and evaluation of WWMCCS system software. Pay and allowances for the military personnel assigned to the Joint Technical Support Activity are not included in this estimate, but are provided for in the military personnel appropriation estimates of the respective military services.

The $2,993 thousand increase in funding from FY 1974 to FY 1975 is due primarily to the cost of full year employment of additional FY 74 civilians including military conversion; added contractual services for acceleration of the internetting of the WWMCCS Computer Projects; and increased level of Systems Software changes and enhancements.

DEFENSE COMMUNICATIONS AGENCY

Summary of Direct Obligations by Element of Expense

(Thousands of Dollars)

	Actual FY 1973	Estimate FY 1974	Estimate FY 1975
Civilian Personnel	$24,976	$27,237	$28,548
Travel of Personnel	2,093	2,198	2,126
Transportation of Things	136	157	182
Utilities and Rents	5,147	5,018	4,203
Communications	6,389	6,508	6,503
Printing and Reproduction	182	194	196
Other Purchased Services	15,979	14,568	18,677
Purchased Equipment Maintenance	1,071	1,975	2,442
Other Supplies	2,248	2,229	2,262
Equipment	373	394	407
Total Direct Obligations	$58,594	$60,478	$65,546
Reimbursable Obligations	168	300	0
TOTAL DCA OBLIGATIONS	$58,762	$60,778	$65,546

DEFENSE COMMUNICATIONS AGENCY

Summary of Civilian Personnel by Grade

General Schedule Grades	Actual FY 1973	Estimated FY 1974	Estimated FY 1975
GS-18	-	-	-
17	2	2	2
16	14	13	13
15	111	108	107
14	167	165	165
13	279	277	274
12	93	104	110
11	72	97	103
10	10	9	9
9	79	101	101
8	33	39	39
7	87	104	117
6	104	109	109
5	115	125	126
4	61	61	65
3	28	29	28
2	9	7	7
Subtotal - General Schedule Grades	1,264	1,350	1,375
Grades established by Sec Def (10 U.S.C. 1581)	9	10	10
Ungraded positions	19	18	18
Total permanent positions	1,292	1,378	1,403
Unfilled positions, 30 June	0	-	-
Total permanent employment, end of year	1,292	1,378	1,403
Temporary, part time, intermittent	66	20	20
Total employment, end of year	1,358	1,398	1,423

DEFENSE COMMUNICATIONS AGENCY

Summary of Military Personnel by Rank

	Military Personnel	Actual FY 1973	Estimated FY 1974	Estimated FY 1975
	Officers:			
09	Lt. Gen./Vice Admiral	1	1	1
08	Maj. Gen./Rear Admiral (Upper Half)	3	3	3
07	Brig. Gen./Rear Admiral (Lower Half)	2	2	2
06	Colonel/Captain	57	58	58
05	Lt Col/Commander	142	140	140
04	Major/LCommander	155	155	156
03	Captain/Lieutenant	97	108	109
02	Lieutenant	-	-	-
01	Lieutenant	-	-	-
	Warrant Officer	18	19	19
	Subtotal, Officers	475	486	488
	Enlisted Personnel:	1,089	1,056	1,098
	Total Positions	1,564	1,542	1,586
	Unfilled positions, June 30	- 88	-	-
	Total employment, end of year	1,476	1,542	1,586

Defense Mapping Agency

STATEMENT OF LT. GEN. HOWARD W. PENNEY, U.S. ARMY, DIRECTOR, DEFENSE MAPPING AGENCY

ACCOMPANIED BY:

THOMAS C. FINNIE, DEPUTY DIRECTOR, MANAGEMENT AND TECHNOLOGY
DEWEY S. PEGLER, CHIEF, PROGRAM INTEGRATION DIVISION
JOHN R. LUND, COLONEL, U.S. ARMY, EXECUTIVE OFFICER
ALBERT N. RHODES, CHIEF, PROGRAM/BUDGET DIVISION
LAWRENCE F. AYERS, CHIEF, ADVANCED TECHNOLOGY DIVISION

HIGHLIGHT OF STATEMENT

Chairman McClellan. We will now hear the testimony of Lt. Gen. Howard W. Penney, the Director of the Defense Mapping Agency. You may proceed, General.

General Penney. Mr. Chairman, I propose to highlight four points of my prepared statement and then compare the changes in the request this year from the fiscal year 1974 amounts.

Chairman McClellan. Proceed.

General Penney. It is a privilege to be here. This is Mr. Finnie, my technical deputy and Mr. Rhodes, my budget officer.

MISSION OF DEFENSE MAPPING AGENCY

This is the Defense Mapping Agency. Our job is to furnish maps, charts, position and navigation data and target data for all forces and weapons systems to be able to operate and hit their targets. This applies to troops on the ground, aircraft, ships, and missiles. That is the first point.

Our requirements, sir, are dictated by weapons systems and operational needs of the forces. Ships and aircraft that navigate worldwide and forces and missiles, whether they are deployed or whether they are just ready to be deployed if necessary in the national interest, have got to have data with which they can navigate and get there and they have to know where the targets are so they can hit them.

As this chart illustrates we have to furnish all the precise positional and gravity data for our ICBM, FBM and strategic aircraft systems. Specifically for such weapons as Polaris, Poseidon, Minuteman and Pershing, we have to furnish the precise, very precise within a matter of feet, locations of——

TIME REQUIRED TO FURNISH PRECISE DATA

Chairman McClellan. How quickly can you furnish it?

General Penney. For a target location in [deleted]—if we have the basic material, we can do it in a matter of hours, but it is crucial

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that we have the material from which we can extract the data, of course. We have to do that for the launch position, whether on land or sea, and for the target position whether hit by FBM's, ICBM's, or strategic aircraft. Strategic aircraft also have to know specifically the precise locations of checkpoint from which to take an offset to release their nuclear weapon, no matter whether it is SRAM or a weapon of another type.

This illustrates the basis of our requirements.

REVIEW OF REQUIREMENTS

The third point I would like to make, sir, is that DMA carefully reviews requirements. One of my roles is that of program manager of all DOD mapping, charting, and geodesy activities for the Joint Chiefs of Staff and the Secretary of Defense. One of the things we spend a lot of time on is reviewing with unified and specified commands and the military departments their requirements. I and my staff have met with commanders in chief to try to insure that requirements are scrubbed down to the minimum essentials to do the job because it costs money and quite a bit of effort to provide these products.

We want to be sure we provide what is necessary, but we don't want to be providing anything that is not.

MANPOWER PROGRAM

Finally I will say a word on our manpower. Over the 3 fiscal years through fiscal year 1975, we will have reduced our total military and civilian manpower by some 338 man-years. Our program for fiscal years 1975 is 8,680 people, which includes 829 military. This is a reduction of some 157 man-years from fiscal year 1974, and amounts to a reduction of about $1.9 million.

TOTAL FUNDING REQUEST

Now, to summarize the program, if I may. Our request includes O. & M., Procurement, R.D.T. & E., and amounts in the service budgets for military pay of our people. The total requested this year is $200.7 million. The total for fiscal year 1974 was $187.7 million, an increase of $13 million. $11.8 million of that $13 million, sir, is due to reasons which are beyond our control.

INCREASES BY APPROPRIATION

First, in O. & M., there is $10.4 million of which $5.3 million is due to our being given funding responsibilities from other agencies whose budgets have been reduced. $3.3 million is for statutory civilian pay raises that have occurred in fiscal year 1974; $1.8 million is for commodity price increases which occurred up to December 1973, the time the budget was made, and is principally for paper. In procurement there is a decrease from $6.1 million to $5.2 million or $900.000. For R.D.T. & E. there is an increase from $11.6 million to $14.5 million or $2.9 million. $1.1 million of that is price level increases beyond our control. The other $1.8 million is the most crucial item that we have.

It is a requirement for collection of gravity and positional data to support the Trident and the advanced ICBM missiles. This is largely because the Trident, as you know, and the advanced ICBM are going to have longer ranges so they will be operating over longer distances and larger areas. Trident, for example, will cover greater areas of the ocean.

Chairman McClellan. You will have to start development now, research and development, of your services to meet the needs of that purpose.

General Penney. Exactly.

Chairman McClellan. To prepare for fleet introduction.

MILITARY PERSONNEL

General Penney. Exactly. For military personnel there has been a net decrease from $12.4 million to $10.8 million, a decrease of $1.6 million. Of this amount $300,000 is for statutory pay increases but there is a decrease of $1.9 million due to a reduction of military manning, including 120 which we reduced outright as well as civilianizing 70 spaces in fiscal years 1974 and 1975.

FUNDING SUMMARY

In summary, sir, there is a total increase of $13 million, of which only $1.2 million is a program increase over which we have some control. There are pluses and minuses, but the major increase is the $1.8 million that you just mentioned to collect data for Trident and the advanced ICBM.

Chairman McClellan. That is the new program?

General Penney. That is right. That is our R.D.T. & E. program and it involves satellite collection. We have to do it in order to be able to support the weapon systems.

The other item is $2.2 million for increased production. It will enable us to update our computers to use the type of data that we collect as well as the new graphic data that we are getting so that we can support these strategic weapon systems. That summarizes my position.

Chairman McClellan. I want to compliment you. You make a good presentation.

Senator Young.

Senator Young. Off the record.

[Discussion off the record.]

Chairman McClellan. Thank you very much, General.

JUSTIFICATION

Chairman McClellan. At this point in the record there will appear certain information from the justifications on the Defense Mapping Agency.

[The information follows:]

Justification

DEPARTMENT OF DEFENSE

APPROPRIATION: Operation and Maintenance, Defense Agencies, FY 1975

Budget Activity: Intelligence and Communications

Budget Subactivity: Defense Mapping Agency

Statement of Purpose and Scope

The Defense Mapping Agency (DMA) was established and became operational on 1 July 1972 pursuant to a Presidential directive to consolidate Department of Defense (DoD) mapping, charting, and geodesy (MC&G) operations under a single agency to achieve optimum efficiency and economy without impairing legitimate requirements of the separate Services.

The mission of the Defense Mapping Agency is to provide MC&G support to the Secretary of Defense, the Military Departments, the Joint Chiefs of Staff, other DoD Components, and other organizations, as appropriate.

The functions of the Defense Mapping Agency are as follows:

a. Organize, direct, and manage the DMA and its field organizations.

b. Serve as Program Manager and coordinator of all DoD MC&G resources and activities. This includes review of the execution of all DoD plans, programs, and policies for MC&G activities not assigned to DMA.

c. Provide staff advice and assistance on MC&G matters to the Secretary of Defense, the Military Departments, the Joint Chiefs of Staff, other DoD Components, and other government agencies, as appropriate.

d. In support of the Joint Chiefs of Staff, review and validate MC&G requirements and priorities; develop a consolidated statement of MC&G requirements and priorities.

e. Insure responsive support to the MC&G requirements of the Military Departments and the Unified and Specified Commands.

f. Establish policies and provide DoD participation in national and international MC&G activities in coordination with the ASD (International Security Affairs); execute DoD responsibilities under interagency and international MC&G agreements.

g. Establish DoD MC&G data collection requirements; collect or task other DoD Components to collect and provide necessary data.

h. Establish DoD MC&G RDT&E requirements in coordination with the Director, Defense Research and Engineering; task other DoD Components or private contractors to accomplish such requirements.

i. Carry out the statutory responsibilities assigned under U.S.C. Title 10, Chapter 639, Sections 7391, 7392, 7393, 7394 for providing nautical charts and marine navigation data for the use of all vessels of the United States and of navigators generally.

This appropriation supports MC&G production activities and provides for the day-to-day expenses of operating and maintaining the Defense Mapping Agency. Major Components of the DMA are the Headquarters, the DMA Topographic Center, the DMA Hydrographic Center, the DMA Aerospace Center, the Inter American Geodetic Survey, and the Defense Mapping School.

DEFENSE MAPPING AGENCY

SUMMARY OF RESOURCES

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
A. Obligations			
Direct	$143,253	$157,563	$170,157
Reimbursable	7,272	8,145	8,271
TOTAL	$150,525	$165,708	$178,428

	FY 1973 Actual		FY 1974 Estimate		FY 1975 Estimate	
	End Strength	Man-years	End Strength	Man-years	End Strength	Man-years
B. Personnel						
Civilian	7,606	7,895	7,807	7,759	7,851	7,751
Military	1,018	1,087	876	996	829	847
TOTAL	8,624	8,982	8,683	8,755	8,680	8,598

DEFENSE MAPPING AGENCY

SUMMARY BY PROGRAM ELEMENT

(Thousands of Dollars)

Obligations by Program Element	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Direct:			
1. Defense Special Security System	$ 71	$ 149	$ 179
2. Special Intelligence Communications	7	23	23
3. Defense Mapping Agency Headquarters	3,006	5,731	5,478
4. Mapping, Charting and Geodesy	139,411	150,848	163,465
5. Defense Mapping Agency Communications	758	812	1,012
Subtotal, Direct	$143,253	$157,563	$170,157
Reimbursable	7,272	8,145	8,271
TOTAL	$150,525	$165,708	$178,428

DEFENSE MAPPING AGENCY
SUMMARY BY PROGRAM ELEMENT

Personnel End Strength by Program Element	FY 1973 Actual			FY 1974 Estimate			FY 1975 Estimate		
	Civ	Mil	Total	Civ	Mil	Total	Civ	Mil	Total
1. Defense Special Security System	5	19	24	9	28	37	11	26	37
2. Special Intelligence Communications		7	7		4	4		4	4
3. DMA Headquarters	115	45	160	144	43	187	143	41	184
4. Mapping, Charting and Geodesy	7,477	944	8,421	7,645	798	8,443	7,688	755	8,443
5. DMA Communications	9	3	12	9	3	12	9	3	12
Total	7,606	1,018	8,624	7,807	876	8,683	7,851	829	8,680

Personnel Man-years by Program Element									
1. Defense Special Security System	5	20	25	9	30	39	11	26	37
2. Special Intelligence Communications		8	8		5	5		4	4
3. DMA Headquarters	113	40	153	135	45	180	136	42	178
4. Mapping, Charting and Geodesy	7,768	1,017	8,785	7,606	913	8,519	7,595	772	8,367
5. DMA Communications	9	2	11	9	3	12	9	3	12
Total	7,895	1,087	8,982	7,759	996	8,755	7,751	847	8,598

DEFENSE MAPPING AGENCY

DEFENSE SPECIAL SECURITY SYSTEMS

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
TOTAL DIRECT OBLIGATIONS	$ 71	$ 149	$ 179

This program element covers the operating costs, exclusive of communications of the nine (9) Special Security Offices in the Defense Mapping Agency. The change from FY 1973 to FY 1974 is related to all personnel and costs of these offices being allocated to this program element, and offices becoming operational during FY 1974. The change from FY 1974 to FY 1975 reflects the conversion of two military spaces to civilian spaces and annualization of those offices becoming operational during FY 1974.

Civilian Personnel	$ 66	$ 139	$ 172
Nonpersonnel Support	$ 5	$ 10	$ 7

SPECIAL INTELLIGENCE COMMUNICATIONS

TOTAL DIRECT OBLIGATIONS	$ 7	$ 23	$ 23

This program element provides for Special Intelligence Communications (SPINTCOMM) circuits. The increase from FY 1973 to FY 1974 is due to Defense Mapping Agency assumption of costs of one access circuit at the DMA Topographic Center which was previously funded by the U.S. Army.

DEFENSE MAPPING AGENCY
DMA HEADQUARTERS

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
TOTAL DIRECT OBLIGATIONS	$3,006	$5,731	$5,478

This program element includes all Defense Mapping Agency Headquarters activities except for personnel assigned to the Special Security Office and costs of communications operations.

Civilian Personnel	$2,558	$3,030	$3,169

The FY 1975 employment plan is essentially unchanged from FY 1974. The budget request provides for 136 man-years and 143 authorized civilian end strength. Two minor changes are the addition of two end strength for conversion of two military enlisted spaces to civilian and a drop of three civilian positions established in FY 1974 on an interim basis for implementing the realigned DMA distribution system.

Travel	$ 115	$ 182	$ 155

This provides primarily for travel of Headquarters personnel to Unified and Specified Commands regarding their requirements; to cooperating countries to exploit this economical source of maps and charts; to Treaty Organizations to insure MC&G support for mutual defense; and to R&D laboratories and DMA field organizations to supervise development and production programs.

Transportation of Things	$ 10	$ 11	$ 11

Provides for transportation of household goods in connection with permanent change of station moves.

Utilities and Rents	$ 11	$ 15	$ 19

Provides for rental of equipment, including office copiers and a telecopier for transmission of data between DMA Headquarters and DMA Aerospace Center in St. Louis, Missouri.

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Communications	0	$1,817	$1,534

This item covers the postage costs for all Components of the Defense Mapping Agency. The FY 1973 costs were paid by the Military Departments. The reduced request in FY 1975 reflects the annual postage cost savings resulting from DMA's realigned distribution system.

Purchased Equipment Maintenance	$ 6	$ 10	$ 10

This program covers the cost of contract services for maintenance of office equipment.

Printing and Reproduction	0	$ 50	$ 50

This program provides for commercial printing of Headquarters programming and budget documents and other operational and administrative material. In FY 1973 these services were not costed to the Headquarters.

Other Purchased Services	$ 259	$ 581	$ 495

For FY 1974 the budgeted amount includes $215 thousand of contractual support for ADP software and feasibility studies for those systems which offer the greatest potential for cost savings in terms of reducing manual work load and providing standardization among the DMA Components. Also included are $203 thousand for support agreements covering operating and maintenance services for the Headquarters building at the Naval Observatory; $108 thousand for necessary rehabilitation of the Headquarters building; $21 thousand for tuition and training; $4 thousand for DMA-wide Emergency and Extraordinary expenses; $6 thousand for services of hearing examiners and recorders in connection with DMA-wide personnel grievances; $16 thousand for a classified project; and $8 thousand for other contracts.

The decrease from FY 1974 to FY 1975 results primarily from a reduction of $75 thousand for rehabilitation of the Headquarters building and a decrease of $25 thousand for ADP software requirements.

Other Supplies	$ 27	$ 20	$ 20

This provides for expendable supplies used by Headquarters personnel.

Equipment	$ 20	$ 15	$ 15

This program provides for purchase of standard office equipment. Equipment that was transferred to this Headquarters is old and is being replaced on a year-to-year basis.

DEFENSE MAPPING AGENCY
MAPPING, CHARTING, AND GEODESY

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
TOTAL DIRECT OBLIGATIONS	$139,411	$150,848	$163,465

This program element provides for the acquisition, collection, and reduction of mapping, charting, and geodetic (MC&G) data and the production, storage, and distribution of MC&G products of the Defense Mapping Agency (DMA) activities including the Defense Mapping Agency Topographic Center, Defense Mapping Agency Hydrographic Center, Defense Mapping Agency Aerospace Center, Inter American Geodetic Survey, and Defense Mapping School, and the related operation and maintenance of facilities. Does not include Defense Special Security System and Communications.

Civilian Personnel	$116,933	$122,465	$125,437

Provides for the basic compensation, variable pay and allowances for employees, and for the cost of employer contributions to employee benefit programs. The bulk of the Defense Mapping Agency's payroll costs is in this program activity which provides funding for MC&G production operations, product distribution functions, and supporting activities. The man-years of effort are distributed as follows:

	FY 1973	FY 1974	FY 1975
Direct DMA Mission	7,476	7,286	7,296
Reimbursable MC&G Support	247	272	299
Disadvantaged Youth Employment	45	48	--
	7,768	7,606	7,595

FY 1975 direct man-years increase by a net of 10 over FY 1974. The increase is basically associated with the phased change of 43 positions from military to civilian manning, partially offset by other decreases. End strength for 30 June 1975 is projected to be 7,688, an increase of 43 over the 7,645 estimated for 30 June 1974, and is related entirely to the civilianization program.

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate

An increase of $2,972 thousand in FY 1975 over FY 1974 results from salary increases and the additional man-years associated with the military to civilian conversion actions. The increase is required to support the full-year cost of the 1 October 1973 pay raise for General Schedule employees, the full-year cost of pay increases granted to Wage Board employees during FY 1974 and the full-year cost to the Government resulting from an increase in premium payments for employee health benefit programs. In addition, the FY 1975 estimate includes the costs for an extra compensable day and for periodic within-grade salary increases.

Travel	$ 1,461	$ 1,688	$ 1,493

Provides for the transportation and per diem costs of necessary temporary duty travel of military and civilian employees and for the permanent change of station travel costs for Defense Mapping Agency civilians.

Over one-half of all DMA travel funds are required for the deployment of field survey teams conducting geodetic, gravity, and satellite geophysical surveys. These surveys are essential to meeting the MC&G requirements in support of various weapons systems. Travel funds also are programmed for individual training; requirements determination; acquisition and evaluation of source data; deployment of Mobile Training Teams to reserve and active field units; and other varied requirements. The estimates for travel by category are as follows:

	FY 1973	FY 1974	FY 1975
Field survey teams	$ 841	$1,007	$ 957
Training	82	104	93
Other	538	577	443
Total	$1,461	$1,688	$1,493

The FY 1975 estimate for travel has been reduced by $195 thousand below FY 1974 in keeping with the national energy conservation objectives.

Transportation	$ 850	$ 772	$ 988

Provides for shipment of MC&G products, equipment, supplies, and household goods. Of the total requirement, about one-half is for transportation of Flight Information Publications (FLIP's). These publications are updated monthly, and their criticality to flight safety requires distribution to the user on a priority basis using the most expeditious mode of travel

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate

available. The remainder of the requirement provides for distribution of lower priority products by surface modes, and for transportation of household goods. The most significant changes in FY 1975 include a decrease of $104 thousand, which is the net transportation savings due to realignment of DMA's distribution system; an increase of $312 thousand for transportation of hydrographic products, provided without charge by Navy in prior years; and $4 thousand for costs previously budgeted by the Army.

Utilities and Rents	$ 2,827	$ 2,069	$ 5,650

Provides for utility services and rental of ADP, office, printing, and reproduction equipment and rental of real property.

Automatic Data Processing Equipment (ADPE)	(1,705)	(1,050)	(2,240)

This program provides for the lease of automatic data processing equipment which supports the DMA mission and support services. DMA ADP equipment consists primarily of two large scale Government-owned UNIVAC 1108's, one medium scale Burroughs 3500, and punch card accounting machine equipment which are leased. One UNIVAC 1108 and the Burroughs 3500 are installed at the DMA Aerospace Center and the other UNIVAC 1108 is installed at the DMA Topographic Center. Approximately 95% of the capacity of the two UNIVAC 1108's is devoted to the processing of scientific and technical data to support mapping, charting, and geodesy (MC&G). The Burroughs 3500 is devoted to business applications. The other DMA Components receive computer support from other government agencies.

The major increase of the FY 1975 program over FY 1974 is due to the requirement for additional capacity of the two 1108's. These computers are being utilized on a three shift basis from 6 to 7 days a week, and their capacity is reaching the saturation point. They cannot support the MC&G scientific and technical work load programmed for FY 1975. Accordingly, it is necessary to augment one 1108 in FY 1974 and the other in FY 1975 to increase the computer capacity to meet the MC&G work load. The additional cost in FY 1975 is $1,325 thousand. Offsetting other minor increases is a decrease of $230 thousand related to the savings achieved by procuring in FY 1974 a previously leased 1108.

General Services Rental Equivalents and Special Services	(0)	(0)	(2,369)

The provisions of the Public Buildings Amendment Act, Public Law 92-313 provide for the payment to the General Services Administration (GSA) effective 1 July 1974 for DoD space use. The funds requested for FY 1975 are based on rates established by GSA as amended by the Office of Management and Budget for space occupied by DMA organizations.

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Utilities	(887)	(767)	(767)

Provides for the purchase of gas, electricity, water, and sewage disposal.

Other	(235)	(252)	(274)

Finances the rental of office copiers, reproduction equipment, telecopiers, magnetic card electric typewriters, and other equipment. The increase from FY 1974 to FY 1975 is due to the rental of a duplicating machine with a reduction capability at the Inter American Geodetic Survey to meet programmed work loads.

Purchased Equipment Maintenance	$ 632	$ 839	$ 1,022

This estimate is for the commercial maintenance of government-owned equipment. The largest single cost, $623 thousand, is related to automatic data processing equipment. The remainder of the requirement is primarily for the maintenance of MC&G mission oriented equipment. The FY 1975 increase of $183 thousand is due primarily to the annualization of maintenance costs for a computer purchased during FY 1974 and to the expiration of a contract which provided for a 35% discount in the cost of maintenance of a government-owned computer system.

Printing and Reproduction	$ 3,040	$ 4,099	$ 4,923

This program includes printing of graphics and textual material by the Government Printing Office (GPO); reimbursement for printing by other government agencies; and commercial printing beyond the capacity of in-house facilities.

For FY 1974, $2,505 thousand and in FY 1975 $2,949 thousand are required for printing the Flight Information Publications (FLIP's), or about 60% of the total printing requirement. These products consist of Planning, Enroute, and Terminal Area Chart publications required by civil and military aircrews in the conduct of air operations covering foreign areas and specialized DoD products covering the conterminous U.S. and Alaska. FAA and/or military regulations require that FLIP's be carried by all operational military aircraft and be available to aircrews by specified dates. There is a net increase for the FLIP program of $444 thousand in FY 1975. The principal change is the inclusion of $454 thousand for FLIP requirements of the Air National Guard, formerly the funding responsibility of the Air Force.

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate

Printing of nautical charts and publications by commercial firms and the GPO is budgeted at $1.3 million in FY 1974 and $1.7 in FY 1975. Fleet operations require small-scale and medium-scale nautical charts for safe navigation enroute to objective areas and large-scale charts for approaching and anchoring in ports and harbors. Although the large majority of nautical charts are printed in-house, there are contractual arrangements for commercial reproduction to augment the DMA capability. Printing accomplished by GPO includes periodicals such as the Notice to Mariners, Sailing Directions, and navigation tables required for both fleet and merchant marine operations, which must be continually maintained to ensure navigation safety. The major increases in FY 1975 include $219 thousand for restockage of surface and air publications which had to be deferred because of price increases incurred in FY 1974; and $155 thousand for the full-year cost of price increases experienced in FY 1974.

Other Purchased Services	$ 7,660	$ 11,383	$ 14,763

The requirements for this category of costs are so diversified that for ease of presentation they are shown by major mission categories and support type requirements. The following is a detailed explanation of each category and significant changes between fiscal years.

Satellite Survey Operations	(2,936)	(3,515)	(3,450)

This provides for the operation, maintenance, and data reduction from a global network of forty geodetic satellite tracking stations participating in a special Doppler program. The program supports strategic weapon systems, navigation systems, and tactical weapon systems. The output of this network will provide precise ephemerides (orbital position data) of low altitude special mission geodetic satellites.

Geophysical Surveys and Data Reduction	(85)	(195)	(482)

Geophysical surveys and data reduction support the Minuteman and Fleet Ballistic Missile (FBM) weapon systems. Gravity surveys and related data reduction are required to provide gravity data input into Minuteman trajectory computations. Nearshore gravity surveys are required for the determination of deflection of the vertical data for use in the navigation and fire control systems of the Polaris and Poseidon. External assistance is needed for local helicopter support of land gravity observations, studies relating to prediction of gravity anomalies at sea, and the conduct of surveys to fulfill FBM requirements. This effort is essential to support FBM and Minuteman accuracies and operating areas. The increase in FY 1974 is directly related to support of Polaris and Poseidon FBM systems. The FY 1975 increase is in direct support of the improved Minuteman system revised accuracy requirement for point positioning.

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Nautical Charts and Navigation Publications	(182)	(312)	(392)

Accurate nautical and special naval charts and related publications are essential to safe on-going military and civil maritime operations world wide. Fleet operations require the provision of small and medium scale nautical charts for safe navigation of U.S. Forces enroute to objective areas or for the sealift of materiel; large scale charts for approaching and anchoring in ports and harbors; Bottom Contour and Bathymetric Navigation Charts for use in undersea warfare. In addition, Congressional statutes require that the DoD support the merchant marine with up-to-date, adequate navigational materials. Many of the products, such as nautical charts, Notices to Mariners, broadcasts of navigational warnings, Light Lists, and Sailing Directions serve the dual purposes of meeting military requirements and the needs of the U.S. maritime community. Contractual services are required to supplement in-house production capability to ensure continued availability of current and adequate navigation products for fleet operations and the merchant marine. The $80 thousand increase in FY 1975 is for increased use of commercial contractors for cartographic support to meet the requirements of the fleet and merchant marine.

Air Navigation Charts	(890)	(1,433)	(1,283)

This includes 1:250,000 scale Joint Operations Graphics - Air (JOG-A); 1:500,000 scale Tactical Pilotage Charts (TPC's); 1:1,000,000 scale Operational Navigation Charts (ONC's); 1:2,000,000 scale Jet Navigation Charts (JNC's); Ground Radar Air Traffic Control Graphics; Airborne Display Graphics; Sensor Simulator Plates; Flight Information Publications; Strategic Air Command Mini-Bloc elevation derivations; and navigational charts for use by strategic and tactical forces. These products support current world-wide military operations and training requirements for general air navigation. TPC's and ONC's are particularly important for radar and visual navigation of high speed aircraft operating on low altitude missions that depend entirely upon radar and visual identification of ground features and rapid association with related chart detail. The JOG-A is critical for close air support, for combined operations, and for interdiction operations at low altitudes. The increase in FY 1974 is primarily required for the provision of extremely refined elevation data along penetration routes for radar avoidance and recompilation of inadequate air navigation charts of SIOP mission areas. The decrease of $150 thousand in FY 1975 is primarily caused by the conclusion of contracting for refined elevation data required to support SAC air navigation.

Air Information	(34)	(23)	(18)

Provides engraving and photographic servicing for the Airfield and Seaplane Stations of the World (ASSOTW). The Airfield and Seaplane Stations of the World is a set of bound volumes that provides photographs and measurements of airfields throughout the world for planning, intelligence, and operational uses.

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($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Topographic Maps	(38)	(646)	(1,307)

Topographic mapping includes the production of large scale city plans and land maps at scales 1:25,000; 1:50,000; 1:100,000; and 1:250,000. These products provide the principal MC&G support of land combat forces for peacetime, contingency, and wartime planning and operations. They are used by all military services for intelligence and planning, joint operations, interdiction, and as a source of topographic data for a wide variety of purposes. Lack of source data has precluded production of adequate topographic maps at the larger scales for many critical areas of the world. As a result of prior year DoD investments, new special source materials and technology now provide an exceptional capability for new production and improvement of products now in the inventory. This request will augment the in-house production capability to exploit the new materials to permit provision of adequate topographic maps to combat forces. In-house resources are primarily utilized to perform those operations which technology and security preclude from contractual support. This estimate provides for accomplishing approximately 10% of the finishing work (color separation) by contract in FY 1974 and 45% in FY 1975. This will permit maximizing the use of in-house resources in the higher skill activities.

Cartographic Aerial Photography Support	(91)	(200)	(1,000)

Arrangements through FY 1974 with the Air Force require reimbursement for support costs incurred during short-term cartographic aerial photography and collection operations assigned by the Defense Mapping Agency. These costs include per diem, supplies, transportation, and aircraft crew billeting when operating outside the immediate and limited training area of the USAF aerial survey units. This Air Force effort provides for the conduct of aerial surveys for such purposes as preparation of photo maps for both training and operational needs in Alaska; development of a deployable data base for CINCLANT training; minimum contribution toward cooperative mapping arrangements in Latin American countries; and to provide deployable point positioning data bases for rapid and accurate determination of launch/target coordinates supporting operational weapon systems. A recently completed DMA analysis concluded that a significant savings can be achieved by discontinuing the use of four RC-130 aircraft currently performing the aerial survey mission and having the work performed by commercial contract. Accordingly, the Air Force will cease providing mission support at the end of the second quarter of FY 1975. The Air Force FY 1975 Budget has been reduced $4.2 million. The cost to DMA for the remainder of FY 1975 for contract work is $1.0 million. Greater savings will accrue to the Government in future years.

Other Reproduction and Support Services	(80)	(150)	(150)

The estimate provides for reproduction services and products including photographic services, type composition, bindery operations, and lithography required for a wide variety of products requested by other governmental agencies and

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate

foreign governments. Typical are special products provided to DIA and CIA. A major portion of the estimate is to provide map and chart reproduction materials to foreign MC&G agencies on a cooperative exchange basis.

Topographic Data Library System (TDLS) ..... (0) (625) (0)

One of the major tasks in the production of maps and charts is the research, evaluation, and selection of source data from which the product is going to be produced. TDLS was designed to automate the cataloging of references to source data. Systems design, programming, and testing has been completed at a significant investment. There are approximately 800,000 records yet to be added to the master file. This is a one-time FY 1974 effort and the most economical method is to accomplish the task by contract. This system will drastically reduce the time required to perform the research, evaluation, and selection of source data for production.

Purchase of Mapping, Charting, and Geodesy Products ..... (601) (764) (878)

MC&G product purchases are those procurement actions taken to obtain maps, charts, and related materials published by U.S. civil mapping agencies, foreign MC&G agencies, and other sources. DMA is responsible for distributing these materials to military users. The increases in both FY 1974 and FY 1975 are related to price increases by suppliers and the need to increase stock levels to meet user requirements.

Automatic Data Processing ..... (128) (634) (1,173)

Automatic data processing (ADP) is an essential tool in modern MC&G methodology in improving accuracy and responsiveness to the needs of the armed forces and in providing operational data for the management of DMA activities. Some of our production processes are already automated, and we have additional processes in FY 1974 for which production hardware and software are being delivered. Additional software will be required: (1) to ensure full interface of existing automatic compilation equipment with new devices using their output, (2) to record and retrieve analyses of cartographic materials for use in production, (3) to store and retrieve digital data, (4) to control work flow through computational facilities, and (5) to improve production and distribution management. Investments in this area are vital to enable DMA to be responsive to mission requirements in face of an increase in weapon systems demands for greater accuracy and a significant reduction in response time. To meet military needs, we must depend upon exploitation of all techniques to improve methods of production.

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Support Contracts	(2,595)	(2,886)	(4,630)

The estimate for this category covers a number of expenses necessary to the operation and maintenance of DMA field activities. Included are guard services, civil engineer services, payments for Inter Service Support Agreements, real property maintenance by contract, and a number of minor contracts for essential services. Examples are packing, crating, refuse disposal, window cleaning, tuition costs, and indirect hire of foreign nationals.

The major changes FY 1974 to FY 1975 are an increase of $300 thousand for contingency funds for which the classified justification will be furnished separately; $455 thousand related to the transfer of funding responsibility from the Navy to DMA for base support provided by the Navy to the DMA Hydrographic Center at Suitland, Maryland; and $797 thousand for essential real property maintenance and repair projects.

Supplies	$ 5,784	$ 7,138	$ 8,849

Provides for materials such as map paper, film, chemicals, lithographic inks, plastics, and lithographic plates used in the preparation of MC&G products. Also provides for the purchase of materials used in maintenance, fuel, and data processing and office supplies.

The estimate is divided among materials for MC&G products, ADPE supplies, and other supplies, as follows:

	FY 1974	FY 1975	Difference	Price Increase	Programmed Production Increase
MC&G	$5,573	$7,110	$1,537	$1,172	$365
ADPE	306	337	31	--	31
Other	1,259	1,402	143	132	11
Total	$7,138	$8,849	$1,711	$1,304	$407

The increase from FY 1974 to FY 1975 for MC&G production supplies is directly related either to price increases or to programmed increases in production. An example of price increases already experienced is for map paper extensively used in

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate

production which cost $315 per skid 1 July 1973 and $630 in December 1973, an increase of 100%. Similar price increases have been experienced for a variety of materials used in the production process. Price increases provided in the FY 1975 budget represent only those known increases which occurred prior to completion of the budget development process in December 1973. Indications are that similar increases, not provided for in the budget, will occur in the next few months.

Equipment	$ 224	$ 395	$ 340

The estimate provides for a large variety of equipment, unique to cartographic production, with a unit cost of below $1 thousand. Examples are densitometers, stereoscopes, projection printers, magnifiers, microfilm equipment, and cameras, all requiring high standards of quality control and accuracy tests. Also included are funds to replace a variety of office equipment to support both administrative and highly technical and mathematical work of scientific personnel. The decrease in FY 1975 results primarily from the one-time effort in FY 1974 to reduce the MC&G technical equipment deficiencies at the Defense Mapping School.

DEFENSE MAPPING AGENCY
COMMUNICATIONS

($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
TOTAL DIRECT OBLIGATIONS	$ 758	$ 812	$1,012

The FY 1975 estimate includes communication charges from the Defense Commercial Communications Office to the Defense Mapping Agency activities except for the Hydrographic Center which is furnished communication support by the Naval Oceanographic Office without charge and the Aerospace Center which reimburses the U.S. Army Mobility Equipment Command for AUTOVON service. The increase from FY 1974 to FY 1975 provides for Defense Mapping Agency's assumption of AUTODIN circuit costs funded by Department of the Army (STRATCOM) through FY 1974.

DEFENSE MAPPING AGENCY
SUMMARY OF OBLIGATIONS BY ELEMENT OF EXPENSE
(Thousands of Dollars)

Expense Element	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Direct:			
Civilian Personnel	119,666	125,748	128,893
Travel of Personnel	1,580	1,871	1,649
Transportation of Things	860	783	999
Utilities and Rents	2,838	2,084	5,669
Communications	649	2,534	2,450
Purchased Equipment Maintenance (Intra-DoD)	--	--	--
Purchased Equipment Maintenance (Commercial)	640	851	1,034
Printing and Reproduction	3,040	4,149	4,973
Other Purchased Services	7,919	11,964	15,258
Other Supplies	5,817	7,165	8,876
Equipment	244	414	356
Subtotal Direct Obligations	143,253	157,563	170,157
Reimbursable	7,272	8,145	8,271
Total Obligations	150,525	165,708	178,428

DEFENSE MAPPING AGENCY
SUMMARY OF CIVILIAN PERSONNEL BY GRADE

Category	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
General Schedule Grades:			
GS-18	1	1	1
GS-17	3	3	3
GS-16	7	8	8
GS-15	80	82	82
GS-14	137	138	138
GS-13	350	350	351
GS-12	750	750	752
GS-11	1,722	1,751	1,754
GS-10	50	53	54
GS-9	1,503	1,522	1,525
GS-8	126	132	134
GS-7	306	338	342
GS-6	240	249	251
GS-5	416	420	427
GS-4	349	351	354
GS-3	128	130	139
GS-2	45	52	52
GS-1	1	3	3
Subtotal, General Schedule	6,214	6,333	6,370
Ungraded Positions	1,425	1,455	1,462
Total, Permanent Positions	7,639	7,788	7,832
Unfilled Positions, June 30	- 117	- 39	- 39
Total Permanent Employment, End of Year	7,522	7,749	7,793
Temporary, Part-time and Intermittent Employees	84	58	58
Total Employment, End of Year	7,606	7,807	7,851

DEFENSE MAPPING AGENCY
SUMMARY OF MILITARY PERSONNEL BY RANK

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Officers:			
Lt. Gen./Vice Adm.	1	1	1
Maj. Gen./Rear Adm. (upper half)	1	1	1
Brig. Gen./Rear Adm. (lower half)	3	3	3
Colonel/Captain	31	30	29
Lt. Col./Commander	56	55	56
Major/Commander	52	54	50
Captain/Lieutenant	46	42	39
First Lt./Lieutenant (j.g.)	14	10	9
Second Lt./Ensign	--	--	--
Chief Warrant Officer	16	14	14
Warrant Officer	--	--	--
Subtotal, Officers	220	210	202
Enlisted Personnel	804	666	627
Total Positions	1,024	876	829
Unfilled Positions, June 30	- 6	0	0
Total Employment, End of Year	1,018	876	829

PREPARED STATEMENT

Chairman McCLELLAN. At this point in the record, there will appear the prepared statement of General Penney.

[The statement follows:]

General PENNEY. Mr. Chairman and members of the committee, it is a privilege to appear before you for a second year and to present the fiscal year 1975 budget request of the Defense Mapping Agency (DMA).

DMA MISSION

Basically our job is to furnish maps, charts, and geodesy (that is, position and gravity) data for military navigation and operations by troops on the ground, aircraft, ships, and missiles. However, the increasing complexity of weapons, guidance systems, and military operations now demand a wide range of M.C. & G. products to support them. For example, since a missile can't read, we have to convert map data to digital form to be used in a missile. Thus, in today's military environment the name Defense Mapping Agency is somewhat a misnomer because it does not indicate the degree to which weapon systems depend on M.C. & G. products to operate or the science and technology needed to produce those products.

HOUSE REPORT

In last year's report on the Department of Defense fiscal year 1974 appropriation bill, the House Committee on Appropriations expressed concern with the high cost of mapping operations within DOD and directed the Secretary of Defense to review DMA's operations prior to submitting the fiscal year 1975 budget. As you know, this review has been completed and forwarded to the Congress. It concludes that:

1. DMA's operating costs are directly related to the advanced science and technology which has become integral to mapping, charting, and geodesy as a result of modern weaponry and operational requirements.
2. Costs are not excessive in comparison with user requirements and the overall defense investment in the weapon systems and forces which are operationally dependent on DMA products for effective deployment.
3. DMA is engaged in a continuing effort to maintain a high standard of operating efficiency.
4. The Agency has continued to make reductions in its manpower authorization, reduce the number of validated M.C. & G. production requirements and has increased its productivity by 5 percent.
5. The Defense Department is getting a fair return on the dollar from its mapping operations.

BASIS OF REQUIREMENTS

Weapon systems and operational needs dictate DMA production. U.S. ships and aircraft which navigate worldwide and U.S. Forces, whether deployed or ready for deployment when required in our national interest, must have a variety of DMA products, including navigation and target position data in order to operate. DMA also provides all the precise geodetic and gravity data required to build the missile trajectories for strategic missile systems—Minuteman, Poseidon, Polaris, Pershing, without which they won't hit their targets. As new improved weapon or guidance systems or tactics are developed, DMA must provide the improved accuracy for navigation fix points, offset aiming points, and target locations that will avoid the degradation of advanced strike systems.

Not only is the initial production essential but these products must be maintained to insure their operational accuracy and currency. The features of the earth's surface do not remain static. For example, the constant changes in roads, urban developments, power lines, airfields and bodies of water are of enormous importance to our forces. The ground soldier must be able to recognize the terrain he is fighting on; the air crew the terrain they are flying over at low altitude and high speeds and the targets they are to attack; the naval navigator the shoaling, wrecks or other obstacles that exist. Two-thirds of our effort is devoted

to updating our products. Yet, we cannot fail to keep them reasonably up to date without jeopardizing the success of potential military operations and day-to-day flight and nautical safety.

Requirements Review

Our first concern is meeting the validated requirements of the Armed Forces. Fiscal prudence and responsible program management dictate that these requirements be the minimum necessary to support military operations, considering a prudent level of risk. DMA, in its role as program manager for the Joint Chiefs of Staff and the Secretary of Defense, determines by joint review with the military user if requirements can be eliminated entirely, reduced in scope or satisfied by alternate and more economical means to insure that validated requirements are the minimum necessary.

Currently, our requirements are comprised of approximately 270 different kinds of products involving some 160,000 line items. 40 percent of our products are other than conventional maps and charts. Rather, they are for products such as film strips for advanced aircraft cockpits, digital target positioning data, and digital gravity data for missiles. This indicates the increasng complexty and accuracy of today's weapon systems and the increasing demands they place on science, technology and computers for MC&G support.

Resource Levels

Current DMA resource levels are not sufficient to meet the valid MC&G needs of the Armed Forces. Therefore, a prime DMA objective is to narrow this gap by reducing costs and increasing productivity. Externally, we have been pressing our users to make rigorous assessments of their needs. Internally, we have been conducting continuous analyses to determine where operating economies could be achieved in order to apply additional assets to production. An increase in productivity of 5.1 percent was achieved in fiscal year 1973. A further increase in productivity of 8 percent over fiscal year 1973 is built into the fiscal year 1975 program to narrow the gap. Reduction in requirements by users and increased productivity achieved by DMA have continued to narrow the annual gap between available resources and those required to meet valid military needs from $42 million in fiscal year 1974 to $26 million in fiscal year 1975. However, additional potential requirements totalling $71 million are tentatively projected for the fiscal year 1976–83 period for support of new weapon systems.

Manpower

DMA has a highly trained work force of predominantly professional, scientific and technical people. The science and technology now demanded of mapping and charting by advanced weapon systems requires that more of our people be knowledgeable in the varied fields of applied physics and engineering. By June 30, 1975, we will have converted 70 positions from military to civilian. We are continuing to look at our manning and expect to convert additional positions over the next several years.

In total (military and civilian) over the 3-year period (fiscal years 1973–75) we will have reduced our man-years by some 338. Our manpower program for fiscal year 1975 is 8,680 and is comprised of 7,851 civilians and 829 military. Over 52 percent (433) of our military people are in two military units furnishing operational support, principally to the strategic air command. Another 134 teach military people combat mapping and charting operations.

Cost and Manpower Requirements

Chairman McClellan. Provide the cost and manpower requirements for fiscal years 1973–75 to teach military people combat mapping and charting operations. Compare with the number of students trained during these 3 years. With the conversion of a number of positions from military to civilian, can this teaching organization be reduced?

General Penney. I will be glad to provide the information for the record.

[The information follows:]

	Fiscal year—		
	1973	1974	1975
Gross students	3,912	4,490	4,556
Student man-years	260.9	267.8	272
Instructor man-years	70.3	69.3	[1] 78
Ratio: Student man-years over instructor man-years	3.71	3.86	3.49
Cost total	$3,031	$3,592	$3,573
Cost per student	$775	$800	$784
Cost per student man-year	$11,617	$13,413	$13,136
Total school man-years	184.5	201.1	200
Cost per school man-year	$16,423	$17,862	$17,865

[1] Anticipated extra effort to compensate for lower average educational level of volunteer enlistees. The effort will result by shifting instructor effort to teaching from writing in order to avoid cost increases.

Conversion from military to civilian of positions for which military instructors are not essential tends to increase productivity because the civilian instructors are more versatile and a civilian work force is subject to less fluctuations. This should enable us to support projected student loads with less manpower and the school's total manpower authorizations have been accordingly reduced from 204 at the end of Fiscal Year 1973 to 196 at the end of Fiscal Year 1974. Authorizations are projected at this same level for Fiscal Year 1975.

Chairman McCLELLAN. Proceed.

General PENNEY. The balance are primarily utilized in positions requiring military expertise to work with the Joint Chiefs of Staff, our military users and the 65 foreign military mapping organizations from whom we obtain maps and charts in the most economical way.

MAPS FROM FOREIGN ORGANIZATION

Chairman McCLELLAN. What kinds of maps are obtained from foreign military mapping organizations? Does the U.S. supply these organizations with our maps on a quid pro quo basis?

General PENNEY. DMA has exchange agreements with over 65 organizations in 55 countries, conducted essentially on a quid pro quo basis. DMA receives the same kinds of maps and charts it produces itself, i.e., topographic maps, nautical charts, and aeronautical charts, as well as some geodetic and geophysical information and geographic data. DMA has cooperative production programs with four countries. These are designed to share the production workload, where common requirements exist, in order to reduce the individual costs to each nation to the minimum.

Chairman McCLELLAN. Proceed.

OPERATION AND MAINTENANCE

General PENNEY. $170.2 million is requested in fiscal year 1975 for the operation and maintenance of the Defense Mapping Agency in the conduct of surveys and the production, maintenance and distribution of maps, charts and navigational and target position data in support of the Armed Forces and their weapon systems.

The fiscal year 1975 request is level with fiscal year 1974 except for obligatory increases of $10.4 million and a relatively minor program increase of $2.2 million which will be used to help us achieve productivity gains in fiscal year 1975 and beyond.

Increases due to these additive costs over which DMA has no control amount to $10.4 million. They include:

1. $5.3 million for transfer of funding responsibilities from other agencies whose budgets have been correspondingly reduced.

Chairman McCLELLAN. Provide the agencies and amounts which transferred funding responsibility to DMA.

General PENNEY. Mr. Chairman, the transfers involve nine separate actions. They are:

	Thousands
Fiscal year 1974 civilianization program, annualized cost—from Army and Air Force	$+112
Fiscal year 1975 civilianization program—from Army, Navy, and Air Force	+354
Transportation of hydrographic products—from Navy	+312
Rental of facilities—from GSA	+2,369
AUTODIN communications terminal rental—from Army	+166
FLIP products furnished Air National Guard—from Air Force (ANG)	+482
Classified project—from military departments	+300
Cartographic aerial photography support—from Air Force	+800
Base operating support for DMAHC—from Navy	+455

Chairman McCLELLAN. Proceed.

General PENNEY. 2. $3.3 million for the full year cost of civilian pay raises which occurred in fiscal year 1974 and within grade pay raises and an extra day of pay in fiscal year 1975.

3. $1.8 million for the full year effect of commodity price increases, primarily paper.

$1.7 million of the $2.2 million program increase is required to augment two government-owned univac 1108 computers and secure the expertise needed to develop software programs which are essentially production oriented. The processing of large amounts of newly acquired photographic, geodetic and gravity data needed to meet the current and new weapon systems requirements can only be accomplished through automatic data processing of MC&G data.

PROCUREMENT

For the procurement appropriation, we are requesting $5.2 million in fiscal year 1975, a decrease of $.9 million below the fiscal year 1974 funding level. To meet demands of new weapon systems and produce efficiently the variety of MC&G products required by the military forces, a wide range of scientific and technical equipment is necessary.

Of the total $5.2 million requested, over 60 percent is to procure 10 items. 4 of the items are multi-color presses for which $2.0 million is requested. These will replace equipments which are from 15–20 years old and have reached the point of uneconomical repair. Direct mission MC&G equipment in the inventory has a replacement cost of about $130 million. Based on an average useful economic life of 15 years, normal annual replacement funding of approximately $8 million could be expected.

RESEARCH AND DEVELOPMENT

The fiscal year 1975 RDT&E budget of $14.5 million is directly related to the urgency of the development of specific new and improved strategic and tactical missiles and aircraft. DMA must collect data and produce with very precise instruments the highest quality measurements of the earth's surface and its pull of gravity to furnish more accurate digital target and launch positions, navigation checkpoints and gravity data which these weapon systems must have to navigate and hit their targets. To achieve this capability, we must develop new instruments and computer processing techniques which will collect, process and provide data for support of the following:

1. Missiles such as the Trident and the advanced ICBM programs that demand more accurate launch positions, target positions and the intervening pull of gravity that affect the missile trajectories over longer ranges.

2. New aircraft and cruise missile navigation systems (B–1, F–111, and air and submarine launched strategic cruise missiles) that require very precise determinations in digital form of in-flight navigation checkpoints, target areas and terrain contour matching navigation system (TERCOM) information.

3. New aircraft simulator developments for the F–111, A–6, and B–1, that need digital topographic information of greater precision and covering larger areas of the world than currently provided.

The $14.5 million for fiscal year 1975 is an increase of $2.9 million over the fiscal year 1974 amount. $1.1 million is to cover the full year effect of price

level increases which occurred in fiscal year 1974. The balance of the increase, $1.8 million is for development of more rapid and accurate geodetic and gravity collection systems which will operate over larger areas of the earth and are essential to operational effectiveness of missiles currently under development.

The fiscal year 1975 request of $14.5 million is small when compared to the cost of the weapons which need its support, but it is critical to DMA's future capability to support these weapon systems.

Defense Nuclear Agency

STATEMENT OF LT. GEN. WARREN D. JOHNSON, U.S. AIR FORCE DIRECTOR

ACCOMPANIED BY:

DR. JACK W. ROSENGREN, DEPUTY DIRECTOR, SCIENCE AND TECHNOLOGY
WILLIAM M. PLOUGH, COMPTROLLER
PAUL H. CAREW, BUDGET OFFICER
MAJ. ALLEN J. TIEDMAN, U.S. AIR FORCE, AIDE AND EXECUTIVE ASSISTANT TO THE DIRECTOR
COMDR. LESLIE ADDICOTT, JR., U.S. NAVY, BUDGETARY ASSISTANT TO THE DEPUTY DIRECTOR, SCIENCE AND TECHNOLOGY

PREPARED STATEMENT

Chairman McClellan. The next appropriation item to be considered is that for the Defense Nuclear Agency.

The principal witness is Lt. Gen. Warren D. Johnson, Director of the Agency.

General, we shall place your prepared statement in the record and you may proceed as you wish.

[The statement follows:]

General Johnson. Mr. Chairman, Gentlemen, I appreciate the opportunity to present the Defense Nuclear Agency (DNA) program and budget for fiscal year 1975. I will present our program today mainly in terms of our overall goals as well as some more specific goals regarding our operation and maintenance (O&M) functions and our research and development (R&D) functions.

Status of DNA

Chairman McClellan. Provide us with a detailed statement regarding the creating of the Defense Nuclear Agency, its responsibilities, and the number of military and civilian personnel employed by the agency.

General Johnson. DNA was established on January 1, 1947, by joint directive of the Secretaries of War and Navy; the agency originally was designated the Armed Forces Special Weapons Project. It was derived from the Manhattan Engineer District, the Army Corps of Engineers element through which the first atomic bombs were developed. The Atomic Energy Act of 1946 established the Atomic Energy Commission which assumed the functions, organization and properties of the Manhattan Engineer District. Certain functions dealing with the military applications of Atomic Energy, however, were retained by the War Department under agreement with the AEC. DNA was created to discharge those functions.

The current DNA responsibilities are to provide management of DOD Nuclear Weapons Testing and Nuclear Weapons Effects Research Programs; to provide consolidated management of the DOD Nuclear Weapons Stockpile; and to furnish staff advice and assistance on nuclear weapons matters to the Secretary of Defense, the Joint Chiefs of Staff, the Military Services, and other DOD components and government agencies as appropriate.

The DNA FY 1975 budget requests 732 military and 695 civilian personnel. Since submission of the budget, DNA has returned 68 military spaces to the Services for redistribution.

Operation and Maintenance

Chairman McClellan. Proceed.

General Johnson. The overall goal of our O&M program is to assure adequate support of Department of Defense Nuclear Weapons Programs. We must, as a minimum:

Provide manpower and facilities (in the U.S. and overseas) for the management and supervision of research, development, test and evaluation (RDT&E) efforts involved in determining the effects of nuclear weapons.

Provide consolidated management of the DOD nuclear weapons stockpile, to include accountability, storage, maintenance security, safety, and inspection.

Maintain a National Nuclear Test Readiness Program (NNTRP) which assures that the U.S. can resume promptly the testing of nuclear weapons in the now-prohibited environments if a national decision so directs.

In the research area, which represents about 82% of our budget request, our overall goal is to determine the effects of nuclear weapons to insure that our forces can operate successfully in nuclear warfare. We must explore:

The effects of our own nuclear weapons to insure we are equipped with weapons which can inflict the required damage and which can be targeted and delivered properly; also to use the technology to explore.

The effects which nuclear weapons of a potential enemy could have on our forces so as to insure that our forces can carry out their missions under nuclear attack.

Before addressing more specific goals, let me briefly direct your attention to Chart 1, which summarizes our total budget request for FY 1975 with two prior years for comparison.

CHART 1

FISCAL YEAR 1975 BUDGET REQUEST

[In thousands of dollars]

	Fiscal year—		
	1973	1974	1975
Procurement	446	178	273
Operation and maintenance	10,960	19,297	21,266
R.D.T. & E.	123,514	117,467	123,000
Total Defense appropriations	134,920	136,942	144,539
Military construction	2,596	574	5,458
Total DNA budget request	137,516	137,516	149,997

The procurement request for $273,000 is up some $95,000 over FY 1974 primarily due to the purchase of replacement vehicles and materials handling equipment. The operation and maintenance, or O&M, request of $21.3 million is roughly $2 million higher than last year. The principal increases include funding for operations at Eniwetok Atoll for which we were not previously responsible ($888 thousand), price escalation for support of Johnston Island ($600 thousand), and first time GSA user charges for DNA Headquarters building rental ($555 thousand). The $8 million increase in O&M funds between FY 73 and FY 74 was due to DNA assuming management responsibility for Johnston Island. I will next discuss the O&M program in conjunction with some specific goals and then place the $123 million R&D request in terms of specific research goals. The military construction request will not be treated here since it is covered by a separate committee.

Within the O&M area, our major specific goal is to maintain facilities and provide manpower at four major locations. We must also provide manpower and/or supervision at several nuclear effects simulator facilities as well as working liaison personnel at several locations.

Agency Locations

Chairman McClellan. List all of the locations of the Agency and the number of personnel attached to each.

General Johnson. Following is a list of facilities and numbers of people for fiscal year 1975.

Facility/Location:	Personnel
Headquarters, Washington, D.C.	365
Field command, Albuquerque, N. Mex.	603
Nevada test site	51
Johnston Atoll	49
Eniwetok Atoll	37
Armed Forces Radiobiology Research Institute, Bethesda, Md.	254
Total	[1] 1,359

[1] This figure excludes the 68 military spaces which DNA has returned to the services for redistribution.

DNA Coordination With JCS

Chairman McClellan. Describe how DNA coordinates with the Joint Chiefs of Staff and the Office of the Secretary of Defense.

General Johnson. DoD Directive 5105.31 of 3 Nov 71 establishes DNA as a designated agency of the DoD under the direction, authority and control of the Secretary of Defense. Supervision of DNA for the Sec Def is exercised as follows:

1. The Joint Chiefs of Staff exercise primary staff supervision (thereby requiring coordination) of DNA activities which include composition of the nuclear stockpile, allocations of nuclear weapons, military participation in and support of nuclear testing and other similar activities.

2. Within the OSD, Director, Defense Research and Engineering (DDR&E) exercises staff supervision through Director, DNA of DNA activities associated with DoD nuclear weapons effects research and nuclear weapons test programs, keeping the Director, Joint Staff, JCS informed.

3. The Assistant to the Secretary of Defense (Atomic Energy), ATSD (AEAE), exercises staff supervision through Director, DNA of DNA activities associated with technical nuclear safety, logistics aspects of nuclear weapon stockpile management and the transmission of information to the Joint Committee on Atomic Energy as required by the Atomic Energy Act of 1945 as amended.

4. Coordination with each of the three supervisory organizations is accomplished by frequent visits to appropriate Pentagon offices or by telephone if classification of the subject in coordination allows. There is also direct participation in such activities as the Military Liaison Committee and various Ad-Hoc groups.

Paid Consultants on DNA Payroll

Chairman McClellan. How many paid consultants does DNA have on its payroll?

General Johnson. We have three; but we will have two as of 1 July 1974.

University Research Contracts With DNA

Chairman McClellan. List any universities presently under contract to do research for DNA.

General Johnson. DNA presently has contracts with the following: Associated Universities Incorporated, which operates the Brookhaven National Laboratory with whom DNA has a contract; Massachusetts Institute of Technology; the University of California where DNA conducts business with the Lawrence Berkley Laboratory, the University of California at Irvine, the Lawrence Livermore Laboratory, and the Los Alamos Scientific Laboratory; the University of Chicago (Argonne National Laboratory); the University of Denver (Denver Research Institute); Washington State University; Yeshiva University; University of Alaska; and Utah State University.

Chairman McClellan. Proceed.

General Johnson. Regarding the four major locations:

At Headquarters, DNA, we provide supervision and financial management of the RDT&E, O&M, Procurement, and Military Construction efforts involved in carrying out the overall goals. We also maintain direct, day-to-day coordination with the Services and provide nuclear weapons effects expertise to the JCS and the Office of the Secretary of Defense (OSD).

At Field Command, DNA, we provide consolidated management of the DOD nuclear weapons stockpile, perform supply system functions for nuclear ordnance items, and review nuclear weapon safety rules. We also supported Limited Test Ban Treaty safeguards activities, send teams to bases and ships throughout

the world to conduct nuclear weapon technical inspections, directly supervise field activities at Johnston Island and Enewetak Atoll; and conduct studies & analysis of nuclear matters in support of the JCS and the OSD.

At Johnston Island, 850 miles southwest of Hawaii, we maintain the primary site for support of the National Nuclear Test Readiness Program (NNTRP). The goal here is to assure a prompt capability to begin nuclear testing in the atmosphere if the Limited Test Ban Treaty is abrogated by other parties and/or if a national decision to return to testing is necessary. We are also hosts to the Army for storage of their "RED HAT" munitions and to the Air Force for storage of herbicide ORANGE which was moved out of Vietnam. Plans are to destroy herbicide ORANGE this year. RED HAT munitions must be stored until no longer required for retention in the national stockpile and when the means of disposal are developed.

Sandia Atomic Museum

Chairman McClellan. Provide the cost and manpower resources in support of Sandia Atomic Museum for Fiscal Year 1973 and 1974 and contained in the FY 1975 budget.

General Johnson. In Fiscal Year 1973, a staff of 3 civilian and 5 enlisted, staffed the Museum which was operated at a total cost of $126,704. In Fiscal Year 1974, the staff of 3 civilians and 5 enlisted have been operating with a budget of $90,349. No funds are currently budgeted for FY 1975. Prior to forced manpower reductions which will have eliminated the Museum staff, at the end of the current fiscal year, preliminary budget planning by the Headquarters Budget Office was considering $45,700 for civilian pay only, for the Museum in Fiscal Year 1975.

Chairman McClellan. What is the minimum support required to maintain the museum in operation?

General Johnson. By decreasing visiting hours from 50 to 38 hours a week and eliminating certain services such as conducted tours, with a minimum staffing the facility could continue operations during FY 1975 with a budget of approximately $64,000. To continue at the present level (which we believe is highly desirable) the cost would be $90,000.

Chairman McClellan. What is the status of efforts to locate a non-DOD sponsor for the Museum?

General Johnson. A National Atomic Museum Foundation was established and incorporated under New Mexico state statutes on 27 December 1973. Its Board of Trustees of 11 prominent Albuquerque businessmen have assisted Field Command DNA in attempting to determine and locate appropriate non-DOD sponsorship. Members of this Foundation and our personnel have made both formal and informal contacts with state and local government agencies seeking an alternate sponsor and funding base for the Museum. While interest in the continuation of the Museum is great, no agency to date has indicated a willingness to take over the Museum's operation. To allow time for further development of the interest expressed in some areas, Field Command DNA has made plans to keep the Museum functioning on a limited basis after 1 July 1974. It will be staffed on an additional duty basis with no expenditure of funds for direct Museum related costs after the end of the current fiscal year. We hope this effort will be successful and keep the Museum going until we receive a firm commitment from a non-DOD sponsor. Continued operation of the Museum is highly desirable to maintain the historical record of the military in the nuclear age. Moreover, the museum has become known nationally and was visited by more than 90 thousand persons last year. It is my personal view that the Sandia Atomic Museum should be continued. We in DNA would do this if we had the manpower resources in addition to the necessary funding. However, we were directed by a DOD Audit to get out of this business.

Atmospheric Testing

Chairman McClellan. What is your planning for the "prompt capability to begin atmospheric testing"—how many days from go ahead to test? What is the total cost of this program, FY 1973, FY 1974 and FY 1975?

General JOHNSON. The currently approved National Nuclear Test Readiness Program (NNTRP), dated 12 December 1972, requires a response time (the time after "GO" required to ready a test series for execution) of six months for certain tests and extends to thirty-six months for the more complex tests. This program was accepted by DoD on an interim basis only because it was felt the "shot window" would be short and the number of tests would be limited. A new program has been proposed and is presently in staffing within DoD. The recommended response time to begin the earliest test is four months. DNA RDT&E funding for FY 1973, FY 1974 and FY 1975 for readiness to test has been approximately $3.0 million per year. In addition, approximately $9M/yr in O&M funds has been required to support Johnston Island, the primary overseas nuclear test facility.

"RED HAT" AND "ORANGE"

Chairman MCCLELLAN. Describe in greater detail "Red Hat" munitions and herbicide "Orange." When do you anticipate disposal of these items?

General JOHNSON. "Red Hat" munitions and herbicide "Orange" are not the direct responsibility of the Defense Nuclear Agency. Responses provided by the Army for "Red Hat" and by the Air Force for herbicide "Orange" are as follows:

RED HAT MUNITIONS

Q. Describe in greater detail, Red Hat Munitions.

A. (U) Red Hat is a term identifying chemical munitions located on Johnston Island. These stocks, a portion of the U.S. national deterrent/retaliatory chemical stockpile, consist of projectiles, rockets, and bombs filled with agent GB; projectiles, rockets, and land mines filled with agent VX and projectiles filled with mustard agent. In addition, there are quantities of these agents stored in 1-ton containers.

The following detailed breakdown of Condition Code A–G items on Johnston Island is confidential.

[Deleted.]

[Deleted.]

Q. When do you anticipate disposal of these items?

A. (U) There are no plans to dispose of serviceable Red Hat munitions stockpile. There are quantities of chemical munitions on Johnston Island which have been declared unserviceable and identified for disposal. A system is under development which will provide for on-site disposal and a prototype disposal system is scheduled to be available in calendar year 1978. Upon successful demonstration, units will be procured for deployment to storage sites where quantities of unserviceable/obsolete chemical munitions are identified for disposal.

HERBICIDE "ORANGE"

"Herbicide Orange" is not the direct responsibility of Defense Nuclear Agency. Orange is a defoliant which was suspended from use in Southeast Asia and moved to Johnston Island during April 1972.

Extensive research was accomplished under direction of the U.S. Air Force, including a complete ecological survey of Johnston Atoll by the Smithsonian Institution, and a remote site disposal method has been selected. One possibility calls for very high temperature incineration of Herbicide Orange stocks at sea in the Pacific area on a specially equipped vessel. A second possibility is incineraton of Johnston Atoll.

A draft environmental impact statement for disposal of Herbicide Orange was provided to the Council on Environmental Quality by the Department of the Air Force. The announcement of its public availability appeared in the Federal Register on May 1, 1974. Disposal of Herbicide Orange is planned for the second and third quarter of fiscal year 1975.

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RADIOACTIVITY CLEAN UP

Chairman MCCLELLAN. How do you "clean up" radioactivity? How long does this process last?

General JOHNSON. Simply stated radiological cleanup involves identification of the radiation hazard, its removal and disposal. Locating a disposal method and site which is compatible with an ever increasing environmental consciousness is becoming more difficult with time.

The procedure adopted to "cleanup" radioactivity depends on the nature of the contamination. In the case of recent radioactive fallout on active facilities, cleanup would begin based on a hurried field survey to determine the extent and intensity of the hazard. Corrective measures could range from hosing down the exposed surfaces on a ship at sea to more deliberate procedures. These would include locating, removing and disposing of radioactive sources found in materials such as soil, metal debris and structures.

Specifically, in the case of Eniwetok there is extensive contamination from 40 nuclear tests which took place more than a decade ago, most of it from radio-nuclides that have "cooled off" considerably during the intervening period. Nevertheless there remains a substantial amount of radioactivity when compared to historical background levels. It is found in the soil, in man made materials and structures left from tests, and in shell fish, fish and plants which could enter the human food chain. Additionally, the Eniwetok radiological situation has been complicated by relatively wide dispersal on several islands of plutonium and its products. While most of the radioactive material of concern at Eniwetok has a relatively short half life of about 30 years, plutonium has a half life of approximately 25,000 years. Although plutonium is principally an emitter of alfa particles which have a very limited surface penetration, its intake into the body must be avoided.

For these reasons it was essential that a detailed on-site radiological survey followed by extensive laboratory work and analysis be completed prior to the formulation of a cleanup plan for Eniwetok. This has been done by the Atomic Energy Commission and their recommendations on criteria and methods for the actual cleanup are expected next month.

After a cleanup plan has been adopted, the Environmental Impact Statement accepted and funding obtained, the actual work can begin. The execution of this work will require considerable attention to radiation safety for project personnel as well as a means for evaluating the work to determine when the prescribed cleanup criteria has been achieved.

The entire process from survey to certification at Eniwetok can take 3–4 years.

Chairman MCCLELLAN. Proceed.

General JOHNSON. At Eniwetok Atoll, some 2400 miles southwest of Hawaii, DNA has been charged with the cleanup of radioactivity and debris from U.S. nuclear weapons testing through the late 1950's. Physical control of the Atoll is being returned to the Trust Territory of the Pacific Islands. Three or four years of effort will be required to prepare the Atoll for the safe return of the Eniwetokese people as promised by the United States. On January 1974, the DOD facilities on Eniwetok became the responsibility of DNA.

Specific O&M goals are to:

Provide up-to-date weapons development research data and reports to the staffs of Unified Commands and the Services and maintain close contact with them to assist in their annual preparation of statements on weapons requirements.

Lead in the development of new methods for improving and enhancing the security of stored nuclear weapons; and, in this regard, continue to refine inspection procedures to help identify and correct deficiencies in weapon security as well as in technical operations, administration, safety, and logistics of nuclear weapons.

Maintain the readiness equipment at Johnston Island, provide support for the personnel responsible for maintaining a realistic national readiness-to-test plan, and provide interfacing of AEC and DNA readiness planning efforts.

Achieve optimum manpower utilization within the agency by reducing grade creep, civilianizing military positions, and reducing overall manning requirements while accomplishing all assigned functions.

Satisfy the requirements of the Atomic Energy Act of 1954, as amended, by facilitating the exchange of nuclear information with other countries.

Turning now to the $123 million RDT&E portion of our request, I will discuss more specific goals within our nuclear weapons effects research effort. I have established five long-range goals for our program:

We must provide for assurance of the hardness of U.S. weapon systems through analysis, simulation, and underground testing.

Through refinements in our knowledge of weapon effects we must assist in providing the flexible resource options requested by the President and the Secretary of Defense. Since flexible response includes doing a precise military job with a minimum of unwanted damage and casualties, nuclear effects research will be at the very core of new developments.

Hardness of Weapon Systems

Chairman McClellan. Compare the hardness of our weapon systems with those of the Soviet Union.

General Johnson. In most cases we have very limited knowledge of the hardness of Soviet systems, [deleted]. We also know that their missiles are much heavier than ours and therefore would be intrinsically easier to harden.

It should be emphasized that their hardening of a particular capability is not a threat which necessarily has to be countered by hardening our comparable capability to the same level. We harden to levels based on our understanding of the threats which will exist over the lifetimes of the systems and based on cost performance tradeoffs which will maximize the overall operational capability in terms of our military doctrine. Presumably the Soviet Union does the same thing, and it is conceivable that the two nations could rationally arrive at hardness goals which would be quite different.

Retargeting Role of DNA

Chairman McClellan. What role does DNA play or will it play in retargeting?

General Johnson. DNA does not play a direct role in targeting. DNA does assure that the weapons effects data base is adequate to meet the needs of the target planners. To accomplish this, DNA maintains a continuing working relationship with the Joint Strategic Target Planning Staff.

Effect of Nuclear Tests on Simulated Environment

Chairman McClellan. How effective are our tests or assessments of nuclear effects when we are not able to simulate a true nuclear environment?

General Johnson. We are constantly addressing this question in our simulation programs since in some cases (high-altitude EMP, most gamma ray effects) we are unable to directly reproduce the nuclear environment, and we are never able to duplicate the totality of environments on any hardware. The answer to the question varies greatly with the specific effects and hardware of concern. For example, using laboratory techniques we can simulate [deleted] X-ray effects on reentry vehicles accurately enough so that very firm guidance can be given to the hardware developers, although underground tests are still necessary for verification. [Deleted.] We have recently conceived ways to use underground tests to narrow the uncertainties and will conduct the first major experiment of this type as part of the [Deleted] event this month. Some types of simulation, such as use of natural auroral effects, are employed primarily to check the validity of elaborate theoretical models embodied in computer codes. If the codes correctly predict the phenomena we can observe, then we have much higher confidence they correctly predict the phenomena which could be seen only in atmospheric detonations. To summarize, there are some things we can do without actual nuclear weapons testing, but there are some very important things we cannot do. This is vital to the Atomic Energy Commission, too, since they must have at least underground nuclear tests to assure reliability and safety of the weapons they developed for DoD.

Cost of Underground Effects Tests

Chairman McClellan. How do you intend to reduce the cost of underground effects tests?

General Johnson. First of all, we are attempting to bring about cost reductions in the DoD UGT program by efficient management of our resources. This means that we schedule our tasks like mining, exploratory drilling, construction, pipe installation, etc., in such a manner as to maintain a stable work force. This has proven effective in the last three events, DIDO QUEEN, HUSKY ACE, and MING BLADE, in that each of these tests has been brought in ahead of schedule and under the original budget. Offsetting good management practices, of course, is the general inflationary spiral which increases our cost of doing business. We have already felt the impact of longer lead times, scarcity of steel, copper, and other materials, and loss of skilled labor such as electricians, carpenters, and pipe fitters to the booming construction industry around Las Vegas. Construction labor contracts at the Nevada Test Site provide for an automatic 15% per year increase. To reduce long runs of expensive co-axial, filament wound copper cables from the various sensors to instrumentation trailers on the mesa, we have gone to underground recording, as well as data transmission where possible over simpler carriers such as twisted shielded pairs. We are also looking at methods to telemeter our data to the surface. Additionally, we are developing a new test technique, which, if successful, promises to afford substantial savings by shortening the LOS pipe and thus reducing the amount of mining required as well as the number of expensive closures. This novel test design will provide us the same area and exposure conditions at 1/10 the length of our current test beds. This design will first be used in the HYBLA FAIR shot later this year, and frankly it is a fairly high risk attempt. Through all these efforts we are attempting to compensate for constantly escalating construction costs.

Chairman McClellan. Proceed.

General Johnson. We have to develop additional simulation techniques which can further reduce our dependence on the more expensive underground nuclear effects tests.

We must continue to reduce the costs of underground effects tests while improving their capability and flexibility.

We must continue to conduct research into the biomedical aspects of nuclear radiation, experimental pathology, behavioral sciences, and radiation biology, the goal being to determine what the effects of nuclear weapons would be on people. This work is done at our Armed Forces Radiobiology Research Institute at Bethesda, Maryland.

Major Research Programs of AFRRI

Chairman McClellan. List for us all of the major research programs being conducted by the Armed Forces Radiobiology Research Institute and their individual purposes.

General Johnson. The AFRRI research program is divided into two major tasks. The first task is called "Incapacitation and Performance Decrement." The objective of this task is to define and evaluate human response and vulnerability to the effects of nuclear weapons and to assess man's limitations as related to weapon systems vulnerability studies and strategic/tactical doctrine for the employment of nuclear weapons. In particular, the objectives of this program include the determination and assessment of the effects of supralethal doses of ionizing radiation on the short term survivability/vulnerability of man; the determination of appropriate and feasible methods for the prevention, mitigation, or delay of biological responses to these doses of radiation; the determination of dose versus time effects of supralethal radiation on performance as related to sensory, cognitive, coordination, discrimination, and memory functions; and the evaluation of the effects of blast and combined injury on man's combat effectiveness and the modification of these effects through therapy.

The second task is called "Mechanisms of Radiation Injury." The objective of this task is to identify and define the mechanisms by which radiation causes injury to man. In particular this program studies the physiological, biochemical, and pathological alterations and responses in various body systems, organs, tissues, and cells caused by lethal doses of ionizing radiation and chronic exposure to Electromagnetic Pulse (EMP) fields. In addition under this program, AFRRI develops, investigates, and evaluates drugs, biological materials and physical methods for presenting alleviating or modifying radiation effects on living systems.

Within these two task areas, AFRRI has ten subtasks. They are:

1. Biochemistry—which includes studies of biomedical changes in organ systems following injury.

2. Cellular and Subcellular Studies—which involves investigation and evaluation of the cell and cell membrane changes arising from injury.

3. Organ and System Response—which involves the study of changes in organ function following injury.

4. Behavioral Decrement and Incapacitation—which includes studies to define immediate, transient, and delayed incapacitation along with the amount and duration of performance capability, and the relationship of these parameters to total dose, dose rate, and radiation type and quality.

5. Physiological Mechanisms—which includes the determination of changes in the central nervous system and behavior or general response following exposure to ionizing radiation.

6. Evaluation and Therapy of Radiation Injury—which includes studies to improve both the diagnostic and therapeutic techniques in radiation injury cases.

7. Biophysics—which includes the determination of the biological response at the molecular level to ionizing radiation.

8. Radiological Physics—which includes the determination and the operation of the necessary radiation source fields for radiobiological investigations plus the necessary supporting work to determine actual radiation exposure. Associated with this is the requirement for complete and proper dosimetry techniques.

9. Nuclear Medicine and Radiopharmacy—which includes the development, testing and evaluation of radiopharmaceuticals and the evaluation of organ function following their usage.

10. Neurobiology—which includes the study of the biochemical and biophysical events occurring in the central nervous system of man and how these events are altered following stresses such as irradiation and traumatic injury, including head injury, so that combat casualties can be more accurately and quickly diagnosed and treated.

Chairman McCLELLAN. Proceed.

General JOHNSON. Since we are discussing here the budget for the next fiscal year, I will be even more specific on some of our most important objectives for the next year or two:

We will provide for hardness testing in underground tests.

We will try out, in prototype form, an innovative concept for certain underground effects testing which offers the possibility of very substantial cost savings in the future.

We will improve our understanding of the hazards associated with small tactical nuclear weapons.

We will determine the effects of underwater explosions on modern anti-submarine warfare equipment.

We will define the survivability of advanced reentry vehicle materials in penetrating the environments produced by nuclear detonations.

We will develop the capability to use remotely piloted vehicles in lieu of more expensive aircraft in gathering nuclear effects data.

We will bring on the line a new simulation facility (the CASINO concept) which will provide an electronics testing capability which now exists only in underground tests.

We will assess the utility of satellite communications systems and the Autovon system in nuclear war.

PROTOTYPE FORM

Chairman McCLELLAN. Explain in greater detail the new "prototype form" for underground testing?

General JOHNSON. As I mentioned earlier, HYBLA FAIR is a novel technique development test. It will reduce mining costs by shortening the pipe and increasing the taper or cone angle, so as to provide the same exposure conditions and area at 1/10 the distance, using a lower yield source. With a better definition of flow conditions inside the pipe, we may be able to do away with expensive closures for sample protection. Thus by validating the concept of a simpler and cheaper "prototype form", we hope to be able to reduce our turnaround time so that we can be more responsive to DDR&E and the services in testing new materials or weapons systems in advanced development.

SMALL TACTICAL NUCLEAR WEAPONS

Chairman McCLELLAN. What are the major hazards of small tactical nuclear weapons?

General Johnson. In our prepared statement we mentioned that one of our goals is to define the [deleted] associated with small tactical nuclear weapons. These weapons do not pose any unique hazards [deleted]. For low yield weapons the nuclear debris cloud will stabilize at altitudes where it may be scavenged by rain [deleted]. DNA is currently sponsoring investigations of rainout phenomenology. These efforts include:

(a) Review of nuclear debris data available from past U.S. tests.
(b) [Deleted.]
(c) [Deleted.]

RPV Replacements

Chairman McClellan. What aircraft are planned to gather Nuclear Weapons Effects data and how can RPV's replace them?

General Johnson. Remotely Piloted Vehicle (RPV) sampler capability is being developed to replace B–57 manned sampler aircraft. These aircraft were used in previous U.S. atmospheric nuclear tests programs to gather radioactive particle samples and have been maintained for readiness-to-test purposes. Maintenance of this manned aircraft capability has become prohibitively expensive due to advanced age of the aircraft. Sample instrumentation and equipment for use on RPV's are being jointly developed by the AEC and the Air Force in coordination with DNA to satisfy requirements of the National Nuclear Test Readiness Program (NNTRP). [Deleted.] Use of RPV's launched from a single surface data collection platform reduces the size and cost of our monitoring effort by alleviating the need for a second ship and manned helicopters. Techniques developed during RPV operations this summer will be extremely valuable for collection problems in the future.

CASINO Concept

Chairman McClellan. Describe in greater detail the CASINO concept.

General Johnson. CASINO is the name associated with a radiation effects simulator which is presently being constructed at White Oak, Maryland. It will have the capability of two simulation modes of operation, an electron beam mode for shock loading of RV, materials and structures, and a photon mode for producing X-rays for testing electronic pieceparts and subsystems of major strategic systems such as ABRES, TRIDENT, and FLTSATCOM. The spectrum and time history of the pulse is quite different from AURORA, which simulates gamma rays but not X-rays, and will permit greater versatility in testing. The operational date is expected to be third quarter FY 75 and will be operated for DNA by the Naval Ordnance Laboratory.

Chairman McClellan. Proceed.

General Johnson. We will provide the technology for the hardening of missile systems with minimum penalties on cost and performance, and in the near term will particularly emphasize full use of advanced, reliable low-power electronics.

We will update the National Nuclear Test Readiness Program to assure readiness to test in the atmosphere if the Limited Test Ban Treaty is abrogated by the Soviet—to bring the plan as closely into line with modern needs as possible while keeping it within dollars the country can afford.

To demonstrate that these goals are important and realistic, I would like to mention briefly a few of our recent successes. A singular accomplishment has been the monitoring of the French atmospheric nuclear tests in the South Pacific. While the United States government encourages all nations to adhere to the Limited Test Ban Treaty, France and the Peoples Republic of China are still testing in the atmosphere. Since the French tests are near international waters, several countries monitor the results of these tests.

French Nuclear Test Monitoring

Chairman McClellan. How are you able to monitor the French tests?

General Johnson. Monitoring is conducted using [deleted] ship and aircraft [deleted] operating outside the French-claimed territorial waters. These monitoring activities are overt and in consonance with restrictions of the Limited Test Ban Treaty. [Deleted.]

ABRES Program

Chairman McClellan: What is DNA's relationship with the ABRES program?

General Johnson: For a number of years DNA and ABRES have worked very closely together. Many of the ABRES advanced development programs either require hardening of the product hardware (e.g., advanced reentry vehicles) or derived their original justification largely because of weapon effects (e.g., penetration aids, fuzes for detonation at precise altitudes, maneuvering reentry vehicles). In the area of development of hardened reentry materials, DNA performs hardness evaluations, including laboratory and underground tests, jointly and concurrently with ABRES work on ablation and other performance parameters not connected with hardness. Results are correlated continually to provide guidance to the development programs. The same kind of relationship exists in the area of erosion resistant materials. DNA work on radiation hardening of electronics is constantly fed into ABRES work on guidance components for maneuvering vehicles.

In addition to the continual coordination, DNA participates in the formal semiannual ABRES review meetings conducted by DDR&E. The Assistant DDR&E for Offensive Systems on occasion calls meetings to review the combined DNA and ABRES efforts on programs of particular current importance.

Chairman McClellan. Proceed.

General Johnson. Along completely different lines, we have fabricated heatshields of new "carbon-carbon" materials for missile reentry vehicles. Both these efforts have been carried out in the closest cooperation with the Advanced Ballistic Reentry Systems (ABRES) Program.

We have successfully accomplished the first phase of simulation testing of the effects of low yield Atomic Demolition Munitions. The same basic idea is being applied to simulated effects of much larger nuclear explosions on ground installations.

Nature is helping us even more directly by providing in the Aurora Borealis some low levels of phenomena which are close to the radar blackout and infrared effects of high altitude nuclear detonations. We are obtaining extremely useful data by launching instrumented rockets from Alaska.

In the past twelve months we have carried out two underground nuclear effects tests at the Nevada Test Site. These tests were accomplished both with a degree of technical success and of adherence to schedules and budgets which would have been impossible even a few years ago. We have many reasons to believe that the very complex technical problems of underground effects testing are being solved. This is particularly significant in view of the continually escalating labor costs of large scale underground tests.

Atomic Demolition Munitions

Chairman McClellan. What are Atomic Demolition Munitions?

General Johnson. Atomic demolition munitions are low yield nuclear weapons which would be used by the Army Corps of Engineers in the field for such tasks as destroying dams and tunnels or to create obstacle craters in mountain passes and rough terrain.

Chairman McClellan. Proceed.

General Johnson. Mr. Chairman, I will now put the DNA R&D program in terms of our budget request. Chart No. 2 shows a breakdown of this request with prior years for comparison.

Chart No. 2.—*Defense Nuclear Agency, R.D.T. & E. Program*

Fiscal year:	*Millions*
1973	$123.5
1974	117.5
1975	123.0

NUCLEAR WEAPONS EFFECTS DEVELOPMENT (NWED)

Aerospace Systems Vulnerability and Hardening.
Effects Assessment and Publications.
Electromagnetic Pulse (EMP) Effects.
High Altitude Phenomenology and Applications.

Laboratory Radiation Simulator Development.
Biomedical Effects Research.
Tactical Systems Vulnerability and Hardening.
Radiation Physics Research and Applications.
Strategic Structures Vulnerability and Hardening.
Transient Radiation Effects on Electronics (TREE).

NUCLEAR WEAPONS EFFECTS TEST (NWET)

Underground Nuclear Tests.
Tests in Other Environments.
Non-Nuclear Tests.

It shows a 4.7 percent increase from FY 74, but is actually slightly less than that spent in FY 73. The program is divided into project areas as indicated. I have discussed examples of long and short range goals and recent accomplishments for many of them.

There will be a $9.4 million increase in underground test costs arising from the scheduled testing of weapon systems before they go into full production.

A $6 million reduction in Tests-in-Other Environments will occur due to the scale down of monitoring of foreign atmospheric tests. A nearly $3 million increase in Laboratory Radiation Simulation Development is for increased efforts toward the development of [deleted]. There is a $2 million increase in Tactical Systems Vulnerability and Hardening to develop better methods for predicting the damage to land-based military systems in the tactical nuclear warfare environment and to provide greater military utility with minimum collateral damage.

Mr. Chairman, this completes my prepared statement. I will answer any questions you may have.

QUESTIONS SUBMITTED BY SENATOR THURMOND

Chairman McCLELLAN. The following questions by Senator Thurmond who is unable to be here will be inserted in the record at this point.

[The questions and answers follow:]

Senator THURMOND. What would be some of the chief problems if nuclear arms would become available to nations other than those currently in possession of this capability?

General JOHNSON. Mr. Senator, I would be going well beyond my charter if I attempted to answer that question, may I suggest it be addressed to the Secretary of Defense and/or the Joint Chiefs of Staff?

Senator THURMOND. Do you or anyone in your agency know of any violations of the nuclear agreements?

General JOHNSON [Deleted.] May I respectfully recommend the question be addressed to the Director, Defense Intelligence Agency for a more complete response?

Senator THURMOND. Do we have nuclear weapons of any description located in countries with which there is no agreement for their use?

General JOHNSON. Senator, the deployment of U.S. nuclear weapons within and outside of the continental United States is in accordance with a Secretary of Defense Plan, developed with the advice of the Joint Chiefs of Staff, coordinated with the Secretary of State, and authorized by the President. DNA merely monitors the conduct of this plan on behalf of the DOD/JCS. If you should desire, the International Affairs Personnel in the Departments of Defense and State can furnish details on the international agreements.

Senator THURMOND. What Defense problems have resulted as an outgrowth of our nuclear test ban agreements?

General JOHNSON. There are weapons effects problems, such as electromagnetic pulse degradation of command, control, and communications systems and the blackout of radar and communications systems which cannot be adequately addressed, or addressed at all, in underground or simulation tests. Solution or attempted solution of these problems relies heavily on a combination of theory and extrapolation of very limited test data. Uncertainties and some lack of credibility in solutions forces conservative estimates of adverse nuclear effects and

resultant additional system costs to minimize these effects. In addition, the lack of a capability to test a system or significant portions thereof in a real nuclear environment results in a nagging worry that some unsuspected effect will lead to a significant but unknown vulnerability.

However, because there was time in the five years following the last atmospheric tests in 1962 for a considered approach, it was possible to solve the problems of reentry vehicle and electronic component vulnerabilities through the underground test program and the development—and use—of simulation facilities. Indeed, these particular problems were better solved without atmospheric tests because of the better controls in underground and simulation tests. It is doubtful also that the dollar costs have been greater than those incurred in the absence of nuclear tests ban agreements.

Chairman McCLELLAN. Are there classified portions?

General JOHNSON. There are parts that are classified, sir.

Chairman McCLELLAN. That will be respected. You may proceed.

General JOHNSON. I would like to introduce Dr. Rosengren who is my scientific deputy; my comptroller, Mr. Plough; and my budget officer, Mr. Carew.

I would like to state the major purpose of the Defense Nuclear Agency and then go into some of the aspects of our budget and personnel.

Chairman McCLELLAN. Your statement is in the record. Just highlight it.

General JOHNSON. The main thing we must accomplish is to determine the effect of nuclear weapons on all weapons systems so we can assure our forces can operate under nuclear attack. We provide consolidated management of the nuclear stockpile to insure the accountability, the storage, maintenance and security, the safety and the inspection of those assets.

We maintain a national nuclear test readiness program which assures we can return promptly to testing in the now prohibited environment in the event the treaty were to be abrogated by the Soviet Union. This is one of the safeguards the Senate asked to be built in when they ratified that treaty.

Our direct costs less our military construction is up $7.5 million this year over last year. O. & M. is up approximately $2 million. That, sir, is the principal increase which includes funding for operations at Eniwetok Atoll for which we were not responsible last year. That is $888,000. An additional slight increase for price escalation for support of Johnston Island; increased fuel cost. We burn that to create our electricity out there. And first-time GSA user charges which you heard earlier today for rental of a building we occupy here in Washington.

Chairman McCLELLAN. How much do you pay for that?

General JOHNSON. $555,000. We have a very small increase also in procurement, up $95,000. This is to purchase vehicles and some handling equipment that we have been deferring in previous years. R.D.T. & E. costs are up $5.5 million, and that is involved mainly in an increase in underground test costs. [Deleted.]

Also within the $5.5 million increase, we have a $3 million increase in laboratory simulation, radiation simulation. Part of this is an effort to develop [deleted]; also a $2 million increase in tactical systems vulnerability so we can develop better methods to predict damage to land-based military systems in the tactical nuclear environment and to provide greater military utility with lesser collateral damage.

I won't go further into detail in those R.D.T.&E. costs. They are in the record.

Chairman McClellan. What is the total increase?

General Johnson. $7.5 million, sir. Now, in terms of total personnel. The figures will show that we are actually up 102 over last year. Of these, 34 have to do really with the job that we are charged with at Eniwetok. We are charged with the cleanup of radioactive residual left there from testing of nuclear weapons in the atmosphere through the late 1950's. We picked up the responsibility for Eniwetok on the 1st of January 1974, for maintaining it until we do get into the cleanup phase.

The funds were transferred from the Air Force in fiscal year 1974. This year we will pick up the responsibility for that funding for the first time.

I should point out that the remaining 68 authorizations that show in our budget submission as an increase are the residual of a larger military reduction levied last year which has not yet been taken out of the President's budget. They will be out. We will not man those 68 spaces, although the data that I submitted as backup material did have them in.

That covers the salient features of my budget submission.

Chairman McClellan. Senator Young.

Senator Young. How much is the increase for pay increase?

General Johnson. There is an increase for pay. Can I ask my comptroller to cover that?

Mr. Plough. $87,000 O. & M. and about $35,000 R.D.T.&E.

Senator Young. That is all the pay increases?

Mr. Plough. Yes, sir.

Chairman McClellan. Thank you very much.

JUSTIFICATION

At this point in the record there will appear certain information from the justifications.

[The information follows:]

Justification

DEPARTMENT OF DEFENSE
APPROPRIATION: OPERATION AND MAINTENANCE, DEFENSE AGENCIES, FY 1975

Budget Activity: Intelligence and Communications

Budget Subactivity: Defense Nuclear Agency

Statement of Purpose and Scope

The mission of the Defense Nuclear Agency is to provide support to the Secretary of Defense, the Joint Chiefs of Staff, and other DOD components, as appropriate, in matters concerning nuclear weapons and such other aspects of the Department of Defense nuclear program as may be directed.

Responsibilities assigned to the Defense Nuclear Agency are as follows:

- Consolidated management of the DOD nuclear weapons stockpile in accordance with the assigned functions.
- Management of DOD nuclear weapons testing and nuclear weapons effects research programs.
- Provision of staff advice and assistance on nuclear weapons matters within its cognizance to the Secretary of Defense, the Military Departments, the Joint Chiefs of Staff, other DOD components, and government agencies, as appropriate and when requested.

This program provides for the day-to-day expenses of operating and maintaining the DNA, Washington Headquarters, the DNA Field Command at Albuquerque, New Mexico, management of Johnston Atoll and on-going operations at Eniwetok Atoll pending cleanup project activities. Pay and allowances for the military personnel assigned to the Defense Nuclear Agency are not included in the estimate for this appropriation, but are provided in the military personnel appropriations.

DEFENSE NUCLEAR AGENCY
Summary of Resources

	FY 1973	FY 1974	FY 1975
A. Obligations ($ thousands)			
Direct	10,960	19,297	21,266
Reimbursable	28	830	830
Total	10,988	20,127	22,096

	FY 1973		FY 1974		FY 1975	
	End Strength	Man Years	End Strength	Man Years	End Strength	Man Years
B. Personnel						
Civilian	458	436	492	472	492	473
Military	453	469	391	485	488	484
Total	911	905	883	957	980	957

DEFENSE NUCLEAR AGENCY
Summary by Program Element

	FY 1973	FY 1974	FY 1975
A. Obligations by Program Element			
Direct:			
1. Nuclear Weapons Operations	10,410	18,804	20,785
3. Counterintelligence and Investigative Activities	23	22	21
5. Nuclear Weapons Operations, Communications	464	400	386
6. Public Affairs	63	71	74
Subtotal, Direct	10,960	19,297	21,266
Reimbursable	28	830	830
Total	10,988	20,127	22,096

	FY 1973			FY 1974			FY 1975		
	Civ	Mil	Total	Civ	Mil	Total	Civ	Mil	Total
B. Personnel End Strength by Program Element									
1. Nuclear Weapons Operations	454	411	865	488	359	847	488	455	943
3. Counterintelligence and Investigative	-	25	25	-	16	16	-	16	16
5. Nuclear Weapons Operations, Communciations	-	15	15	-	15	15	-	15	15
6. Public Affairs	4	2	6	4	1	5	4	2	6
Total	458	453	911	492	391	883	492	488	980
C. Personnel Manyears by Program Element									
1. Nuclear Weapons Operations	432	423	855	468	447	915	469	451	920
3. Counterintelligence and Investigative Activities	-	28	28	-	21	21	-	16	16
5. Nuclear Weapons Operations, Communications	-	16	16	-	15	15	-	15	15
6. Public Affairs	4	2	6	4	2	6	4	2	6
Total	436	469	905	472	485	957	473	484	957

DEFENSE NUCLEAR AGENCY
Summary of Increases and Decreases
($ thousands)

	NUC WPNS OPNS	C&IA	NUC WPNS OPNS COMMUNICATIONS	PUBLIC AFFAIRS	TOTAL
FY 1974	18,804	22	400	71	19,297
1. Increases					
A. Civilian Pay Raises	+83			+4	+87
B. Eniwetok On-Going Operations	+888				+888
C. Johnston Atoll	+600				+600
D. GSA User Charges	+555				+555
E. Tenant Support	+54				+54
Total Increases	+2,180	-	-	+4	+2,184
2. Decreases					
A. Communications	-72		-14		-86
B. Travel	-127	-1		-1	-129
Total Decreases	-191	-1	-14	-1	-215
FY 1975	20,785	21	386	74	21,266

EXPLANATION OF INCREASES AND DECREASES

The increase between FY 1974 and FY 1975 of $2,184,000 will provide for the annualization of the October 1974 classified pay raise; initial funding for the on-going operations at Eniwetok Atoll; price escalation of fuel, subsistance, transportation, and labor costs at Johnston Atoll; first time user charges assessed by General Services Administration for DNA headquarters building in Alexandria, Va. and increased reimbursement to USAF for support provided DNA Field activities at Kirtland AFB, New Mexico.

The decrease of $215,000 between FY 1974 and FY 1975 covers lower postage and AUTODIN charges and a reduction in travel in consonance with the President's energy conservation program.

DEFENSE NUCLEAR AGENCY

Summary by Element of Expense
(Dollars in Thousands)

Expense Element	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Civilian Personnel	6,283	7,001	7,189
Travel of Personnel	821	835	706
Transportation of Things	60	28	68
Utilities and Rents	66	85	73
Communications	644	592	506
Purchased Equipment Maintenance (Intra-DOD)	4	4	4
Purchased Equipment Maintenance (Commercial)	172	217	216
Printing and Reproduction	3	5	5
Other Purchased Services	2,554	10,197	11,920
Other Supplies	247	265	534
Equipment	106	68	45
Subtotal Direct Obligation	10,960	19,297	21,266
Reimbursable	28	830	830
Total Obligations	10,988	20,127	22,096

DEFENSE NUCLEAR AGENCY
Summary of Civilian Personnel by Grade

Civilian Personnel Category	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
General Schedule Grades			
GS-18	-	-	-
GS-17	3	3	3
GS-16	6	6	6
GS-15	9	10	10
GS-14	15	14	14
GS-13	23	25	25
GS-12	35	37	37
GS-11	33	34	34
GS-10	6	6	6
GS-9	46	47	47
GS-8	3	5	5
GS-7	78	72	72
GS-6	34	27	27
GS-5	64	62	62
GS-4	56	59	59
GS-3	17	25	25
GS-2	5	5	5
GS-1	-	-	-
Subtotal, General Schedule	433	437	437
Grades established by SecDef (10 U.S.C. 1581)	3	3	3
Ungraded positions	32	32	32
Total, permanent positions	468	472	472
Unfilled positions, June 30	-27	-	-
Total permanent employment, end of year	441	472	472
Temporary part-time and intermittent employees	17	20	20
Total employment, end of year	458	492	492

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DEFENSE NUCLEAR AGENCY
Summary of Military Personnel by Rank

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Military Personnel			
Officers:			
Lt. Gen/Vice Adm.	1	1	1
Maj. Gen/Rear Adm. (upper half)	2	2	2
Brig. Gen./Rear Adm. (lower half)	-	-	-
Colonel/Captain	25	21	27
Lt. Col./Commander	82	61	74
Major/Lt. Commander	100	80	101
Captain/Lieutenant	35	32	41
1st Lieutenant/Lieutenant JG	1	2	3
2nd Lieutenant/Ensign	-	-	-
Warrant Officer	10	9	11
Subtotal, Officers	256	208	260
Enlisted Personnel:	209	183	228
Total positions	465	391	488
Unfilled positions, June 30	-12	-	-
Total employment, end of year	453	391	488

PREPARED STATEMENT

Chairman McCLELLAN. Mr. Lynn, we will place your prepared statement in the record at this point and you may proceed as you wish.

(The statement follows:)

Mr. Chairman and Members of the Committee:

I appreciate the opportunity to appear before this Committee in support of the Agency's appropriation request for fiscal year 1975. The manpower and funds requested in the budget before you are at an austere level. However, we believe that with the manning level included in the budget we will be able to do the Agency's highest priority work in an effective and timely manner.

AGENCY MISSION

The mission of the Defense Contract Audit Agency (DCAA) is to provide financial assistance to Department of Defense (DoD) procurement authorities in achieving sound contract pricing by (i) evaluating the reasonableness and allowability of cost and pricing data submitted for proposed contracts, (ii) verifying the propriety and acceptability of the costs charged or allocated to flexibly-priced Government contracts, and (iii) deterring inefficient practices by contractors which, if not detected and corrected, would lead to excessive costs and contract prices.

WORK FOR OTHER AGENCIES

We also provide contract audit services to about 25 other Federal agencies at those contractor locations where the Department of Defense has a continuing audit interest, or where it is economical from a Government-wide point of view. The principal non-Defense agencies for which we provide audit services are: The National Aeronautics and Space Administration, the Atomic Energy Commission, the Department of Health,

Education and Welfare, and the Department of Transportation. This work is done on a reimbursable basis and our fiscal year 1975 earnings are estimated to be $7.9 million.

SAVINGS ACCOMPLISHED

In previous years the committee has been interested in the net savings resulting from our audit efforts. For fiscal year 1973 it cost $67 million to do our work, including reimbursement earnings of $7.6 million, and we achieved savings to the Government of $682 million. Thus the return on the taxpayer's investment in DCAA amounted to approximately $10 in hard-core savings for each dollar we spent. By hard-core savings, I mean only those actual savings which were specifically identified and reported to us in contract pricing negotiation memorandums.

There are numerous instances where we have recommended that contractors avoid the incurrence of costs by eliminating inefficient or wasteful practices. This preventive type of audit approach, and our surveillance at contractor locations, have resulted in further savings to both the contractor and the Government through contractors' cost avoidance actions. Although it is difficult to compute the exact dollar impact of these additional savings, we know that they are substantial.

REVISED FISCAL YEAR 1974 BUDGET ESTIMATE

For fiscal year 1974, $57.2 million were appropriated for DCAA. A supplemental appropriation request of $5.5 million, covering primarily the January and October 1973 civilian pay increases, has been submitted to the Congress. Therefore, our revised estimate for 1974 is $62.7 million.

FISCAL YEAR 1975 BUDGET SUMMARY

A total of $66.3 million is requested for fiscal year 1975, a net increase of $3.6 from the 1974 funding level.

The most significant item in this increase is the $1.2 million which is required to be paid to the General Services Administration (GSA) Federal Buildings Fund, for the first time in fiscal year 1975, under the provisions of PL 92-313. This law requires that all Federal agencies occupying either GSA-owned or GSA-leased space pay to GSA the rental equivalents for space, and reimbursement for services provided. The other increases are $676,000 for annualization of the October 1973 pay increases, $614,000 to support 33 man-years for new Cost Accounting Standards workload, $529,000 for within-grade step increases, $268,000 for the additional paid day in fiscal year 1975, and other adjustments esulting in a net increase of $263,000.

WORKLOAD TRENDS

Contract audit workload is generated essentially by requests from contracting officers and other Government procurement and contract administration officials. There are many factors which affect the number of audit personnel required to respond to these requests, some of which do not have an immediate or direct correlation with the trends in procurement spending. One significant factor is the increasing interest which procurement authorities have expressed in special financial advice on the progress and future contract costs of major weapons systems. Other factors to be considered are (i) the types of contracts awarded by DoD and (ii) the time lag required for changes in the procurement level to affect the annual expenditures under Government contracts and our related audit responsibility.

During fiscal year 1973 our Agency audited $21 billion in costs incurred under 42,000 contracts. We reviewed 20,000 pricing proposals

with a dollar volume of $53 billion, a total of $74 billion for both of our major responsibilities. This work plus effort on Defective Pricing, Cost Accounting Standards, and other requested audits required the issuance of about 50,000 reports.

We estimate that we will examine $76 billion in fiscal year 1974, an increase of $2 billion from fiscal year 1973, and expect to maintain the same level in fiscal year 1975. Additional workload and performance data are set forth in Exhibit I. As to future years, the increase of $2.2 billion in the fiscal year 1975 President's Budget for Procurement and Research and Development, will, if approved by Congress, further increase the demands on our audit resources.

EMPLOYMENT LEVELS

The Agency operates with lean staffing considering the scope and complexity of our mission. Our authorized strength has been reduced from 4,120 in 1968 to 3,614 in 1974, an overall decrease of 506 positions, or 12%. During this same period our Headquarters authorized strength was reduced from 167 to 137, or 18%. With this reduced staffing, DCAA is unable to absorb the consistently increasing workload relating to Cost Accounting Standards without a modest increase in our field staffing. I would now like to discuss our work in the area of Cost Accounting Standards.

COST ACCOUNTING STANDARDS WORKLOAD (PL 91-379)

The Cost Accounting Standards Board was established by PL 91-379. The Board's initial promulgations resulted in four new audit responsibilities for DCAA:

1. Review of Contractor Disclosure Statements to ascertain if they adequately describe the contractor's accounting practices.

2. Evaluation of these described practices to assure that they comply with Cost Accounting Standards, rules and regulations.

3. Maintain surveillance over the actual price estimating, cost recording and reporting, to ascertain that these practices are in accordance with Cost Accounting Standards and the contractor's Disclosure Statement.

4. Evaluation of all contract Price Adjustment proposals submitted under the Cost Accounting Standards Clause.

Under the provisions of PL 91-379, some 4,000 defense prime and subcontractors may be required to file Disclosure Statements. The Board established an initial threshold of $30 million which generated approximately 1,000 Statements. Effective 1 April 1974, the Board lowered the threshold to $10 million and this regulation will result in the submission of about 500 additional Statements, most of which we will need to review for adequacy and compliance in FY 1975. At this time we do not have any information as to the dates on which the threshold will be lowered further and cannot estimate our future workload in this area for the out years.

The law requires that all covered contractors must comply with the Cost Accounting Standards. It is expected that at least nine standards will be applicable to Government procurement actions during fiscal year 1975. Each new standard generates increased workload to (i) review amendments to Disclosure Statements previously evaluated; (ii) determine whether contractors are complying with the standards; and (iii) assist contracting officers in determining price adjustments resulting from accounting changes or contractor noncompliance with the Standards.

Over the next few years, many new standards are expected to be issued which will affect the approximately 40,000 contracts and the 20,000 proposals which we audit annually. Since the law was implemented, DCAA has continually strived to absorb this work within the resources provided. However, this new workload is of such magnitude that additional resources must be provided if we are to carry out our responsibilities under the law. Therefore, our fiscal year 1975 budget reflects an increase of 33 man-years and $614,000 for the additional resources required.

THE TRUTH IN NEGOTIATIONS ACT - PL 87-653

Another area of Congressional interest is PL 87-653, The Truth in Negotiations Act, which requires the postaward review of selected negotiated contracts to determine whether the cost or pricing data submitted by contractors were accurate, complete and current as of the time of the negotiation.

As of 31 December 1973, we had completed 8,600 reviews, with indications of data deficiencies in 1,225 instances, and with recommended price adjustments of $338 million. Contracting officers have reported that they have settled $178 million of our recommended price adjustments and have negotiated price reductions resulting in savings to the Government of $38 million. Applying this savings rate to the total price adjustments we recommended, savings to the Government would approximate $72 million.

Since we have found postaward reviews to be cost effective, we consider this work to be worthwhile, not only in savings to the Government but even more so because of its influence on contractors to exercise greater care in preparation of price proposals.

SOUTHEAST ASIA-VIETNAM

As I mentioned to the Congress last year, we anticipated that our workforce in Vietnam would be completely phased out in the near future. The request for contract audit services in Vietnam did not decline as rapidly as we had anticipated; however, we were able to reduce the number of U.S. contract auditors in that country to six. It is now evident that there will be continuing need for a small number of contract auditors in Vietnam through fiscal year 1975.

PERSONNEL RECRUITMENT AND DEVELOPMENT

Since qualified auditor personnel continue to be in short supply, and our entrance salaries still lag behind those offered by industry and the accounting profession, DCAA maintains an active and carefully planned recruitment, training and development program in the effort to meet our current and future staffing needs.

The best college graduates with an accounting major we can get are employed as junior auditors. Through self-study courses, formal classroom training, and planned rotational job assignments, auditors are qualified for progressively more complex and responsible audit work. Training and development activities are carefully monitored in our Headquarters. Specialized technical training courses are conducted at the Defense Contract Audit Institute, located in Memphis, Tennessee. These courses, which are tailored to the needs of contract auditors, are augmented by supervisory and managerial training given by universities and other Government agencies. Self-development, such as preparing for the CPA examination, is encouraged and several hundred members of our staff are Certified Public Accountants. Employees having the highest potential for assuming top executive responsibilities are provided specific developmental assignments and training in a

planned effort to prepare them for positions in the executive and super-grade ranks.

In summary, our recruitment, training and development program is on a comprehensive, balanced, long-range basis and is considered to be on a par with the best practices of commercial companies and public accounting firms.

Mr. Chairman, this concludes my prepared statement. I will be pleased to try to answer questions which you and members of your Committee may have.

DEFENSE CONTRACT AUDIT AGENCY

COMPARATIVE AUDIT WORKLOAD AND PERFORMANCE DATA
($ in Millions)

Contractors/Contracts/Proposals	FY 1973	Estimated Input FY 1974	Estimated Input FY 1975
Number of Contractors (See Note)	3,421	5,900	5,900
Number of Auditable Contracts:			
Completed during the year	9,900	10,000	10,000
In inventory at the end of the year	42,496	44,000	44,000
Number of pricing proposals completed	20,098	20,000	20,000
Dollars Examined			
Value of Pricing Proposals Completed	$53,200	$54,000	$54,000
Incurred Costs Examined	$21,000	$22,000	$22,000
Total Dollars Examined	$74,200	$76,000	$76,000

NOTE: In FY 1974, we revised our method of reporting the number of contractors to include those contractor locations where various other types of audit activity necessitate our review of the contractors operations. In addition to the review of incurred costs the additional locations result from such audits as forward pricing evaluations, progress payment reviews, cost accounting standards (PL 91-379), defective pricing (PL 87-653) and other audit requests from procurement activities.

Defense Contract Audit Agency

STATEMENT OF BERNARD B. LYNN, DIRECTOR, DEFENSE CONTRACT AUDIT AGENCY

ACCOMPANIED BY:
FREDERICK NEUMAN, DEPUTY DIRECTOR
HARRY W. KETTLES, DEPUTY FOR RESOURCES MANAGEMENT
MICHAEL J. FRANCONE, DEPUTY FOR AUDIT MANAGEMENT
CHARLES O. STARRETT, JR., ASSISTANT DEPUTY FOR AUDIT MANAGEMENT

GENERAL STATEMENT

Chairman McClellan. Next we have Mr. Lynn, Defense Contract Audit Agency.

Mr. Lynn. Thank you. Our presentation concerns a more mundane type of mission than some of those you have been hearing today. Our job is to perform contract audits. And in the past this committee has been interested in what we do for the Government, and what are the savings as a result of our audits.

SAVING ACCOMPLISHED THROUGH DCAA AUDITS

For the last fiscal year in which we have complete data, Chairman McClellan, it cost us $67 million to do our work, and we achieved savings to the Government of $682 million, which represents $10 in hard core savings for each $1 we spent.

Chairman McClellan. You said you had $67 million last year?

Mr. Lynn. For fiscal year 1973, it cost $67 million to do our work.

Chairman McClellan. What are you referring to?

Mr. Lynn. There is $59 million appropriated by the Department of Defense. We also do reimbursable work approximating $8 million for some 25 other departments and agencies.

DCAA AUDITS FOR NONDEFENSE AGENCIES

For example, we do all of the contract audit work for NASA, we do some of the work for AEC, Transportation, and so on.

BILLING OF NONDEFENSE AGENCIES

Chairman McClellan. How does your Agency determine how much to bill nondefense agencies for your work? Are only direct costs included, or are salaries and military personnel costs also considered?

Mr. Lynn. Chairman McClellan, the amount we bill nondefense agencies is based on the number of hours required by our people to perform the requested audit work, priced at the current reimbursable

billing rate of $14.50 per direct audit hour. This rate is derived from an estimate of the average salary and benefits of the auditors, who are all civilians, plus an allocable share of other support costs, which would include such items as management supervision, secretarial support, and the travel costs incurred by the auditors.

Our estimated reimbursable billing rate is then submitted to the Assistant Secretary of Defense (Installations and Logistics) who negotiates the final billing rate with the National Aeronautics and Space Administration, with whom an overall agreement is reached and concurred in by the other non-DoD agencies.

PREVENTATIVE AUDITING—COST AVOIDANCE

Chairman McClellan. Provide examples of cases where, by eliminating inefficient or wasteful practices, you have recommended contractors avoid the incurrence of costs.

Mr. Lynn. Our emphasis on cost avoidance and cost prevention in the review of Defense contractor practices, Chairman McClellan, covers a rather wide gamut of functions including the manner in which labor and facilities resources are utilized, opportunities for improvements in management of computer systems, and so on. As examples of this type of effort, I'd like to briefly cover the results of our activities in the areas of production control, purchasing, and manning requirements.

PRODUCTION CONTROL ORGANIZATION

Our auditor's analysis of the production control functions at a large defense contractor indicated that some of the personnel and/or departments overlapped or were duplicative and that other functions performed were not commensurate with the cost benefits derived. For example, the contractor had four different organizational elements responsible for various aspects of production control. The auditor found that duplicative budgetary tracking data were being compiled by two of the four organizations; coordinating, expediting, and routing functions were being performed by three of the organizations; and the frequency of certain meetings and reports were not affording justifiable cost control benefits. Based on our recommendations, the contractor took aggressive action by centralizing the production control organizations and consolidating, or eliminating a number of functions. The action resulted in a staff reduction of 44 indirect employees at an estimated annual savings in labor and related cost of $820,000.

PURCHASING

At another location, involving ordnance production, it was the contractor's practice to procure and control direct material on an individual job basis without regard to common activities under other work; this generated excessive costs for both material and related processing and control labor. At our suggestion, the contractor revised his procedures and established a "Common Parts Inventory System." The new system provides for centralized procurement of common parts in more economical lots and for a common inventory control which resulted in low labor costs. Estimated annual savings to the Government are about $253,000.

MANNING REQUIREMENTS

A final example. After a major Government program had been curtailed, our auditor observed that tool planners were involved in a considerable amount of nonproductive time. Extensive effort was being devoted to master tape changes. We found that economic feasibility analyses were not being performed by the contractor to ascertain if resulting benefits would offset the costs incurred by the numerical control programmers in making the master tape changes. Furthermore, contractor management was not reviewing manning requirements under the current operating conditions. Based on our recommendations and the contractor's further study of this area, positive action was taken to revise manning requirements; a reduction of 15 personnel was effected resulting in an annual net savings of $154,000.

DCAA–GAO COORDINATION OF EFFORTS

Senator YOUNG. Does General Accounting Office work with you on any of their investigations?

Mr. LYNN. There is pretty good coordination between the General Accounting Office and the Defense Contract Audit Agency. We do not work together as such. We audit pricing proposals as they are submitted by contractors. We audit costs incurred as the costs are being incurred. The General Accounting Office is more likely to come in after the fact, on their own initiative or at the request of a congressional committee or individual Congressman, to check on something in the Defense Department and elsewhere; and while they are examining books and records of the Department of Defense and the contractor, they may refer to work which we already have done.

Senator YOUNG. They also go over into policy matters sometimes, too.

Mr. LYNN. That is right. They examine everything including policy, the efficiency of operations, and our work.

Chairman MCCLELLAN. Please continue.

Mr. LYNN. We expect that next year our audit workload will increase by about $2 billion. And we expect to be able to do this work within the resources we have by increased efficiency. However, we are asking for some additional money which I would now like to briefly discuss.

INCREASE OVER PRIOR FISCAL YEAR BUDGET

After considering the request for the supplemental appropriations that are still before the Congress, we are asking for a net increase of $3.6 million. The major portion of that is an item that you have heard several times before from other witnesses. This is the rent we shall need to pay to the General Services Administration.

Chairman MCCLELLAN. How much?

Mr. LYNN. $1.2 million. Now, there is also an increase of $676,000 for annualization of the October 1973 pay increase.

Chairman MCCLELLAN. That much increase?

Mr. LYNN. Yes, sir.

COST ACCOUNTING STANDARDS—PUBLIC LAW 91–379

The major point that I would like to mention to you is the $614,000 which we are asking to support 33 additional man-years that we need to have for work in connection with new requirements under Public Law 91–379, the Cost Accounting Standards Act. We went in for this 33 man-years last year. It was not denied as such, but somehow the 33 man-years fell out. I guess it was the view of Congress that we should make do with what we had.

And we tried to do it. It is our judgment that we cannot absorb this in fiscal year 1975.

Chairman McClellan. How many new people does this $614,000 provide for?

Mr. Lynn. For 33, sir.

Chairman McClellan. Averaging over $20,000 a year?

Mr. Kettles. Our average man-year cost runs just about that, for our professional auditors.

REDUCTION IN DCAA STAFFING LEVEL

Mr. Lynn. We have reduced our staff over the last 5 years or so by some 500, or about 12 percent. We have reduced our headquarters strength by some 18 percent. We believe that this is about as far as we can go without actually hurting the mission that we have to do.

NEED FOR ADDITIONAL RESOURCES

As I mentioned earlier, Chairman McClellan, in view of the fact that our work continues to be cost productive, the savings of $10 we achieve for each dollar appropriated to us, we suggest that this 33 man-years and the $614,000 needed to finance it would be appropriate.

Chairman McClellan. Do you think you can continue to produce that much savings for every dollar appropriated to you?

Mr. Lynn. Yes, sir. We do not develop the data on a day-by-day basis, but we did check with our field offices. The best information we have, sir, is that next year we will meet or exceed the present $10.

Chairman McClellan. Increasing your appropriations would not necessarily mean any increase in savings, would it, except in a particular area, much as the 33 additional auditors?

Mr. Lynn. To the extent that we have been averaging $10 return for each dollar we spend, in our judgment, adding $614,000—although I could not promise it exactly—on an average——

Chairman McClellan. That is an area where you need it. You discover that and you think it will be as productive as what you are presently auditing?

Mr. Lynn. That is right, sir. These are the major items that I wished to discuss with you unless you had any further questions.

Chairman McClellan. You lack $1 million to cover this increase. You have about $2½ million here.

COST OF WITHIN-GRADE STEP INCREASES

Mr. Lynn. There is also $529,000 for within-grade step increases.

Chairman McClellan. Increases in pay. You have pay increases there already.

Mr. LYNN. No, sir. This is the type of item, I believe, Secretary Cooke referred to in his presentation—a Grade 11, for example, after a year in grade, is entitled to a within-grade step increase.

Chairman MCCLELLAN. Grade increase. Is that what you are talking about?

Mr. LYNN. Yes, sir. That is $529,000.

Chairman MCCLELLAN. But that is a part of the total increase in pay.

Mr. LYNN. That is right, sir.

Chairman MCCLELLAN. Proceed.

ADDITIONAL PAID DAY

Mr. LYNN. There is also $268,000 for an odd sort of thing. It appears there is an additional paid day in fiscal year 1975 over fiscal year 1974.

Chairman MCCLELLAN. One day is going to cost $268,000?

Mr. KETTLES. Yes, sir, this covers the total cost of operating an agency of some 3,500 employees for 1 day.

Chairman MCCLELLAN. That is not overtime or double time?

Mr. KETTLES. No, sir, there are 261 workdays in fiscal year 1975.

Chairman MCCLELLAN. One day extra will cost you $268,000.

Mr. KETTLES. Yes, sir. It is the way the calendar falls in relation to the total number of days. The lowest number of days we have is 260 workdays or 2,080 hours. That is the minimum you can have in a Government pay year. But you can have an additional 1 day, depending on the calendar, and in every third year you can have 2 days.

Chairman MCCLELLAN. And the fourth year?

Mr. KETTLES. The fourth year we bounce back to the 260 workdays.

Chairman MCCLELLAN. Anything further you want to submit?

Mr. LYNN. No, sir.

Chairman MCCLELLAN. Thank you very much.

JUSTIFICATION

At this point in the record, there will appear certain information from the justifications.

[The information follows:]

Justification

DEPARTMENT OF DEFENSE

APPROPRIATION: Operation and Maintenance, Defense Agencies, FY 1975

Budget Activity: Administration and Associated Activities Budget Subactivity: Defense Contract Audit Agency

Statement of Purpose and Scope

This Agency falls within Budget Activity 9 "Administration and Associated Activities." The FY 1975 estimate provides the funds required to finance the operation of the DCAA Headquarters staff and the contract audit activities of the seven regions which have been established to carry out the missions and functions of the Agency.

The purpose of contract auditing is to assist in achieving the objectives of prudent contracting by providing those responsible for procurement and contract administration with financial information and advice on proposed or existing contracts and contractors. The audit service of the Defense Contract Audit Agency is utilized by procurement and contract administration activities in connection with the negotiation, administration, and settlement of contract payments or prices which are based on cost (incurred or estimated) or on cost analysis.

The Agency is also responsible for providing contract audit service to other Government agencies. The National Aeronautics and Space Administration uses many of the contractors who also provide service and equipment to the Department of Defense. There are resident audit offices in many of these contractors' plants, and DCAA has been authorized to provide contract audit service to the Space Agency at the same level as it provides such service to the Department of Defense. Similarly, DCAA audits contracts and grants for the Department of Health, Education and Welfare. The Agency also provides contract audit services to some 24 other Federal departments and agencies. The most significant are the Atomic Energy Commission, the National Science Foundation, the Department of Transportation, and the Department of State. The general policy is that audit work is provided to non-Defense agencies on a reimbursable basis, in those contractor situations where DCAA maintains audit cognizance because of a continuing DoD interest, or where it is economical and sensible from a Government-wide point of view.

The Defense Contract Audit Agency provides contract audit services to all Department of Defense components under uniform policies and procedures; there is uniformity in organizational structure, and DCAA provides an effective arrangement under which contracting officers, defense contractors, and non-Defense agencies can deal with a single audit agency.

The function of the Agency Headquarters is to perform the work normally associated with the central office of a professional agency, to furnish representation and counsel to all activities requiring contract audit participation at the seat of Government, and to develop and promulgate all directives needed to manage the Agency. The Headquarters provides both written and oral guidance to enable field audit offices to furnish contract audit services in a timely manner and to assure uniformity of treatment to all contractors with respect to a given element of cost. In addition to its operational function of supervision, direction and guidance to the field, the Headquarters organization performs the normal functions of legal counsel, review and evaluation, and resources management including the recruitment and training of personnel.

The Defense Contract Audit Agency is divided into seven field regional offices located in Atlanta, Boston, Chicago, Los Angeles, New York, Philadelphia and San Francisco. The New York Region has responsibility for contract audit in Europe, the Near East and the Mediterranean Area. The Pacific and Far East areas (including Southeast Asia) are supervised by the San Francisco Region. Regions vary widely in geographical area but are roughly similar in workload.

The policy of DCAA is to place the responsibility for all audit work in the regions and field offices and to employ the maximum possible portion of the total force in direct audit work. DCAA auditors are assigned to four kinds of field audit offices - branch, resident, liaison and suboffices. As of 31 December 1973, there are 350 of these offices in the field, as well as the seven regional headquarters. At present, about eight of every nine personnel are assigned to field audit offices.

Major resident offices are permanently located in the offices or plants of defense contractors, where the continuing volume of work requires full-time attention. Suboffices are those which are established in contractors' facilities where the services of two to five auditors are normally required. The contractors where Government volume is too small to justify permanent staffs are assigned to branch offices located in major population centers throughout the United States and overseas. This audit work is done on a mobile basis. Liaison Offices are established at DoD procurement or contract administration offices to provide coordination and communication between procurement and contract audit activities.

DEFENSE CONTRACT AUDIT AGENCY

Summary of Resources
($ in Thousands)

A. Obligations

	FY 1973	FY 1974	FY 1975
Direct	$58,958	$62,732	$66,323
Reimbursable	7,614	7,821	7,892
Total	$66,572	$70,553	$74,215

B. Personnel

	FY 1973		FY 1974		FY 1975	
	End strength	Man-years	End strength	Man-years	End strength	Man-years
Civilian	3,576	3,403	3,614	3,489	3,647	3,522
Military	0	0	0	0	0	0
Total	3,576	3,403	3,614	3,489	3,647	3,522

DEFENSE CONTRACT AUDIT AGENCY

Summary by Subproject
($ in Thousands)

A. Obligations by Subproject	FY 1973	FY 1974	FY 1975
Direct:			
460 Headquarters, DCAA	$ 4,944	$ 5,410	$ 6,938
461 DCAA Field Activities	54,014	57,322	59,385
Subtotal, Direct	$58,958	$62,732	$66,323
Reimbursable	7,614	7,821	7,892
Total	$66,572	$70,553	$74,215

B. Personnel End Strength by Subproject	FY 1973			FY 1974			FY 1975		
	Civ	Mil	Total	Civ	Mil	Total	Civ	Mil	Total
460 Headquarters, DCAA	129	0	129	137	0	137	137	0	137
461 DCAA Field Activities	3,447	0	3,447	3,477	0	3,477	3,510	0	3,510
Total	3,576	0	3,576	3,614	0	3,614	3,647	0	3,647
C. Personnel Man-Years by Subproject									
460 Headquarters, DCAA	122	0	122	130	0	130	133	0	133
461 DCAA Field Activities	3,281	0	3,281	3,359	0	3,359	3,389	0	3,389
Total	3,403	0	3,403	3,489	0	3,489	3,522	0	3,522

DEFENSE CONTRACT AUDIT AGENCY

Summary of Increases and Decreases
($ in Thousands)

	Headquarters	Field	Total
FY 1974	$5,410	$57,322	$62,732
Increases			
Additional Cost Accounting Standards Workload	71	543	614
Within-Grade Step Increases	27	502	529
Annualization of 10-1-73 Civilian Pay Raise	46	630	676
Additional Paid Day in FY 1975	12	256	268
Annualization of Health Insurance Premium Increase	1	30	31
Purchase Inflation	61	150	211
Reimbursement to Non-Defense Agencies for Audit Services	30	0	30
Reimbursement to GSA for Space Rental	1,241	0	1,241
Federal Telecommunications System	29	0	29
Annualization of Postal Rate Increase	29	0	29
Total Increases	$1,547	$ 2,111	$ 3,658
Decreases			
Reduction in Travel	19	48	67
FY 1975	$6,938	$59,385	$66,323

Increases

Additional Cost Accounting Standards Workload. PL 91-379, enacted on 15 August 1970, established the Cost Accounting Standards Board (CASB) as an agency of Congress. CASB was charged with promulgating cost accounting standards to be followed by defense contractors and subcontractors under specified contracts. The CASB has now issued rules and regulations on contract

coverage, definitions, and Disclosure Statements and by FY 1975 will have issued between seven and nine Standards. The Department of Defense has issued implementing policies and procedures for compliance with PL 91-379 and CASB rules and regulations. The Defense Contract Audit Agency (DCAA) is charged with the mission of reviewing contractors' Disclosure Statements and actual costing practices for adequacy, consistency, and compliance with CASB Standards and regulations. The DCAA budget estimate for FY 1975 includes 33 additional man-years and $614,000 because of increasing Cost Accounting Standards workload generated by PL 91-379. The resources provided for Cost Accounting Standards workload are substantially less than requirements for this purpose. This shortage will be met by (i) diverting resources from other priority audit work and (ii) continuing to increase our productivity.

Within-Grade Step Increases. The FY 1975 cost of normal within-grade step increases is estimated at $529,000.

Annualization of 10-1-73 Civilian Pay Raise. The 4.77% civilian pay increase authorized by Executive Order 11739, effective 1 October 1973, results in increased direct costs of $2,084,000 in FY 1974 and $2,760,000 in FY 1975, or a net annualized increase of $676,000 in FY 1975.

Additional Paid Day in FY 1975. The cost of the one additional paid day in FY 1975 is estimated at $268,000.

Annualization of Health Insurance Premium Increase. The annualized increased costs to the Government, caused by the increase in employee health insurance premiums which was effective on 1 January 1974, is estimated at $31,000 for FY 1975.

Purchase Inflation. The FY 1975 impact of inflation on purchased supplies and services is estimated at $211,000.

Reimbursement to Non-Defense Agencies for Audit Services. DCAA reimburses non-Defense agencies for contract audit services provided Department of Defense procurement officials at contractor locations where they have responsibility for all Federal contract audit work. These agencies are estimating an increase of $30,000 for the audit services to be provided in FY 1975.

Reimbursement to GSA for Space Rental. PL 92-313 requires that all Federal agencies occupying either GSA-owned or GSA-leased space pay to the Federal Buildings Fund, General Services Administration, effective in FY 1975 the rental equivalents for space, and reimbursement for services provided. It is estimated that the net increased cost for this purpose in FY 1975 will be $1,241,000.

Federal Telecommunications System. The FY 1975 estimated cost of Federal Telecommunications System services, based on data provided by the General Services Administration, is $29,000 higher than the FY 1974 level.

Annualization of Postal Rate Increase. The FY 1975 annualized cost of increased U.S. postal rates, scheduled to become effective 2 March 1974, is estimated at $29,000.

Decreases

Reduction in Travel. Due to the energy crisis, travel is programmed at a lower level in FY 1975. This decrease amounts to $67,000.

DEFENSE CONTRACT AUDIT AGENCY

Summary of Obligations by Element of Expense
($ in Thousands)

	FY 1973	FY 1974	FY 1975
Civilian Personnel	$53,574	$57,026	$59,121
Travel of Personnel	2,202	2,344	2,277
Transportation of Things	156	200	235
Utilities and Rents	229	248	1,509
Communications	739	793	881
Purchase Equipment Maintenance-Commercial	40	40	44
Printing and Reproduction	34	48	53
Other Purchased Services	1,711	1,813	1,960
Other Supplies	130	140	155
Equipment	143	80	88
Total Direct Obligations	$58,958	$62,732	$66,323
Reimbursable Obligations	7,614	7,821	7,892
Total Obligations	$66,572	$70,553	$74,215

Summary of Civilian Personnel by Grade

Civilian Personnel	FY 1973	FY 1974	FY 1975
Category			
General Schedule Grades			
GS-18	1	1	1
GS-17	1	1	1
GS-16	10	10	10
GS-15	39	39	39
GS-14	190	190	190
GS-13	355	355	355
GS-12	725	725	725
GS-11	1,187	1,171	1,187
GS-10	2	2	2
GS- 9	241	224	241
GS- 8	7	7	7
GS- 7	175	175	175
GS- 6	46	46	46
GS- 5	294	294	294
GS- 4	167	167	167
GS- 3	50	50	50
GS- 2	5	5	5
Subtotal, general schedule	3,495	3,462	3,495
Ungraded Positions	5	5	5
Total, permanent positions	3,500	3,467	3,500
Unfilled positions, June 30	- 52	0	0
Total permanent employment, end of year	3,448	3,467	3,500
Temporary part-time and intermittent employees	128	147	147
Total employment, end of year	3,576	3,614	3,647

Defense Investigative Service

STATEMENT OF BRIG. GEN. JOSEPH J. CAPPUCCI, DEFENSE INVESTIGATIVE SERVICE

ACCOMPANIED BY:
DR. FREDERICK E. TAYLOR, COMPTROLLER
CHARLES E. FORSYTHE, BUDGET OFFICER

PREPARED STATEMENT

Chairman McClellan. The next agency to be heard is the Defense Investigative Service. The principal witness is Brig. Gen. Joseph J. Cappucci.

General, your biographical sketch and prepared statement will be made a part of the record at this point.

[The biography and statement follow:]

Biography

Brig. Gen. Joseph J. Cappucci is Director of Defense Investigative Service, Office of the Secretary of Defense.

General Cappucci was born in Bridgeport, Conn., on January 1, 1913. He attended elementary and high schools in that city. He was graduated from the University of Wyoming and received his commission as a second lieutenant, Army Air Corps Reserve, from the Reserve Officers Training Corps (ROTC) program in June 1935.

General Cappucci entered active military duty in October 1940 with initial assignment at Westover Air Force Base, Mass. In May 1942 he attended the Command and General Staff School, Fort Leavenworth, Kan., upon completion of which, he was transferred to the European Theater of Operations and placed on special duty with the British Intelligence Service. After his return to the United States in 1944, he performed duties as a counterintelligence and intelligence officer with the Army Air Corps until July 1946, when he was placed on detached service to the Central Intelligence Agency. He was integrated into the Regular Air Force in 1946 and in May 1947 he was transferred from the Central Intelligence Agency to the Directorate of Intelligence, U.S. Air Force.

He was assigned to the Counterintelligence Division, Directorate of Special Investigations, in August 1948 when the Office of Special Investigations (OSI) was activated. In January 1952 he was transferred to the Directorate of Special Investigations, United States Air Force in Europe (USAFE), and served as Chief, Counterintelligence Division. While in USAFE, he was a member of various intelligence boards in Germany, France and other areas in USAFE, and was responsible for putting into effect a counterintelligence program throughout all USAFE areas of interest. General Cappucci was awarded the Legion of Merit by the Commander in Chief, USAFE, for his outstanding performance of duty during this period of service.

Upon his return to the United States in August 1955, he was assigned to the Counterintelligence Division, Directorate of Special Investigations, U.S. Air Force. In August 1958 he was assigned as Commander, OSI District 13, Offutt Air Force Base, Nebraska, and held this position until February 1961, when he was assigned as Director of Special Investigations, Pacific Air Forces (PACAF). General Cappucci was awarded another Legion of Merit by the Commander in Chief, PACAF, for outstanding service as Director of Special Investigations, PACAF.

He was transferred to the Office of The Inspector General, U.S. Air Force, in January 1964 and assumed the duties of Deputy Director of Special Investi-

gations for Operations in the Directorate of Special Investigations. He was appointed Director of Special Investigations, and Commander, 1005th Special Investigations Group (IG), in June 1964, which at that time was a worldwide, centrally directed organization.

General Cappucci retired on August 31, 1967, and was recalled to active duty on September 1, 1967, to again serve as Director of Special Investigations, and Commander of the 1005th Special Investigations Group. He was awarded two Distinguished Service Medals for exceptionally meritorious service in a duty of great responsibility as Director of Special Investigations. On December 31, 1971, the Air Force Office of Special Investigations (AFOSI) was created as a Separate Operating Agency. General Cappucci retained his position as Director of Special Investigations while also becoming Commander, AFOSI. At that time, the 1005th Special Investigations Group was disestablished.

In April 1972 General Cappucci was appointed Director of Defense Investigative Service, Office of the Secretary of Defense.

Besides the Command and General Staff School, he also has attended the U.S. Air Force Special Investigations School, British Secret Intelligence School, Air Intelligence School, Radar Observer Intelligence School and the Airborne School, and holds the ratings of parachutist and gliderman.

In addition to the United States military decorations, he has been awarded the National Order of Vietnam in grade of Knight; Vietnamese Medal of Honor, 1st Class; Vietnamese Air Service Honor Medal; Philippine Legion of Honor; Philippine Legion of Honor (Commander); Most Exalted Order of White Elephant (2d Class-Knight Commander) (Thailand); Republic of Vietnam Air Force Distinguished Service Order (First Class); the Special Cravat of the Order of Cloud and Banner—Republic of China; Republica of China Police Medal; and the Order of National Security Merit Cheon-Su Medal, Republic of China.

General Cappucci is married to the former Barbara Gibson of Salem, Mass.

He was promoted to the temporary grade of brigadier general effective June 1, 1965, with date of rank May 22, 1965.

PREPARED STATEMENT

General CAPPUCCI. Mr. Chairman and members of the committee, I am pleased to have the privilege of appearing before you again, and to have the opportunity to discuss the Defense Investigative Service budget request for fiscal year 1975. Before discussing the specifics of our budget request, I would like to say a few words about our mission.

THE DIS MISSION

The Defense Investigative Service will conduct some type of investigation or inquiry in fiscal year 1975 on about one million people—military personnel, DoD civilian employees, applicants for such employment, and employees of commercial firms having DoD contracts related to classified information. About 832,000 of these actions will consist solely of a simple check of the records of various government agencies—the FBI and the Civil Service Commission for example. DIS itself will conduct an estimated 155,000 full scale background investigations—detailed inquiries of neighbors, employers, schools and credit agencies, which will entail around 2.5 million individual contacts. DIS does not initiate these investigations or the collection of information on any individual, incident or organization.

INVESTIGATIONS

Chairman MCCLELLAN. Provide the number of full-scale investigations conducted during fiscal years 1973 and 1974.

General CAPPUCCI. I will supply it for the record.

[The information follows:]

DEFENSE INVESTIGATIVE SERVICE (DIS), PERSONNEL SECURITY INVESTIGATIONS [1]

	Fiscal year—	
	1973 [2]	1974
Cases opened	137,459	155,000
Cases closed	108,070	160,000

[1] Represents the cases actually opened and closed during fiscal year 1973 and estimated for fiscal year 1974.
[2] DIS was in operation for only 9 months of fiscal year 1973.

Chairman McClellan. Proceed.

General Cappucci. Every DIS investigation or inquiry results from a request from one of over 2,400 DoD authorities who are empowered by statute, executive order or published directive, to request investigations, and who are responsible for making employment or security determinations based upon the results of those investigations.

The scope of DIS investigations is prescribed by DoD directives—directives which fully honor the concept of avoiding invasions of privacy or violations of constitutional requirements. The results of our investigations are provided only to those individuals who need to know their contents—a need based on official duties.

Operation and Maintenance

The fiscal year 1975 budget request of the Defense Investigative Service includes $25.5 million for operation and maintenance and $0.7 million for procurement. The Operation and Maintenance amount represents an increase of $3.4 million over the amount requested for fiscal year 1974. I shall first itemize and then discuss the factors responsible for this change:

1. Conversion of 175 military spaces to civilian spaces and the annualization of costs associated with the conversion of 93 military spaces to civilian spaces in fiscal year 1974, a total of 268 spaces, +$2.4 million;
2. Reimbursements to the General Services Administration, Federal Building Fund (Public Law 92-313), for the lease of office space, +$1.4 million;
3. Annualization of fiscal year 1974 costs and operations, +$1.0 million, and
4. Manpower reductions resulting from an anticipated 7% productivity increase, —$1.4 million.

Military Civilian Conversion

The conversion of military spaces to civilian spaces represents a major internal adjustment in the use of DIS manpower. DIS was initially manned heavily with military personnel because the personnel transferred to DIS by its military department precursors were predominantly military. Since the conduct of our mission does not require a predominance of military skills, we have embarked on a substantial civilianization program. Specifically we are shifting from the pre-DIS ratio of 65% military to 35% civilian to a ratio of 50% military to 50% civilian. This budget reflects the transfer of funds from the military departments for the civilianization of 93 spaces in fiscal year 1974. Fiscal year 1975 reflects the civilianization of an additional 175 spaces. Although this program results in an increase of $2.4 million in the Operation and Maintenance, Defense Agencies Appropriation, it does not mean that there is a net increase in DIS costs because a decrease of more than $2.4 million in military personnel costs is reflected in the military personnel appropriations. In addition, current plans call for the civilianization of a third increment of 258 spaces in fiscal year 1976, which will result in a ratio of 40% military to 60% civilian. Many of these spaces are administrative and clerical rather than investigative.

Chairman McClellan. Which spaces are you referring to as being primarily administrative and clerical—military or civilian?

General Cappucci. Both, since the military spaces for the performance of administrative and clerical functions will be converted to civilian spaces for the performance of the same functions.

Reimbursement to GSA

The Defense Investigative Service occupies space in 131 GSA owned or leased buildings throughout the 50 states, the District of Columbia and the Commonwealth of Puerto Rico. In the past, the costs of occupying these buildings were budgeted for by the General Services Administration. Under the terms of Public Law 92-313, Government Agencies will be required to reimburse GSA for these costs beginning in fiscal year 1975. The cost to DIS is estimated at $1.4 million.

Annualization of FY 1974 Programs

Our budget request for fiscal year 1975 includes $1.0 million for full year costs for several items initiated in fiscal year 1974. The principal item is $357 thousand for annualization of the October 1973 classified employees pay raise. Among the other items is $144 thousand for the full year costs of base support provided under the terms of interservice support agreements, $127 thousand for the full year cost of an autodin terminal previously funded by the Army, $104 thousand for the annualization of fiscal year 1974 ADP equipment leases, and $100 thousand for the increased cost of motor vehicle fuels.

PRODUCTIVITY

The increase of $4.8 million required for military civilian conversion, reimbursement to GSA and annualization of fiscal year 1974 programs is partially offset by a decrease of $1.4 million to be realized from an improvement in DIS productivity. We see no significant workload decline from the FY 1974 level. We do, however, plan to handle that workload with 220 fewer people (108 civilian and 112 military). This plan is based upon the actual operational experience of DIS as a Defense Agency. In fact, DoD's investment of personnel in the PSI effort is being reduced by 748 end strength or 22% from fiscal year 1972 to fiscal year 1975. Some of this reduction relates to a small decline in workload in fiscal year 1973 and 1974. Most of the reduction, however, stems from—and has been made possible by—the creation and operation of DIS.

PROCUREMENT

The fiscal year 1975 Procurement Appropriation request is for $674 thousand. All except $13 thousand of this is for the procurement of 236 vehicle replacements for our light sedan fleet. A safe and adequate fleet of motor vehicles is an absolute prerequisite for the successful accomplishment of the DIS mission. The character of our work precludes the use of commercial transportation except in a few metropolitan centers. An investigator cannot take a bus to an isolated farm or share a vehicle with another agent without radically decreasing his productive capability. By the beginning of fiscal year 1975, 397 of our vehicles, or 28.0 percent of our fleet will exceed the criteria for replacement—6 years or 72,000 miles. The alternative to replacing these vehicles would be major outlays on repairs, high losses of manhours as investigators await the repair of vehicles, and a large number of vehicles that would not be safe for our personnel to drive.

VEHICLES

Chairman MCCLELLAN. Provide the numbers of vehicles authorized and on hand at the end of fiscal years 1973–1975.

General CAPPUCCI. I will furnish that.

[The information follows:]

DEFENSIVE INVESTIGATIVE SERVICE, SEDAN FLEET

Fiscal year	Authorized	On hand
1973	1,490	1,486
1974	1,506	1,426
1975	1,392	1,392

Chairman MCCLELLAN. Are all vehicles owned out right, or are some vehicles leased?

General CAPPUCCI. All sedans in the DIS inventory are owned out right. Occasionally, however, it is necessary for a field office to lease a vehicle from the General Services Administration or a commercial establishment in order to compensate for a sedan shortage and meet its investigative workload requirements. This amounts to about 4 vehicles DIS wide, the equivalent of less than 3/10's of one per cent of the vehicles in the DIS inventory.

Chairman MCCLELLAN. Provide the ratio of vehicles to assigned agents for each of fiscal year 1973–1975.

General CAPPUCCI. In fiscal year 1973 DIS had an actual ratio of .9 vehicles per assigned agent. The budget estimates provide for same ratio in fiscal years 1974 and 1975.

Chairman MCCLELLAN. Proceed.

General CAPPUCCI. Mr. Chairman, this concludes my prepared statement. I shall be happy to attempt to answer any questions you may have.

Chairman MCCLELLAN. Defense Investigative Service. General, what is the Defense Investigative Service?

General CAPPUCCI. Defense Investigative Service is a consolidation of all the background investigations in the Department of Defense.

Background investigations formerly done by Army, Navy, and Air Force were all consolidated into my agency 18 months ago. I appeared before you last July for the first time. We saved a little more than $4 million in the first year of operation.

Chairman McClellan. Let's renew the contract.

OPERATION AND MAINTENANCE

General Cappucci. Mr. Chairman, my operation and maintenance budget for this year represents an increase of $3.4 million.

Chairman McClellan. What was your budget for fiscal year 1974?

General Cappucci. $22.1 million.

Chairman McClellan. Now you want to increase it to what?

General Cappucci. To $25.5 million.

Chairman McClellan. That is what, $3.4——

General Cappucci. Million. It is $3.4 million.

Chairman McClellan. $3.4 million you want to increase it?

General Cappucci. Yes, sir.

Chairman McClellan. What is the increase?

General Cappucci. Conversion of 175 military spaces to civilian spaces and the——

Chairman McClellan. Do you mean you are going to hire more civilians?

General Cappucci. Yes, sir, I am converting military clerical jobs mostly, to civilians. We have already converted 93 this year.

Chairman McClellan. What will that cost, and why do we have to do that? Is there any savings in that?

General Cappucci. Yes, sir, there is. The civilians are cheaper, but in addition to that, these are administrative jobs: Clerks, GS–3's, 4's, and 5's. These are jobs civilians could do just as well or better, and we can release the military for military-type work. Military personnel are not needed in these jobs.

Chairman McClellan. How much is that increase?

General Cappucci. The 175 that I am proposing to convert and the annualization of 93 I have already converted comes to $2.4 million. Now, there is an offset there because the services will not be budgeting for those military spaces any more.

Chairman McClellan. What becomes of them?

General Cappucci. We send them back to the military departments.

Chairman McClellan. They are still in the military. We are still paying them.

General Cappucci. Yes, sir, but they won't need as many people.

Chairman McClellan. If you are not discharging them, where is the savings then? For illustration, suppose you had 100 of them, who return to active duty; you take them out. What do they do then?

General Cappucci. I have 100 civilians, and I return 100 military to the services. That is 100 less they have to recruit.

Chairman McClellan. That is 100 less they have to recruit?

General Cappucci. Yes, sir, that is 100 military spaces they did not have. I have had them, and I am giving them back to them, and they can use them for military operations or activities. Whatever they want.

Chairman McClellan. The only way to make any savings out of such action is not having to recruit more?

General Cappucci. Yes, sir. And then again, the reimbursement to General Services Administration for rent—$1.4 million. I have 130 offices throughout.

Chairman McClellan. $1.4 million in rents?

General Cappucci. Yes, sir.

Chairman McClellan. What is your total personnel?

General Cappucci. 2,850. And for fiscal year 1975, they will be reduced by 220, so I will end up fiscal year 1975 with 2,630. That is everything—military and civilian.

Chairman McClellan. So you are making reductions?

General Cappucci. Yes, sir.

Chairman McClellan. If you are making all of these reductions, why won't that affect this increase more?

General Cappucci. The increase here, like the GSA—I have 130 office spaces that I lease from GSA throughout the United States. That is the amount they are going to charge me. I have to have the offices in these places because that is where the work is.

Chairman McClellan. Proceed.

General Cappucci. The annualization of costs for the year comes to $1 million and, through the manpower reductions and some further refinement and streamlining that we have done over the past year, we anticipate a 7-percent productivity increase, a savings of $1.4 million.

VEHICLES

Sir, I would like to make an appeal for an important thing, and that is for vehicles, automobiles.

Chairman McClellan. Do you need another car?

General Cappucci. I need many cars. I have 1,432 vehicles. These are driven by my investigative agents.

Chairman McClellan. You have 1,432 vehicles for a staff of 2,850? Every other person has a vehicle.

General Cappucci. No, sir; my investigative agents do because that is the only way they can go and get their work done. We cover the United States. We cover the whole 50 States.

Chairman McClellan. How many more vehicles do you need?

General Cappucci. 236.

Chairman McClellan. Are some of them wearing out?

General Cappucci. Sir, a number of my vehicles have reached 100,000 miles. When I started this organization over a year ago, I inherited from the services the vehicles they wanted to give me and, needless to say——

Chairman McClellan. They gave you those with the most mileage in most instances, didn't they?

General Cappucci. Yes, sir; I have over 40 vehicles that have over 100,000 miles on them.

Chairman McClellan. Just 40 of the 1,432 have over 100,000? You need to replace those 40? What else do you need to replace?

General Cappucci. Actually 28 percent, or 397, of my 1,432 vehicles have passed the 6-year, 72,000-mile criteria. But I am asking for less than 400 vehicles. I am asking for 236. We will make those do.

Chairman McClellan. Is this in your budget?

General Cappucci. Yes, sir, it is in the procurement, defense agencies request.

Chairman McClellan. They are included in your budget increase over last year?

General Cappucci. Yes, sir.

Chairman McClellan. You really need those automobiles?

General Cappucci. Mr. Chairman, I need them awfully bad because we did not get any cars this year.

Chairman McClellan. You did not get any this year?

General Cappucci. No, sir.

Chairman McClellan. None?

General Cappucci. None. Nobody did.

Chairman McClellan. Very well.

General Cappucci. I estimate at least 50 to 60 of these automobiles are not safe to drive.

Chairman McClellan. Thank you very much.

JUSTIFICATION

At this point in the record there will appear certain information from the justifications.

[The information follows:]

Justification

Appropriation: Operation and Maintenance, Defense Agencies, FY 1975

Budget Activity: Intelligence and Communications

Budget Activity: Defense Investigative Service

Statement of Purpose and Scope

The mission of the Defense Investigative Service is to provide a single centrally-directed personnel security investigative service which is designed to develop information upon which a determination can be made by the interested DoD activity as to the suitability of an individual for employment in a position of trust within an agency of the Department of Defense (DOD) and those facilities having classified contracts under the industrial security program.

It is estimated that the DOD components (Defense Agencies, Army, Navy, Marine Corps, Air Force) will place new requirements on the DIS to conduct approximately 155,000 such Personnel Security Investigations during Fiscal Year 1975. In addition, DIS will enter FY 1975 with a back log of several thousand cases in excess of optimum workload levels. This does not include approximately 831,600 National Agency Checks which will be required in Fiscal Year 1975. The scope or extent of the investigation is determined by the investigative requirements in various DOD directives. These requirements are based on the sensitivity of the position and the degree of access to classified defense information or restricted areas. The types of Personnel Security Investigations conducted by the DIS are as follows:

National Agency Check (NAC) - A search of the indices and files of appropriate national agencies for information bearing on the loyalty, trustworthiness, and suitability of individuals under the investigative jurisdiction of the Department of Defense.

Expanded National Agency Check (ENAC) - A NAC which is expanded as necessary to obtain such additional information as may be required to substantiate or disprove derogatory or questionable information developed during the NAC.

Background Investigation (BI) - An inquiry into the pertinent facts bearing on the loyalty, trustworthiness, and suitability of an individual to determine whether the access to classified information or restricted areas is clearly consistent with the interests of national security. This inquiry normally consists of a check of the records of schools, employers, appropriate national and local agencies and interviews with individuals who are or have been acquainted with the person being investigated.

Special Background Investigation (SBI) - A background investigation which requires additional investigation, such as a check of credit records and interviews of neighbors, to satisfy the security requirements of certain highly sensitive programs.

Bring-Up Investigation (BU) - An investigation which is designed to periodically update a previously conducted BI or SBI and is based on specific DOD or military department directives relating to certain specified programs.

DEFENSE INVESTIGATIVE SERVICE

Summary of Resources

	FY 1973	FY 1974	FY 1975
A. Obligations ($ Thousands)			
Direct	12,677	22,134	25,541
Reimbursable	1,040	-0-	-0-
Total	$13,717	$22,134	$25,541

B. Personnel

	End Strength	Man Years	End Strength	Man Years	End Strength	Man Years
Civilian	1,173	725	1,248	1,178	1,315	1,290
Military	1,642	1,150	1,602	1,676	1,315	1,460
Total	2,815	1,875	2,850	2,854	2,630	2,750

SUMMARY BY PROGRAM ELEMENT
($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
A. Obligations (Direct)			
Counterintelligence and Investigative Activities	12,638	20,359	23,622
DIS - Communication	1,079	1,775	1,919
Total	$13,717	$22,134	$25,541

B. Personnel End Strength

	FY 1973 Actual			FY 1974 Estimate			FY 1975 Estimate		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Counterintelligence and Investigative Activities	1,173	1,642	2,815	1,248	1,602	2,850	1,315	1,315	2,630
DIS - Communication	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Total	1,173	1,642	2,815	1,248	1,602	2,850	1,315	1,315	2,630

C. Personnel Man Years

	FY 1973 Actual			FY 1974 Estimate			FY 1975 Estimate		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Counterintelligence and Investigative Activities	725	1,150	1,875	1,178	1,676	2,854	1,290	1,460	2,750
DIS-Communication	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Total	725	1,150	1,875	1,178	1,676	2,854	1,290	1,460	2,750

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SUMMARY OF INCREASES AND DECREASES
(Dollars in Thousands)

FY 1974	$22,134
1. Increases:	
(a) Proposed Supplemental - Increased Pay Costs	357
(b) Conversion of 175 military positions (civilianization program)	1,812
(c) Annualization of FY 1974 year-end employment	623
(d) Federal Building Fund (reimbursements to GSA)	1,372
(e) Annualization of FY 1974 ADP equipment leases	103
(f) Full year cost of the AUTODIN terminal previously funded by the Army	127
(g) Increased cost of motor vehicle fuels based on latest FY 1974 experience	100
(h) Resumption of a normal replacement cycle for equipment	47
(i) Annualization of FY 1974 programs/projects based on current experience	311
Total Increases	4,852
2. Decreases:	
(a) Improved Productivity/workload	-1,445
Total Decreases	-1,445
FY 1975	$25,541

Explanation of Increases/Decreases

A. Civilian Personnel - The net increase of $1,347,000 in pay of our civilian work-force reflects (1) annualization of the 1 October 1973 pay raise granted classified employees under Executive Order 11739, (2) the employment of an additional 175 direct-hire civilians to replace a like number of military personnel occupying positions which it has been determined do not require military training or background, (3) the cost of increased Government contributions to the Civilian Medical Health Insurance programs and (4) annualization of our FY 1974 year end employment.

B. Travel of Personnel - Reduction in budget year costs reflects efforts made to comply with the DoD program to conserve energy through a reduction in official travel.

C. Transportation of things - Upward adjustment in FY 1975 requirements includes (1) costs associated with the permanent change of station of civilian special agents in connection with the DIS mobility program, and (2) distribution of the supplies and equipment discussed under those elements of expense.

D. Utilities and rents - Increased requirements consist primarily of (1) reimbursements to be made to the General Services Administration, under the provisions of Public Law 92-313, for office space and services for DIS nationwide and (2) annualization of FY 1974 ADP equipment leases.

E. Communications - By memorandum dated 7 May 1973 the Assistant Secretary of Defense directed that inasmuch as communications support for Ft Holabird was provided for in the FY 1974 Army budget, the Army would therefore finance the leased cost of AUTODIN service for the DIS at Ft Holabird through FY 1974 and that DIS would assume full financial responsibility effective 1 July 1974. The increase in this element of expense provides for the full year cost ($127,000) of the Ft Holabird AUTODIN and annualization of the cost of the leased ASR - 35's at field activities.

F. Printing and reproduction - The slight reduction in this element of expenses reflects reduced publication requirements for manuals and regulations during FY 1975. Publication of forms will remain at the FY 1974 level.

G. Other purchased services - FY 1975 increase is primarily for the annualization of Inter Service Support Agreements to provide administrative support, services and supplies for field activities nationwide.

H. Other supplies - The increase is primarily for the annualization of the latest FY 1974 operating and cost experience.

I. Equipment - During FY 1974 because of fund austerity, as amplified by ever changing requirements resulting from "growing pains" it was deemed prudent to defer certain equipment procurements. The increase reflected in this budget provides for a normal replacement cycle for on hand equipment to insure the orderly and timely replacement of equipment expended through fair wear and tear.

SUMMARY OF OBLIGATIONS BY ELEMENT OF EXPENSE
($ in Thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Civilian Personnel	10,028	16,314	17,661
Travel of Personnel	349	442	434
Transportation of Things	89	60	120
Utilities and Rents	281	488	1,927
Communications	314	2,291	2,397
Purchashed Equipment Maintenance-Intra DOD	-0-	-0-	-0-
Purchased Equipment Maintenance-Commercial	75	125	125
Printing and Reproduction	114	154	150
Other Purchased Services	721	1,726	1,905
Other Supplies	462	461	702
Equipment	244	73	120
Direct Obligations	12,677	22,134	25,541
Reimbursements	1,040	-0-	-0-
Total Obligations	13,717	22,134	25,541

Summary of Civilian Personnel by Grade

General Schedule Grades	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
GS-18	1	1	1
GS-16	2	2	2
GS-15	6	6	6
GS-14	16	17	17
GS-13	37	38	38
GS-12	97	97	97
GS-11	313	312	315
GS-10	1	-	-
GS- 9	59	57	57
GS- 8	7	6	6
GS- 7	74	74	74
GS- 6	66	52	50
GS- 5	161	174	205
GS- 4	195	204	220
GS- 3	163	181	198
GS- 2	13	26	28
Sub-total, general schedule	1,211	1,247	1,314
Ungraded positions	1	1	1
Total permanent positions	1,212	1,248	1,315
Unfilled positions, 30 June	39	-	-
Total permanent employment, end-of-year	1,173	1,248	1,315
Temporary, part-time and intermittent employees	-	-	-
Total employment, end-of-year	1,173	1,248	1,315

Summary of Military Personnel by Rank

	FY 1973	FY 1974	FY 1975
Officers			
Major General	1	1	1
Colonel/Captain	18	17	17
Lt Colonel/Commander	36	30	30
Major/Lt Commander	75	74	72
Captain/Lieutenant	235	224	184
Warrant Officer	281	276	248
Sub-total, Officers	646	622	552
Enlisted Personnel:			
E-9	38	38	35
E-8	71	71	61
E-7	284	262	232
E-6	281	260	231
E-5	430	349	204
Sub-total, Enlisted Personnel	1,104	980	763
Total Positions	1,750	1,602	1,315
Unfilled Positions, June 30	108	-	-
Total employment, end-of-year	1,642	1,602	1,315

Court of Military Appeals

Chairman McClellan. There are several appropriation requests on which we have not heard testimony. The prepared statements are available to the members of the subcommittee. Also, I have a number of questions on these statements to which responses will be provided. Unless there is objection, I shall have the statements by the witnesses included in the record together with the questions and answers. If there is need to call the witnesses for further information, we can do so at an appropriate time.

PREPARED STATEMENT AND JUSTIFICATION

The first such statement deals with the Court of Military Appeals. I will ask that the programing and financing information, the statement of Judge Robert M. Duncan, and pertinent justification material be included in the record at this point.

[The information follows:]

UNITED STATES COURT OF MILITARY APPEALS, DEFENSE

Program and Financing (In thousands of dollars)

Identification Code: 07-10-0104-0-1-051	1973 Actual	1974 Estimate	1975 Estimate
Program by activities:			
10 Military justice (total obligations)	753	917	1,065
Financing:			
25 Unobligated balance lapsing	161	...	...
40 Budget authority (appropriation)	914	917	1,065
Budget Authority:			
40 Appropriation	914	864	1,065
44.20 Proposed supplemental for civilian pay raises	...	53	...
Relation of obligations to outlays:			
71 Obligations incurred, net	753	917	1,065
72 Obligated balance, start of year	32	29	96
74 Obligated balance, end of year (-)	-29	-96	-91
77 Adjustments in expired accounts	+8	...	...
90 Outlays, excluding pay increase supplemental	764	802	1,065
91.20 Outlays from civilian pay raise supplemental	...	48	5

This appropriation provides for the salaries of three judges, other officers and employees, and the necessary expenses of the U.S. Court of Military Appeals, established pursuant to the Uniform Code of Military Justice (10 USC 801). The Court serves as the appellate court of last resort for all of the more serious court-martial convictions of military personnel.

STATEMENT OF THE HONORABLE ROBERT M. DUNCAN

Mr. Chairman and Members of the Committee:

I value the opportunity to appear before this Committee with the United States Court of Military Appeals appropriation request for fiscal year 1975.

On December 29th of last year, Chief Judge Darden retired from the Court. His service was distinguished; his contribution to military law substantial. Senior Judge Ferguson has graciously returned to active service pending the appointment of Judge Darden's replacement.

The request before you contains a new dimension. Pursuant to Public Law 92-313, enacted June 16, 1972, we are required -- for the first time -- to pay $188,000 to the General Services Administration for building and parking rental. This sum is offset by a reduction of $40,000 in personnel costs. Retired employees have been replaced, in part only, and in lower salary levels. As a consequence, the Court's request for $1,065,000 represents an increase of $148,000 over the amount of $917,000 appropriated for the current fiscal year. No increase for other expenditures is anticipated.

The number of appeals filed with the Court continues at an unremitted pace. With the resources provided by Congress, we are able to keep abreast of the caseload, however. The Court is most grateful for this Committee's loyal support.

A statistical report on the number, status, and disposition of cases docketed with the Court as of December 31, 1973 is attached.

UNITED STATES COURT OF MILITARY APPEALS

STATUS OF CASES AS OF DECEMBER 31, 1973

ARTICLE 67(b)(3), UCMJ

PETITIONS		27,828
Army	14,882	
Navy	7,626	
Air Force	5,258	
Coast Guard	62	

ARTICLE 67(b)(2), UCMJ

CERTIFICATES		587
Army	226	
Navy	249	
Air Force	100	
Coast Guard	12	

ARTICLE 67(b)(1), UCMJ

MANDATORY [1/]		37
Army	31	
Navy	3	
Air Force	3	
Coast Guard	0	
TOTAL CASES DOCKETED [2/]		28,452

MISCELLANEOUS DOCKETS
(1967 to Present)

DOCKETED		355
Denied	108	
Dismissed	152	
Withdrawn	4	
Remanded (1 Pet. for New Trial)	2	
Opinions rendered (1 Pet. Recon.)	83	
Petitions for Reconsideration denied	14	
Granted	5	
Issue Moot	2	
Pending	5	
TOTAL [3/]		375

COURT ACTION

PETITIONS		27,828
Denied	23,998	
Denied by Memorandum Opinion	7	
Granted	3,121	
Dismissed	26	
Charges dismissed by Order	3	
Withdrawn	432	
Disposed of on motion to dismiss:		
With opinion	8	
Without opinion	54	
Disposed of by Order setting aside findings and sentence	6	
Remanded (2 by opinion)	210	
Court action due - 30 days	132	4/
Awaiting replies	40	28,037
CERTIFICATES		587
Opinions rendered	563	
Withdrawn	8	
Remanded	4	
By Order	1	
Motion to file denied	2	
Motion to dismiss granted	1	
Opinions pending	0	
Ready for hearing	5	5/
Awaiting briefs	4	588
MANDATORY		37
Opinions rendered	37	
Remanded	1	6/ 38
OPINIONS RENDERED		3,563
Petitions	2,787	
Motions to dismiss (1 Cert;10 Petitions)	11	
Petitions remanded	2	
Per curiam grants	57	
Certificates	494	
Certificates and Petitions	66	
Certificates (motion to stay)	1	
Mandatory	37	
Petitions for a New Trial	2	
Petitions for Writ of Error Coram Nobis	3	
Petition for Writ of Habeas Corpus	1	
Petitions for Reconsideration:		
Of opinion	4	
Of Denial Order	10	
Of Petition for New Trial	1	
Motion to Reopen	1	
Motion for appropriate relief	1	
Miscellaneous Dockets (1 Pet. for Recon.)	85	

COURT ACTION (CONT'D)

COMPLETED CASES		28,224
Petitions Denied	23,998	
Petitions Withdrawn	432	
Petitions Dismissed	26	
Certificates Withdrawn	8	
Certificate by Order	1	
By Opinion (7 Petitions denied)	3,470	
Disposed of on Motion to Dismiss:		
With opinion	8	
Without opinion	55	
Disposed of by Order setting aside findings and sentence	6	
Remanded (4 Certs and 1 Mandatory)	213	
Writ of Error Coram Nobis by Order	3	
Motion for Bail denied	1	
Charges dismissed by Order	3	
PENDING COMPLETION		209
Opinions pending	4	
Ready for hearing	19	
Petitions granted - awaiting briefs	10	
Petitions - Court action due 30 days	132	
Petitions - awaiting replies	40	
Certificates - awaiting briefs	4	

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1. 33 cases involving 38 accused sentenced to death; 2 cases involved flag officers; 2 cases filed twice.
2. 27,918 cases actually assigned docket numbers. Overage due to multiple actions on the same cases and some filed twice.
3. Overage due to multiple actions on the same cases.
4. Difference of 209 in total is due to more than one action taken on individual cases.
5. 2 opinions released in Docket 8,176.
6. 2 opinions released in Docket 6,388.
7. 3,563 cases were disposed of by 3,489 published opinions.

Justification

DEPARTMENT OF DEFENSE
UNITED STATES COURT OF MILITARY APPEALS, DEFENSE
Object Classification (in thousands of dollars)

Identification Code: 07-10-0104-0-1-051	1973 Actual	1974 Estimate	1975 Estimate
Personnel Compensation:			
11.1 Permanent Positions	661	758	719
11.3 Positions other than Permanent	-	3	3
Personnel Benefits:			
12.1 Civilian	53	61	60
21.0 Travel and transportation of persons	2	10	10
23.0 Rent, communications and utilities	14	20	208
24.0 Printing and reproduction	11	36	36
25.0 Other services	2	10	10
26.0 Supplies and materials	6	9	9
31.0 Equipment	4	10	10
Total Obligations	753	917	1,065
Personnel Summary			
Total number of permanent positions	40	40	40
Average number of all employees	35	35	35
Average GS grade	9.9	9.9	9.9
Average GS salary	$17,679	$17,440	$17,606
Average salary of statutory positions	$42,500	$42,500	$42,500

APPROPRIATION: U.S. Court of Military Appeals, Defense

SUMMARY OF PERSONNEL BY GRADES

General Schedule Grades	FY 1973	FY 1974	FY 1975
GS-17	1	1	1
GS-16	1	1	1
GS-15	6	6	6
GS-14	4	4	4
GS-13	2	2	2
GS-12	1	1	1
GS-11	1	1	1
GS- 9	5	5	5
GS- 8	3	3	3
GS- 7	4	4	4
GS- 6	4	4	4
GS- 4	1	1	1
GS- 3	4	4	4
Total General Schedule Grades	37	37	37
Statutory Position (PL 506, 81st Congress)	3	3	3
Total Permanent Positions	40	40	40
Deduct Lapse	-5	-5	-5
Total Man-Years	35	35	35

DEPARTMENT OF DEFENSE

JUSTIFICATION OF ESTIMATES, FY 1975

APPROPRIATION: U.S. Court of Military Appeals, Defense

Purpose and Scope

The United States Court of Military Appeals, established by the Uniform Code of Military Justice (10 USC 801), serves as the appellate court of last resort for all the more serious court-martial convictions of military personnel. The court has jurisdiction as to questions of law in all cases:

(1) Affecting a general or flag officer, or extending to death;

(2) Certified to the Court by the Judge Advocates General of the armed services, and by the General Counsel of the Department of Transportation, acting for the coast Guard; and

(3) Petitioned by accused who have received a sentence of a year or more confinement, and/or a disciplinary discharge.

The decisions of the Court are final in all such cases and there are no further direct reviews.

In addition, the Court is required by law to work jointly with the Judge Advocates General of the military departments, and to report annually to the Congress on the progress of the military justice system under the Code, and to recommend improvements therein wherever necessary.

DEPARTMENT OF DEFENSE

JUSTIFICATION OF ESTIMATES, FY 1975

APPROPRIATION: U.S. Court of Military Appeals, Defense

EXPLANATION OF ESTIMATE

At the end of fiscal year 1973 a total of 28,042 cases had been docketed with the United States Court of Military Appeals, for an average of 1,272 cases per year since the Court's establishment in 1951. These figures include cases filed in the Miscellaneous Docket series initiated January 1967.

As of June 30, 1973, the Court had rendered 3,436 written major opinions, the first having been released on November 8, 1951. This total averages an annual output of 156 written opinions, with each Judge of the three-member Court contributing an average of 52 major opinions annually.

This substantial opinion workload has been carried on in addition to the review functions which the Court must perform under Article 67(b)(3) of the Uniform Code of Military Justice, wherein the Judges have considered and passed upon an average of 1,232 Petitions for Grant of Review per year since its organization.

The FY 1975 estimate provides for an increase of $148,000. This is a result of the requirement of $188,000 for payment of building rent to the General Services Administration, under the provisions of Public Law 92-313, which is partially offset by a reduction of $40,000 in the Court's requirements for personnel costs. $13,200 is included for the personnel compensation and benefits of a Staff Assistant to any retired judge of the Court electing to become a Senior Judge under the provisions of Public Law 90-340, approved June 15, 1968.

Chairman McClellan. At this point in the record there will appear material submitted by the Department of Defense for the "Claims, Defense" appropriation request. This includes programing and financing information, the prepared statement and certain information from the justifications.

[The information follows:]

DEPARTMENT OF DEFENSE - MILITARY

CLAIMS, DEFENSE
Program and Financing (in thousands of dollars)

Identification Code: 07-10-0102-0-1-051	1973 actual	1974 estimate	1975 estimate
Program by activities:			
1. Personnel claims	32,732	36,300	36,500
2. Tort claims	11,478	12,300	17,700
3. Admiralty claims	358	400	300
4. Other miscellaneous claims	85	100	100
10 Total obligations (object class 42.0)	44,653	49,100	54,600
Financing:			
25 Unobligated balance lapsing	347	-	-
Budget authority	45,000	49,100	54,600
Relation of obligations to outlays:			
71 Obligations incurred, net	44,653	49,100	54,600
72 Obligated balance, start of year	1,535	1,397	1,497
74 Obligated balance, end of year	-1,397	-1,497	-1,697
77 Adjustments in expired accounts	129	-	-
90 Outlays	44,919	49,000	54,400

This appropriation provides for the payment of all noncontractual claims against the Department of Defense as authorized by law and represents the consolidated requirements of the Secretary of Defense and the Departments of the Army, Navy and Air Force.

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FOR THE APPROPRIATION "CLAIMS, DEFENSE"

Mr. Chairman and Members of the Committee:

I am appearing before your committee today to discuss the estimated fiscal year 1975 requirements for the appropriation, "Claims, Defense." This appropriation provides the necessary funds for the payment, as prescribed by law, of noncontractual claims against the Department of Defense.

For fiscal year 1973 the Congress appropriated $45.0 million which represented $7.9 million less than our request. As you may recall, we requested a partial restoration of $3.4 million and this request was not approved. The claims adjudicated during fiscal year 1973 amounted to more than $50 million, making it necessary for us to defer $5.6 million of these claims into fiscal year 1974.

For fiscal year 1974 we requested, and received from the Congress, $49.1 million in obligational authority. It now appears that the total requirements for fiscal year 1974 will be $63.8 million which includes the $5.6 million carry-over from fiscal year 1973. We are in the process of requesting Congressional approval of a Section 735 transfer of funds to increase our fiscal year 1974 obligational authority by $12.0 million. If we receive approval of this request we anticipate deferring $2.7 million of fiscal year 1974 claims into fiscal year 1975 which is the estimate included in the fiscal year 1975 request now before you.

For fiscal year 1975 we are requesting $54.6 million. If the $2.7 million carry-over from fiscal year 1974 is subtracted, we are requesting $51.9 million for claims to be adjudicated in fiscal year 1975. This is $6.3 million less than the value of the claims we expect to be adjudicated in fiscal year 1974, excluding the $5.6 million carry-over from fiscal year 1973. While we can defer nominal amounts of claims from one year to another in order to keep within our obligational authority, it is clear that we are just pushing our financial problems forward like a "bow wave" from

one fiscal year into the next. Our FY 1975 request assumes that we will be more fortunate with regard to "acts of nature" which have a major influence on our personnel claims, and with regard to major accidents on the part of our military forces which generate our tort and admiralty claims. If we are not that fortunate, we are going to have to look for additional financing in fiscal year 1975.

I should point out that Claims, Defense is largely an uncontrollable appropriation, and it is very difficult to develop estimates for this account. The claims are filed by military personnel and others; they are adjudicated by properly constituted review authorities and to the extent they are determined payable they must legally be paid. They are neither programmed in advance, nor controllable. Only the timing of the payment can be controlled. However, it is only equitable that we pay the claim as promptly as possible, once it has been adjudicated.

I have attached to this statement a brief description of the four major categories of claims covered by this appropriation and a summary table on financing. This completes my prepared statement on this subject. I will attempt to answer any questions which the Chairman or members of the Committee may have.

CLAIMS, DEFENSE APPROPRIATION, FY 1975

The various types of claims for which provision has been made in this appropriation request are grouped into four major categories; namely personnel claims, tort claims, admiralty claims and other miscellaneous claims.

PERSONNEL CLAIMS

The personnel claims category which accounts for 66.8 percent of the appropriation request for fiscal year 1975 includes (1) claims of military and civilian personnel for private property lost or damaged in the military services, (2) repayments of erroneous collections, and (3) claims arising

from the correction of military or naval records. It is estimated that the general category of personnel claims will require approximately $36.5 million in fiscal year 1975.

TORT CLAIMS

The tort claims category which accounts for 32.4 percent of the appropriation request for fiscal year 1975 includes payments for personal injury or personal property damage caused by the negligence of an employee of the Department of Defense while acting in the scope of his employment. Approximately $17.7 million is expected to be required for claims of these types during fiscal year 1975.

ADMIRALTY CLAIMS

Admiralty claims which account for .5 percent or almost the balance of the appropriation request for fiscal year 1975 include payments under authority of the Admiralty Claims Act and Maritime Claims Act for claims arising from marine accidents and incidents involving vessels of the military departments. Admiralty claims are expected to require $300,000 in fiscal year 1975.

OTHER MISCELLANEOUS CLAIMS

The other miscellaneous claims category accounts for only two tenths of one percent of the appropriation request for fiscal year 1975 and includes (1) amounts for the indemnification of the Post Office Department for claims arising from error, loss or defalcation by unbonded mail clerks and commissioned officers, and (2) claims by contractors for damage caused by accidents arising under training contracts due to the negligence of military trainees. It is estimated that $100,000 will provide for such miscellaneous claims in fiscal year 1975.

CLAIMS, DEFENSE
(In millions of dollars)

	FY 1971	FY 1972	FY 1973	Estimate FY 1974	Estimate FY 1975
Carryover from previous years 1/	1.8	-	-	5.6	2.7
Claims adjudicated during the year 1/	49.8	45.7	50.2	46.2	51.9
Total Claims	51.6	45.7	50.2	51.8	54.6
Lapsed	.4	.2	.3	-	-
Financing:	52.0	45.9	45.0	49.1	54.6
Appropriation (Initial)	(39.0)	(39.0)	(45.0)	(49.1)	(54.6)
Transferred	(13.0)	(6.9)	-	-	-
Adjudicated claims carried over into subsequent year 1/	-	-	5.6	2.7	-

1/ Revised to reflect current estimates

Justification

MAXIMUM LIMIT OF ANY ONE CLAIMS

The Department of Defense is limited by law in the maximum amounts that may be paid in settlement of claims under this appropriation as follows:

Personnel claims:	
Military Personnel and Civilian Employees Claims Act of 1964 (31 USC 240)	$10,000
Military Personnel and Civilian Employees Claims Act of 1964 (31 USC 241)	10,000
Correction of military records (10 USC 1552)	1/
Repayment of erroneous collections (no statute)	1/
Tort claims:	
Federal Tort Claims Act (28 USC 2672)	2,500*
Noncombat Activities (10 USC 2733)	15,000
Noncombat Activities (32 USC 715)	15,000
Foreign Claims Act (10 USC 2734)	15,000
Foreign Claims Act (10 USC 2734a)	1/
Foreign international agreements (10 USC 2734b)	1/
Nonscope of employment (10 USC 2736)	1,000
Compromise settlements (28 USC 2677)	1/*
Admiralty claims:	
Admiralty Claims Act (10 USC 7622)	1,000,000
Maritime Claims Act (10 USC 4802, 9801)	500,000
Miscellaneous: Post Office (39 USC 712)	1/

1/ No limit.

* The Federal Tort Claims Act amendment, PL 89-506, effective January 18, 1967, made no change in the amount that may be administratively paid by the Department of Defense or Military Department. That amount will remain at $2,500. A lawsuit for damages caused prior to January 18, 1967 which is subsequently compromised must be paid out of DoD claims funds. However, on claims resulting from damages caused after January 18, 1967, an award, compromise, or settlement may be made in any amount but if such amount exceeds $25,000, it can only be made with the prior written approval of the Attorney General or his designee. Any award, compromise or settlement made in excess of $2,500, or made by the Attorney General in any amount, "shall be paid in a manner similar to judgements and in like causes and appropriations or funds available for the payment of such judgments and compromises are hereby made available for the payment of awards, compromises or settlements under this chapter." Payment of judgements are made by the Treasury Department (28 USC 2414; 31 USC 724a).

Personnel claims include:

1. Payments, under authority of the Military Personnel and Civilian Employees Claims Act of 1964 (31 USC 240 and 241), as amended, of claims of military and civilian personnel for private property lost or damaged in the military services. Also for payment of such types of claims of National Guard personnel pursuant to 32 USC 715.

2. Section 202(8) of the Classification Act of 1949, as amended (5 USC 1082(8)), requires that the compensation of civilian marine employees shall be fixed and adjusted from time to time in accordance with prevailing maritime rates and practices as nearly as is consistent with the public interest. It is the practices of the maritime industry to provide certain benefits to merchant marine personnel for loss of life and loss or damage to personal effect due to war risks (including certain marine risks). In the maritime industry, these benefits are obtained by means of insurance. In accordance with the policy of the Department of the Army of being a self-insurer, the benefits are paid to civilian marine personnel and their beneficiaries directly by the Army. These benefits include (1) the payment up to $10,000 in the event of loss of life directly or proximately caused by war or marine risks; (2) the payment of $500 to licensed officer marine personnel for loss of personnel effects; and (3) the payment of $300 to unlicensed crew members for loss of personal effects.

3. Payments, under authority contained in this appropriation, of amounts determined by the Secretary of Defense or officers designated by him, to have been eroneously collected from military or civilian personnel, including amounts previously collected and deposited in the General Fund of the Treasury.

4. Payments under the Legislative Reorganization Act of 1946 (10 USC 1552), as amended by Public Law 220, 82d Congress, for claims arising from the correction of military or naval records.

Tort claims include:

1. Payments, under authority of the Federal Tort Claims Act of 1946 (28 USC 2672), for damage to or loss of property or on account of personal injury or death, where the total amount of the claim does not exceed $2,500, caused by the negligent or wrongful act or omission of any employee of the Department of Defense while acting within the scope of his employment under circumstances where the United States, if a private person, would be liable to the claimant for such claim, in accordance with the laws of the place where the act or omission occurred.

Tort claims (continued):

2. Payments, under authority of the Foreign Claims Act of 1942 (10 USC 2734), to inhabitants of and in foreign countries for damage to or loss or destruction of private property or for personal injury or death, not to exceed $15,000, caused by the negligent or wrongful act or omission of employees of the Department of Defense and under authority of NATO Status of Forces (10 USC 2734a), which provided for a reciprocal and more effective remedy in the settlement of certain claims arising out of the acts or omissions of military and civilian personnel of the Armed Forces in the performance of official duty in a foreign country and which authorized the pro rata sharing of the costs of such claims with the foreign countries.

3. Payments, under authority of the Military Claims Act of 1943 (10 USC 2733), and Public Law 87-212 for damage to or loss or destruction of private property, or medical, hospital or burial expenses on account of personal injury or death caused by military or civilian personnel incident to noncombat activities of the Department of Defense.

4. Payments, under authority of the Federal Tort Claims Act of 1946 (28 USC 2677), for claims compromised, arbitrated or settled by the Attorney General.

5. Payments up to $1,000, under authority of the non-scope of Employment Tort Claims Act of 1962 (Public Law 87-789), damage to or loss of privately-owned property where personnel of the Department of Defense are found to be responsible.

Admiralty claims include:

1. Payments by the Department of the Navy, under authority of the Admiralty Claims Act, as amended (10 USC 7622), for personal injury or death or property damage caused by vessels in the Naval Service or other property under the jurisdiction of the Navy and for compensation for towage and salvage services rendered to such vessels or property.

2. Payments by the Departments of the Army and Air Force, under authority of the Maritime Claims Act of 1951, as amended (10 USC 4802-4806 and 10 USC 9801-9806), for claims arising from similar marine accidents and incidents.

Other miscellaneous claims, include:

1. Amounts under authority of the Post Office Claims Act of June 6, 1953 (67 Stat. 55, 39 USC 141-145), for the Departments of the Army, Navy and Air Force to provide for indemification of the Post Office Department for funds embezzeled or for claims arising from error, loss or defalcation by unbonded mail clerks and commissioned officers.

2. Payments, under authority contained in this appropriation of claims for damage arising under training contracts with contractors, caused by the negligency of military trainees in accordance with the provision of agreements whereby military personnel are trained by contracts for the convenience of the Government.

SUMMARY OF OBLIGATIONS AND CASE LOAD BY MAJOR CATEGORY
($ in Thousands)

	FY 1973 Actual		FY 1974 Estimate		FY 1975 Estimate	
	Number	Total	Number	Total	Number	Total
Personnel Claims	158,271	32,732	171,061	36,300	165,000	36,500
Tort Claims	38,365	11,478	41,000	12,300	59,000	17,700
Admiralty Claims	158	358	150	400	110	300
Other Miscellaneous Claims	83	85	100	100	100	100
Total	196,877	44,653	212,311	49,100	224,210	54,600

SUPPORTING SCHEDULE FOR CLAIMS
(Dollars in Millions)

	Actual		Estimated	
	Fiscal Year 1972	Fiscal Year 1973	Fiscal Year 1974	Fiscal Year 1975
Claims Adjudicated	(45.7)	(50.2)	(46.2)	(51.9)
Personnel	33.5	34.9	34.1	36.5
Tort	12.0	14.9	11.6	15.0
Admiralty	.2	.3	.4	.3
Other Miscellaneous	.1	.1	.1	.1
Carryover From Previous Year	-	-	(5.6)	(2.7)
Personnel	-	-	2.2	-
Tort	-	-	3.4	2.7
Admiralty	-	-	-	-
Other Miscellaneous	-	-	-	-
Total Claims	(45.7)	(50.2)	(51.8)	(54.6)
Personnel	33.5	34.9	36.3	36.5
Tort	12.0	14.9	15.0	17.7
Admiralty	.2	.3	.4	.3
Other Miscellaneous	.1	.1	.1	.1
Funding:				
Appropriation	39.0	45.0	49.1	54.6
Transferred From Other Accounts	6.9	-	-	-
Carryover to Following Year	-	5.6	2.7	-
Lapsed	.2	.3	-	-

SUMMARY OF CLAIMS, DEFENSE OBLIGATIONS, FY 1973
(In Thousands of Dollars)

	Personnel	Tort	Admiralty	Other Miscellaneous Claims	Total
1. Total Direct Obligations	32,732	11,478	358	85	44,653
2. Less: Carryover Claims Not Paid in Preceding Year Due To Lack of Funds	-	-	-	-	-
3. Total	32,732	11,478	358	85	44,653

Chairman McClellan. Similar material provided by the Department of Defense will be included in the record at this point for the "Contingencies, Defense" appropriation request.

[The information follows:]

PROGRAM AND FINANCING

[In thousands of dollars]

	1973 actual	1974 estimate	1975 estimate
Program by activities: Emergency and extraordinary expenses (obligations)	3,514	5,000	5,000
Financing: Unobligated balance lapsing	1,486		
Budget authority (appropriation)	5,000	5,000	5,000
Relation of obligations to outlays:			
Obligations incurred, net	3,514	5,000	5,000
Obligated balance, start of year	177	3,262	4,082
Obligated balance, end of year	−3,262	−4,082	−4,732
Adjustments in expired accounts	−168		
Outlays	261	4,180	4,350

JUSTIFICATION

The funds in this appropriation are required by the Secretary of Defense to finance unforeseeable emergency and extraordinary expenses for confidential military purposes. Such funds are expended on the approval or authority of the Secretary of Defense and may be accounted for solely on his certificate that the expenditures are necessary for confidential military purposes. Because of the very nature of this appropriation, there is no program underlying the estimates. It is believed that the $5,000,000 level should be available to the Secretary of Defense to finance unforeseeable emergency and extra-ordinary expenses for confidential military purposes when the need materializes. If the funds are not required as of June 30, the unobligated balance automatically reverts to the U.S. Treasury.

The Secretary of Defense or the Deputy Secretary of Defense personally review each project proposed for financing by this appropriation. Their approval of the use of these funds must be expressed by written memoranda which limit the maximum amount of obligations that may be incurred for the purposes stated. This practice limits the use of these funds to only those specific projects which, in the Secretary's judgment, should be financed in this manner.

STATEMENT OF FRED P. WACKER

Mr. Chairman and members of the committee, I appreciate the opportunity to meet with the Committee, and to discuss our request for funds under the Contingencies, Defense Appropriation for FY 1975.

The estimates for the appropriation "Contingencies, Defense" total $5 million for FY 1975.

These funds are required to meet unforeseeable emergencies and extraordinary expenses arising in the Department of Defense. Such funds are expended on the approval or authority of the Secretary of Defense, and may be accounted for solely on his certificate that the expenditures were necessary for confidential military purposes.

This appropriation provides the Secretary of Defense with funds to meet unforeseeable emergencies and extraordinary expenses for which provision cannot be anticipated in advance and which require expeditious handling. Under the circumstances, this appropriation serves as a ready reserve for use as determined by the Secretary of Defense for emergency type situations as they occur. These are the only contingency funds available to the Department of Defense which the Secretary of Defense may use on a timely basis to finance unplanned programs requiring discreet and immediate action by him. If these types of requirement

could be determined in advance, provision for their support would be made in the regular appropriations.

We have implemented strict controls over the use of funds made available under the Contingencies, Defense Appropriation. Each individual project proposed for financing with these funds is reviewed by the Secretary of Defense. If financing of the proposed pojects from other appropriations is appropriate, the use of contingency funds is not authorized. For each specific project approved by the Secretary for financing with Contingencies, Defense funds, a dollar ceiling is established, and this ceiling cannot be exceeded for that project.

In consideration of the fact that the Contingencies, Defense Appropriation provides the only timely source of funds which the Secretary has to meet unprogrammed urgent requirements of a confidential, emergency, and extraordinary nature, approval of the $5 million for FY 1975 is considered essential.

This completes my prepared statement. I will attempt to answer any questions you may have.

SPECIAL FOREIGN CURRENCY PROGRAM, DEFENSE

Chairman McCLELLAN. Also at this point the same type information will appear dealing with the special foreign currency program of the Department of Defense. Included will be the program and financing information, the prepared statement, and a tabulation detailing the fiscal year 1975 program as contained in the justifications.

[The information follows:]

DEPARTMENT OF DEFENSE - MILITARY

SPECIAL FOREIGN CURRENCY PROGRAM

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

	IDENTIFICATION CODE 07-37-0800-0-1-051	BUDGET PLAN (AMOUNTS FOR FOREIGN CURRENCY UNDERTAKINGS PROGRAMED)			OBLIGATIONS		
		1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:						
	1. OPERATION AND MAINTENANCE	.....	.....	210	1,735	1,758	100
	2. PURCHASE OF GOODS AND EQUIPMENT	.....	.....	.....	105	1,395	.....
	3. RESEARCH	3,400	2,600	2,570	3,550	4,732	2,840
	4. CONSTRUCTION	.....	.....	120	3,319	1,115	60
10	TOTAL	3,400	2,600	2,900	8,709	9,000	3,000
	FINANCING:						
21	UNOBLIGATED BALANCE AVAILABLE, START OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-20,633	-8,616	-2,216
	REPROGRAMING FROM (-) OR TO PRIOR YEAR BUDGET PLANS	-6,708	.....	.....	.....	.....	.....
24	UNOBLIGATED BALANCE AVAILABLE, END OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	8,616	2,216	2,116
25	UNOBLIGATED BALANCE LAPSING UNOBLIGATED BALANCE LAPSING, BUD PLAN	6,708	.....	.....	6,708	.....	.....
40	BUDGET AUTHORITY (APPROPRIATION)	3,400	2,600	2,900	3,400	2,600	2,900
	RELATION OF OBLIGATIONS TO OUTLAYS:						
71	OBLIGATIONS INCURRED, NET				8,709	9,000	3,000
72	OBLIGATED BALANCE, START OF YEAR				4,183	8,518	10,518
74	OBLIGATED BALANCE, END OF YEAR				-8,518	-10,518	-6,518
90	OUTLAYS				4,374	7,000	7,000

STATEMENT FOR THE FISCAL YEAR 1975 SPECIAL FOREIGN CURRENCY PROGRAM

Mr. Chairman and members of the committee, I am appearing before this Committee to discuss the Department of Defense Special Foreign Currency Program. As you know, this program was established for Government agencies to promote the use of excess foreign currencies which are available for U.S. use. Under the language of this appropriation, the dollars appropriated may be used only to purchase from the Treasury currencies needed to finance undertakings which can be carried out with these excess currencies.

There are two principal points in connection with this appropriation which distinguish it from all other Defense appropriations:

1. First, the currencies spent under this program are already owned by the U.S. Treasury. Consequently, there are no net U.S. Government dollar outlays for transactions carried out under the program. While budget authority shows up as a part of DoD Budget authority, obligations, and outlays, there is no net outlay from the U.S. Treasury.

2. Second, the undertakings which we propose for financing under this program are of such priority that they would not be included in the regular dollar appropriation requests. Nevertheless, our regulations require that projects must be clearly in the national interest; they must not involve excessive dollar costs and only minimal balance of payments outlays; and the projects cannot cover items which have been specifically denied by Congress in other appropriation or authorization requests or be above levels beyond specific Congressional recommendations. For research, the criteria also limit undertakings to those which take advantage of (a) special geographical, environmental or cultural conditions, fauna or flora; (b) diseases, epidemiological situations, or availability of clinical material; or (c) unique research ideas highly relevant to the Department of Defense.

In addition, it is required that each DoD component obtain clearance from the State Department to assure that the proposed undertakings are consistent with the foreign policy of the United States.

Our budget request is made up of undertakings that have been proposed by the Military Departments. These proposals are reviewed during the course of the annual budget review to assure their adherence to the criteria for this program. They are then consolidated into a single appropriation request for inclusion in the President's Budget.

Let me point out that the opportunities for the Department of Defense to use this program are quite limited. The countries whose currencies are on the excess list are not countries in which there is a significant defense involvement.

The total request for FY 1975 is $2.9 million. This is primarily for Research undertakings for the Department of the Navy and includes $2.8 million for projects in Egypt, India, and Pakistan. There is also $.1 million for housing for the Defense attache personnel in Poland.

The largest undertaking, a little more than $2.1, is to support the medical research activities being conducted by the Office of Naval Research in Egypt. For several years we have been augmenting the funding for this research with funds from this appropriation. This as enabled them to conduct research related to the many diseases that occur in Africa and the Middle East and that are not endemic to the United States.

Two other undertakings for $.7 million are for medical research to be carried out in India and Pakistan. We consider that all of the undertakings selected for this program are in fields where the research efforts will be responsive to the needs of the Defense medical program. Moreover, we consider that these are undertakings which are appropriate to conduct in these excess foreign currency countries.

This completes my statement. I will attempt to answer any questions the Committee may have concerning this program.

Justification

SUMMARY OF UNDERTAKINGS IN FY 1975 PROGRAM
(In Thousands of Dollars and Thousands of Foreign Currency Units[a/])

	INDIA		PAKISTAN		EGYPT		POLAND		TOTAL
	Dollars	Rupees	Dollars	Rupees	Dollars	Pounds	Dollars	Zlotys	Dollars
Operation and Maintenance					210	117			210
Total Operation and Maintenance					210	117			210
Research:									
Navy Research Program (Egyptian Pounds):									
Communicable Diseases--------					800	445			800
International Health---------									
Research and Development-----					1,170	650			1,170
Navy Research Program (Indian Rupees):									
Communicable and Fungal Diseases--------------------	400	3,040							400
Navy Research Program (Pakistan Rupees):									
Communicable Diseases--------			200	980					200
Total Research----------	400	3,040	200	980	1,970	1,095			2,570
Construction:									
DIA Construction Program-----							120	3,188	
Total Construction Program-----							120	3,188	120
Total FY 1975 Program----------	400	3,040	200	980	1,970	1,095	120	3,188	2,900

a/ Foreign currency units are computed on basis of "Treasury Reporting Rates of Exchange" as of December 31, 1973.

RETIRED PAY, DEFENSE

Chairman McCLELLAN. Another appropriation to be included is that for "Retired pay, Defense." This includes the program and financing information, the prepared statement of Mr. Leroy J. Spence, together with tabular material included in his statement, as well as certain information from the justifications.

[The information follows:]

32-382 O - 74 - 78

Justification

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

	IDENTIFICATION CODE 07-07-0030-0-1-051	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:			
	1. NONDISABILITY	3,303,173	3,537,215	4,370,025
	2. TEMPORARY DISABILITY	73,779	69,201	80,231
	3. PERMANENT DISABILITY	616,664	653,496	741,340
	4. FLEET RESERVE	381,526	390,579	446,037
	5. SURVIVORS' BENEFITS	17,076	31,409	49,967
10	TOTAL OBLIGATIONS (OBJECT CLASS 13.0)	4,392,218	4,681,900	5,687,600
	FINANCING:			
25	UNOBLIGATED BALANCE LAPSING	49,466	.....	.....
	BUDGET AUTHORITY	4,441,684	4,681,900	5,687,600
	RELATION OF OBLIGATIONS TO OUTLAYS:			
71	OBLIGATIONS INCURRED, NET	4,392,218	4,681,900	5,687,600
72	OBLIGATED BALANCE, START OF YEAR	13,673	15,792	21,492
74	OBLIGATED BALANCE, END OF YEAR	-15,792	-21,492	-24,092
77	ADJUSTMENTS IN EXPIRED ACCOUNTS	-2	.....	.....
90	OUTLAYS	4,390,097	4,676,200	5,685,000

STATEMENT OF MR. LEROY J. SPENCE

Mr. Chairman and Members of the Committee:

I appreciate the opportunity of appearing before this Committee in behalf of the Department of Defense to discuss the appropriation for Retired Pay for fiscal year 1975.

The appropriation requested is a consolidation of the estimates of the military departments for: retired pay of military personnel on the retired lists of the Army, Navy, Marine Corps and Air Force; retainer pay for members of the Fleet Reserves of the Navy and Marine Corps; and payments to survivors of retired military personnel under the Retired Serviceman's Family Protection Plan and payments under the Survivor Benefit Plan enacted by Public Law 92-425.

The appropriation request for FY 1975 is $5,687.6 million, compared with $4,681.9 million initially appropriated plus supplemental funds of $468.8 million for a total of $5,150.7 million in FY 1974. The amount requested for FY 1975 will provide for payments to an average of 1,045,475 annuitants, an increase of 61,199 over the estimate for FY 1974.

The supplemental funds for FY 1974 are required to provide for the additional retirement costs resulting from cost-of-living increases, increases in the military pay of military personnel retiring during the year, and net strength and rate changes since the budget was submitted. Under the law, when the Consumer Price Index (CPI) for any month is at least 3 percent higher than the CPI for the month which was the basis for the last adjustment to retired pay and sustains that level for three consecutive months, retired pay is adjusted to the highest percent of increase in that three-month period, plus one percent, effective on the first day of the third month following that period. CPI increases of 6.1 percent, effective July 1, 1973, and 5.5 percent, effective January 1, 1974, have

occurred since the FY 1974 budget estimate was submitted to the Congress. Also, military pay increases of 6.69 percent and 6.16 percent were authorized by Executive Orders 11692 and 11740, respectively, and issued pursuant to Public Law 90-207.

MAJOR CATEGORIES OF PERSONNEL

General

There are five major categories of personnel who will receive payments from this appropriation.

Nondisability

The nondisability category includes personnel who are retired for age or length of service.

It is estimated tha $4,370.0 million or 76.84 percent of the total appropriation request will be required to provide for an average of 760,368 annuitants in the nondisability category in FY 1975.

Temporary Disability

The temporary disability category is an interim classification for disabled personnel where there is some doubt as to the degree or permanence of their disability.

It is estimated that $80.2 million or 1.41 percent of the total appropriation request will be required to provide for an average of 14,719 annuitants in FY 1975.

Permanent Disability

The permanent disability category is composed of military personnel whose disability has been definitely established as "permanent." Persons may be placed on the permanent disability rolls immediately following the termination of their active duty or by transfer from the temporary disability rolls. It is estimated that $741.4 million or 13.03 percent of the total appropriation request will be required in FY 1975 for an average of 145,321 permanently disabled retired military personnel.

Fleet Reserve

The Fleet Reserve category is composed of Navy and Marine Corps enlisted personnel having 20 but less than 30 years of service who elect to transfer from active duty to the Fleet Reserve. Upon completion of 30 years of combined active service and service in the Fleet Reserve or upon being found physically unfit for further military service, such personnel are transferred to the regular retired rolls. It is estimated that $446.0 million or 7.84 percent of the appropriation request will be required in FY 1975 to provide for an average of 99,837 Fleet Reservists.

Survivors' Benefits

The Survivors' Benefits category includes those survivors of retired military personnel who are entitled to payments under this appropriation. It is estimated that $50.0 million or 0.88 percent of the total appropriation request will be required to provide for an average of 25,230 annuitants in FY 1975.

SUMMARY

The amounts included for each of the categories are mathematical computations of averages of the rates presently prescribed by law applied to the best available projections of the number of personnel to be carried on the rolls in fiscal years 1974 and 1975.

Payments under this appropriation are required by law and any funds not required revert to the Treasury at the end of the fiscal year.

Mr. Chairman, Mr. L. P. Dube, Director, and Mr. Aloysius F. Harter, of the Directorate for Military Personnel in the Office of the Deputy Assistant Secretary of Defense (Comptroller), are with me today. We will attempt to answer any questions the Chairman or Committee members may have.

NEW OBLIGATIONAL AUTHORITY, OBLIGATIONS, UNOBLIGATED BALANCE, AND AVERAGE NUMBER ON RETIRED MILITARY ROLLS

(In Thousands of Dollars)

Fiscal Year	New Obligational Authority	Obligations	Unobligated Balance	Average Number 4/
Actual				
1952	345,000	330,598	14,402	137,785
1953	357,000	356,385	615	147,216
1954	387,000	386,298	702	162,305
1955	423,500	422,102	1,398	174,012
1956	495,000	478,932	16,068	185,754
1957	515,000	510,784	4,216	192,209
1958	567,000	560,962	6,038	208,570
1959	640,000	634,542	5,458	222,545
1960	715,000	692,922	22,078	242,904
1961	789,500	787,806	1,694	275,914
1962	920,000	895,854	24,146	313,436
1963	1,029,000 1/	1,014,775	10,925	358,830
1964	1,228,000	1,211,215	16,785	410,853
1965	1,399,000	1,385,578	13,422	462,463
1966	1,600,000	1,592,352	7,648	508,566
1967	1,839,000	1,831,159	7,841	564,280
1968	2,095,000	2,093,478	1,522	624,496
1969	2,450,000 2/	2,442,941	7,059	691,688
1970	2,859,000	2,853,234	4,766	750,144
1971	3,391,032 3/	3,388,999	2,033	806,139
1972	3,921,446	3,889,115	12,331	867,190
1973	4,441,684	4,392,218	49,466	923,635
Estimate				
1974		5,150,700		984,276
1975		5,687,600		1,045,475
1976		5,997,364		1,110,000
1977		6,350,636		1,156,000
1978		6,702,008		1,198,000
1979		7,044,380		1,237,000

1/ $3.3 million transferred to "Claims, Defense."

2/ $1.0 million transferred to "Operation and Maintenance, Defense Agencies."

3/ $20.0 million transferred to "Operation and Maintenance, Air Force."

4/ Includes those receiving Survivors' Benefits.

NET INCREASES IN END STRENGTHS FROM THE PREVIOUS FISCAL YEAR

Activity	Fiscal Year 1973 Actual	Fiscal Year 1973 Percent	Fiscal Year 1974 Estimate	Fiscal Year 1974 Percent	Fiscal Year 1975 Estimate	Fiscal Year 1975 Percent
Nondisability	58,090	9.36	51,336	7.57	51,237	7.02
Temporary Disability	-2,707	-12.91	-2,338	-12.81	-2,224	-13.98
Permanent Disability	5,034	3.73	4,205	3.00	2,110	1.46
Fleet Reserve	-5,809	-5.57	474	0.48	1,051	1.06
Survivors' Benefits	3,394	35.44	8,682	66.93	6,887	31.80
TOTAL	58,002	6.52	62,359	6.58	59,061	5.84

ACTUAL END STRENGTHS, OBLIGATIONS AND EXPENDITURES IN FY 1974

(Dollars in Thousands)

Month	End Strengths	Obligations	Expenditures
July 1973	954,460	395,701	391,887
August	961,223	407,875	407,552
September	967,373	408,658	407,946
October	972,488	410,618	408,951
November	977,723	415,364	413,967
December	981,913	415,475	416,053
January 1974	986,000	438,899	435,801
February	990,097	442,548	441,182

NUMBER OF RETIREMENTS AMONG MILITARY PERSONNEL ON ACTIVE DUTY

Fiscal Year	By Category Total	By Category Officer	By Category Enlisted	By Type of Retirement Nondisability	By Type of Retirement Disability
1960 1/	29,353	6,823	22,530	22,626	6,727
1961 1/	42,034	12,886	29,148	35,198	6,836
1962 1/	40,929	10,153	30,776	34,110	6,819
1963 1/	57,629	14,319	43,310	49,166	8,463
1964 1/	57,384	13,609	43,775	48,900	8,484
1965 1/	55,772	13,872	41,900	46,635	9,137
1966 2/	54,750	13,101	41,649	43,533	11,217
1967 2/	70,062	13,605	56,457	56,442	13,620
1968 2/	72,326	13,728	58,598	55,973	16,353
1969 2/	73,017	13,340	59,677	51,579	21,438
1970 2/	75,728	17,586	58,142	51,232	24,496
1971 2/	80,801	18,298	62,503	57,879	22,922
1972 2/	77,618	14,479	63,149	59,547	18,071
1973 2/	72,641	13,950	58,691	60,105	12,536
1974 2/	71,270	13,459	57,811	59,702	11,568
1975 2/	71,349	12,122	59,227	61,168	10,181
"Normal" for an active force of present size with current retention rates:	47,104	7,975	39,129	39,944	7,160

Source: 1/ Personnel Report
2/ Budget

TITLE III, PUBLIC LAW 810, RETIREES (10 U.S.C. 1331)

Category	FY 1973 Actual End Number	FY 1973 Actual Ave. Number	FY 1973 Actual Obligs. ($000)	FY 1974 Estimate End Number	FY 1974 Estimate Ave. Number	FY 1974 Estimate Obligs. ($000)	FY 1975 Estimate End Number	FY 1975 Estimate Ave. Number	FY 1975 Estimate Obligs. ($000)
Officers	45,525	44,609	163,739	48,081	46,907	160,393	50,727	49,505	174,772
Enlisted	6,068	5,757	10,903	6,829	6,501	13,958	7,630	7,280	16,218
TOTAL	51,593	50,366	174,642	54,910	53,408	174,351	58,357	56,785	190,990

COMPARISON OF RETIRED PAY WITH DEPARTMENT OF DEFENSE OUTLAYS

(Dollars in Millions)

Fiscal Year	Military Functions	Retired Pay Portion	Percent
1937	$934	$55	5.89
1938	1,033	59	5.71
1939	1,075	61	5.67
1940	1,492	66	4.42
1941	5,998	73	1.22
1942	23,570	84	.36
1943	62,664	49	.08
1944	75,797	57	.08
1945	80,048	57	.07
1946	42,044	85	.20
1947	13,838	140	1.01
1948	10,937	175	1.60
1949	11,573	193	1.67
1950	11,891	193	1.62
1951	19,764	321	1.62
1952	38,897	329	.85
1953	43,604	357	.82
1954	40,326	386	.96
1955	35,531	419	1.18
1956	35,792	477	1.33
1957	38,436	511	1.33
1958	39,070	562	1.44
1959	41,223	641	1.55
1960	41,215	694	1.68
1961	43,227	786	1.82
1962	46,815	894	1.91
1963	48,252	1,015	2.10
1964	49,577	1,209	2.44
1965	45,973	1,384	3.01
1966	54,178	1,591	2.94
1967	67,457	1,830	2.71
1968	77,373	2,095	2.71
1969	77,872	2,444	3.14
1970	77,150	2,849	3.69
1971	74,546	3,386	4.54
1972	75,151	3,885	5.17
1973	73,297	4,390	5.99
1974 (Estimate)	78,400	5,145	6.56
1975 (Estimate)	84,600	5,685	6.72

SURVIVORS' BENEFITS
(Dollars in Thousands)

Fiscal Year	No. of Retirees Electing to Participate 1/	Deduction in Retired Pay	Survivors Receiving Benefits 1/	Payment to Survivors
RETIRED SERVICEMAN'S FAMILY PROTECTION PLAN (RSFPP)				
1954 (last 8 months)	11,243	1,597	149	67
1955	11,401	4,308	499	462
1956	12,580	4,692	814	797
1957	14,859	5,424	1,128	1,136
1958	17,890	6,251	1,469	1,479
1959	19,846	7,204	1,881	1,880
1960	22,967	7,786	2,312	2,422
1961	27,997	8,933	2,807	3,003
1962	33,659	10,806	3,271	3,495
1963	43,254	13,141	3,713	3,992
1964	52,143	14,906	4,187	4,595
1965	60,996	18,447	4,643	5,295
1966	69,445	21,338	5,149	6,046
1967	80,102	24,762	5,746	6,850
1968	91,371	28,446	6,476	7,869
1969	100,208	32,751	7,202	9,009
1970	108,272	36,680	7,891	10,283
1971	117,129	41,858	8,695	11,730
1972	124,563	46,297	9,578	13,474
1973	92,724	33,554	10,345	15,153
1974 (Estimate)	78,844	31,457	10,863	16,606
1975 (Estimate)	76,312	31,053	11,541	17,751
Subtotal		431,688 2/		143,394
SURVIVOR BENEFIT PLAN (SBP)				
1973	260,777	29,528	936	1,295
1974 (Estimate)	406,267	69,935	6,315	11,422
1975 (Estimate)	447,181	75,815	11,989	27,881
Subtotal		175,278		40,598
GUARANTEED MINIMUM INCOME (TO CURRENT WIDOWS)				
1973	--	--	1,689	624
1974 (Estimate)	--	--	4,336	3,102
1975 (Estimate)	--	--	4,849	3,722
DIC SUPPLEMENTAL PAYMENTS (TO FUTURE WIDOWS)				
1973	--	--	2	4
1974 (Estimate)	--	--	140	279
1975 (Estimate)	--	--	162	613
TOTAL OF ALL FOUR CATEGORIES				
1973	353,501	63,082	12,972	17,076
1974 (Estimate)	485,111	101,392	21,654	31,409
1975 (Estimate)	523,493	106,868	28,541	49,967

1/ Number at end of Fiscal Year.
2/ Annual amounts will not add to total due to rounding.

MILITARY PERSONNEL RECEIVING RETIRED OR RETAINER PAY AS OF 30 JUNE 1973

Retired Pay Grade	All Retirements 1/ No. of Persons	Monthly Amount	Ave. Mo. Ret. Pay	Nondisability Retirements 1/ No. of Persons	Monthly Amount	Ave. Mo. Ret. Pay	Disability Retirements No. of Persons	Monthly Amount	Ave. Mo. Ret. Pay
O-10	131	$255,777	$1,952	66	$127,178	$1,927	65	$128,599	$1,978
O-9	360	613,503	1,704	216	366,563	1,697	144	246,940	1,715
O-8	1,867	2,582,703	1,383	1,254	1,652,080	1,317	613	930,623	1,518
O-7	1,794	2,019,202	1,126	1,326	1,422,888	1,073	468	595,314	1,274
O-6	49,691	45,519,506	916	41,682	37,167,723	892	8,009	8,351,783	1,043
O-5	94,460	63,676,741	674	83,785	55,617,816	664	10,675	8,058,925	755
O-4	66,732	36,324,963	544	56,773	30,953,355	545	9,959	5,371,608	539
O-3	30,023	12,772,947	425	16,451	7,519,593	457	13,572	5,253,354	387
O-2	16,590	5,351,429	323	4,651	1,689,532	363	11,939	3,661,897	307
O-1	5,442	1,451,103	267	886	265,422	300	4,556	1,185,681	260
W-4	10,463	6,431,071	615	9,260	5,629,871	608	1,203	801,200	666
W-3	9,861	4,217,886	428	9,090	3,866,825	425	771	351,061	455
W-2	14,360	5,303,832	369	12,702	4,715,828	371	1,658	588,004	355
W-1	4,676	1,383,845	296	3,496	1,053,106	304	1,180	320,739	272
Total Officers	306,450	$187,904,508	$613	241,638	$152,057,780	$629	64,812	$35,846,728	$553
E-9	28,655	$14,842,943	$518	25,832	$13,317,353	$516	2,823	$1,525,590	$540
E-8	65,281	26,478,074	406	59,848	24,197,645	404	5,433	2,280,429	420
E-7	240,225	75,949,619	316	220,678	69,793,693	316	19,547	6,155,926	315
E-6	171,691	45,662,300	266	153,814	41,287,800	268	17,877	4,374,500	245
E-5	83,397	17,807,301	214	64,646	14,296,767	221	18,751	3,510,534	187
E-4	24,440 2/	3,807,752 2/	156	8,820	1,522,739	173	15,620 2/	2,285,013 2/	146
E-3	10,240	1,476,107	144	1,294	208,569	161	8,946	1,267,538	142
E-2	3,951	347,489	88	252	31,676	126	3,699	315,813	85
E-1	942	100,543	107	71	11,321	159	871	89,222	102
Total Enlisted	628,822	$186,472,128	$297	535,255	$164,667,563	$308	93,567	$21,804,565	$233
Grand Total	935,272	$374,376,636	$400	776,893	$316,725,343	$408	158,379	$57,651,203	$364

1/ Includes Fleet Reserve. 2/ Includes 12 NAVCADS.

Analysis by Fiscal Year of the Number of Retired Personnel and Obligations for the Department of Defense
(Dollars in Thousands)

Activity and Category	Actual FY 1973			Estimate FY 1974			Estimate FY 1975		
	End No.	Avg. No.	Obligs.	End No.	Avg. No.	Obligs.	End No.	Avg. No.	Obligs.
Nondisability									
Regular Officers	97,967	95,723	893,199	103,348	101,671	1,058,072	107,747	106,157	1,153,122
Regular Enlisted	429,765	410,611	1,501,248	468,515	451,796	1,838,578	508,782	492,514	2,100,860
Nonregular Officers	143,666	141,121	894,800	149,609	146,985	1,014,576	155,076	152,664	1,093,763
Nonregular Enlisted	7,143	6,624	13,926	8,405	7,863	18,532	9,509	9,033	22,280
Subtotal	678,541	654,079	3,303,173	729,877	708,315	3,929,758	781,114	760,368	4,370,025
Temporary Disability									
Regular Officers	1,777	1,796	19,900	1,875	1,881	23,277	1,941	1,971	27,084
Regular Enlisted	14,168	14,820	41,318	12,593	13,439	40,647	10,601	11,488	41,986
Nonregular Officers	1,157	1,310	9,452	968	1,059	8,205	809	882	8,443
Nonregular Enlisted	1,138	1,537	3,109	466	718	2,587	327	378	2,718
Subtotal	18,240	19,463	73,779	15,902	17,097	74,716	13,678	14,719	80,231
Permanent Disability									
Regular Officers	19,955	19,747	182,633	20,405	20,201	205,544	20,918	20,688	221,298
Regular Enlisted	71,845	70,221	206,391	74,885	73,509	241,252	76,320	75,511	261,125
Nonregular Officers	41,904	41,981	220,627	42,097	42,010	239,761	42,060	42,070	248,975
Nonregular Enlisted	6,427	6,164	7,013	6,949	6,711	8,419	7,148	7,052	9,942
Subtotal	140,131	138,113	616,664	144,336	142,431	694,976	146,446	145,321	741,340
Fleet Reserve	98,360	100,838	381,526	98,834	98,665	419,841	99,885	99,837	446,037
Survivors' Benefits									
Old Plan (RSFPP)	10,345	10,013	15,153	10,863	10,612	16,606	11,541	11,236	17,751
New Plan (SBP)	936	439	1,295	6,315	3,815	11,422	11,989	9,224	27,881
Guaranteed Min. Inc.	1,689	690	624	4,336	3,265	3,102	4,849	4,618	3,722
DIC Suppl. Payments	2	-	4	140	76	279	162	152	613
Subtotal	12,972	11,142	17,076	21,654	17,768	31,409	28,541	25,230	49,967
Total	948,244	923,635	4,392,218	1,010,603	984,276	5,150,700	1,069,664	1,045,475	5,687,600

Analysis by Fiscal Year of the Number of Retired Personnel and Obligations for the Department of the Army
(Dollars in Thousands)

Activity and Category	Actual FY 1973			Estimate FY 1974			Estimate FY 1975		
	End No.	Avg. No.	Obligs.	End No.	Avg. No.	Obligs.	End No.	Avg. No.	Obligs.
Nondisability									
Regular Officers	19,302	18,807	209,659	20,450	20,053	245,996	21,496	21,121	272,473
Regular Enlisted	158,218	153,736	576,530	167,742	163,658	684,261	176,929	172,676	761,893
Nonregular Officers	82,045	81,019	491,341	84,879	83,638	554,685	87,788	86,474	602,489
Nonregular Enlisted	2,381	2,298	4,550	2,666	2,556	5,767	2,992	2,865	6,704
Subtotal	261,946	255,860	1,282,080	275,737	269,905	1,490,709	289,205	283,136	1,643,559
Temporary Disability									
Regular Officers	177	220	2,477	141	157	1,731	101	124	1,578
Regular Enlisted	2,738	3,305	9,495	2,264	2,417	6,192	1,718	1,899	5,945
Nonregular Officers	483	595	4,256	300	380	2,573	166	228	2,113
Nonregular Enlisted	816	1,213	2,286	192	422	1,531	103	130	1,617
Subtotal	4,214	5,333	18,514	2,897	3,376	12,027	2,088	2,381	11,253
Permanent Disability									
Regular Officers	6,664	6,568	62,612	6,972	6,850	72,877	7,183	7,100	81,115
Regular Enlisted	24,142	23,065	72,574	26,097	25,218	91,563	26,789	26,400	102,917
Nonregular Officers	25,856	25,852	127,586	26,199	26,034	139,940	26,328	26,252	146,990
Nonregular Enlisted	4,852	4,584	4,239	5.361	5,128	5,546	5,562	5,462	7,013
Subtotal	61,514	60,069	267,011	64,629	63,230	309,926	65,862	65,214	338,035
Survivors' Benefits									
Old Plan (RSFPP)	4,410	4,306	5,698	4,494	4,488	6,144	4,585	4,576	6,292
New Plan (SBP)	409	289	839	3,078	1,744	5,197	6,170	4,624	14,098
Guaranteed Min. Inc.	484	396	376	867	733	696	1,148	1,032	980
DIC Suppl. Payments	2	-	4	45	25	101	88	68	283
Subtotal	5,305	4,991	6,917	8,484	6,990	12,138	11,991	10,300	21,653
Total	332,979	326,253	1,574,522	351,747	343,501	1,824,800	369,146	361,031	2,014,500

Analysis by Fiscal Year of the Number of Retired Personnel and Obligations for the Department of the Navy (Navy)
(Dollars in Thousands)

Activity and Category	Actual FY 1973			Estimate FY 1974			Estimate FY 1975		
	End No.	Avg. No.	Obligs.	End No.	Avg. No.	Obligs.	End No.	Avg. No.	Obligs.
Nondisability									
Regular Officers	43,970	43,604	347,975	45,589	45,029	402,225	47,257	46,742	435,347
Regular Enlisted	75,396	70,714	240,212	84,275	80,226	297,809	92,850	89,155	339,406
Nonregular Officers	14,185	13,779	52,722	15,245	14,773	73,341	16,396	15,884	80,677
Nonregular Enlisted	4,063	3,692	8,056	4,895	4,521	11,030	5,529	5,243	13,401
Subtotal	137,614	131,789	658,965	150,004	144,549	784,405	162,032	157,024	868,831
Temporary Disability									
Regular Officers	927	914	10,620	1,056	1,035	13,429	1,204	1,189	16,428
Regular Enlisted	4,850	4,717	14,305	4,625	4,761	16,725	4,400	4,537	18,244
Nonregular Officers	244	257	1,976	235	241	2,026	232	234	2,156
Nonregular Enlisted	286	279	736	243	264	981	201	221	1,037
Subtotal	6,307	6,167	27,637	6,159	6,301	33,161	6,037	6,181	37,865
Permanent Disability									
Regular Officers	5,623	5,679	41,915	5,552	5,582	44,953	5,485	5,517	45,866
Regular Enlisted	13,833	13,693	31,996	14,212	13,969	35,325	14,591	14,348	36,929
Nonregular Officers	3,155	3,180	14,864	3,104	3,131	15,894	3,054	3,080	16,037
Nonregular Enlisted	1,138	1,143	2,198	1,141	1,140	2,317	1,144	1,143	2,376
Subtotal	23,749	23,695	90,973	24,009	23,822	98,489	24,274	24,088	101,208
Fleet Reserve	81,106	83,974	310,761	79,505	80,358	334,653	78,497	79,461	348,701
Survivors' Benefits									
Old Plan (RSFPP)	2,774	2,706	3,393	3,012	2,867	4,512	3,326	3,166	4,966
New Plan (SBP)	464	138	403	1,891	1,216	3,567	3,385	2,706	8,069
Guaranteed Min. Inc.	1,150	281	238	3,000	2,180	2,013	3,000	3,000	2,160
DIC Suppl. Payments	-	-	-	-	-	-	-	-	-
Subtotal	4,388	3,125	4,034	7,903	6,263	10,092	9,711	8,872	15,195
Total	253,164	248,750	1,092,370	267,580	261,293	1,260,800	280,551	275,626	1,371,800

Analysis by Fiscal Year of the Number of Retired Personnel and Obligations for the Department of the Navy (Marine Corps)
(Dollars in Thousands)

Activity and Category	Actual FY 1973			Estimate FY 1974			Estimate FY 1975		
	End No.	Avg. No.	Obligs.	End No.	Avg. No.	Obligs.	End No.	Avg. No.	Obligs.
Nondisability									
Regular Officers	8,718	8,542	68,373	9,308	9,100	81,532	9,675	9,463	86,654
Regular Enlisted	8,578	7,934	30,560	9,704	9,228	39,340	10,939	10,397	45,947
Nonregular Officers	1,133	1,103	6,887	1,329	1,229	8,515	1,477	1,418	10,380
Nonregular Enlisted	109	101	220	121	117	278	131	127	307
Subtotal	18,538	17,680	106,040	20,462	19,674	129,665	22,222	21,405	143,288
Temporary Disability									
Regular Officers	427	416	3,903	423	432	4,455	389	406	4,282
Regular Enlisted	3,604	3,815	9,420	2,708	3,272	8,108	1,667	2,146	6,256
Nonregular Officers	126	137	920	123	126	973	114	117	966
Nonregular Enlisted	15	23	42	8	11	25	3	6	17
Subtotal	4,172	4,391	14,285	3,262	3,841	13,561	2,173	2,675	11,521
Permanent Disability									
Regular Officers	1,545	1,516	11,006	1,583	1,565	12,356	1,620	1,606	13,065
Regular Enlisted	5,916	5,715	11,523	6,172	6,110	13,637	6,222	6,201	14,125
Nonregular Officers	903	892	3,709	917	911	4,163	929	926	4,373
Nonregular Enlisted	333	336	361	336	336	369	330	335	355
Subtotal	8,697	8,459	26,599	9,008	8,922	30,525	9,101	9,068	31,918
Fleet Reserve	17,254	16,864	70,765	19,329	18,307	85,188	21,388	20,376	97,336
Survivors' Benefits									
Old Plan (RSFPP)	289	227	478	351	318	561	351	351	620
New Plan (SBP)	63	12	53	126	109	325	223	179	541
Guaranteed Min. Inc.	55	13	10	82	74	54	101	93	67
DIC Suppl. Payments	-	-	-	10	4	21	30	21	109
Subtotal	407	302	541	569	505	961	705	644	1,337
Total	49,068	47,696	218,230	52,630	51,249	259,900	55,589	54,168	285,400

Analysis By Fiscal Year of the Number of Retired Personnel and Obligations for the Department of the Air Force
(Dollars in Thousands)

Activity and Category	Actual FY 1973			Estimate FY 1974			Estimate FY 1975		
	End No.	Avg. No.	Obligs.	End No.	Avg. No.	Obligs.	End No.	Avg. No.	Obligs.
Nondisability									
Regular Officers	25,977	24,770	267,192	28,001	27,489	328,319	29,319	28,831	358,648
Regular Enlisted	187,573	178,227	653,946	206,794	198,684	817,168	228,064	220,286	953,614
Nonregular Officers	46,303	45,220	333,850	48,156	47,345	378,035	49,415	48,888	400,217
Nonregular Enlisted	590	533	1,100	723	669	1,457	857	798	1,868
Subtotal	260,443	248,750	1,256,088	283,674	274,187	1,524,979	307,655	298,803	1,714,347
Temporary Disability									
Regular Officers	246	246	2,900	255	257	3,662	247	252	4,796
Regular Enlisted	2,976	2,983	8,098	2,996	2,989	9,622	2,816	2,906	11,541
Nonregular Officers	304	321	2,300	310	312	2,633	297	303	3,208
Nonregular Enlisted	21	22	45	23	21	50	20	21	47
Subtotal	3,547	3,572	13,343	3,584	3,579	15,967	3,380	3,482	19,592
Permanent Disability									
Regular Officers	6,123	5,984	67,100	6,298	6,204	75,358	6,630	6,465	81,252
Regular Enlisted	27,954	27,748	90,298	28,404	28,212	100,727	28,718	28,562	107,154
Nonregular Officers	11,990	12,057	74,468	11,877	11,934	79,764	11,749	11,812	81,575
Nonregular Enlisted	104	101	215	111	107	187	112	112	198
Subtotal	46,171	45,890	232,081	46,690	46,457	256,036	47,209	46,951	270,179
Survivors' Benefits									
Old Plan (RSFPP)	2,872	2,724	5,584	3,006	2,939	5,389	3,279	3,143	5,873
New Plan (SBP)	-	-	-	1,220	746	2,333	2,211	1,715	5,173
Guaranteed Min. Inc.	-	-	-	387	278	339	600	493	515
DIC Suppl. Payments	-	-	-	85	47	157	44	63	221
Subtotal	2,872	2,724	5,584	4,698	4,010	8,218	6,134	5,414	11,782
Total	313,033	300,936	1,507,096	338,646	328,233	1,805,200	364,378	354,650	2,015,900

Justification

APPROPRIATION INTRODUCTION
(In Thousands of Dollars)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Appropriation or Estimate	4,441,684	4,681,900	5,687,600
Proposed Program Supplemental	--	468,800	--
Unobligated Balance Lapsing	-49,466	--	--
Total Obligations	4,392,218	5,150,700	5,687,600

This appropriation provides for the pay, as authorized and the rates prescribed by law, of military personnel on the retired lists of the Army, Navy, Marine Corps, and Air Force and provides for payments to survivors pursuant to Section 4 of Public Law 92-425 and Chapter 73, title 10, United States Code. These expenses include the pay of retired officers, warrant officers, enlisted personnel, female nurses and members of the women's medical specialist corps, Philippine Scouts, and authorized personnel of the reserve components, including retainer pay of the inactive Fleet Reserve.

The estimate excludes payments to individuals who elect to receive compensation for physical disability from the Veterans Administration. The amount requested is also exclusive of any administrative expense. The estimate provides for the military pay raises effective January 1, 1973 of 6.69 percent and October 1, 1973 of 6.16 percent, and increased retired pay costs related to increases in the Consumer Price Index of 6.1 percent on July 1, 1973 and 5.5 percent on January 1, 1974 plus net strength and rate changes.

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SUMMARY OF OBLIGATIONS BY BUDGET ACTIVITY
(Dollars in Thousands)

Budget Activity	FY 1973 Actual Amount	FY 1973 Actual Percent	FY 1974 Estimate Amount	FY 1974 Estimate Percent	FY 1975 Estimate Amount	FY 1975 Estimate Percent
Nondisability	3,303,173	75.20	3,929,758	76.30	4,370,025	76.84
Temporary Disability	73,779	1.68	74,716	1.45	80,231	1.41
Permanent Disability	616,664	14.04	694,976	13.49	741,340	13.03
Fleet Reserve	381,526	8.69	419,841	8.15	446,037	7.84
Survivors' Benefits	17,076	.39	31,409	.61	49,967	.88
Total	4,392,218	100.00	5,150,700	100.00	5,687,600	100.00

NONDISABILITY RETIREMENTS

AUTHORITY: Applicable statutes.

BASIS FOR RETIREMENT:

Voluntarily on or after completion of the required length of service.

Involuntarily because of attainment of statutory age or completion of the maximum length of service authorized by law for the several grades.

Automatically upon completion of 30 years of combined active service and service in the Fleet Reserve.

EXPLANATION:

Provision is made in this category for the retirement pay of regular officers, regular enlisted personnel advanced to officer pay grades, regular enlisted personnel, and nonregular officers and nonregular enlisted personnel who have qualified for retirement pay under the applicable provisions of law covering nondisability retirement. The rates of such retirement pay are fixed by law.

Gains to the nondisability retirement rolls are governed by the following:

a. The mandatory and involuntary retirement of regular and reserve officers.

b. Voluntary retirement of regular and reserve officers as authorized by other law.

c. Mandatory and voluntary retirement of warrant officers required or authorized pursuant to the Warrant Officer Act.

d. Adjustments in force levels.

e. Automatic transfer of Fleet Reservists to this category upon completion of 30 years of combined active service and service in the Fleet Reserve.

f. Voluntary retirement of enlisted personnel as authorized by law.

Losses from the nondisability retired rolls are estimated on the basis of current death-rate experience.

The increase in FY 1975 of $440,267,000 over the estimated requirements for fiscal year 1974 is primarily attributable to the addition of 10,165 manyears of retired officers and 41,888 manyears of retired enlisted personnel.

SUMMARY FOR FISCAL YEARS 1973, 1974, and 1975

(Dollars in Thousands)

Subactivity	FY 1973 Actual		FY 1974 Estimate		FY 1975 Estimate	
	Average No.	Amount	Average No.	Amount	Average No.	Amount
Regular Officers	95,723	893,199	101,671	1,058,072	106,157	1,153,122
Regular Enlisted	410,611	1,501,248	451,796	1,838,578	492,514	2,100,860
Nonregular Officers	141,121	894,800	146,985	1,014,576	152,664	1,093,763
Nonregular Enlisted	6,624	13,926	7,863	18,532	9,033	22,280
TOTAL	654,079	3,303,173	708,315	3,929,758	760,368	4,370,025

TEMPORARY DISABILITY RETIREMENTS

AUTHORITY:

Title IV of the Career Compensation Act of 1949 (now codified as Chapter 61, Title 10, United States Code)

BASIS FOR RETIRMENT:

Interim classification in cases where there is doubt as to the degree or permanence of the disability. Persons on temporary disability rolls are given periodic physical examinations at least once every eighteen months and may be:

a. Restored to active duty.

b. Separated from the service with severance pay.

c. Transferred to permanent disability retired list.

d. Continued on temporary list for another eighteen-month period.

Final determination is required within five years of initial classification and temporary disability retirement.

EXPLANATION:

Included in this category are amounts for the retirement pay of those disabled military personnel placed on the temporary disability rolls in accordance with the provisions of the Career Compsenation Act of 1949. Individuals carried on the temporary disability list receive not less than 50 percent of their basic monthly active duty pay.

The temporary disability category was established by the Career Compensation Act in order to reduce to a minimum the number of personnel carried indefinitely on the disability retired rolls. Individuals whose physical condition has not stabilized to the point that the ultimate extent of their disability can be established are placed on the temporary list. While on this list, they are required to undergo periodic physical examination at least once every eighteen months until the degree or permanence of their disability has been fixed. They are then transferred to the permanent disability rolls, discharged with severance pay or returned to active duty, whichever is appropriate. Experience factors are the principal bases for the development of these estimates.

The average number of personnel to be carried on the temporary disability list during fiscal year 1974 is expected to be 2,366 lower than the number on the list in fiscal year 1973. The average number expected in fiscal year 1975 will decrease 2,378 from fiscal year 1974.

It is estimated that $80,231,000 will be required for the 2,853 manyears of officer personnel and 11,866 manyears of enlisted personnel which have been projected for the temporary disability list for fiscal year 1975.

SUMMARY FOR FISCAL YEARS 1973, 1974, and 1975

(Dollars in Thousands)

Subactivity	FY 1973 Actual		FY 1974 Estimate		FY 1975 Estimate	
	Average No.	Amount	Average No.	Amount	Average No.	Amount
Regular Officers	1,796	19,900	1,881	23,277	1,971	27,084
Regular Enlisted	14,820	41,318	13,439	40,647	11,488	41,986
Nonregular Officers	1,310	9,452	1,059	8,205	882	8,443
Nonregular Enlisted	1,537	3,109	718	2,587	378	2,718
TOTAL	19,463	73,779	17,097	74,716	14,719	80,231

PERMANENT DISABILITY RETIREMENTS

AUTHORITY:

Title IV of the Career Compensation Act of 1949 (now codified as Chapter 61, Title 10, U. S. C.).

BASIS FOR RETIREMENT:

Personnel are placed on the permanent disability rolls when:

a. There is no doubt as to the degree or permanence of the disability at time of initial retirement.

b. By periodic examination of temporary disability, it is determined that permanent disability exists.

EXPLANATION:

The estimate for this category provides for retirement pay of personnel who are entitled to such pay as a result of permanent physical disability. The rates of such pay are fixed by law.

It is estimated there will be a net gain of 2,110 annuitants to the rolls of this category during fiscal year 1975. This increase is based on experience factors in determining permanent disability retirement cases in relation to total military strength, estimated losses based on evaluation of the retired lists, and the number of annuitants who will transfer from the temporary to the permanent disability rolls by virtue of the examinations required within eighteen-month intervals for those annuitants on the temporary disability rolls.

It is estimated that $741,340,000 will be required for the 62,758 man-years of officer personnel and 82,563 man-years of enlisted personnel which have been projected for the permanent disability list for fiscal year 1975.

SUMMARY FOR FISCAL YEARS 1973, 1974 AND 1975

(Dollars in Thousands)

Subactivity	FY 1973 Actual		FY 1974 Estimate		FY 1975 Estimate	
	Average No.	Amount	Average No.	Amount	Average No.	Amount
Regular Officers.....	19,747	182,633	20,201	205,544	20,688	221,298
Regular Enlisted.....	70,221	206,391	73,509	241,252	75,511	261,125
Nonregular Officers.....	41,981	220,627	42,010	239,761	42,070	248,975
Nonregular Enlisted.....	6,164	7,013	6,711	8,419	7,052	9,942
TOTAL	138,113	616,664	142,431	694,976	145,321	741,340

FLEET RESERVE

AUTHORITY:

Title II of the Naval Reserve Act of 1938, as amended (now codified as 10 U. S. C. 6330, 6331).

BASIS FOR TRANSFER TO FLEET RESERVE:

Enlisted personnel of the Navy and Marine Corps having twenty but less than thirty years' creditable service may be transferred to the inactive Fleet Reserve with retainer pay at rates prescribed by law. They remain in the Fleet Reserve until their status is changed by reason of:

a. Completion of thirty years' service.

b. Recall to active duty.

c. Physical unfitness for further military service.

d. Death.

EXPLANATION:

Included in this category are amounts estimated to be required to provide retainer pay for members of the inactive fleet reserves of the Navy and Marine Corps. Retainer pay for Fleet Reservists is fixed by law.

Gains to the Fleet Reserve rolls during fiscal year 1975 are based on the estimated number of Navy and Marine Corps enlisted personnel having twenty but less than thirty years' creditable service who will transfer to the Fleet Reserve. It is estimated there will be a net gain of 1,051 Fleet Reservists to the rolls in fiscal year 1975 for a year-end strength of 99,885. It is estimated that $446,037,000 will be required for the 99,837 man-years projected for the Fleet Reserve rolls for fiscal year 1975.

SUMMARY FOR FISCAL YEARS 1973, 1974 AND 1975

(Dollars in Thousands)

	FY 1973 Actual		FY 1974 Estimate		FY 1975 Estimate	
	Average No.	Amount	Average No.	Amount	Average No.	Amount
Enlisted.....	100,838	381,526	98,665	419,841	99,837	446,037

SURVIVORS' BENEFITS

AUTHORITY:

Public Law 92-425 (Chapter 73 of Title 10, United States Code.)

EFFECT OF NEW PUBLIC LAW 92-425:

A new program that enables retired uniformed services members to provide financial protection for their survivors was signed by the President on September 21, 1972, as Public Law 92-425. The new law: (1) allowed those who already had the old Retired Servicemen's Family Protection Plan (RSFPP) eighteen months from September 21, 1972 to decide to keep the old plan only, drop the old plan and take the new plan, or keep the old plan and take the new plan in addition; (2) made the new Survivor Benefit Plan (SBP) an automatic coverage for all new retirees unless they specifically elect not to participate. The new plan gives greater coverage at less cost to the retiree than the old plan and is modeled after the Civil Service plan; (3)

has a special provision benefiting women who are now widows of deceased members of the Uniformed Services who were receiving, or were entitled to receive, retired pay. The provision guarantees these widows annual incomes of at least $2,100; and (4) provides supplemental payments to widows of retirement-eligible members who die on active duty if Dependency and Indemnity Compensation (DIC) payments (by VA) are less than the maximum payments the widow would have received if the member had been retired. SBP payments covering the difference between the two will be paid.

EXPLANATION:

Two of the benefits are contributory; the old Retired Serviceman's Family Protection Plan and the new Survivor Benefit Plan. The new Guaranteed Minimum Income and the DIC Supplemental Payments are non-contributory.

Under both of the contributory benefits, a member of the uniformed services may elect to receive a reduced amount of any retired pay which may be awarded him in order to provide one or more annuities to his survivors as specified in the law. The basic options include the choice of annuities to provide for (1) surviving spouse, (2) surviving children, (3) surviving family, including both spouse and children, or (4) other persons with insurable interest (under the new plan only). Basically, the individual provides an annuity for his survivors out of his monthly retired pay by accepting a reduction in that pay. Thus, a smaller income during his retirement years assures a continuing income for his survivors after his death.

It is estimated that there will be a net gain of 6,887 annuitants in this activity for fiscal year 1975.

Payments to survivors during fiscal year 1975 will be less than the amounts which will be deducted from the pay of retired personnel. The deductions in retirement pay during fiscal year 1975 will total approximately $106,868,000, whereas, payments to survivors are estimated at $49,967,000.

SUMMARY FOR FISCAL YEARS 1973, 1974 and 1975

(Dollars in Thousands)

Subactivity	FY 1973 Actual		FY 1974 Estimate		FY 1975 Estimate	
	Average No.	Amount	Average No.	Amount	Average No.	Amount
Old Plan (RSFPP)	10,013	15,153	10,612	16,606	11,236	17,751
New Plan (SBP)	439	1,295	3,815	11,422	9,224	27,881
Guaranteed Minimum Income	690	624	3,265	3,102	4,618	3,722
DIC Supplemental Payments	-	4	76	279	152	613
Total	11,142	17,076	17,768	31,409	25,230	49,967

DEFENSE MANPOWER COMMISSION

Chairman McCLELLAN. Last year, under title VIII of the act, funds were included for the Defense Manpower Commission. A request for a full year of funding has been received this year in the amount of $1.1 million.

Information submitted by the Department concerning this new Commission will be included in the record at this point, including the proposed appropriation language, explanatory language, and tabular material.

[The information follows:]

Appropriation language

DEFENSE MANPOWER COMMISSION

SALARIES AND EXPENSES

For necessary expenses of the Defense Manpower Commission for carrying out the provisions of title VII of the Department of Defense Appropriation Authorization Act, 1974, including services as authorized by 5 U.S.C. 3109, but at rates for GS-18, and hire of passenger motor vehicles, $1,100,000: Provided, That the unobligated balance of the appropriation granted under this heading for the Fiscal Year 1974 shall remain available during the current fiscal year.

Fiscal Year 1975 Appropriation Request

The Defense Manpower Commission was established by Public Law 93-155 and was sworn-in on April 19, 1974. At its first meeting on the same day, Dr. Curtis Tarr was elected Chairman, and Mr. Hastings Keith, Vice Chairman. The other Commissioners are Karl R. Bendetsen, Britton L. Gordon, Arthur E. Haley, R/Admiral Lester E. Hubbell, and Dr. Norma M. Loeser. The Commission determined at its first meeting that the intent of the law under which it will operate, calls not only for an evaluation of current manpower practices and procedures, but perhaps more importantly, for new and innovative recommendations.

The Commission decided that in pursuit of its tasks as enunciated in Public Law 93-155, it will seek a small high quality staff headed by the Executive Director. It is presently planned that an Associate Director will be named to direct the Commission efforts in each of the areas of inquiry. Support staff will be assigned to each of these areas as needed, depending on the nature of the effort and the method of accomplishment. Each Commissioner will have one of these subject areas as his primary area of interest and will work with the appropriate staff and the Chairman during the conduct of the study. The Commission envisions a staff of not more than thirty employees. Much of the individual expertise in specific areas will be provided by consultants, with any indepth research being accomplished by contracts. The capabilities and sources available through existing departments and agencies will be liberally used. The Commission will make maximum practicable use of existing studies and will make no attempt to establish its own data base. Interim reports and recommendations will be made to the Congress and the President on findings which have timely interest.

Program and Financing (in thousands of dollars)

Identification code 33-12-0066-0-1-059	1973 actual	1974 estimate	1975 estimate
Program by activities:			
Study defense manpower requirements (program costs, funded)--	---	76	1,130
Change in selected resources----	---	24	270
10 Total obligations----------	---	100	1,400
Financing:			
21 Unobligated balance available, start of year----------	---	---	-300
24 Unobligated balance available, end of year----------	---	300	---
40 Budget Authority (appropriation)----------	---	400	1,100
Relation of obligations to outlays:			
71 Obligations incurred, net--------	---	100	1,400
72 Obligated balances, start of year	---	---	30
74 Obligated balance, end of year	---	-30	-290
90 Outlays----------	---	70	1,140

PROGRAM AND PERFORMANCE

The Defense Manpower Commission was authorized by the Department of Defense Appropriation Authorization Act of 1974. The Commission will conduct a comprehensive study and investigation of the overall manpower requirements of the Department of Defense on both a short and long-range basis with a view to determining what the manpower requirements are currently and will likely be over the next ten years, and how manpower can be more effectively utilized in the Department of Defense.

The Commission is required to submit its final report to Congress and the President not more than 24 months after the appointment of the Commission. It will cease to exist 60 days after submission of the report. The Commission was sworn in and elected a Chairman and Vice Chairman on April 19, 1974, at its first full meeting.

The Department of Defense Appropriation Act, 1974 included $400 thousand for the Commission's expenses for 1974. The funding requested for Fiscal Year 1975, amounting to $1.4 million, includes a request for the carryover of the unobligated balance for Fiscal Year 1974 which is estimated to be $300 thousand.

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 33-12-0066-0-1-059	1973 actual	1974 estimate	1975 estimate
Personnel compensation:			
11.1 Permanent positions		12	534
11.3 Positions other than permanent		26	171
11.5 Other personnel compensation		1	10
11.8 Special personal services payments		6	23
Total personnel compensation		45	738
Personnel benefits:			
12.1 Civilian		1	42
21.0 Travel and transportation of persons		5	100
23.0 Rent, communications, and utilities		6	60
24.0 Printing and reproduction		5	35
25.0 Other services		26	411
26.0 Supplies and materials		3	7
31.0 Equipment		9	7
99.0 Total obligations		100	1,400

Personnel Summary

Identification code 33-12-0066-0-1-059	1973 actual	1974 estimate	1975 estimate
Total number of permanent positions	-	26	26
Full-time equivalent of other positions	-	5	5
Average paid employment	-	4	31
Average GS Grade	-	11.1	11.1
Average GS Salary	-	$20,554	$20,554

DETAIL OF PERMANENT POSITIONS

Position	Equivalent GS Grade	1973 actual	1974 estimate	1975 estimate
Executive Director	GS-18	-	1	1
Associate Director	GS-15/10	-	7	7
Research Director	GS-15/10	-	1	1
Research Specialist	GS-13	-	4	4
Administrative Officer	GS-13/4	-	1	1
Staff Assistant	GS-10/10	-	1	1
Executive Secretary	GS-10	-	1	1
Secretary-Steno	GS-7	-	8	8
Administrative Assistant	GS-7	-	1	1
Messenger-Driver	GS-4	-	1	1
Total Permanent Positions			26	26
Unfilled positions, June 30			-	-
Total Permanent Employment, end of year			26	26

Justification by Object Class - Fiscal Year 1975

11.1	Permanent positions (see detail of permanent positions)	
11.3	Positions other than permanent	$171,000
	.Commissioner's Compensation	$ 99,000
	4 Commissioners - 130 days @ $138 3 Commissioners - 65 days @ $138	
	.Consultants 2 man years @ $36,000 ea.	$ 72,000
11.5	Other personnel compensation .Overtime, holiday pay, etc.	$ 10,000
11.8	Special personal services payments .Reimburseable detail - Administrative Officer GS-13	$ 23,000
12.1	Benefits .Government contributions for retirement, FICA, life insurance, and hospitalization benefits	$ 42,000
21.0	Travel and Transportation of persons	$100,000
	.Commissioner's travel	36,000
	.Staff travel	40,000
	.Experts and Consultants	24,000
23.0	Rent, Communications, and Utilities .Office space rental, local telephone service, FTS usage charge, postage, telegraph, etc.	$60,000
24.0	Printing and Reproduction .Publication of reports, day-to-day reproduction, etc.	$35,000
25.0	Other Services	$411,000
	.GSA Administrative Support	15,000
	.Equipment Rental	10,000
	.Procurement of services, research	20,000
	.Contracts for studies	$366,000
26.0	Supplies and Materials .Administrative and office supplies, newspapers, periodicals, maps, and charts	$7,000
31.0	Equipment .Procurement of furniture and equipment not available through surplus stock	$7,000

DEFENSE INTELLIGENCE AGENCY

Chairman McClellan. The appropriation request for the Defense Intelligence Agency is handled separately. However, I believe it would be wise to include in the record at this point certain unclassified material from the justifications dealing with this request.

[The justification follows:]

Justification

APPROPRIATION: Operation and Maintenance, Defense Agencies, FY 1974

BUDGET ACTIVITY: Intelligence and Communications

Budget Subactivity: Intelligence and Communications

Budget Project: Defense Intelligence Agency

Statement of Purpose and Scope

The Defense Intelligence Agency (DIA) was established on 1 October 1961 in accordance with Department of Defense (DoD) Directive 5105.21. The responsibilities and authorities of DIA are enumerated in DoD Directives 5105.21, 5105.25, 5105.28, 5101.10, C-5105.32, and S-5200.17.

Responsibilities assigned to the Agency are as follows:

The organization, direction, management and control of all DoD general intelligence resources assigned to or included within the DIA.

The review and coordination of those DoD general intelligence functions retained by or assigned to the Military Departments. Overall guidance for the conduct and management of such functions is developed by the Director, DIA, for review, approval, and promulgation by the Secretary of Defense.

The supervision of the execution of all approved plans, programs, policies, and procedures for General Defense Intelligence functions not assigned to DIA, but for which DIA has management responsibility.

To obtain maximum economy and efficiency in the allocation and management of DoD general intelligence resources. This includes analysis of those DoD intelligence activities and facilities which can be fully integrated or collocated with non-DoD intelligence organizations.

To respond directly to priority requests levied upon the DIA by the United States Intelligence Board.

To satisfy the intelligence requirements of the major components of the DoD; produce all DoD intelligence estimates and DoD contributions to National Estimates.

To manage and coordinate all intelligence collection and surveillance activities under the responsibility and cognizance of DIA.

The operation and control of the Defense Intelligence School.

The development, assembly, integration and validation of all DoD scientific and technical intelligence collection and production requirements; and the review and supervision of all DoD scientific and technical intelligence programs, projects and activities. Provide intelligence estimates employing scientific and technical intelligence findings to all DoD components, to other members of the national intelligence community and to international organizations.

To represent DoD in preparation of U.S. position papers in technical intelligence matters concerning international policy or activities.

To exercise executive agent responsibility for Intelligence Career Development for general intelligence civilian personnel in the Department of Defense and review and coordinate career development programs for military general intelligence career personnel.

The direction and administration of the Defense Attache System (DAS).

To exercise general surveillance and management direction of the Communications Intelligence (COMINT) Security Program established by all DoD components, except the National Security Agency, for the security, use and dissemination of COMINT.

Summary of Resources

A. O&M Obligations ($ thousands)	FY 1973	FY 1974	FY 1975
Direct	75,621	76,088	78,265
Reimbursable	198	209	137
Total	75,819	76,297	78,402

	FY 1973		FY 1974		FY 1975	
B. Personnel	End Strength	Man years	End Strength	Man years	End Strength	Man years
Civilian	2,707	2,681	2,379	2,565	2,316	2,288
Military	2,166	2,155	1,992	2,094	1,951	1,949
Total	4,873	4,836	4,371	4,659	4,267	4,237

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Summary by Program Element
($ Thousands)

A. O&M Obligations by Program Element	FY 1973	FY 1974	FY 1975
Direct:			
Defense Attache System	14,525	16,300	17,317
Intelligence Production Activities	20,758	22,487	21,910
Scientific and Technical Intelligence	5,886	5,663	4,983
Intelligence Data Handling System	6,542	5,883	6,190
Intelligence Managment and Support Activities	24,780	22,869	24,556
Defense Special Security System	1,088	1,102	1,165
Intelligence Communications (Other)	2,042	1,784	2,144
Subtotal, Direct	75,621	76,088	78,265
Reimbursable	198	209	137
Total	75,819	76,297	78,402

B. Personnel End Strength by Program Element	FY 1973			FY 1974			FY 1975		
	Civ	Mil	Total	Civ	Mil	Total	Civ	Mil	Total
Defense Attache System	379	702	1,081	94	686	780	93	685	778
Intelligence Production Activities	1,025	512	1,537	1,003	471	1,474	962	457	1,419
Scientific and Technical Intelligence	76	51	127	77	48	125	74	47	121
Intelligence Data Handling System	184	120	304	169	97	266	165	97	262
Intelligence Management and Support Activities	985	537	1,522	979	466	1,445	961	446	1,407

	FY 1973			FY 1974			FY 1975		
	Civ	Mil	Total	Civ	Mil	Total	Civ	Mil	Total
Defense Special Security System	52	134	186	51	115	166	54	111	165
Intelligence Communications (Other)	6	110	116	6	109	115	7	108	115
TOTAL	2,707	2,166	4,873	2,379	1,992	4,371	2,316	1,951	4,267

C. Personnel Manyears by Program Element

Defense Attache System	376	700	1,076	292	701	993	91	684	775
Intelligence Production Activities	1,031	516	1,547	996	496	1,492	957	456	1,413
Scientific and Technical Intelligence	76	48	124	75	49	124	73	45	118
Intelligence Data Handling System	185	116	301	176	110	286	163	96	259
Intelligence Management and Support Activities	953	522	1,475	969	498	1,467	945	446	1,391
Defense Special Security System	54	137	191	51	131	182	53	113	166
Intelligence Communications	6	116	122	6	109	115	6	109	115
TOTAL	2,681	2,155	4,836	2,565	2,094	4,659	2,288	1,949	4,237

Summary of Increases and Decreases

	Defense Attache System	Intell. Prod. Act	Scientific and Tech. Act	Intell. Data Handling Act	Intell. Mgt. & Spt. Act	Defense Special Security	Intell. Communi-cation	Total
FY 1974	16,300	22,487	5,663	5,883	22,869	1,102	1,784	76,088
1. Increases								
A. Annualization of October 1973 Civilian Pay Increase	53	245	22	30	185	9		544
B. GSA Space Reimbursement (P.L.92-313)					2,115			2,115
C. Shared Administrative Support	1,948							1,948
D. NMIC Communications							213	213
E. Automatic Secure Voice Communications Network							105	105
F. Studies and Analyses		474		200				674
G. Other Miscellaneous Program Increases	20			217		33	42	312
Total Increases	2,021	719	22	447	2,300	42	360	5,911
2. Decreases								
A. Civilian Pay	1,004	846	49	140	516	(21)		2,534
Civilianization Program	(+ 109)	(24)	(+12)		(+550)	(+61)		(+ 756)
Personnel Reductions	(- 1,113)	(-870)	(-61)	(-140)	(-1,066)	(-40)		(-3,290)
B. Studies and Analyses			643		79			722
C. Other Miscellaneous Program Decreases		450	10		18			478
Total Decreases	1,004	1,296	702	140	613	(21)	-	3,734
FY 1975	17,317	21,910	4,983	6,190	24,556	1,165	2,144	78,265

Explanation of Increases and Decreases

A. October 1973 Pay Raise - An increase of $544,000 is requested for the annualization of the October 1973 classified pay increase. This increase includes $460,000 for direct hire classified employees pay and $84,000 for increases associated with the October 1973 pay raise for services received from other government agencies. The DIA total estimated costs in FY 1975 for the October 1973 pay raise are $2,118,000 in the Operation and Maintenance appropriation.

B. GSA Space Reimbursement - In implementation of Public Law 92-313, Public Buildings Amendments Act of 1972, DIA is required, beginning in FY 1975, to reimburse the General Services Administration (GSA) for space occupied by DIA. The estimated costs in FY 1975, based on Standard Level User charges approved by the Office of Management and Budget (OMB), for approximately

310,000 square feet of building space occupied by DIA in four Washington, D.C. area locations and associated parking space are $2,115,000.

C. Shared Administrative Support - The Department of State is reimbursed by DIA for administrative and logistical support provided by U.S. Embassy staffs to the U.S. Defense Attache Offices. In FY 1974 it is projected there will be Defense Attache offices in [D] foreign countries. The total cost of this support is expected to increase $1.9 million in FY 1975 to a total cost of $12.5 million. The majority, $1.0 million, of this increase is associated with the planned transfer of the functions now performed by 300 foreign national DIA employees to the State Department. It is anticipated that the State Department will perform these functions as an expansion of the Shared Administrative Support (SAS) agreement and will be reimbursed by DIA. The balance of the increase is associated with two items: (1) {deleted} and (2) an increase of approximately $.5 million is required to finance the DIA incremental share of SAS increases associated with full year costs of U.S. dollar revaluation and foreign inflation for goods and services.

D. NMIC Communications - An increase of $213,000 is requested in FY 1975 for full-year costs for improved communications support in the National Military Intelligence Center (NMIC). These costs are part of a continuing program initiated in FY 1973 to modernize the Center, located in the Pentagon, to improve DIA's responsiveness to the current military intelligence operational requirements of the National Command Authority. The requested increase is for full-year rental costs for terminal equipment and circuitry to improve intelligence electrical message analysis, storage, distribution, and retrieval procedures within the Center and to upgrade the capabilities to rapidly exchange intelligence data with Indications and Warning centers located in the Unified and Specified Commands by utilizing dedicated circuits.

E. Automatic Secure Voice Communications - In accordance with a decision by the Joint Chiefs of Staff and the Office of the Secretary of Defense, beginning in FY 1975 Automatic Secure Voice Communications Network (AUTOSEVOCOM) users will begin paying for a pro rata share of the switching costs. The costs to DIA for this service in FY 1975 is estimated at $105,000. The costs were previously all financed by the Department of the Air Force.

F. Studies and Analyses - In FY 1975, a total of $7,412,000 is requested for contractual studies and analyses, exclusive of the October 1973 pay raise costs for intra-agency agreements. The distribution of the funding changes by program element equating to a net decrease of $48,000 from FY 1974 levels is reflected on the preceding exhibit, line F (Increases) and line B (Decreases).

The majority of the funds requested for contractual studies and analyses is associated with two efforts: Strategic Arms Limitation verification studies and open source literature intelligence production support. A total of {deleted} is needed to acquire support from other government agencies and private industry to support DIA in verifying Soviet compliance with existing Strategic Arms Limitation (SAL) agreements and to support SALT II negotiations. This program is aimed at utilizing the best U.S. technical expertise available to assist DIA in providing timely and accurate analysis of both quantitative and qualitative aspects of Soviet weaponry. The amount requested in FY 1975 for this purpose reflects a reduction of [D] from FY 1974 estimates and is the majority of the decrease reflected on line B in Scientific and Technical Activities on the preceding exhibit.

(D) = Deleted

The open source literature exploitation program is a continuing project accomplished by the Federal Research Division of the Library of Congress. The projected DIA reimbursement to the Library of Congress in FY 1975, exclusive of the October 1973 pay raise, is $2,421,000, an increase of $364,000 over FY 1974 estimates. [deleted] This increase represents the majority of the increase in Studies and Analyses (line F.) in Intelligence Production Activities on the preceding exhibit.

Other adjustments are reflected in the amounts required for Intelligence Data Handling System software studies, course development contracts for the Defense Intelligence School, and other intelligence processing and production requirements.

G. Civilian Pay - Defense Intelligence Agency direct hire, full-time civilian employment, which peaked at 3,660 at end FY 1968, is planned to decline from 2,704 on board 30 June 1973 to 2,359 by end FY 1974 and further decline to 2,296 by 30 June 1975. This represents a total civilian personnel reduction of 1,364 since FY 1968, or 37%, and a cumulative projected 15% reduction in FY 1974 and FY 1975 from 30 June 1973 actual employment levels. The magnitude of the civilian reductions is even greater discounting the planned civilianization of 61 military spaces in FY 1974 and an additional 30 conversions in FY 1975. In other terms, excluding the 91 civilian personnel in the FY 1975 budget for which military jobs have been abolished and converted to civilian the total DIA civilian reduction since 30 June 1973 would be almost 500 personnel, or 18%.

While significant civilian personnel reductions have been made and even further reductions are planned by end FY 1975, compensation and benefits accruing to civilian personnel remain the largest single item of expense in the DIA FY 1975 estimates. The total civilian pay estimate in FY 1975, $40,764,000, is approximately 52% of the requested Operation and Maintenance obligational authority. Excluding the cost of the October 1973 classified civilian employees pay increase, the FY 1975 civilian pay estimate of $38,930,000 is $2,534,000 less than the estimated $41,464,000 planned for civilian pay in FY 1974. The FY 1975 estimate includes $920,000 for the full-year cost of the civilianization program to be initiated in FY 1974 plus the partial year costs for 30 spaces to be civilianized in FY 1975, an increase of $756,000 over the $164,000 anticipated cost for 14 manyears associated with the civilianization program in FY 1974.

In declining from 2,707 civilians on board 30 June 1973 to 2,379 by end FY 1974, the average employment is estimated at 2,558 manyears, including 205 manyears for foreign national employment. As a part of the FY 1974 reduction it is planned to eliminate 300 foreign national spaces and have the Department of State accomplish the functions previously performed by the foreign nationals under the Shared Administrative Support (SAS) agreement. This conversion is planned to be accomplished in the last quarter of FY 1974, the average employment in FY 1975 is expected to be reduced to 2,286 manyears, including only four manyears for foreign nationals. In each year 20 intermittent/consultant employees are budgeted at an anticipated 11 and 14 manyears of employment in FY 1974 and FY 1975, respectively.

H. Other Miscellaneous Program Adjustments - Other miscellaneous program adjustments totaling to a $166,000 net decrease are shown by program element on lines G (Increases) and C (Decreases) in the preceding table. The adjustments are the net result of many minor funding adjustments required to direct resources to the most critical intelligence requirements. One of the more significant adjustments considered in the overall net decrease is a projected FY 1975 $83,000 reduction in travel from FY 1974 estimates.

Summary by Element of Expense
($ Thousands)

DIRECT OBLIGATIONS	FY 1973	FY 1974	FY 1975
Civilian Personnel	41,584	42,838	40,764
Travel of Personnel	1,222	1,337	1,254
Transportation of Things	164	223	231
Utilities & Rents	2,944	2,166	2,154
Communications	2,329	2,065	2,449
Purchased Equipment Maintenance-Intra DoD	3	4	4
Purchased Equipment Maintenance-Commercial	904	1,097	1,376
Printing and Reproduction	644	704	704
Other Purchased Services	23,215	23,292	26,884
Aircraft POL	11	25	25
Other Supplies	1,949	1,982	2,003
Equipment	652	355	417
Total Direct Obligations	75,621	76,088	78,265
Reimbursable	198	209	137
Total Obligations	75,819	76,297	78,402

Summary of Civilian Personnel by Grade

Civilian Personnel Category	FY 1973	FY 1974	FY 1975
General Schedule Grades			
GS-18	1	1	1
GS-17	4	3	3
GS-16	8	9	9
GS-15	87	74	72
GS-14	155	138	134
GS-13	259	233	226
GS-12	393	356	346
GS-11	304	308	299
GS-10	22	19	18
GS-9	194	196	190
GS-8	61	62	60
GS-7	237	247	239
GS-6	282	277	270
GS-5	190	191	184
GS-4	77	70	69
GS-3	77	75	73
GS-2	-	45	44
GS-1	12	-	-
Subtotal, General Schedule	2,363	2,304	2,237
Grades established by the Secretary of Defense (10 U.S.C. 1581)	1	4	4
Ungraded Positions	332	51	55
Total Permanent Positions	2,696	2,359	2,296
Unfilled positions, June 30	+ 8	-0-	-0-
Total permanent employment, end of year	2,704	2,359	2,296
Temporary part-time and intermittent employees	3	20	20
Total employment, end of year	2,707	2,379	2,316

Summary of Military Personnel by Rank

Military Personnel	FY 1973	FY 1974	FY 1975
Officers:			
Lt. Gen./Vice Adm.	2	2	2
Maj. Gen./Rear Adm. (upper half)	3	3	3
Brig. Gen./Rear Adm. (lower half)	7	8	9
Colonel/Captain	274	276	276
Lt. Col/Commander	344	299	291
Major/Lt. Commander	352	304	296
Captain/Lieutenant	267	226	217
First Lt./Lieutenant (j.g.)	12	10	10
Warrant Officer	58	61	61
Subtotal Officers	1,319	1,189	1,165
Enlisted Personnel:	905	803	786
Total Positions	2,224	1,992	1,951
Unfilled Positions, June 30	- 58		
Total employment, end of year	2,166	1,992	1,951

QUESTIONS SUBMITTED BY SENATOR THURMOND

Chairman McCLELLAN. Additional questions by Senator Thurmond will be inserted in the record at this point.

[The questions and answers follow:]

QUESTIONS SUBMITTED BY SENATOR THURMOND

Senator THURMOND. Mr. Spence, what steps do you think the Congress should take in an effort to bring retired pay under some sort of control over the next 5 to 10 years?

Mr. SPENCE. Before answering the question directly, I would point out that a substantial military retired pay cost is the inevitable result of the size of the armed forces which must be maintained to provide adequately for the Nation's defense and to fulfill our international commitments. Within the constraints imposed on the size of the active forces some actions can be done which ultimately will have the result of reducing the potential retired pay budget. However, since the greatest part of that budget for the next 5 to 10 years is for payments to persons now on the retired rolls, any feasible changes will have but little near term effects. For example there are approximately 1 million persons now on the retired rolls. Assuming the strength of the active armed forces continues about at the current level, the number on the rolls will gradually increase and level off at about 1½ million retirees. Accordingly, the sheer size of the present and future retired rolls will make any reduction in cost within the next 5 to 10 years a virtual impossibility.

Some actions can and should be taken which in the long term will tend to reduce the potential outlay for military retired pay. The military retirement system has been the subject of intensive review in the Executive Department in recent years. As an outgrowth of that review, a legislative proposal was submitted to Congress on March 28, 1973 which, if enacted, will have the long-term effect of reducing the potential outlay for military retired pay. I will submit for the record a summary of the changes recommended, and a comparison of the present and proposed systems.

[The information follows:]

FACT SHEET

-- PROPOSED MILITARY NONDISABILITY RETIREMENT SYSTEM --

The Department of Defense has recommended a revision to the nondisability retirement system to correct defects in the present system. In conjunction with the revision, the Department of Defense has recommeded a gradual transition mechanism and a save pay provision.

The transition mechanism will gradually revise the provisions of the present retirement system to conform to the provisions of the proposed retirement system. All members on active duty on the date of implementation will be affected to some extent by the recommendation, although no such member will be fully under the provisions of the new plan. Specifically, those members with 20 or more years of service will be minimally affected. Those members with less than 20 years of service will be affected to varying degrees: the closer they are to 20 years, the less they will be affected.

Regardless of the length of service an individual has on the date of implementation, the "save pay" provision guarantees that he will receive at least as much retired pay as any similar member who retired before him. Today's levels of retired pay represent the floor; no one can receive less.

The major features of the proposed system are as follows:

- Increased multipliers for members with long service (over 24 years).
- A reduced annuity for members who retire short of a full career (30 years), with an increased annuity paid at the point when they would have reached 30 years had they remained on active duty.
- Use of high-1 average basic pay instead of terminal basic pay as the basis for computing retirement annuities.
- Integration at age 65 of the military retired pay and social security annuity (one-half of the social security retirement annuity attributable to military service would be offset from military retired pay).
- A payment to both voluntary and involuntary separatees who leave active duty before 20 years of service.

A more detailed comparison of the present and proposed system is attached.

Comparison of Present and Proposed Plan

Area of Comparison	Present System	Proposed System
o Formula for computing full annuity	-- 2 1/2% / YOS -- Paid from retirement for rest of life	-- 2 1/2% / YOS for 20 to 24 YOS -- 3% / YOS for 25 to 30 YOS -- Paid from time member would have reached 30 YOS
o Formula for computing reduced annuity	-- No reduced annuity is paid under the present system; only a full annuity	-- Reduced annuity paid from retirement to the time when 30 YOS would have been attained -- 15 percentage point reduction in multiplier for full annuity
o Base for computing annuity	-- Basic pay rate in effect on the date of retirement	-- Average of last year's basic pay (High-1)
o Relation between military and social security retirement annuities	-- Annuities are completely additive	-- Combines annuities at age 65 by offsetting one-half of social security flowing from military service
o Payments to members separating before 20 YOS -- Voluntary separations	-- No payment under present system	-- Equity payment .. paid to those with 10 to 19 YOS .. deferred annuity payable at age 60 (2 1/2% times basic pay times YOS)
-- Involuntary separations	-- Lump-sum payment ($15,000) to a small category of officers; no payment for enlisted personnel	-- Lump-sum readjustment payment .. paid to those with 5 or more YOS .. 5% times basic pay times YOS -- Plus equity payment (choice of either deferred annuity or second lump-sum payment)

Senator THURMOND. In what aspects is it uncontrollable?

Mr. SPENCE. The magnitude of retired pay costs is principally related to 3 factors.

First, the number of persons placed on the retired rolls. That number is related to the size of the active forces and the number who are continued in service until they qualify for retirement, which in turn is dictated by the need for defense forces and our international commitments.

A second factor is the amount of pay which the average person on the retired rolls draws, which initially is related to the active service pay he receives, and thereafter is adjusted, based on increases in the Consumer Price Index, to maintain its purchasing power. Except to the extent the legislative proposal discussed in answer to the previous question would modify the method for computing retired pay, this factor is relatively uncontrollable.

A third factor which determines the total expenditure for retired pay is the average age at which military personnel retire, which in turn determines the length of time the average retiree will receive retired pay. This again, is dictated by the needs of the active forces. To the extent that armed forces must, in the main, be comprised of relatively young, physically vigorous personnel, retirement at ages generally younger than is usally the case in civilian life, is required.

Senator THURMOND. What personnel policies has the Defense Department already recommended to the Congress which would help but have not been acted upon?

Mr. SPENCE. As indicated previously, the Department of Defense on March 28, 1973 submitted to the Congress a legislative proposal to revise the present retirement system. That proposal, if enacted, would, over the long term, tend to reduce potential retired pay costs.

SUBCOMMITTEE RECESS

Chairman MCCLELLAN. The subcommittee stands in recess, subject to call of the Chair.

[Whereupon, at 4:10 p.m., Monday, June 3, the subcommittee was recessed, to reconvene at the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

WEDNESDAY, MARCH 6, 1974

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The Intelligence Operations Subcommittee met at 10:30 a.m. in room 1223, Everett McKinley Dirksen Office Building, Hon. John L. McClellan [chairman], presiding.

Present: Senators McClellan and Young.

EXECUTIVE OFFICE OF THE PRESIDENT

CENTRAL INTELLIGENCE AGENCY

The subcommittee heard the classified testimony of Mr. William Colby, Director of the Central Intelligence Agency.

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

MONDAY, APRIL 8, 1974

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The Intelligence Operations Subcommittee met at 2 p.m. in room 1223, Everett McKinley Dirksen Office Building, Hon. John L. McClellan [chairman], presiding.

Present: Senators McClellan and Young.

EXECUTIVE OFFICE OF THE PRESIDENT

CENTRAL INTELLIGENCE AGENCY

The subcommittee heard the classified testimony of Mr. William Colby, Director of the Central Intelligence Agency.

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

THURSDAY, APRIL 25, 1974

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The Intelligence Operations Subcommittee met at 10 a.m. in room 1223, Everett McKinley Dirksen Office Building, Hon. John L. McClellan [chairman], presiding.

Present: Senators McClellan and Pastore.

EXECUTIVE OFFICE OF THE PRESIDENT

CENTRAL INTELLIGENCE AGENCY

The subcommittee heard the classified testimony of Mr. William Colby, Director of the Central Intelligence Agency.

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

FRIDAY, APRIL 26, 1974

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The Intelligence Operations Subcommittee met at 10 a.m. in room 1223, Everett McKinley Dirksen Office Building, Hon. John L. McClellan [chairman], presiding.

Present: Senator McClellan.

DEPARTMENT OF DEFENSE

The subcommittee heard the classified testimony of Mr. Albert C. Hall, Assistant Secretary of Defense for Intelligence.

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

MONDAY, JUNE 17, 1974

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The Intelligence Operations Subcommittee met at 10:30 a.m. in room 1223, Everett McKinley Dirksen Office Building, Hon. John L. McClellan [chairman], presiding.

Present: Senator McClellan.

EXECUTIVE OFFICE OF THE PRESIDENT

CENTRAL INTELLIGENCE AGENCY

The subcommittee heard the classified testimony of Mr. Ed Proctor, Deputy Director of CIA for Intelligence of the Central Intelligence Agency.

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

THURSDAY, JUNE 20, 1974

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The Intelligence Operations Subcommittee met at 10:30 a.m. in room 1223, Everett McKinley Dirksen Office Building, Hon. John L. McClellan [chairman], presiding.

Present: Senators McClellan and Young.

DEPARTMENT OF DEFENSE

The subcommittee heard the classified testimony of General George S. Brown, Chief of Staff, Air Force.

Part 1

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