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FISCAL YEAR 1976 AND JULY–SEPTEMBER 1976 TRANSITION PERIOD AUTHORIZATION FOR MILITARY PROCUREMENT, RESEARCH AND DEVELOPMENT, AND ACTIVE DUTY, SELECTED RESERVE, AND CIVILIAN PERSONNEL STRENGTHS

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HEARING

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

NINETY-FOURTH CONGRESS

FIRST SESSION

ON

S. 920

TO AUTHORIZE APPROPRIATIONS DURING THE FISCAL YEAR 1976, AND THE PERIOD OF JULY 1, 1976, THROUGH SEPTEMBER 30, 1976, FOR PROCUREMENT OF AIRCRAFT, MISSILES, NAVAL VESSELS, TRACKED COMBAT VEHICLES, TORPEDOES, AND OTHER WEAPONS, AND RESEARCH, DEVELOPMENT, TEST, AND EVALUATION FOR THE ARMED FORCES, AND TO PRESCRIBE THE AUTHORIZED PERSONNEL STRENGTH FOR EACH ACTIVE DUTY COMPONENT AND THE SELECTED RESERVE OF EACH RESERVE COMPONENT OF THE ARMED FORCES AND OF CIVILIAN PERSONNEL OF THE DEPARTMENT OF DEFENSE, TO AUTHORIZE MILITARY TRAINING STUDENT LOADS, AND TO AUTHORIZE MILITARY ASSISTANCE FOR SOUTH VIETNAM FOR FISCAL YEAR 1976, AND FOR OTHER PURPOSES

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PART 1

Authorizations

FEBRUARY 5, 1975

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FISCAL YEAR 1976 AND JULY–SEPTEMBER 1976 TRANSITION PERIOD AUTHORIZATION FOR MILITARY PROCUREMENT, RESEARCH AND DEVELOPMENT, AND ACTIVE DUTY, SELECTED RESERVE, AND CIVILIAN PERSONNEL STRENGTHS

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PART 1

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FEBRUARY 5, 1975

U.S. GOVERNMENT PRINTING OFFICE

48-478 WASHINGTON : 1975

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MILITARY PROCUREMENT, FISCAL YEAR 1976

WEDNESDAY, FEBRUARY 5, 1975

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C.

The committee met, pursuant to notice, at 10:05 a.m., in room 1114, Everett M. Dirksen Senate Office Building, Hon. John C. Stennis (chairman).

Present: Senator Stennis (presiding), Symington, McIntyre, Byrd, Jr., of Virginia, Nunn, Culver, Hart, Thurmond, Scott of Virginia, and Bartlett.

Also present: T. Edward Braswell, Jr., chief counsel and staff director; John T. Ticer, chief clerk; W. Clark McFadden II, counsel; Charles J. Conneely, Nancy J. Bearg, Hyman Fine, George H. Foster, Jr., John A. Goldsmith, Edward B. Kenney, Don L. Lynch, James C. Smith, Robert Q. Old, Francis J. Sullivan, professional staff members; Roberta Ujakovich, research assistant; and Christine E. Cowart, clerical assistant.

The CHAIRMAN. The committee will please come to order.

This is an open session and we are glad to have our visitors with us. We want you to stay as long as you wish. I wish we had chairs for everyone. It is my idea that everyone is entitled to be heard, and everyone is entitled to a chance to hear, and for that reason I think it is my duty to insist on reasonable quiet. Try to reduce the movement to the minimum so that those who have come to testify can be heard by the membership on the committee and our visitors.

We are going to hear today primarily the testimony of Secretary Schlesinger, regarding the overall posture hearings and the items in the authorization bill.

I understand that Secretary Schlesinger is here.

I want to make a special word of welcome to our new members of the committee. On my far right over here are the Senator from Colorado, Mr. Hart, the Senator from Iowa, Mr. Culver, and the Senator from Vermont, Mr. Leahy.

And on my left is the Senator from Oklahoma, Mr. Bartlett.

Gentleman, you have already been welcomed, I think, by every member of our committee, but we want to extend you another and official welcome.

First, I think that you will find this is very much a working committee. We have many, many matters to pass on, some of which overlap even beyond the Department of Defense. But many of the policies that have to do with military matters reach over into policies that extend around the world. We have the grave matter, of the amount of money, and the strengths for both uniform and civilian personnel. We have the far-reaching matter of research and develop-

ment which grows with importance, it seems to me, year after year. Research and development is a subject that is given very fine attention by subcommittee, and I think more extensively than any other committee on Capitol Hill. That subcommittee, now chaired by the Senator from New Hampshire, Mr. McIntyre, has for 6 years gone into that subject matter in depth, and carefully weighed everything from the strict research in its beginnings, on through to the development of a given weapon.

We have many questions here to decide, and as chairman I am certainly going to see that you gentlemen have a chance to get into some of these matters, all that you find time for. We do use the subcommittee system here, and that enables the committee to get into formal matters.

We have already talked to you about subcommittee assignments, and we will get around to that right away. We have staff members that are well prepared. I want to especially thank our staff for the enormous amount of work that they have done before the budget came in.

We have a statement, members of the committee, that is prepared by the staff that I want to distribute to the membership. It is by no means a complete summary, but it has some of the highlights of matters that are in the posture hearings. In addition, I have a rather brief opening statement with reference to the work of the committee and the committee's responsibility.

I have some remarks here that might be partly personal, and it is just one page that I am going to read.

On the question of committee responsibility, I believe in the committee system, and I think if you destroy the committee system in the Senate, you have largely destroyed the Senate as an effective organization and a part of our system of government. There are those of you who have come in the first time as members of Congress, I believe you will realize the importance of the committee system as you go along. The committee system is the only way to really get into this massive budget and many matters. It increases our responsibility and our opportunity. I think if the day ever comes when that system is destroyed, the effectiveness of the Senate will be destroyed.

In going to the full amount of this budget, of course, with most everyone else, I wish very much that the request had been for lesser amounts. We will fully examine the facts and see what reductions can be made.

Of course, abnormal inflation and the special cost of fuel accounts for much of the increases. With fixed charges for the time being in field personnel and time benefits and charges directly related to manpower, the areas for reduction are somewhat limited. Adequate funds for extensive research and development is a must, of course. But we do examine that fully against the advice of some of our advisers, but I think a great deal of it comes from going through it fully.

The annual cost tag depends on a large measure on the nature of the policies that we are implementing. Grade reductions could be made, if we decide to take a subordinate position, or decrease our commitment in world affairs. The same is true if we should lower our capacity to protect ourselves in the case of an attack, or shield ourselves from blackmailers. There is just no bargain basement that I have been able

to find, or bargain-basement prices on assured superior strength to protect ourselves and doing our part in protecting the free world.

I repeat that every item will be examined with the view of eliminating waste, overlap, inefficiency, or duplication. I call that to everyone's attention again. We have to measure matters in regard partly to our commitments. If those commitments are too great, why, we ought to reduce them. But there is no halfway ground if we are really going to undertake missions of this kind.

Manpower needs now will be carefully assessed, especially since this represents 53 percent of our budget costs on the schedule. I believe that is coming down. I believe that is 3 percent lower than it was last year, which was an added pleasure to all of us, and a sound move.

An additional 10 percent is required for modern research. These are relative figures, thus leaving approximately 25 percent to cover the rising cost of modern weaponry, and something like 12 percent to cover other obligations such as military construction, and some military assistance and matters related to the military.

I want to give a special word of welcome to Secretary Schlesinger, who has been Secretary now since July 2, 1973.

You have been Chairman of the Atomic Energy Commission for a short time, Director of the CIA, and had other assignments in Government, too. You have certainly found yourself at home in a very fine way and have been wrestling with these subject matters.

You have a frankness about this that I like. It is certainly a pleasure for me to deal with you, although we have not had a chance to be associated very much in a personal way.

You have been with us before, General Brown, as Chairman of the Joint Chiefs of Staff, but we welcome you here for your first appearance this year.

We will need your assistance and your testimony and your suggestions from time to time. We expect to be able to call on you.

I am not making any comparisons whatsoever, but it seems to me that the Chairman of the Joint Chiefs and the Chief of Staff of the various services are mighty high in professional qualities and abilities for their respective positions. It makes me feel mighty good. They are not personal friends of mine. I have not had the pleasure of being in their homes or their minds or anything like that, but I just know them in an official way, and I think they are exceptionally fine, and I commend you for your outlook and for your efforts.

You do have that high professional soldier responsibility, and we expect you to do it fearlessly and frankly, and tell us the bad along with the good.

I am not going to transgress any more Mr. Secretary. You have a prepared statement. We thank you for sending it on. It was here for the staff to look over, and thank you, too, for the prior information you gave to our staff members over the weeks before without violating any duty. It saves us a lot of time.

This is the fifth day of February, with a good part of the year already gone. We have a May 15 deadline coming up, gentlemen, in order to comply with the budget law, some of which will be put into effect this year. We will have to have these bills reported, and that applies to military construction authorization, too.

So, we will move along, and I am going to call on Senator Thurmond.

Senator THURMOND. Mr. Chairman, I would just like to join you in welcoming these new members to the committee. I think they will find this committee as challenging as any in the U.S. Senate. There is certainly no committee that has a greater responsibility. There is no committee that probably means more to the survival of this Nation than the Armed Services Committee and the Appropriations Committee. Upon what we and the Appropriations Committee do depends on whether America survives.

As the new members go about their work here, I am sure they will enjoy it. I just want to join the distinguished chairman in welcoming you to this important committee.

The CHAIRMAN. Thank you very much, Senator.

Without objection I will put the remaining part of my opening remarks into the record here, and I call on the Secretary.

[The information follows:]

DEFENSE REQUEST

The funding request for the Department of Defense, which was announced by President Ford on February 1, is $104.7 billion in total obligational authority. In terms of budget authority, which includes certain trust fund transactions, the Defense request is $106.3 billion. This request consists primarily of funding for military personnel, operation and maintenance, procurement, research and development, military construction and family housing, and military assistance. In addition, it includes an estimated $1.7 billion for a supplemental request which will be made sometime during FY 1976.

This $104.7 billion is a $15.7 billion increase from the current FY 1975 Defense budget which assumes approval of the recently announced $2.4 billion supplemental request for FY 1975.

This is the largest U.S. defense budget that has ever been requested. It is almost $7 billion more than was estimated a year ago by Defense to be necessary for FY 1976. According to calculations by the Defense Department, $7.5 billion of the $15.7 billion increase can be attributed to inflation between FY 1975 and FY 1976. The remaining $8.2 billion represents a real increase in Defense funding.

ECONOMIC CONSIDERATIONS

This Defense request comes at a time when the economy is experiencing severe inflation and is suffering from a recession. In considering this Defense request the Committee and the Senate must recognize the erosion in the value of the Defense budget that has occurred as a result of this inflation. At the same time this Defense request must be considered in the context of an overall Presidential budget request which provides for a deficit of approximately $52 billion in FY 1976. This same Presidential budget would impose a one year moratorium on all new nondefense spending programs other than energy programs. Under these circumstances any increases in Defense funding must meet a most heavy burden of justification.

In order to properly evalaute this Defense budget request, the Committee intends to carefully probe the economic assumptions and analysis which underlie it. The Committee is particularly concerned with the effects of inflation and how this Defense request intends to cope with it. Similarly the impact of the President's recommendations for import taxes on oil and a 5% ceiling on pay increases for Federal employees can be expected to have an important effect on the Defense budget during FY 1976.

AREAS OF INCREASE

In the Defense request, as I understand it, both the number and the pay of military personnel will not be significantly increased. Defense manpower related costs are projected at 53% of the FY 1976 budget request. This is a decline from

55% last year, reflecting substantial increases in other areas of the Defense budget. Procurement, for example, will increase by 42%. The increase is 20% for research and development; 53% for military construction, and 17% for military assistance. By mission areas, these changes result in a 27% increase for general purpose forces. These are significant increases which must be subjected to the most sober and searching scrutiny.

COMMITTEE'S EFFORTS

Throughout its deliberations on this budget request, the Committee will make many decisions regarding numbers and dollars. Vast amounts of information will be made available to the Committee in order to make decisions on specific weapons systems and manpower levels. At the same time it is necessary that the Committee gain an understanding of the general state of preparedness of U.S. forces. This requires an appreciation of the quality of manpower discipline, and leadership that exists in our armed forces. The operational state of readiness of our forces and their ability to fulfill their missions will be fully examined by the Committee.

The Committee will also be called upon to make implicit decisions on a number of critical issues regarding the U.S. defense posture. The Committee must make a decision on the scope and pace of U.S. strategic arms development based on a realistic assessment of potential arms limitation agreement with the Soviet Union. The level of overseas troop deployments must be examined in the context of our relations with our allies and in light of the status of mutual and balanced force reductions negotiations which have been going on for years. The nature and extent of the U.S. commitment to South Vietnam will be in part resolved through a decision on the level of military assistance to South Vietnam that is authorized in the Defense budget.

NEW PROCEDURES

For the first time this year the budget process will be affected by the Congressional Budget and Impoundment Control Act. This budget reform act will necessitate an intensive Committee effort to ensure that the annual Defense authorization legislation can be reported to the Floor of the Senate by May 15, 1975. The Committee must act upon the Defense budget request for FY 1976, as well as the budget request for a three month transition budget which results from changing the start of the fiscal year to October 1. In order to comply with this new schedule and increased workload, the Committee will have to streamline and expedite the hearings on the Defense budget request to the greatest extent possible.

I should point out that the size of the Committee has been increased to sixteen senators. Moreover, four new senators have joined the Committee. I welcome these new members and feel confident that their energy and dedication will greatly enhance the Committee's ability to meet the challenge of completing an evaluation of the Defense request by May 15, 1975.

This morning the Secretary of Defense will make his presentation of the Defense program. He will be followed by the Chairman of the Joint Chiefs of Staff. It has always been the Committee's position to allow the Secretary to proceed in his own way and emphasize whatever he sees fit. To the greatest extent possible the hearings will be in open session. Matters which must remain classified will be subsequently taken up in executive session.

I have long been committed to a strong national defense. Our freedom and prosperity depend in a very real way on the adequacy of our national defense. Nevertheless, we cannot afford to make more defense expenditures than are absolutely necessary and can be fully justified.

Mr. Secretary, I look forward to your testimony.

STATEMENT OF HON. JAMES R. SCHLESINGER, SECRETARY OF DEFENSE

Secretary SCHLESINGER. Thank you, Mr. Chairman, and I thank you, Senator Thurmond and members of the committee.

You have my opening statement that deals with the budget request for fiscal year 1976, and for the transition budget, as well as the projections down to 1980.

If you will permit me, Mr. Chairman, I will introduce my formal statement into the record, and as last year, make a number of observations.

The CHAIRMAN. All right, without objection.

Senator SYMINGTON. If the Secretary will yield, yours is a very interesting statement. In it I find some things I cannot entirely understand. At times it would seem to read against itself, insofar as basics are concerned relative to Soviet strategic capacity. It is a rather short statement, I would hope, especially for the benefit of members who will study it after you are through, you would run through the statement.

Secretary SCHLESINGER. I am at the pleasure of the committee, Senator Symington.

The CHAIRMAN. You may read the entire matter.

Secretary SCHLESINGER. There is a 44-page statement that will take me approximately 1 hour and 15 minutes to read. I am prepared to do that if the committee wishes.

The CHAIRMAN. All right. I think if any member wants the entire statement read then it should be read.

Secretary SCHLESINGER. Mr. Chairman, if I may suggest, the statement is available to all members of the committee, and the statement is on the record. Any questions that arise with regard to the statements, or any issues that are in the posture statement may, of course, and shall be raised by the members of the committee. This statement is available to the press and the public.

If Senator Symington is willing, I had intended to spend about 15 to 20 minutes touching on some of the highlights.

The CHAIRMAN. Any member can request the presentation and reading of an opening statement. It was last year that I suggested that you put it in the record and make a summary, so you, doubtless, were leading from my suggestion.

We will proceed. Read your statement, please.

Secretary SCHLESINGER. Mr. Chairman, members of the committee, it is my privilege to present to you the defense program and budget for fiscal year 1976 and for the 3 months thereafter, ending September 30, 1976. In compliance with the 1974 Budget and Impoundment Control Act, I am providing you with the Department's request for legislative authorization through fiscal year 1977. I am also submitting for the first time a 5-year projection of future Defense budgets in total obligational authority.

The table below shows the Departmental requests for fiscal year 1976 and the transition period.

The total requests in billions of current dollars: Total obligational authority for fiscal year 1976 is $104.7 billion, and for the transition period is $24.6 billion. The outlays for fiscal year 1976 are $92.8 billion, and for the transition period, $25.4 billion.

The Department's requests and 5-year projections will be discussed later in this report. Before doing so, however, it is essential to discuss the basic defense choices that we as a Nation face and the international context within which we must make them.

BASIC BUDGETARY CHOICES

In fiscal year 1964, before the war in Vietnam had resulted in a major impact on the U.S. Defense Establishment, our military and civilian personnel totaled over 3.7 million people. For fiscal year 1976, we plan fewer than 3.1 million people, even though the world has become only a slightly safer place in the ensuing 12 years. For the first time since 1939, 2 years before Pearl Harbor, our active fleet will consist of fewer than 500 ships, down from 976 some years ago. Our ships, aircraft, and ground combat vehicles are aging. Perhaps most troublesome of all, the readiness of some forces has suffered as budgetary constraints have grown more severe. There is, in short, no way that we can maintain force structure, modernization and readiness on the basis of declining budgets. Yet, if the effects of inflation and real pay increases are removed, the last 4 years have witnessed nothing but declining budgets.

And further, Mr. Chairman, this budget request in constant dollars is the lowest budget request since fiscal year 1950.

In such circumstances, the Congress and the country must face the main choices before us and the consequences that are likely to flow from their decisions.

One choice is to continue to review the administration's budget and make cuts in such a way that the net reduction is no more than 5 percent of the total. Consciences are then salved and no great damage is done in any particular year. The difficulty is that if this approach is followed year after year—as it has been in the recent past—the real military power of the defense establishment must inevitably erode.

Since fiscal year 1968, Mr. Chairman, in real terms, our budget has declined by 42 percent. As compared to real dollars and real resources, it has declined by 20 percent. I do not think that this decline was specifically intended. It just comes as a result of the erosive effects of the budget process associated with pay and price increases.

And as troublesome as the fact of erosion is the fact that decisions fundamental to the security of the United States are made by default. Surely, if we want the shadow rather than the substance of first-class military power, we should make the decision explicitly rather than in a casual and impulsive fashion over a period of time.

A second choice is to recognize that there is a strong connection between the safety, interests, commitments, and foreign policy of the United States on the one hand, and the size, composition, and deployment of our defense establishment on the other hand. This choice implies that, if the proposed defense budget is too high for the Congress and the country, it may well be that excessive demands are being made on defense. Thus, if the defense budget is to be reduced, it should be

done in clear recognition that we will not be able to fulfill our responsibilities.

A third and more reasonable choice is to acknowledge that in a world where détente runs parallel with a number of dangers—some evident, some hidden and uncertain—in a world where the United States simply cannot escape great responsibilities, military power remains relevant. In these circumstances, a posture of deterrence will be seen as necessary to some measure of safety, collective security, and progress toward more enduring peace even though the price is high but quite tolerable. Such a choice implies acceptance not only of the administration's budgetary request, but of the strategic concepts on which it is based.

NATURE OF THE CHALLENGE

Last year I quoted from Proverbs to the effect that "Where there is no vision, the people perish." The vision that I attempted to suggest then was one of peace among the great powers based on equality, civility, and prudence. This year, the principle of equality strongly supported by the Defense Department was established at Vladivostok. But equality must be more than a principle. We would do well to recall in that connection that "When a strong man armed keepeth his palace, his goods are in peace."

To heed that advice, we must maintain military strength. But there remains the problem of defining our specific defense objectives and establishing efficient programs for their attainment. A French official once solved the problem very succinctly. He said that the Maginot Line began where it was required and ended where it was no longer needed. However, we can and should do better than that. As a British statesman once asked: "Does it mean that because Americans allegedly won't listen to sense, you intend to talk nonsense to them?"

The answer is "No."

I am sensitive to the fact that national security is not a product that brings explicit and tangible benefits to us, although most of us are acutely aware when it is absent. As Sir John Slessor once noted: "It is customary in democratic countries to deplore expenditure on armament as conflicting with the requirements of the social services. There is a tendency to forget that the most important social service that a government can do for its people is to keep them alive and free."

It is also common to allege that the defense budget contains some inner momentum of its own, that it has a Parkinsonian tendency to expand independently of external threats, although the perceived growth is in current and highly inflated dollars. Few of us give ear to some of our most trenchant critics in Congress who acknowledge that the Department of Defense is the best managed in Government.

Obviously, this Department can always improve the efficiency of its performance, but we will never reach zero defects. In any event, the United States can afford both increased social programs and an adequate posture of defense; the two objectives are not incompatible and we do not have to trade one for the other.

What is more, the defense of this Nation and its interests is a matter of the utmost gravity; despite theories to the contrary, we have not arrived at this budget, or its predecessors, as a result of some form of mindless bureaucratic bargaining. The issue before us, therefore, is not

how to restrain these voracious bureaucrats. It is how much defense of what kind we need to be reasonably confident of securing this Nation and its myriad interests.

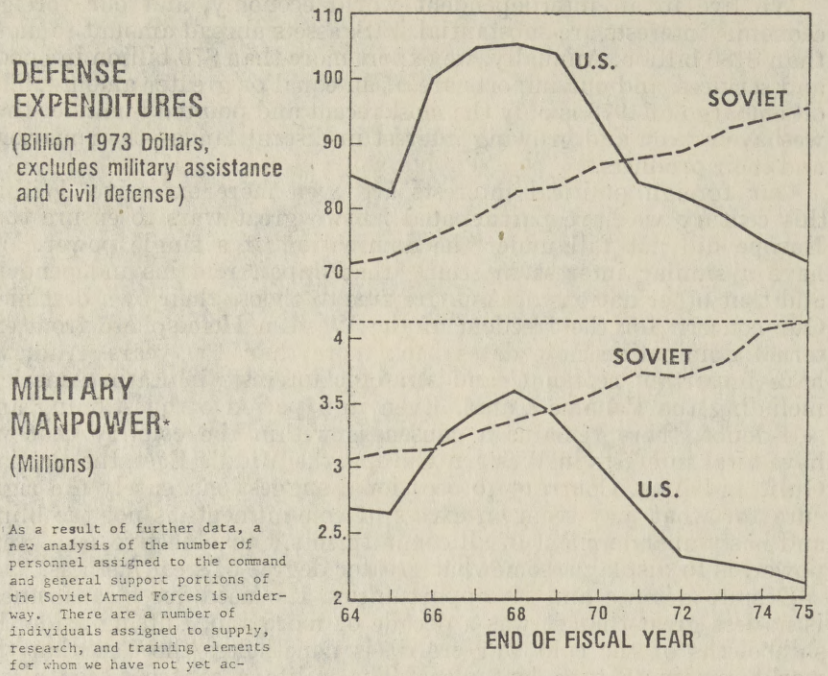
We live in an interdependent world economy, and our foreign economic interests are substantial. U.S. assets abroad amount to more than $180 billion. Annually, we export more than $70 billion in goods and services, and our imports are of an equal or greater amount. The oil embargo of 1973 is only the most recent and pointed reminder that we have a keen and growing interest in distant lands—their markets and their products.

Our foreign political interests are even more extensive. Within this century we have participated in two great wars to ensure that Europe did not fall under the domination of a single power. We have a similar interest in seeing that Japan remains independent and that other nations of Asia are free to choose their own destinies. Our concern for the freedom of the Western Hemisphere from external domination now dates back more than 150 years. And, we have important economic and strategic interests in Latin America, including the Panama Canal. Even in a period of questioning and self-doubt, there remains a consensus within the country that we have vital interests in Western Europe, the Middle East, the Persian Gulf, and Asia. Contrary to occasional suggestions, surely the right cure for what may seem an excess of commitments is not the blind and hasty abandonment of all commitments. Our objective, as a great power, is to display a somewhat greater degree of steadfastness.

Despite détente and its opportunities, the need for steadfastness is no less great than it was a decade or more ago. Putting aside the shibboleths of the cold war era, it is nonetheless the case that the world remains a turbulent place. The military confrontation along the Sino-Soviet border continues. Both Washington and Moscow appear to agree that the situation in the Middle East is extremely volatile. Our allies in Europe and Asia find themselves in varying degrees of economic and political difficulty. From the Azores, through Europe and the Mediterranean, to Japan, common objectives and policies remain to be formulated. The conflict over Cyprus continues unresolved. In several countries with whom we have close associations, succession crises are in the offing. The international waters are troubled and the temptation to fish in them to the detriment of U.S. interests cannot be entirely absent.

The Soviet Union and the PRC have proved to be relatively prudent powers under their current leadership, although some of their client states appear to suffer from periodic excesses of revolutionary exuberance. Challenges may therefore arise even though the great powers do not wish to initiate them. Whatever the case—and the future is clouded with uncertainty—there is no doubt about the very large military capabilities at the disposal of the U.S.S.R. What is more, these capabilities continue to grow. In our prices, the Soviets now devote more resources than the United States in most of the significant categories of defense. In overall research and development, they outstrip us by 20 percent; in general purpose forces by 20 percent; in procurement by 25 percent; and in strategic nuclear offensive forces by 60 percent.

SOVIET — U.S. DEFENSE EXPENDITURES AND MILITARY MANPOWER



What is more, we are now beginning to witness in the Soviet Union the largest initial deployment of improved strategic capabilities in the history of the nuclear competition. How far it will go we do not yet know, but there is no doubt that these new ICBM's—with larger throw-weights, MIRV's, and improved accuracies—combined with significant improvements in their sea-based missile force, will give the Soviets a much more powerful strategic offensive force, even within the constraints of Vladivostok.

At the same time, the Soviets have continued to strengthen their general purpose forces and provide large amounts of military assistance to other states.

Mr. Chairman, may I observe in passing that I am comparing our power to the power of the Soviet Union because it has been a rule of American policy in recent years that the United States should have military power second to none. If that continues to be the objective of the American public, which is reflected in every opinion poll, it implies that we must measure our strength against external capabilities represented by the other superpower, namely, the Soviet Union, and not by the military capabilities of Chad, Nicaragua, or the like. Now this policy implies no particular intentions toward the Soviet Union; it just implies that if we are to have military power second to none we must compare ourselves to the Soviet Union.

One of the more impressive feats performed by the Soviets during the past 5 years is to have built up their forces in the Far East to a strength of more than 40 divisions without any diminution of their capability west of the Urals. In fact, during the past year, there have been both qualitative and quantitative improvements in the forces oriented toward NATO, and the center region of the Alliance still faces a deployed force of about 58 Warsaw Pact divisions, with the possibility that at least 30 more could be added from the U.S.S.R. alone within a relatively short period of time. The northern and southern flanks of NATO face smaller but nonetheless formidable forces as well.

While we have heard a great deal about U.S. forward-based systems with nuclear capabilities, remarkably little has been made of the large number of noncentral nuclear systems that the Soviets deploy, some of which, under certain circumstances, would be capable of hitting parts of the United States, most obviously Alaska. It is noteworthy, in this connection, that the President was unwilling to compensate the Soviets for our forward-based systems in the negotiations at Vladivostok.

What we have to recognize, in sum, is that, first, the United States continues to have large and growing interests in an inter-dependent world even as it faces a number of problems at home; second, the areas of greatest interest to the United States are beset by a number of internal and external difficulties; third, despite détente, the sources of potential differences and conflict among the powers remain numerous; and fourth, large and diversified military capabilities remain in the hands of powers with whom our relationships have to some degree improved, but powers who have not traditionally wished us well or looked with cordiality upon our interests.

The U.S. role, Mr. Chairman. A major issue that we must face as a Nation concerns the degree of initiative and leadership that the United States should provide in the face of these global complexities. As a result of events last year in the Middle East, no one can doubt that the world has become truly interdependent and that the American citizens remain vitally concerned with the evolution in the external world. Clashes in various parts of the world have demonstrated the importance of U.S. diplomatic efforts both to foreign governments and to our own citizens. And we are all aware that we have become vulnerable to nuclear attack. It is also quite obvious that the United States will remain one of only two superpowers for many years to come.

For that very reason, however passive and restricted our role in specific situations, we will loom as a major factor in the calculations of other nations, and many of them will seek to involve us in their affairs. Such was the case in the earlier part of this century; it is even more so today.

But none of these realities mean that we must take initiatives, try to shape the future to our ideals, work toward results favorable to our interests, or forestall unwanted challenges. In principle, at least, a relatively passive policy, a sense of limited liability, and a minimal military posture are alternatives that are open to us.

Some of our citizens might even find favor in such a role, provided that their own particular oxen were not gored in the process. An active

foreign policy implies risks, but so does passivity. There is no risk-free policy. In the face of uncertainty and a not altogether friendly world, it is more prudent to shape the future by our own actions than to let others do it for us.

It is also worth recalling that a number of factors, in addition to our diplomatic relationships with the Soviet Union and the People's Republic of China, have changed during the last generation.

The United States, while remaining the great arsenal and reserve of democracy, has also joined the first line of defense. Moreover, it is alone as the superpower of the non-Communist world.

It is all well and good to add up the population and gross national product of the European Economic Community and pretend that it is a substitute for the United States, but it will be many years before the nine members of the community can act with the unity, coherence, and efficiency that we command.

In the meantime, despite the promising dialogues begun with the USSR and the PRC, it would surely be unwise to forego the maintenance of the balance of power in critical areas of the world.

Perhaps all will go well without the maintenance of such balances and the deterrence of hostile acts that go with them. Perhaps we can now depend on the good will of others to preserve the independence and territorial integrity of our friends and the protection of our far-flung interests. But we ought not to tempt fate in that particular direction. That being the case, there is no alternative to a strong defense establishment for the United States as a basis for its continued leadership in the world.

Moreover, there is little reason why we should expect this requirement to change in the future. Despite our hopes for détente and an end to the cold war, we have been driven out of the paradise of isolation and noninvolvement which characterized the America of the 19th and early 20th centuries, and as Thomas Wolfe reminded us in another connection: We can't go home again. No longer can we expect other nations by themselves to man the front lines of freedom. No longer can we depend on the strength of our allies to buy us the time to expand our defense production base, to mobilize and deploy our forces, to learn the lessons of the conflict from the mistakes of others, and to turn the tide of war in our favor. The luxury of time and the old role that went with it are gone, perhaps forever.

In these circumstances, barring the millennium, ready military power will continue to be necessary. Without it, anarchy will ensue. As President Ford has pointed out:

"A strong defense is the surest way to peace. Strength makes détente attainable. Weakness invites war." In a volatile world, a credible deterrent capability is essential to our well-being. The real issue thus is hardly one of needs, it centers on the types and magnitudes of deterrent forces that we must have.

THE BASIS FOR PLANNING

A world in which so many conditions are changing simultaneously makes it difficult to state with precision what those types and magnitudes of forces should be. But as a very great power in the forefront of

world politics, we cannot afford to play the accordion with our military posture any longer. As long as interests differ among the powers and competition continues, however muted, we must aim for an economical and stable defense posture that is suitable to the environment and that we can sustain over the long haul.

The movement toward détente with the U.S.S.R. and the PRC may seem to suggest that such a posture can be very minimal indeed. Before we reach that conclusion, however, we would do well to remember that where the U.S.S.R. is concerned, we can reasonably expect a relaxation but not an eradication of tensions with the United States; a move away from the risk of direct military confrontation with the United States, so long as we maintain our military strength, but not at the sacrifice of any major interests as perceived by Moscow; a continued pursuit of and even an increase in the ideological struggle; the maintenance of a relatively closed society and a cloak of great secrecy around the decisions of her government; a belief that the atmosphere of détente has arrived because, as the Soviet leadership might put it, the correlation of forces has begun to shift in their favor; the continued allocation of major resources to a strong and growing military posture; and a singularly persistent effort to create a balance of military power more favorable to the U.S.S.R.

With the differences that exist between our own social system and that of the U.S.S.R., and with the differences in political and economic objectives, it would be surprising indeed if there were not an extended period of time between the first steps toward détente and the more deeply cooperative relationship to which we aspire.

Meanwhile, we must anticipate that moments of cooperation and agreement will alternate with periods of dispute and competition. In such circumstances the risk of confrontation, crisis, and miscalculation will remain present, as has been the case in the recent past. No one should be under any illusion about the extent, availability, and readiness of American military power should comparable cases arise in the future. A minimal military establishment will hardly meet the requirements.

This concern should not be taken as opposition to a reduction in military arms and budgets. On the contrary, the Department of Defense has urged and still urges and encourages progress toward the equitable control and reduction of both strategic nuclear and general purpose forces. Arms control agreements such as the President has initiated at Vladivostok not only remove uncertainties from the process of military planing, they also offer hope of reducing the costs of the arms competition and removing some of the tensions and suspicions that invariably accompany accelerations in the competition.

Precisely for these reasons, the Department of Defense supports the earliest possible effort on the part of the United States to lower the currently agreed ceilings on strategic delivery vehicles below 2,400.

Even as we support and actually desire arms reductions, we must be realistic in our expectations of how much can be accomplished in the near term. The actual removal of all nuclear forces from the arsenals of the world, however desirable, is not something that we can seriously anticipate, and the knowledge of nuclear fission and fusion is likely to be with us as long as the human race survives. This equally obvious

but often-neglected prospect also holds true for the general purpose forces where, as yet, we have made little progress in the direction of arms control.

The main point, however, is that even if we continue to move forward on the arms control front, and even if successive constraints are imposed on the major military establishments, we will still have to engage in force planning within these constraints.

There are a number of principles that should guide our planning under these conditions. First, our forces, together with those of our allies, must be a function, not of internal political disputes, but of our needs in light of the capabilities and programs of potential adversaries.

Second, we must avoid unilateral reductions in the baseline posture that we consider appropriate to our interests. We must, if I say so, Mr. Chairman, avoid further reductions in this posture. In a period of transition and uncertainty, reductions should result from international agreement rather than from temporary budgetary exigencies or the impulse to set a good example for the other side.

Third, we should nonetheless continue to strive for the utmost efficiency in the use of our scarce defense dollars and, as long as our baseline force requirements are not fully met, continue to convert excess overhead and support into increased combat power.

Fourth, our planning should abide meticulously by the spirit as well as the letter of existing arms control agreements and guidelines; in fact, we should plan toward the Vladivostok goals and our desire for other equitable agreements.

To proceed otherwise, and particularly to engage in unilateral force reductions, will not foster further détente and arms control. Instead it will simply create the kind of weakness that invites miscalculations, probes, tests, and the risk of disaster. Despite frequent use of the term "arms race," the United States has not engaged in the life or death competition that occurred among the European powers in the 1930's; and our defense budget, both as a percent of GNP and in its decline, in constant dollars, is a clear reflection of that fact. Indeed, we have been engaged in the rather peculiar process for reducing our defense budget in real terms while the Soviets have been raising theirs.

That, unfortunately, is the problem confronting us. We may be facing a situation in which the Middle East is the potential tinderbox that the Balkans actually were in 1914, and where our international economic problems bear some unhappy resemblance to the 1930's, when international financial institutions and economic structures deteriorated and the Western powers turned inward and became weaker. In such an era, civility is essential, but it should be armed civility joined with prudence. Thus, while we should take other capabilities into account, our planning objectives should be to assure that no potential adversary achieves unilateral advantage over the United States and to leave unchallenged the Soviet capability for deterrence provided that our interests are respected and the traditional norms of international behavior are accepted.

In the present era, with so many sources of possible conflict, these principles and objectives, we believe, constitute the only prudent bases for planning.

In the period prior to World War II, we could think of deterrence as based essentially on one type of capability, our nonnuclear forces. Even then we believed in a strong forward defense symbolized by a Navy second to none, and insisted on the principle of parity with Great Britain in the Washington Naval Treaty of 1922, a small regular army, and a mobilization base on which to build and equip major land and air forces. But because of distance, powerful friends in Europe, and the assumption that we would have the time to mobilize, we could afford a defense budget that constituted no more than 2 percent of the GNP.

However, all that has changed. The role of the United States has grown dramatically since World War II. Perhaps even more important, the technology of warfare has undergone a dramatic transformation. After 30 years we are still struggling to adapt our concepts of conflict and its deterrence to nuclear weapons that range in yield from the subkiloton to the multimegaton; to delivery systems that can travel intercontinental distances in 30 minutes; and to improving accuracies that apply to short-range as well as long-range delivery systems and to high explosives as well as to nuclear warheads.

In the 1950's, some nations in the Western Alliance, including the United States, made the intriguing and convenient discovery that there was a phenomenon called deterrence, painless in that it would supposedly work without the unpleasant necessity of anyone being seriously prepared to fight. Even more miraculously, it turned out—or so it was alleged—that deterrence was low in cost, in contrast to defense.

This observation led to the advocacy by some of reduced defense capabilities. Churchill himself spoke of safety as "the sturdy child of terror, and survival the twin brother of annihilation." Even now, deterrence is distinguished from defense and described as "the means of inflicting unacceptable damage in case of aggression."

At base, however, this is nothing but a dangerous illusion, and most serious students of the subject have recognized it as such as the nuclear predominance of the United States has disappeared. Deterrence is not a substitute for defense; defense capabilities, representing the potential for effective counteraction, are the essential condition of deterrence. This simple truth becomes especially evident in a crisis, when forces designed only for "deterrence" are increasingly found to be lacking in credibility both to opponents and to their potential users.

Deterrence, in other words, is not something free floating that exists independently of a credible, implementable threat. It requires the most careful structuring of forces that is fully consistent with an agreed-upon strategic concept. By contrast with the 1950's, when the great nuclear superiority of the United States concealed any basic deficiencies in strategic analysis and force structure, it is now evident that deterrence does not simply derive from a pile of nuclear weapons, a pile which one anticipates, at least, will frighten one's opponents as much as the people it is designed to protect.

In the 1950's, you may also recall, there was some misunderstanding of the need for balanced military forces as opposed to simple reliance on nuclear retaliation. The 1950's, if nothing else, were a period during which many institutions became excessively intrigued with the novelty

of nuclear explosives. There is some evidence that the academic community has not yet recovered from that novelty.

More recently, illusions somewhat similar to those of the 1950's regarding deterrence have emerged about détente. Only détente exercises an even more powerful magic since it is believed somehow to obviate the need for both deterrence and defense. But we should make no mistake about it: there is no conflict among détente, deterrence, and defense. They are inextricably bound up with one another in the maintenance of an equilibrium of power.

A relatively closed society like the Soviet Union has no difficulty in pursuing détente and simultaneously strengthening its defense efforts. Under such circumstances, this Nation should be under no illusions about the need to maintain a military balance and all the capabilities that go with it. If indeed we are to maintain a military posture second to none, there is no substitute for the hard, costly, and unremitting effort required to keep up the Nation's defense.

For more than a decade now, it has become generally accepted, regardless of administration or party, that credible deterrence must, among other factors, rest on a triad of capabilities—strategic nuclear, theater nuclear, and nonnuclear forces. Each component serves as a deterrent to its opposite number and, together, they interact to enhance deterrence over the entire spectrum of possible conflicts. If we do not have the full triad, in other words, an opponent might be tempted to exploit the gaps in our deterrent.

The main components of our deterrent forces will be discussed in detail later on in this report. Here, I simply want to review three key military balances, the strategic nuclear balance, the military balance in Central Europe, and the worldwide maritime balance. The importance of our strategic mobility forces should also be underlined.

WORLDWIDE MILITARY BALANCE

These three main balances do not cover all of the elements that we must consider in assessing the worldwide military balance that is the objective of United States and allied military programs. Of increasing importance, for example, is the comparative United States and Soviet capability to project military power into potential crisis areas. Until recently this comparison did not concern us because Soviet capabilities to deploy and support military forces at some distances from its borders were negligible. The issue will be a matter of increasing interest to us in the years ahead as the strategic mobility of Soviet forces improves.

Another aspect of any comprehensive assessment of the worldwide balance is the contribution of U.S. overseas deployments outside of Europe, for example, in Korea. These forces help maintain local balances and form U.S. strongpoints in the worldwide balance.

To assess all of these balances with confidence is difficult. United States and Soviet forces are different in many ways. Organizational, doctrinal, and weapon asymmetries have developed as a result of differences in historical experience, weapons design philosophy, relative resource scarcities, geography, and other factors. In the case of the three key balances that will be reviewed, there are larger and larger asymmetries as one passes from strategic nuclear forces, to the conven-

tional forces in NATO—in which the center region receives so much attention—to the air and naval forces. Simple comparisons based on counting numbers of weapons and men, even if qualified by the differing technological quality of the weapons, tell only part of the story.

THE STRATEGIC NUCLEAR BALANCE

Credible strategic nuclear deterrence depends on the satisfaction of four major requirements. First, we must maintain an essential equivalence with the Soviet Union in the basic factors that determine force effectiveness. Because of uncertainty about the future and the shape that the strategic competition could take, we cannot allow major asymmetries to develop in throw-weight, accuracy, yield-to-weight ratios, reliability, and other such factors that contribute to the effectiveness of strategic weapons and to the perceptions of the nonsuperpower nations. At the same time, our own forces should promote nuclear stability both by reducing incentives for a first use of nuclear weapons and by deterring and avoiding increased nuclear deployments by other powers.

The second requirement is for a highly survivable force that can be withheld at all times and targeted against the economic base of an opponent so as to deter coercive or desperation attacks on the economic and population targets of the United States and its allies.

The third requirement is for a force that, in response to Soviet actions, could implement a variety of limited preplanned options and react rapidly to retargeting orders so as to deter any range of further attacks that a potential enemy might contemplate. This force should have some ability to destroy hard targets, even though we would prefer to see both sides avoid major counterforce capabilities. We do not propose, however, to concede to the Soviets a unilateral advantage in this realm. Accordingly, our programs will depend on how far the Soviets go in developing a counterforce capability of their own. It should also have the accuracy to attack, with low-yield weapons, soft point targets without causing large-scale collateral damage. And it should be supported by a program of fallout shelters and population relocation to offer protection to our population primarily in the event that military targets become the object of attack.

The fourth requirement is for a range and magnitude of capabilities such that everyone, friend, foe, and domestic audiences alike, will perceive that we are the equal of our strongest competitors. We should not take the chance that in this the most hazardous of areas, misperceptions could lead to miscalculation, confrontation, and crisis.

Our current and programed capabilities continue to satisfy these four requirements of strategic balance and deterrence. The forces which fulfill these objectives are a triad of bombers, ICBM's, and SLBM's. Each leg of the triad is not required to retain independently a capacity to inflict in a second strike unacceptable damage upon an attacker.

Instead, the three legs of the triad are designed to be mutually supporting. Our Sea-Launched Ballistic Missile (SLBM) force provides us, for the foreseeable future, with a high-confidence capability to withhold weapons in reserve. However, some of the Polaris submarines are nearing the end of their useful life, so we must now plan for their

gradual replacement. In doing so, we should make certain that we are insured against major improvements in antisubmarine warfare (ASW) by improving the performance of both the successor submarines and the missiles that will replace the Polaris A–3 and the Poseidon C–3. The Trident program provides that hedge and deserves continued support.

The ICBM force, the heart of which is the Minuteman series, continues to give us the accuracy, flexibility, and control necessary to deal with and thereby deter a wide range of attacks on military targets. It provides the most reliable source of limited response options so essential to nuclear deterrence under conditions of nuclear parity. The combination of silo-upgrading and a new understanding of the problems the Soviets would face in mounting a preemptive counterforce strike holds the promise of extending the period in which we can feel confident of the survivability of our ICBM force. This assumes that the Soviets exercise restraint in their own developments and deployments.

The Soviets have already begun what will be a very substantial, indeed unprecedented, deployment of large new ICBM's in the first quarter of this year. However, if the principles and spirit of Vladivostok prevail, our response can be quite restrained. We should continue improvements in our command and control systems to enhance the flexibility and responsiveness of our strategic systems.

For credibility in limited options, we should make modest improvements in the accuracy of the Minuteman III by taking advantage of the capability inherent in its current guidance system. And we should increase the range of yields available for our nuclear warheads, in part to compensate for the uncertainties that always surround the accuracies of all-inertial guidance systems when used under real-world conditions.

The most tried and tested of our strategic retaliatory forces, the heavy bombers, continue to interact with our ICBM's to heighten the survivability of both. At the same time, they provide us with a hedge against failures in our other retaliatory capabilities and complicate the Soviet defense problem. For some years, we kept 50 percent of the force on a very high alert; subsequently, we reduced it to 40 percent. Now, unless the Soviets prove remarkably aggressive in their offensive and defensive programs, we can reduce the alert rate still further, to 30 percent, and transfer some of the tanker force to the reserves.

The last B–52 was produced in 1962. It should be clear, therefore, that if the heavy bombers are to continue their contribution to deterrence, we must plan for their modernization and the replacement of at least some portion of the B–52 force. Accordingly, continued but measured development of the B–1 is essential as a basis for any future production decision.

Such a decision does not need to be made for at least another year. A special contribution of the bomber is the massive complications it introduces into any attack plan directed at U.S. strategic forces. Survivable aircraft render unattainable any credible coordinated surprise strike against U.S.-based systems. In addition, bombers complicate Soviet force management decisions, resulting in substantial air defense expenditures. Air defense is the aspect of Soviet defense programming which this nation finds least disquieting.

Our modest but productive civil defense program also warrants continuation. I say this not because we plan to embark on any grandiose program of damage-limiting; the ABM treaty effectively precludes such an effort in any event. The value of the current program is that it contributes to deterrence in a crisis and offers the prospect of saving American lives in the event that limited and coercive nuclear attacks should actually occur.

Finally, because no significant long-range bomber threat to the United States now exists, and because, with the ABM treaty, we have recognized the difficulty of implementing a full-scale damage-limiting posture, we can rely on a reduced CONUS antibomber defense capability. At the same time, as a hedge, we can draw on our tactical theater-defense training forces for CONUS defense in an emergency since, for the most part, they are based in the United States rather than overseas.

There are several aspects of this overall strategic posture, and the programs that go with it, that deserve attention. While it contains some counterforce capability, neither that capability nor the improvements we are proposing for it should raise the specter in the minds of the Soviets that their ICBM force is in jeopardy.

In addition, this improved hard-target-kill capability will not threaten the growing Soviet SLBM force. It follows that we do not have and cannot acquire a disarming first-strike capability against the Soviet Union. In fact, it is our decided preference that neither side attempt to acquire such a capability.

To sum up the existing situation, we have a good second-strike deterrent, but so does the Soviet Union. Although the two forces differ in a number of important respects, no one doubts that they are in approximate balance. There are, in short, no immediate grounds for fears about bomber or missile gaps. To go further however, we would welcome reductions in these forces provided that the Soviet Union were willing to reciprocate in an equitable fashion.

As we convert the principles and guidelines of Vladivostok into the specifics of a 10-year agreement, this basic situation should continue to prevail. However, there are two uncertainties against which we should continue to carry insurance.

A major uncertainty is the manner in which the Soviets will attempt to exploit their throw-weight advantage. The throw-weight of the Soviet ICBM's will continue to exceed that of the U.S. Minuteman force by a very substantial amount, perhaps by as much as a factor of six—unless the United States also increases its ICBM throw-weight. This throw-weight, combined with several thousand high-yield MIRV's and rapidly improving accuracies, could come to jeopardize the survivability of our fixed, hardened ICBM force.

Such developments would not give the Soviet Union anything approximating a disarming first strike against the United States. One reason for this is that less than 25 percent of the U.S. strategic deterrent capability measured in terms of missile and bomber warheads resides in fixed ICBM's. But such a development could bring into question our ability to respond to attacks in a controlled, selective, and deliberate fashion. It could also give the Soviets a capability that we ourselves would lack, and it could bring into question that sense of equality that the principles of Vladivostok so explicitly endorse. Worst of all, it could arouse precisely the fears and suspicions that

our arms control efforts are designed to dispel. Thus it is important that we continue to pursue programs that will permit us various options for responding to the growing Soviet counterforce threat against our fixed ICBM's.

You will recall in this connection that last year's program of strategic initiatives was justified on three major grounds. First, great uncertainty then existed as to the nature of any follow-on to the Interim Offensive Agreement of 1972 that we might be able to achieve. Second, essential equivalence was established as a fundamental criterion in the design of our strategic forces. Third, how far we went with these initiatives should depend on the evolution and pace of the Soviet strategic programs.

There now are fewer uncertainties about a successor to the Interim Offensive Agreement. But the other reasons for pursuing these initiatives remain strong, as I shall indicate later.

With a continuation of these initiatives, and with the other programs outlined herein, I am confident that we can maintain a balance with the Soviet Union and assure a highly credible second-strike strategic deterrent within the framework of existing and future SALT agreements. Without these programs, however, I can give no such assurance.

Turning to Central Europe, last year I pointed out that we plan our general purpose forces on the assumption that, in conjunction with our allies, we should be able to deal simultaneously with one major attack and one lesser contingency. The major contingencies that we consider for force planning purposes are attacks in Central Europe and Northeast Asia, although we do not ignore such areas as the Middle East. In addition, I believe that collective security and deterrence require us to maintain an initial defense capability primarily in our Active Forces, a long-war hedge in our Reserves, and several strongpoints or deployments overseas from which our forces can move rapidly to deal with such threats to our interests as might arise. Central Europe is the most important of these deployments, in large part because of the powerful forces from the Soviet Union and its allies that lie in such close proximity to it.

Our association with NATO now dates back more than a quarter of a century and there is general agreement that we should continue it. Despite occasional differencies among allies, most of us recognize that Western Europe, Canada, and the United States are inextricably linked by a number of political, economic, and cultural ties. Despite the failures of the 1920s and 1930s, we share a common interest in collective security and the deterrence of aggression. What tends to be at issue is not the importance and continuing desirability of the association, but the continued presence of a large U.S. military contingent in Europe combined with the capability to reinforce these ground and and air forces substantially on very short notice.

In an age of essential nuclear parity, few of us would be happy with a concept for the defense of Western Europe that was heavily dependent on an early recourse to nuclear weapons. Most of us would agree, once having looked at the facts, that a non-nuclear defense of Western Europe is feasible. It also is desirable, from the standpoint of deterrence, that such a defense should be backed up and reinforced

at all times by theater nuclear forces. The existence of deployed conventional and theater nuclear forces in sufficient strength reduces whatever temptation there may be for the Warsaw Pact to probe the cohesion and determination of the Alliance.

Nevertheless, while the reasons for it vary, some form of proposal to withdraw at least a portion of our forces from Western Europe has become an annual event. The arguments for withdrawal are now familiar. Our forces have been deployed in Europe for nearly a generation. Our allies, in the aggregate, have become prosperous and are amply endowed with manpower.

In fact, while it is true that the deployment of U.S. forces to Europe has contributed to the U.S. balance-of-payments deficit in the past, the major cause of that deficit has been the difficulty with our commercial account. Nevertheless, we have encouraged the allies to offset our military balance-of-payments in Europe and the allies have responded favorably.

The United States recently concluded one of several 2-year bilateral offset agreements with the Federal Republic of Germany which, when coupled with other allied purchases of military-related equipment in the United States, should be sufficient to offset total U.S. defense balance-of-payments expenditures in NATO Europe during fiscal year 1974–75.

Now, in any event, our financial problem is of a different order. The balance-of-payments drain is from the West to OPEC. This drain is particularly acute in the case of Japan and Western Europe. In the current situation, we must be careful of the demands we place on our allies, least we be guilty of the beggar-thy-neighbor approach which President Ford has deplored.

It continues to be argued, nonetheless, that burdens can and should be more equitably shared among the allies, despite current economic difficulties. Furthermore, the Soviet Union faces problems to the East that are alleged to divert her attention and, in any event, détente is here. Why then has the time not come for a change?

To answer the question, this administration is indeed prepared for change, but only if it takes place in the East as well as the West. Reductions are to be applauded, but they must be mutual and balanced force reductions.

Short of such reciprocity, however, there remains a case for a strengthened military posture in NATO, even after 25 years, and the case for additional strength is very strong indeed. Despite significant reductions in overall U.S. force levels since 1969, despite détente, despite a major Soviet buildup on the Sino-Soviet frontier, we have to consider the following facts:

The Soviet Union alone still deploys 27 of its first-line divisions in East Germany, Poland, and Czecholovakia. Another four Soviet divisions still stand guard in Hungary. Other Warsaw Pact forces in the same area bring the total to more than 58 divisions, over 930,000 men and about 2,900 tactical aircraft.

The ground forces have at their disposal more than 16,000 tanks and hold to a tactical doctrine of rapid armored thrusts that bears a strong family resemblance to what we used to call blitzkrieg.

As matters now stand, NATO has the capability and the resources to attain a more equal balance with the Pact even though it deploys a smaller number of divisions and has certain serious vulnerabilities that we are working to correct. Our U.S. Army, Europe, which we plan to strengthen by two brigades and other ground combat elements, and U.S. Air Forces in Europe, which we also plan to strengthen, all in compliance with the Nunn amendment, represent a critical numerical and psychlogical factor in the current, somewhat precarious, equilibrium.

If they were withdrawn or seriously reduced without reciprocity from the U.S.S.R., this capacity for a military balance would be badly upset. Furthermore, we would lose the foundation for rapid reinforcement from the United States to counterbalance any Soviet buildup that might occur, whether under relatively normal conditions or in a crisis. After 30 years, the peace of Europe would once again be at risk.

In other words, the choice here is the same as we face in so many other areas of foreign policy and national security. We can withdraw our forces and hope either that other countries will replace them, or that the Warshaw Pact will continue to exercise restraint. That is, we can depart from an area of great and enduring interest to us and let decisions about its fate be made by others. Or, politically and militarily, we can help to insure the establishment of a balance of forces in Central Europe and nudge events in directions that are favorable to our interests.

Perhaps matters would proceed satisfactorily without our presence. Perhaps good will and mutual security would flourish precisely because of the departure of the only superpower in the West. Perhaps the bear would cherish the lambs in our absence. Perhaps—but we should not count on it. As has been noted in the past, it is useless for the sheep to pass resolutions in favor of vegetarianism while the wolf remains of a different persuasion.

Accordingly, while there are costs and risks to being steadfast, we should not forget that there are advantages as well. The Congress has been in the forefront of those who have recognized and articulated these advantages for more than a generation. Now, as we gradually reap the rewards of standing fast, we should not think of retreat.

Regarding the maritime balance, as was emphasized in last year's annual report, it is essential that the United States, together with its allies, maintain naval forces that are widely regarded as at least equal in capability to the naval forces operated by the Soviet Union and its allies.

In assessing this balance, one should start by noting the substantial differences in geography, national policy, and alliance systems that dictate differing United States and Soviet naval missions and force structures. The United States and most of its principal allies depend fundamentally on use of the seas for their trade and commerce in peacetime and for their lines of communication in war. They also depend heavily on the strategic mobility provided by long-range airlift. The U.S.S.R. and its allies currently do not. Because of this basic asymmetry, the primary conventional naval missions of the two superpowers and their respective allies differ in several respects.

The United States and its allies emphasize sea control and the projection of power ashore through attack carriers and amphibious forces. The U.S. Air Force also contributes to the mining and sea surveillance and control missions.

The Soviet Union, at least for now, stresses defense against U.S. power projection efforts and interdiction of United States and allied military and economic support shipping on the open oceans.

Both sides are interested in showing the flag in peacetime and in surging deployed naval forces in a crisis, as has happened on several occasions in the Mediterranean. In this connection, it is important to emphasize long-term flexibility in the employment of our major naval units. If commitments are too fixed, they will dictate the tempo of operations of the programed forces and reduce flexibility.

Based on recent assessments of the maritime balance, six general conclusions are warranted.

First, confusion arises about the balance because of the asymmetry between the forces and their missions. Soviet naval forces emphasize an antiship capability. This capability is distributed among a large number of ships, most of which are small in comparison to our ocean-going units. U.S. forces, on the other hand, tend to concentrate striking power in a relatively small number of aircraft carriers. The carrier's escort ships emphasize defensive weaponry. In general, our units are larger, more sophisticated, and have a greater capacity for sustained action, advantages which tend to offset their somewhat smaller numbers. In addition, what is often overlooked, our allies add significantly to overall U.S. strength, particularly in a NATO war; Pact allies add very little to the strength of the Soviet fleet.

Second, once one removes the mission asymmetry and measures the balance, it becomes clear that the naval forces of the Soviet Union and its allies are not generally superior to those of the United States and its allies, and that this should be perceived by well-informed observers. Nonetheless, U.S. naval power has suffered a serious decline and must be resuscitated.

Third, the Soviet Navy has developed a formidable force for the protection of Soviet and Pact territory from attacks by U.S. sea-based tactical air and amphibious forces. This force consists of surface ships, submarines, and long-range aircraft. Many of these units are armed with cruise missiles, an innovation in naval warfare which greatly increases antiship striking power and partially substitutes for the Soviet lack of carrier-based tactical air.

Fourth, the Soviet Navy possesses strong capabilities for attacks on United States and allied shipping on the open oceans. Should they concentrate their long-range aviation and submarine forces exclusively on this mission, their interdiction potential would be substantial. In view of the heavy United States and allied dependence on use of the seas, particularly during any sustained conflict in Europe or Northeast Asia, and considering the capabilities of the Soviet Navy for antiship operations, it would be imprudent to assume that the Soviets would not allocate a significant part of their naval forces to an effort at interdicting our sealanes.

Fifth, the United States and its maritime allies could suffer significant but not prohibitive shipping losses if the Soviets were to conduct

a major antishipping campaign. In time, however, United States and allied sea control forces would exact heavy attrition on the enemy's long-range forces, and would regain firm control of the sea lanes in the Atlantic and Pacific. Although shipping losses might be heavy, the net effect on the United States and allied war effort would not be crippling.

Sixth, as far as peacetime naval presence is concerned, aggregate Soviet activity increased sharply in the late 1960s, but now appears to have stabilized somewhat below the overall U.S. level. The Soviets could increase their deployments by raising the operating tempo of their forces. During the Middle East war of 1973, in fact, they demonstrated a significant capability to surge and support naval forces to a greater extent than we had anticipated. However, U.S. forces tend to have a greater surge capability to most theaters of primary interest to the United States and its allies.

To preclude any misinterpretation of these conclusions, which I would characterize as cautiously optimistic, I should emphasize three basic qualifications.

First, the validity of the longer-range aspects of our assessment depends on the assumption that the Navy's current modernization will be completed essentially as planned. To the extent that this fundamental assumption proves false, the risk that our future Navy will be unable to carry out our strategy will grow beyond a prudent level.

Second, as is true of any analytical assessment of a complex problem, our work on the maritime balance reflects many uncertainties, particularly in its treatment of future Soviet policies. The naval programs discussed later in this report are in some cases sized and structured to provide hedges against the more important uncertainties in our estimates.

Third, there could be plausible situations in which the enemy may have advantages of geography or selection of H-hour—or both—which would severely strain our naval capabilities or temporarily deny us the use of certain parts of the world's oceans.

Subject to these three basic qualifications, if our naval modernization programs are approved by the Congress, I am reasonably confident that the United States, together with its allies, will remain able to defend the essential sea lanes in the Atlantic and Pacific, project power ashore under a wide range of circumstances, continue a strong deployed naval presence, and maintain the necessary maritime balance with the Soviet Union and its clients.

TRENDS IN THE DEFENSE BUDGET

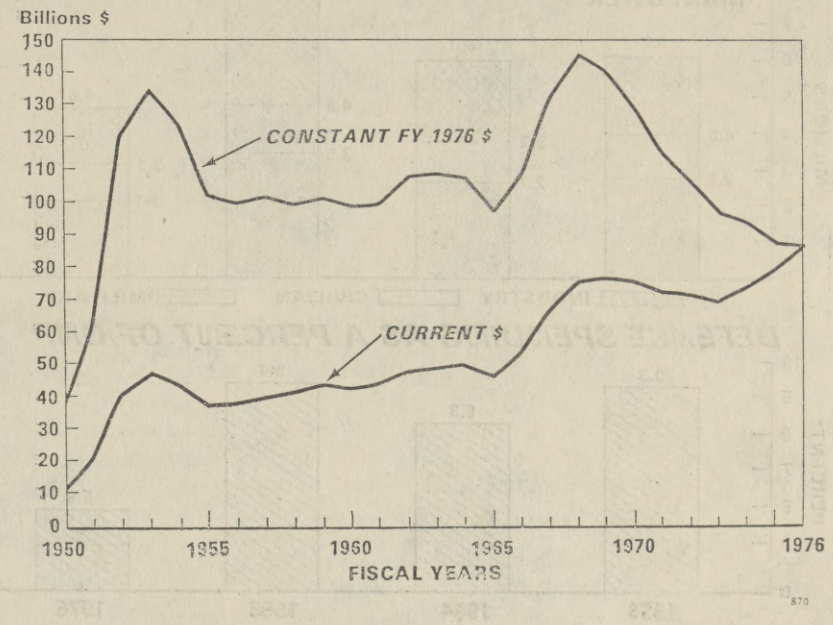
For fiscal year 1976, the Department requests $104.7 billion in total obligational authority. This compares with the $93.9 billion requested for fiscal year 1975, including the POL and Mideast amendments. Outlays are planned at $92.8 billion, compared with the Department's estimate of $86.8 billion for fiscal year 1975, again including the Mideast and POL.

On this basis, TOA will increase by $10.8 billion and outlays by $6 billion. It should be noted, however, that the Congress allowed the

Department only $89 billion in TOA for fiscal year 1975, despite rampant inflation. Outlays for fiscal year 1975 are now estimated at $84.8 billion.

CURRENT AND REAL DEFENSE EXPENDITURES

(EXCLUDES MILITARY RETIRED PAY)



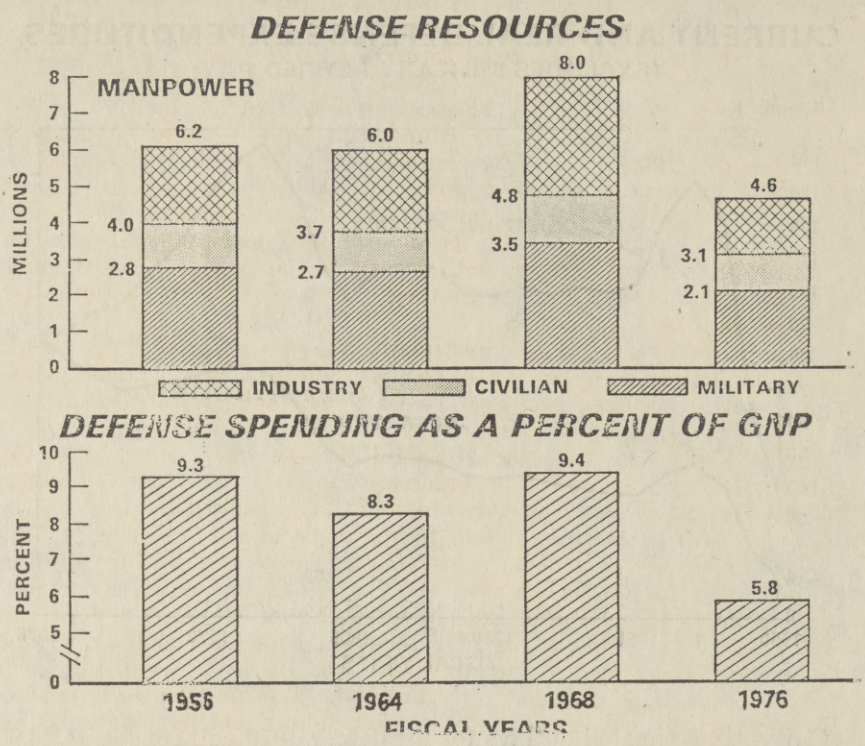
Currently estimated outlays for fiscal year 1976 will constitute 26.6 percent of the Federal budget, compared with 27.1 percent for fiscal year 1975. It is dependent, Mr. Chairman, on the Congress' agreeing to the recommended rescissions and deferrals that the President has suggested, amounting to some $17 billion above the $349 billion Presidential request. These estimated outlays will consume 5 percent of the capacity output of the gross national product, somewhat less than the 5.2 percent for fiscal year 1975.

It should be emphasized, however, that if the President were not to receive the authority to limit Federal pay increases to 5 percent—which will save us $1.8 billion—and if the Department were not to acquire the receipts from the production of oil at Elk Hills, currently estimated at $400 million, defense outlays for fiscal year 1976 would rise to $95 billion instead of $92.8 billion.

Of these planned outlays, $6.9 billion will go to military retired pay alone, and another $42.3 billion is required for compensation of civil service and active duty military personnel. This total of $49.2 billion represents 53 percent of our proposed outlays for fiscal year 1976.

Although TOA for fiscal year 1976 appears to increase by $15.7 billion, the bulk of the increase is intended to deal with the effects of

past and current inflation. Although there is a real increase in TOA from the eroded fiscal year 1975 base, there is an actual decrease from the amount projected last year in our rolling 5-year defense plan.



Mr. Chairman, if I may dwell on this point for a moment—this chart gives you the trend in current dollars, in constant dollar expenditures. The blue area at the top, below the top line, represents congressional reductions over the past 5 fiscal years. The red area represents the growing effect of unforeseen inflation, of a pace of inflation that we did not anticipate.

The CHAIRMAN. What did you anticipate? What were the percentages?

Secretary SCHLESINGER. I think we were allowed 3 percent for our procurement account, Mr. Chairman, but only for the procurement account. Inflation rates have run 10, 12 percent and more, and of course have been applicable to other than the procurement account.

The effects of the congressional reductions plus unanticipated inflation have substantially curtailed the purchasing power available to the Department. This year, we are attempting to move back toward the programmed level that we have anticipated in 1975, but because of the difficulty of making adjustments in the program as between any 2 fiscal years, the net increase that we are seeking will just about alleviate the effects of inflation, but will not bring us back to the level that we anticipated for fiscal year 1976 prior to the congressional reductions of last year.

This also goes back, Mr. Chairman, to the point that I made earlier about the steady erosion of purchasing power. In the last few years, since fiscal 1968, we have reduced the share of GNP going to the Department of Defense from 9.4 percent of capacity output to 5 percent. This is a ratio of output, Mr. Chairman, that was enjoyed by such predecessors of mine as Secretary Forrestal and Secretary Johnson.

Since fiscal year 1950, the Department of Defense has never had so low a share of the GNP. We cannot maintain an overall balance if the effect of inflation and congressional reductions each year is further to reduce the real purchasing power of this Department. As I indicated earlier, we are now 42 percent below the fiscal year 1968 level. We are 20 percent below the fiscal year 1964 level. There has been nothing in the last 12 years with regard to the trends in the balance of power that would suggest that we could afford to have a smaller defense establishment.

In fact, as a result of underestimates of inflation during the past 2 years, the Department is not able to buy $10 billion in contracted goods and services authorized and approved by the Congress in fiscal year 1975 and prior-year budgets.

Outlays show an increase of $8 billion over fiscal year 1975. Of this total, $3 billion is for pay increases alone. In addition, purchase prices have risen sharply in recent months. Even if they level off in the near future, our purchasing power in fiscal year 1976, on a full-year basis, will be considerably less than in fiscal year 1975. Depending upon the overall inflation rate, the real program value of Departmental outlays for fiscal year 1976 will be about the same as for fiscal year 1975. That is to say, we will be able to consume about the same amounts of goods and services in fiscal year 1976 that we did in fiscal year 1975, despite the seemingly large increase in proposed outlays. By comparison, we compute that Soviet defense outlays, measured in dollars, will rise by as much as 3 percent in real terms.

In order to keep our own outlays approximately level in real program value, and at the same time struggle to retain a force structure adequate to the fulfillment of U.S. responsibilities, the Department is taking further belt-tightening measures. Among the most severe are: a reduction of 30,000 in military manpower; a reduction of 9,000 in civil service personnel; and a rigid control over the consumption of petroleum.

The Department's 5-year projection of future Defense budgets attempts to reverse their downward trend. The forecast shows current estimates of the minimum future financing needed to keep U.S. military forces of adequate size, readiness, and modernization. As shown in the top row of the table on page 44, Department of Defense TOA will grow at a rate of about $2.8 billion a year in real terms from the proposed fiscal year 1976 budget level of $104.7 billion.

An average of $300 million a year of this $2.8 billion annual increase will be needed to keep pace with projected increases in the population of men and women who will have retired after 20 or more years of service in the Armed Forces. Increases for development of petroleum reserves, less decreases for military assistance, net to a growth of $1.1 billion a year.

The remaining $2.4 billion annual increase will be required to provide real noninflationary growth in funding for the modernization and readiness of U.S. forces. This $2.4 billion annual increase, which represents an annual real growth rate of about 2 percent in the Defense budget, is needed to cover the additional costs associated with improving the technology of modern U.S. weapon and support systems made increasingly urgent by the continuing technological advances in the military forces of the U.S.S.R.

This 5-year projection is based on the following general assumptions: a world situation essentially unchanged from today, with the Soviet Union continuing the expansion of its present military establishment while remaining at odds with the People's Republic of China; a continuing real growth of Soviet defense expenditures at a rate of 2 to 3 percent a year in dollar terms; continuation of the current Strategic Arms Limitation Agreements, including implementation of the Vladivostok understanding; a relatively constant Defense active and reserve force, measured in military and civilian manpower, with continuing improvements in its combat power at the expense of reductions in headquarters and support personnel. This will result in some additional combat units, such as the planned increase to 16 Army divisions, and a growth in Air Force combat power, without increases in total Defense personnel. Further efficiencies will, of course, be sought in order to convert overhead into restored combat capability; a continuation of the Navy program designed to reverse the recent trend of declining force levels while conforming generally to the requirements of title VIII; continuation of the high-low force mix concept to avoid over-sophistication in all components of the force and to assure adequate numbers of systems; assurance of a dynamic R.D.T. & E. program, but one constrained in terms of total dollar resources; and continuation of military assistance somewhat below the current level because of a projected decrease in aid to Southeast Asia.

Inflation has already reduced very severely the purchasing power of previous Defense budgets. Current economic forecasts do not anticipate that future inflation will be as severe as it has been in the last 24 months. But there will still be inflation in the United States between fiscal year 1977 and fiscal year 1980. Consistent with economic forecasts, the second row of figures in the table on page 44 shows one series of fully inflated, "then-year" obligational authority estimates required to support our 5-year projections.

The difference between the two projections is that the second projection includes all the estimated future inflationary price increases beyond those forecast in the Defense budget for fiscal year 1976. If future inflation is lower than the forecast upon which the projections in the second row are based, these out-year totals can be reduced. On the other hand, if inflation is higher than we have forecast, the Department will so advise the Congress and prepare new projections.

Two major points need emphasis here. The first is that projections of future Defense spending which include only the real growth are shown in deflated—constant—prices in the top line of the table. The second is that Defense outlays over this period will continue to decline as a percent of GNP.

Before explaining the basis for these requests, it is worth summarizing several assumptions of a more general nature that have guided the Department in preparing the report on its request for this year.

The United States is inescapably the leader of the non-Communist world. There is no other country to fulfill our role if we abandon it.

Grave challenges face the industrialized nations of the West, and they are as much external as internal.

If we are to realize our dreams of domestic progress, we must first stay alive and free.

National defense—and the men and women who perform so well in its service—provide an indispensable public good that is the basic duty of this republic to its citizens.

As you review this budget and its intellectual foundations, I trust that you will continually ask whether there are any different basic assumptions on which we could or should base our posture of defense.

[The Secretary's full posture statement follows.]

I. Introduction

Mr. Chairman and Members of the Committee: It is my privilege to present to you the Defense Program and Budget for FY 1976 and for the three months thereafter, ending September 30, 1976. In compliance with the 1974 Budget and Impoundment Control Act, I am providing you with the Department's request for legislative authorization through FY 1977. I am also submitting for the first time a five-year projection of future Defense budgets in total obligational authority.

The table below shows the Departmental requests for FY 1976 and the transition period.

TOTAL REQUESTS

[In billions of current dollars]

	Fiscal year 1976	Transition period
Total obligational authority	$104.7	$24.6
Outlays	92.8	25.4

The Department's requests and five-year projections will be discussed later in this Report. Before doing so, however, it is essential to discuss the basic defense choices that we as a nation face and the international context within which we must make them.

A. THE BASIC BUDGETARY CHOICES

In FY 1964, before the war in Vietnam had resulted in a major impact on the U.S. defense establishment, our military and civilian personnel totaled over 3.7 million people. For FY 1976, we plan fewer than 3.1 million people, even though the world has become only a slightly safer place in the ensuing twelve years. For the first time since 1939 (two years before Pearl Harbor), our active fleet will consist of fewer than 500 ships. Our ships, aircraft, and ground combat vehicles are aging. Perhaps most troublesome of all, the readiness of some forces has suffered as budgetary constraints have grown more severe. There is, in short, no way that we can maintain force structure, modernization and readiness on the basis of declining budgets. Yet, if the effects of inflation and real pay increases are removed, the last four years have witnessed nothing but declining budgets.

In such circumstances, the Congress and the country must face the main choices before us and the consequences that are likely to flow from their decisions.

One choice is to continue to review the Administration's budget and make cuts in such a way that the net reduction is no more than 5% of the total. Consciences are then salved and no great damage is done in any particular year. The difficulty is that if this approach is followed year after year—as it has been in the recent past—the real military power of the defense establishment must inevitably erode. And as troublesome as the fact of erosion is the fact that decisions fundamental to the security of the United States are made by default. Surely, if we want the shadow rather than the substance of first-class military power, we should make the decision explicitly rather than in a casual and impulsive fashion over a period of time.

A second choice is to recognize that there is a strong connection between the safety, interests, commitments, and foreign policy of the United States on the one hand, and the size, composition, and deployment of our defense establishment on the other hand. This choice implies that, if the proposed Defense budget is too high for the Congress and the country, it may well be that excessive demands are being made on defense. Thus, if the Defense Budget is to be reduced, it should be done in clear recognition that we will not be able to fulfill our responsibilities.

A third and more reasonable choice is to acknowledge that in a world where detente runs parallel with a number of dangers—some evident, some hidden and uncertain—in a world where the United States simply cannot escape great responsibilities, military power remains relevant. In these circumstances, a posture of deterrence will be seen as necessary to some measure of safety, collective security, and progress toward more enduring peace even though the price is high but quite tolerable. Such a choice implies acceptance not only of the Administration's budgetary request, but of the strategic concepts on which it is based.

B. THE INTERNATIONAL SITUATION AND THE DEFENSE ESTABLISHMENT

1. The Nature of the Challenge

Last year I quoted from Proverbs to the effect that "Where there is no vision, the people perish." The vision that I attempted to suggest then was one of peace among the great powers based on equality, civility, and prudence. This year, the principle of equality strongly supported by the Defense Department was established at Vladivostok. But equality must be more than a principle. We would do well to recall in that connection that "When a strong man armed keepeth his palace, his goods are in peace." Perhaps we are no longer of "that strength that in old days moved earth and heaven," but we must still be "strong in will—to strive, to seek, to find, and not to yield."

To heed that advice, we must maintain military strength. But there remains the problem of defining our specific defense objectives and establishing efficient programs for their attainment. A French official once solved the problem very succinctly. He said that the Maginot Line began where it was required and ended where it was no longer need. However, we can and should do better than that. As a British statesman once asked: "Does it mean that because Americans allegedly won't listen to sense, you intend to talk nonsense to them?" The answer is: No.

I am sensitive to the fact that national security is not a product that brings explicit and tangible benefits to us, although most of us are acutely aware when it is absent. As Sir John Slessor once noted: "It is customary in democratic countries to deplore expenditure on armament as conflicting with the requirements of the social services. There is a tendency to forget that the most important social service that a government can do for its people is to keep them alive and free."

It is also common to allege that the Defense Budget contains some inner momentum of its own, that it has a Parkinsonian tendency to expand independently of external threats (although the perceived growth is in current and highly inflated dollars). Few of us give ear to some of our most trenchant critics in Congress who acknowledge that the Department of Defense is the best managed in government.

Obviously, this Department can always improve the efficiency of its performance, but we will never reach zero defects. In any event, the United States can afford both increased social programs and an adequate posture of defense; the two objectives are not incompatible and we do not have to trade one for the other.

What is more, the defense of this nation and its interests is a matter of the utmost gravity; despite theories to the contrary, we have not arrived at this Budget (or its predecessors) as a result of some form of mindless bureaucratic bargaining. The issue before us, therefore, is not how to restrain these voracious bureaucrats. It is how much defense of what kind we need to be reasonably confident of securing this nation and its myriad interests.

We live in an interdependent world economy, and our foreign economic interests are substantial. U.S. assets abroad amount to more than $180 billion. Annually, we export more than $70 billion in goods and services, and our imports are of an equal or greater amount. The oil embargo of 1973 is only the most recent and pointed reminder that we have a keen and growing interest in distant lands—their markets and their products.

Our foreign political interests are even more extensive. Within this century we have participated in two great wars to ensure that Europe did not fall under the domination of a single power. We have a similar interest in seeing that Japan remains independent and that the other nations of Asia are free to choose their own destinies. Our concern for the freedom of the Western Hemisphere from external domination now dates back more than 150 years. And, we have important economic and strategic interests in Latin America, including the Panama Canal. Even in a period of questioning and self-doubt, there remains a consensus within the country that we have vital interests in Western Europe, the Middle East, the Persian Gulf, and Asia. Contrary to occasional suggestions, surely the right cure for what may seem an excess of commitments is not the blind and hasty abandonment of all commitments. Our objective, as a great power, is to display a somewhat greater degree of steadfastness.

Despite detente and its opportunities, the need for steadfastness is no less great than it was a decade or more ago. Putting aside the shibboleths of the cold war era, it is nonetheless the case that the world remains a turbulent place. The military confrontation along the Sino-Soviet border continues. Both Washington and Moscow appear to agree that the situation in the Middle East is extremely volatile. Our allies in Europe and Asia find themselves in varying degrees of economic and political difficulty. From the Azores, through Europe and the Mediterranean, to Japan, common objectives and policies remain to be formulated. The conflict over Cyprus continues unresolved. In several countries with whom we have close associations, succession crises are in the offing. The international waters are troubled and the temptation to fish in them to the detriment of U.S. interests cannot be entirely absent.

The Soviet Union and the PRC have proved to be relatively prudent powers under their current leadership, although some of their client states appear to suffer from periodic excesses of revolutionary exuberance. Challenges may therefore arise even though the great powers do not wish to initiate them. Whatever the case—and the future is clouded with uncertainty—there is no doubt about the very large military capabilities at the disposal of the USSR. What is more, these capabilities continue to grow. In our prices, the Soviets now devote more resources than the United States in most of the significant categories of defense. In overall Research and Development, they outstrip us by 20%; in General Purpose Forces by 20%; in Procurement by 25%; and in Strategic Nuclear Offensive Forces by 60%.

What is more, we are now beginning to witness in the Soviet Union the largest initial deployment of improved strategic capabilities in the history of the nuclear competition. How far it will go we do not yet know, but there is no doubt that these new ICBMs—with larger throw-weights, MIRVs, and improved accuracies—combined with significant improvements in their sea-based missile force, will give the Soviets a much more powerful strategic offensive force, even within the constraints of Vladivostok.

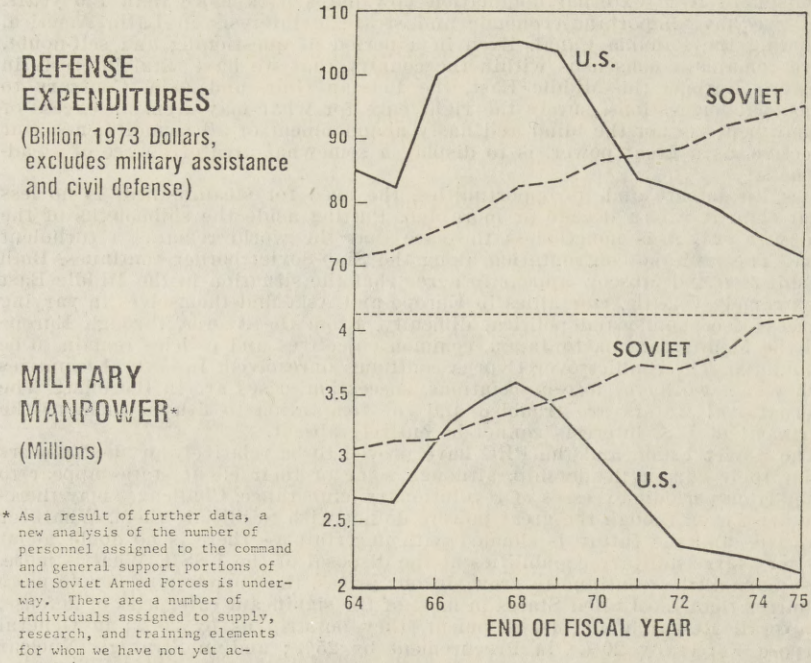
At the same time, the Soviets have continued to strengthen their general purpose forces and provide large amounts of military assistance to other states. One of the more impressive feats performed by the Soviets during the past five years is to have built up their forces in the Far East to a strength of more than 40 divisions without any diminution of their capability west of the Urals. In fact, during the past year, there have been both qualitative and quantitative improvements in the forces oriented toward NATO, and the Center Region of the Alliance still faces a deployed force of about 58 Warsaw Pact divisions, with the possibility that at least 30 more could be added from the USSR alone

within a relatively short period of time. The northern and southern flanks of NATO face smaller but nonetheless formidable forces as well.

While we have heard a great deal about U.S. forward based systems with nuclear capabilities, remarkably little has been made of the large number of non-central nuclear systems that the Soviets deploy, some of which—under certain circumstances—would be capable of hitting parts of the United States, most obviously Alaska. It is noteworthy, in this connection, that the President was unwilling to compensate the Soviets for our forward based systems in the negotiations at Vladivostok.

What we have to recognize, in sum, is that: first, the United States continues to have large and growing interests in an interdependent world even as it faces a number of problems at home; second, the areas of greatest interest to the United States are beset by a number of internal and external difficulties; third,

SOVIET — U.S. DEFENSE EXPENDITURES AND MILITARY MANPOWER



* As a result of further data, a new analysis of the number of personnel assigned to the command and general support portions of the Soviet Armed Forces is underway. There are a number of individuals assigned to supply, research, and training elements for whom we have not yet accounted.

despite detente, the sources of potential differences and conflict among the powers remain numerous; and fourth, large and diversified military capabilities remain in the hands of powers with whom our relationships have to some degree improved, but powers who have not traditionally wished us well or looked with cordiality upon our interests.

2. The U.S. Role

A major issue that we must face as a nation concerns the degree of initiative and leadership that the United States should provide in the face of these global complexities. As a result of events last year in the Middle East, no one can doubt that the world has become truly interdependent and that American citizens remain vitally concerned with its evolution. Clashes in various parts of the world have demonstrated the importance of U.S. diplomatic efforts both to foreign governments and to our own citizens. And we are all aware that we have become

vulnerable to nuclear attack. It is also quite obvious that the United States will remain one of only two superpowers for many years to come. For that very reason, however passive and restricted our role in specific situations, we will loom as a major factor in the calculations of other nations, and many of them will seek to involve us in their affairs. Such was the case in the earlier part of this century; it is even more so now.

But none of these realities mean that we must take initiatives, try to shape the future to our ideals, work toward results favorable to our interests, or forestall unwanted challenges. In principle, at least, a relatively passive policy, a sense of limited liability, and a minimal military posture are alternatives that are open to us.

Some of our citizens might even find favor in such a role, provided that their own particular oxen were not gored in the process. An active foreign policy implies risks, but so does passivity. There is no risk-free policy. In the face of uncertainty and a not altogether friendly world, it is more prudent to shape the future by our own actions than to let others do it for us.

It is also worth recalling that a number of factors, in addition to our diplomatic relationships with the Soviet Union and the People's Republic of China, have changed during the last generation.

The United States, while remaining the great arsenal and reserve of democracy, has also joined its first line of defense; moreover, it is alone as the superpower of the non-communist world.

It is all well and good to add up the population and gross national product of the European Economic Community and pretend that it is a substitute for the United States; but it will be many years before the nine members of the Community can act with the unity, coherence, and efficiency that we command.

In the meantime, despite the promising dialogues begun with the USSR and the PRC, it would surely be unwise to forego the maintenance of a balance of power in critical areas of the world.

Perhaps all will go well without the maintenance of such balances and the deterrence of hostile acts that go with them. Perhaps we can now depend on the good will of others to preserve the independence and territorial integrity of our friends and the protection of our farflung interests. But we ought not to tempt fate in that particular fashion. That being the case, there is no alternative to a strong defense establishment for the United States as a basis for its continued leadership in the world.

Moreover, there is little reason why we should expect this requirement to change in the future. Despite our hopes for detente and an end to the cold war, we have been driven out of the Paradise of isolation and noninvolvement which characterized the America of the nineteenth and early twentieth centuries; and as Thomas Wolfe reminded us in another connection: We can't go home again. No longer can we expect other nations by themselves to man the front lines of freedom. No longer can we depend on the strength of our allies to buy us the time to expand our defense production base, to mobilize and deploy our forces, to learn the lessons of the conflict from the mistakes of others, and to turn the tide of war in our favor. The luxury of time—and the old role that went with it—are gone, perhaps forever.

In these circumstances, barring the millennium, ready military power will continue to be necessary; without it, anarchy will ensue. As President Ford has pointed out: "A strong defense is the surest way to peace. Strength makes detente attainable. Weakness invites war. . . ." In a volatile world, a credible deterrent capability is essential to our well-being. The real issue thus is hardly one of need; it centers on the types and magnitudes of deterrent forces that we must have.

3. The Basis for Planning

A world in which so many conditions are changing simultaneously makes it difficult to state with precision what those types and magnitudes of forces should be. But as a very great power in the forefront of world politics, we cannot afford to play the accordion with our military posture any longer. As long as interests differ among the powers and competition continues (however muted), we must aim for an economical and stable defense posture that is suitable to the environment and that we can sustain over the long haul.

The movement toward detente with the USSR and the PRC may seem to suggest that such a posture can be very minimal indeed. Before we reach that

conclusion, however, we would do well to remember that where the USSR is concerned, we can reasonably expect:

A relaxation but not an eradication of tensions with the United States;

A move away from the risk of direct military confrontation with the United States (as long as we maintain our military strength), but not at the sacrifice of any major interests as perceived by Moscow;

A continued pursuit of and even an increase in the ideological struggle;

The maintenance of a relatively closed society and a cloak of great secrecy around the decisions of her government;

A belief that the atmosphere of detente has arrived because, as the Soviet leadership might put it, the correlation of forces has begun to shift in their favor;

The continued allocation of major resources to a strong and growing military posture, and a singularly persistent effort to create a balance of military power more favorable to the USSR.

With the differences that exist between our own social system and that of the USSR, and with the differences in political and economic objectives, it would be surprising indeed if there were not an extended period of time between the first steps toward detente and the more deeply cooperative relationship to which we aspire. Meanwhile, we must anticipate that moments of cooperation and agreement will alternate with periods of dispute and competition. In such circumstances the risk of confrontation, crisis, and miscalculation will remain present—as has been the case in the recent past. No one should be under any illusion about the extent, availability, and readiness of American military power should comparable cases arise in the future. A minimal military establishment will hardly meet the requirements.

This concern should not be taken as opposition to a reduction in military arms and budgets. On the contrary, the Department of Defense has urged and still urges and encourages progress toward the equitable control and reduction of both strategic nuclear and general purpose forces. Arms control agreements such as the President has initiated at Vladivostok not only remove uncertainties from the process of military planning; they also offer hope of reducing the costs of the arms competition and removing some of the tensions and suspicions that invariably accompany accelerations in the competition. Precisely for these reasons, the Department of Defense supports the earliest possible effort on the part of the United States to lower the curently agreed ceilings on strategic delivery vehicles below 2,400.

Even as we support and actually desire arms reductions, we must be realistic in our expectations of how much can be accomplished in the near term. The actual removal of all nuclear forces from the arsenals of the world—however desirable—is not something that we can seriously anticipate, and the knowledge of nuclear fission and fusion is likely to be with us as long as the human race survives. This equally obvious but often-neglected prospect also holds true for the general purpose forces where, as yet, we have made little progress in the direction of arms control.

The main point, however, is that even if we continue to move forward on the arms control front, and even if successive constraints are imposed on the major military establishments, we will still have to engage in force planning within these constraints.

There are a number of principles that should guide our planning under these conditions.

First, our forces—together with those of our allies—must be a function, not of internal political disputes, but of our needs in light of the capabilities and programs of potential adversaries.

Second, we must avoid unilateral reductions in the baseline posture that we consider appropriate to our interests; in a period of transition and uncertainty, reductions should result from international agreement rather than from temporary budgetary exigencies or the impulse to set a good example for the other side.

Third, we should nonetheless continue to strive for the utmost efficiency in the use of our scarce defense dollars and, as long as our baseline force requirements are not fully met, continue to convert excess overhead and support into increased combat power.

Fourth, our planning should abide meticulously by the spirit as well as the letter of existing arms control agreements and guidelines; in fact, we should plan toward the Vladivostok goals and our desire for other equitable agreements.

To proceed otherwise—and particularly to engage in unilateral force reductions—will not foster further detente and arms control. Instead it will simply

create the kind of weakness that invites miscalculations, probes, tests, and the risk of disaster. Despite frequent use of the term "arms race," the United States has not engaged in the life-or-death competition that occurred among the European powers in the 1930's; and our defense budget, both as a percent of GNP and in its decline (in constant dollars), is a clear reflection of that fact. Indeed, we have been engaged in the rather peculiar process of reducing our defense budget in real terms while the Soviets have been raising theirs.

That, unfortunately, is the problem confronting us. We may be facing a situation where the Middle East is the potential tinderbox that the Balkans actually were in 1914, and where our international economic problems bear some resemblance to the 1930s, when international financial institutions and economic structures deteriorated and the Western powers turned inward and became weaker. In such an era, civility is essential, but it should be armed civility joined with prudence. Thus, while we should take other capabilities into account, our planning objectives should be to:

Assure that no potential adversary achieves unilateral advantage over the United States.

Leave unchallenged the Soviet capability for deterrence provided that our interests are respected and the traditional norms of international behavior are accepted.

In the present era, with so many sources of possible conflict, these principles and objectives—we believe—constitute the only prudent bases for planning.

4. Toward Long-Term Deterrence

In the period prior to World War II, we could think of deterrence as based essentially on one type of capability—our non-nuclear forces. Even then we believed in a strong "forward defense" symbolized by a Navy second to none (and insisted on the principle of parity with Great Britain in the Washington Naval Treaty of 1922), a small regular army, and a mobilization base on which to build and equip major land and air forces. But because of distance, powerful friends in Europe, and the assumption that we would have the time to mobilize, we could afford a defense budget that constituted no more than 2% of the GNP.

Now, however, all that has changed. The role of the United States has grown dramatically since World War II. Perhaps even more important, the technology of warfare has undergone a dramatic transformation. After 30 years, we are still struggling to adapt our concepts of conflict and its deterrence to nuclear weapons that range in yield from the sub-kiloton to the multi-megaton; to delivery systems that can travel intercontinental distances in 30 minutes; and to improving accuracies that apply to short-range as well as long-range delivery systems and to high explosive as well as to nuclear warheads.

In the 1950's, some nations in the Western Alliance, including the United States, made the intriguing and convenient discovery that there was a phenomenon called deterrence, painless in that it would supposedly work without the unpleasant necessity of anyone being seriously prepared to fight. Even more miraculously, it turned out (or so it was alleged) that deterrence was low in cost—in contrast to defense. This observation led to the advocacy by some of reduced defense capabilities. Churchill himself spoke of safety as "the sturdy child of terror, and survival the twin brother of annihilation." Even now, deterrence is distinguished from defense and described as "the means of inflicting unacceptable damage in case of aggression . . ."

At base, however, this is nothing but a dangerous illusion, and most serious students of the subject have recognized it as such as the nuclear predominance of the United States has disappeared. Deterrence is not a substitute for defense; defense capabilities, representing the potential for effective counteraction, are the essential condition of deterrence. This simple truth becomes especially evident in a crisis, when forces designed only for "deterrence" are increasingly found to be lacking in credibility both to opponents and to their potential users.

Deterrence, in other words, is not something free-floating that exists independently of a credible, implementable threat. It requires the most careful structuring of forces that is fully consistent with an agreed-upon strategic concept. By contrast with the 1950's, when the great nuclear superiority of the United States concealed any basic deficiencies in strategic analysis and force structure, it is now evident that deterrence does not simply derive from a pile of nuclear weapons—a pile which one anticipates, at least, will frighten one's opponents as much as the people it is designed to protect.

In the 1950's, you may also recall, there was some misunderstanding of the need for balanced military forces as opposed to simple reliance on nuclear retaliation. The "Fifties", if nothing else, were a period during which many institutions became excessively intrigued with the novelty of nuclear explosives. There is some evidence that the academic community has not recovered from the novelty yet.

More recently, illusions somewhat similar to those of the "Fifties" regarding deterrence have emerged about detente. Only detente exercises an even more powerful magic since it is believed somehow to obviate the need for both deterrence and defense. But we should make no mistake about it: there is no conflict among detente, deterrence, and defense. They are inextricably bound up with one another in the maintenance of an equilibrium of power.

A relatively closed society like the Soviet Union has no difficulty in pursuing detente and simultaneously strengthening its defense efforts. Under such circumstances, this nation should be under no illusions about the need to maintain a military balance and all the capabilities that go with it. If indeed we are to maintain a military posture second to none, there is no substitute for the hard, costly, and unremitting effort required to keep up the nation's defense.

For more than a decade now, it has become generally accepted (regardless of administration or party) that credible deterrence must, among other factors, rest on a TRIAD of capabilities—strategic nuclear, theater nuclear, and nonnuclear forces. Each component serves as a deterrent to its opposite number and, together, they interact to enhance deterrence over the spectrum of possible conflicts. If we do not have the full TRIAD, in other words, an opponent might be tempted to exploit the gaps in our deterrent.

The main components of our deterrent forces will be discussed in detail later on in this Report. Here, I simply want to review three key military balances: the strategic nuclear balance, the military balance in Central Europe, and the worldwide maritime balance. The importance of our strategic mobility forces should also be underlined.

5. The Worldwide Military Balance

These three main balances do not cover all of the elements that we must consider in assessing the worldwide military balance that is the objective of U.S. and allied military programs. Of increasing importance, for example, is the comparative U.S. and Soviet capability to project military power into potential crisis areas. Until recently this comparison did not concern us because Soviet capabilities to deploy and support military forces at some distances from its borders were negligible. The issue will be a matter of increasing interest to us in the years ahead as the strategic mobility of Soviet forces improves.

Another aspect of any comprehensive assessment of the worldwide balance is the contribution of U.S. overseas deployments outside of Europe, for example in Korea. These forces help maintain local balances and form U.S. strongpoints in the worldwide balance.

To assess all of these balances with confidence is difficult. U.S. and Soviet forces are different in many ways. Organizational, doctrinal, and weapon asymmetries have developed as a result of differences in historical experience, weapons design philosophy, relative resource scarcities, geography, and other factors. In the case of the three key balances that will be reviewed, there are larger and larger asymmetries as one passes from strategic nuclear forces, to the conventional forces in NATO (in which the Center Region receives so much attention), to the air and naval forces. Simple comparisons based on counting numbers of weapons and men, even if qualified by the differing technological quality of the weapons, tell only part of the story.

6. The Strategic Nuclear Balance

Credible strategic nuclear deterrence depends on the satisfaction of four major requirements. First, we must maintain an essential equivalence with the Soviet Union in the basic factors that determine force effectiveness. Because of uncertainty about the future and the shape that the strategic competition could take, we cannot allow major asymmetries to develop in throw-weight, accuracy, yield-to-weight ratios, reliability and other such factors that contribute to the effectiveness of strategic weapons and to the perceptions of the non-superpower nations. At the same time, our own forces should promote nuclear stability both by reducing incentives for a first use of nuclear weapons and by deterring and avoiding increased nuclear deployments by other powers.

The second requirement is for a highly survivable force that can be withheld at all times and targeted against the economic base of an opponent so as to deter coercive or desperation attacks on the economic and population targets of the United States and its allies.

The third requirement is for a force that, in response to Soviet actions, could implement a variety of limited preplanned options and react rapidly to retargeting orders so as to deter any range of further attacks that a potential enemy might contemplate. This force should have some ability to destroy hard targets, even though we would prefer to see both sides avoid major counterforce capabilities. We do not propose, however, to concede to the Soviets a unilateral advantage in this realm. Accordingly, our programs will depend on how far the Soviets go in developing a counterforce capability of their own. It should also have the accuracy to attack—with low-yield weapons—soft point targets without causing large-scale collateral damage. And it should be supported by a program of fallout shelters and population relocation to offer protection to our population primarily in the event that military targets become the object of attack.

The fourth requirement is for a range and magnitude of capabilities such that everyone—friend, foe, and domestic audiences alike—will perceive that we are the equal of our strongest competitors. We should not take the chance that in this most hazardous of areas, misperceptions could lead to miscalculation, confrontation, and crisis.

Our current and programmed capabilities continue to satisfy these four requirements of strategic balance and deterrence. The forces which fulfill these objectives are a triad of bombers, ICBMs and SLBMs. Each leg of the triad is not required to retain independently a capacity to inflict in a second strike unacceptable damage upon an attacker. Instead, the three legs of the triad are designed to be mutually supporting. Our sea-launched ballistic missile (SLBM) force provides us, for the foreseeable future, with a high-confidence capability to withhold weapons in reserve. However, some of the POLARIS submarines are nearing the end of their useful life, so we must now plan for their gradual replacement. In doing so, we should make certain that we are insured against major improvements in antisubmarine warfare (ASW) by improving the performance of both the successor submarines and the missiles that will replace the POLARIS A–3 and the POSEIDON C–3. The TRIDENT program provides that hedge and deserves continued support.

The ICBM force, the heart of which is the MINUTEMAN series, continues to give us the accuracy, flexibility, and control necessary to deal with and thereby deter a wide range of attacks on military targets. It provides the most reliable source of limited response options so essential to nuclear deterrence under conditions of nuclear parity. The combination of silo-upgrading and a new understanding of the problems the Soviets would face in mounting a preemptive counterforce strike—the so-called "fratricide" effects—holds the promise of extending the period in which we can feel confident of the survivability of our ICBM force. This assumes that the Soviets exercise restraint in their own developments and deployments.

The Soviets have already begun what will be a very substantial, indeed unprecedented, deployment of large new ICBM's in the first quarter of this year. However, if the principles and spirit of Vladivostok prevail, our response can be quite restrained. We should continue improvements in our command and control systems to enhance the flexibility and responsiveness of our strategic systems. For credibility in limited options, we should make modest improvements in the accuracy of the MINUTEMAN III by taking advantage of the capability inherent in its current guidance system. And we should increase the range of yields available for our nuclear warheads, in part to compensate for the uncertainties that always surround the accuracies of all-inertial guidance systems when used under real-world conditions.

The most tried and tested of our strategic retaliatory forces—the heavy bombers—continue to interact with our ICBMs to heighten and survivability of both. At the same time, they provide us with a hedge against failures in our other retaliatory capabilities and complicate the Soviet defense problem. For some years, we kept 50% of the force on a very high alert; subsequently we reduced it to 40%. Now, unless the Soviets prove remarkably aggressive in their offensive and defensive programs, we can reduce the alert rate still further—to 30%—and transfer some of the tanker force to the reserves.

The last B–52 was produced in 1962. It should be clear, therefore, that if the heavy bombers are to continue their contribution to deterrence, we must plan for their modernization and the replacement of at least some portion of the B–52 force. Accordingly, continued but measured development of the B–1 is essential as a basis for any future production decision. Such a decision does not need to be made for at least another year. A special contribution of the bomber is the massive complications it introduces into any attack plan directed at U.S. strategic forces. Survivable aircraft render unattainable any credible coordinated surprise strike against U.S.-based systems. In addition, bombers complicate Soviet force management decisions, resulting in substantial air defense expenditures. Air defense is the aspect of Soviet defense programming which this nation finds least disquieting.

Our modest but productive civil defense program also warrants continuation. I say this not because we plan to embark on any grandiose program of damage-limiting; the ABM treaty effectively precludes such an effort in any event. The value of the current program is that it contributes to deterrence in a crisis and offers the prospect of saving American lives in the event that limited and coercive nuclear attacks should actually occur.

Finally, because no significant long-range bomber threat to the United States now exists, and because—with the ABM treaty—we have recognized the difficulty of implementing a full-scale damage-limiting posture, we can rely on a reduced CONUS anti-bomber defense capability. At the same time, as a hedge, we can draw on our tactical theater-defense training forces for CONUS defense in an emergency since, for the most part, they are based in the United States rather than overseas.

There are several aspects of this overall strategic posture, and the programs that go with it, that deserve attention:

While it contains some counterforce capability, neither that capability nor the improvements we are proposing for it should raise the specter in the minds of the Soviets that their ICBM force is in jeopardy.

In addition, this improved hard-target-kill capability will not threaten the growing Soviet SLBM force.

It follows that we do not have and cannot acquire a disarming first-strike capability against the Soviet Union. In fact, it is our decided preference that neither side attempt to acquire such a capability.

To sum up the existing situation, we have a good second-strike deterrent, but so does the Soviet Union. Although the two forces differ in a number of important respects, no one doubts that they are in approximate balance. There are, in short, no immediate grounds for fears about bomber or missile gaps. To go further, however, we would welcome reductions in these forces provided that the Soviet Union were willing to reciprocate in an equitable fashion.

As we convert the principles and guidelines of Vladivostok into the specifics of a 10-year agreement, this basic situation should continue to prevail. However, there are two uncertainties against which we should continue to carry insurance. A major uncertainty is the manner in which the Soviets will attempt to exploit their throw-weight advantage. The throw-weight of the Soviet ICBMs will continue to exceed that of the U.S. MINUTEMAN force by a very substantial amount—perhaps by as much as a factor of six (unless the United States also increases its ICBM throw-weight). This throw-weight, combined with several thousand high-yield MIRVs and rapidly improving accuracies, could come to jeopardize the survivability of our fixed, hardened ICBM force.

Such developments would not give the Soviet Union anything approximating a disarming first strike against the United States. One reason for this is the less than 25% of the U.S. strategic deterrent capability measured in terms of missile and bomber warheads resides in fixed ICBMs. But such a development could bring into question our ability to respond to attacks in a controlled, selective, and deliberate fashion. It could also give the Soviets a capability that we ourselves would lack, and it could bring into question the sense of equality that the principles of Vladivostok so explicitly endorse. Worst of all, it could arouse precisely the fears and suspicions that our arms control efforts are designed to dispel. Thus it is important that we continue to pursue programs that will permit us various options for responding to the growing Soviet counterforce threat against our fixed ICBMs.

You will recall in this connection that last year's program of strategic "initiatives" was justified on three major grounds. First, great uncertainty then

existed as to the nature of any follow-on to the Interim Offensive Agreement of 1972 that we might be able to achieve. Second, essential equivalence was established as a fundamental criterion in the design of our strategic forces. Third, how far we went with these "initiatives" should depend on the evolution and pace of the Soviet strategic programs.

There now are fewer uncertainties about a successor to the Interim Offensive Agreement. But the other reasons for pursuing these "initiatives" remain strong, as I shall indicate later.

With a continuation of these "initiatives", and with the other programs outlined herein, I am confident that we can maintain a balance with the Soviet Union and assure a highly credible second-strike strategic deterrent within the framework of existing and future SALT agreements. Without these programs, however, I can give no such assurance.

7. The Balance of Power in Central Europe

Last year I pointed out that we plan our general purpose forces on the assumption that, in conjunction with our allies, we should be able to deal simultaneously with one major attack and one lesser contingency. The major contingencies that we consider for force planning purposes are attacks in Central Europe and Northeast Asia, although we do not ignore such areas as the Middle East. In addition, I believe that collective security and deterrence require us to maintain an initial defense capability primarily in our active forces, a long-war hedge in our reserves, and several strong points or deployments overseas from which our forces can move rapidly to deal with such threats to our interests as might arise. Central Europe is the most important of these deployments, in large part because of the powerful forces from the Soviet Union and its allies that lie in such close proximity to it.

Our association with NATO now dates back more than a quarter of a century and there is general agreement that we should continue it. Despite occasional differences among allies, most of us recognize that Western Europe, Canada, and the United States are inextricably linked by a number of political, economic, and cultural ties. Despite the failures of the 1920s and 1930s, we share a common interest in collective security and the deterrence of aggression. What tends to be at issue is not the importance and continuing desirability of the association, but the continued presence of a large U.S. military contingent in Europe combined with the capability to reinforce these ground and air forces substantially on very short notice.

In an age of essential nuclear parity, few of us would be happy with a concept for the defense of Western Europe that was heavily dependent on an early recourse to nuclear weapons. Most of us would agree, once having looked at the facts, that a non-nuclear defense of Western Europe is feasible. It also is desirable, from the standpoint of deterrence, that such a defense should be backed up and reinforced at all times by theater nuclear forces. The existence of deployed conventional and theater nuclear forces in sufficient strength reduces whatever temptation there may be for the Warsaw Pact to probe the cohesion and determination of the Alliance.

Nevertheless, while the reasons for it vary, some form of proposal to withdraw at least a portion of our forces from Western Europe has become an annual event. The arguments for withdrawal are now familiar. Our forces have been deployed in Europe for nearly a generation. Our Allies, in the aggregate, have become prosperous and are amply endowed with manpower.

In fact, while it is true that the deployment of U.S. forces to Europe has contributed to the U.S. balance-of-payments deficit in the past, the major cause of that deficit has been the difficulty with our commercial account. Nevertheless, we have encouraged the Allies to offset our military balance-of-payments in Europe and the Allies have responded favorably. The United States recently concluded one of several two-year bilateral offset agreements with the Federal Republic of Germany which—when coupled with other Allied purchases of military-related equipment in the United States—should be sufficient to offset total U.S. defense balance-of-payments expenditures in NATO Europe during FY 1974.

Now, in any event, our financial problem is of a different order. The balance-of-payments drain is from the West to OPEC. This drain is particularly acute in the case of Japan and Western Europe. In the current situation, we must be

careful of the demands we place on our Allies, lest we be guilty of the "beggar thy neighbor" approach which President Ford has deplored.

It continues to be argued, nonetheless, that burdens can and should be more equitably shared among the Allies, despite current economic difficulties. Furthermore, the Soviet Union faces problems to the East that are alleged to divert her attention and, in any event, detente is here. Why then, has the time not come for a change?

To answer the question: this Administration is indeed prepared for change, but only if it takes place in the East as well as the West. Reductions are to be applauded, but they must be mutual and balanced force reductions.

Short of such reciprocity, however, there is a case for a strengthened military posture in NATO, even after 25 years, and the case for additional strength is very strong indeed. Despite significant reductions in overall U.S. force levels since 1969, despite detente, despite a major Soviet buildup on the Sino-Soviet frontier, we have to consider the following facts:

The Soviet Union alone still deploys 27 of its first-line divisions in East Germany, Poland, and Czechoslovakia. Another 4 Soviet divisions still stand guard in Hungary.

Other Warsaw Pact forces in the same area bring the total to more than 58 divisions, over 930,000 men, and about 2,900 tactical aircraft.

The ground forces have at their disposal more than 16,000 tanks and hold to a tactical doctrine of rapid armored thrusts that bears a strong family resemblance to what we used to call blitzkrieg.

As matters now stand, NATO has the capability and the resources to attain a more equal balance with the Pact even though it deploys a smaller number of divisions and has certain serious vulnerabilities that we are working to correct. Our U.S. Army, Europe (which we plan to strengthen by two brigades and other ground combat elements) and U.S. Air Forces in Europe (which we also plan to strengthen), all in compliance with the Nunn Amendment, represent a critical numerical and psychlogical factor in the current, somewhat precarious, equilibrium. If they were withdrawn or seriously reduced without reciprocity from the USSR, this capacity for a military balance would be badly upset. Furthermore, we would lose the foundation for rapid reinforcement from the United States to counterbalance any Soviet buildup that might occur, whether under relatively normal conditions or in a crisis. After thirty years, the peace of Europe would once again be at risk.

In other words, the choice here is the same as we face in so many other areas of foreign policy and national security. We can withdraw our forces and hope either that other countries will replace them, or that the Warsaw Pact will continue to exercise restraint. That is, we can depart from an area of great and enduring interest to use and let decisions about its fate be made by others. Or—politically and militarily—we can help to ensure the establishment of a balance of forces in Central Europe and nudge events in directions that are favorable to our interests.

Perhaps matters would proceed satisfactorily without our presence. Perhaps good will and mutual security would flourish precisely because of the departure of the only superpower in the West. Perhaps the bear would cherish the lambs in our absence. Perhaps . . . , but we should not count on it. As has been noted in the past, it is useless for the sheep to pass resolutions in favor of vegetarianism while the wolf remains of a different persuasion.

Accordingly, while there are costs and risks to being steadfast, we should not forget that there are advantages as well. The Congress has been in the forefront of those who have recognized and articulated these advantages for more than a generation. Now, as we gradually reap the rewards of standing fast, we should not think of retreat.

8. The Maritime Balance

As was emphasized in last year's Annual Report, it is essential that the United States, together with its allies, maintain naval forces that are widely regarded as at least equal in capability to the naval forces operated by the Soviet Union and its allies.

In assessing this balance, one should start by noting the substantial differences in geography, national policy, and alliance systems that dictate differing U.S.

and Soviet naval missions and force structures. The United States and most of its principal allies depend fundamentally on use of the seas for their trade and commerce in peacetime and for their lines of communication in war. They also depend heavily on the strategic mobility provided by long-range airlift. The USSR and its allies currently do not. Because of this basic asymmetry, the primary conventional naval missions of the two superpowers and their respective allies differ in several respects:

The United States and its allies emphasize sea control and the projection of power ashore through attack carriers and amphibious forces. The U.S. Air Force also contributes to the mining and sea surveillance and control missions.

The Soviet Union, at least for now, stresses defense against U.S. power projection efforts and interdiction of U.S. and allied military and economic support shipping on the open oceans.

Both sides are interested in showing the flag in peacetime and in surging deployed naval forces in a crisis, as has happened on several occasions in the Mediterranean. In this connection, it is important to emphasize long-term flexibility in the employment of our major naval units. If commitments are too fixed, they will dictate the tempo of operations of the programmed forces and reduce flexibility.

Based on recent assessments of the maritime balance, six general conclusions are warranted.

First, confusion arises about the balance because of the asymmetry between the forces and their missions. Soviet naval forces emphasize an antiship capability. This capability is distributed among a large number of ships, most of which are small in comparison to our ocean-going units. U.S. forces, on the other hand, tend to concentrate striking power in a relatively small number of aircraft carriers. The carrier's escort ships emphasize defensive weaponry. In general, our units are larger, more sophisticated, and have a greater capacity for sustained action—advantages which tend to offset their somewhat smaller numbers. In addition, what is often overlooked, our Allies add significantly to overall U.S. strength, particularly in a NATO war; Pact allies add very little to the strength of the Soviet fleet.

Second, once one removes the mission asymmetry and measures the balance, it becomes clear that the naval forces of the Soviet Union and its allies are not generally superior to those of the United States and its allies, and that this should be perceived by well informed observers. Nonetheless, U.S. naval power has suffered a serious decline and must be resuscitated.

Third, the Soviet Navy has developed a formidable force for the protection of Soviet and Pact territory from attacks by U.S. sea-based tactical air and amphibious forces. This force consists of surface ships, submarines, and long range aircraft. Many of these units are armed with cruise missiles, an innovation in naval warfare which greatly increases antiship striking power and partially substitutes for the Soviet lack of carrier-based tactical air.

Fourth, the Soviet Navy possesses strong capabilities for attacks on U.S. and allied shipping on the open oceans. Should they concentrate their long-range aviation and submarine forces exclusively on this mission, their interdiction potential would be substantial. In view of the heavy U.S. and allied dependence on use of the seas, particularly during any sustained conflict in Europe or Northeast Asia, and considering the capabilities of the Soviet Navy for antiship operations, it would be imprudent to assume that the Soviets would not allocate a significant part of their naval forces to an effort at interdicting our sea lanes.

Fifth, the United States and its maritime allies could suffer significant but not prohibitive shipping losses if the Soviets were to conduct a major antishipping campaign. In time, however, U.S. and allied sea control forces would exact heavy attrition on the enemy's long-range forces, and would regain firm control of the sea lanes in the Atlantic and Pacific. Although shipping losses might be heavy, the net effect on the U.S. and allied war effort would not be crippling.

Sixth, as far as peacetime naval presence is concerned, aggregate Soviet activity increased sharply in the last 1960s, but now appears to have stabilized somewhat below the overall U.S. level. The Soviets could increase their deployments by raising the operating tempo of their forces. During the Middle East war of 1973, in fact, they demonstrated a significant capability to surge and

support naval forces to a greater extent than we had anticipated. However, U.S. forces tend to have a greater surge capability to most theaters of primary interest to the United States and its allies.

To preclude any misinterpretation of these conclusions, which I would characterize as cautiously optimistic, I should emphasize three basic qualifications.

First, the validity of the longer-range aspects of our assessment depends on the assumption that the Navy's current modernization will be completed essentially as planned. To the extent that this fundamental assumption proves false, the risk that our future Navy will be unable to carry out our strategy will grow beyond a prudent level.

Second, as is true of any analytical assessment of a complex problem, our work on the maritime balance reflects many uncertainties, particularly in its treatment of future Soviet policies. The naval programs discussed later in this Report are in some cases sized and structured to provide hedges against the more important uncertainties in our estimates.

Third, there could be plausible situations in which the enemy may have advantage of geography or selection of H-hour (or both) which would severely strain our naval capabilities or temporarily deny us the use of certain parts of the world's oceans.

Subject to these three basic qualifications, if our naval modernization programs are approved by the Congress, I am reasonably confident that the United States, together with its allies, will remain able to defend the essential sea lanes in the Atlantic and Pacific, project power ashore under a wide range of circumstances, continue a strong deployed naval presence, and maintain the necessary maritime balance with the Soviet Union and its clients.

C. TRENDS IN THE DEFENSE BUDGET

For FY 1976, the Department requests $104.7 billion in Total obligational Authority (TOA). This compares with the $93.9 billion requested for FY 1975 (including the POL and Mideast amendments). Outlays are planned at $92.8 billion, compared with the Departments estimate of $86.8 billion for FY 1975 (again including the Mideast and POL). On this basis, TOA will increase by $10.8 billion and outlays by $6 billion. It should be noted, however, that the Congress allowed the Department ony $89 billion in TOA for FY 1975, despite rampant inflation. Outlays for FY 1975 are now estimated at $84.8 billion.

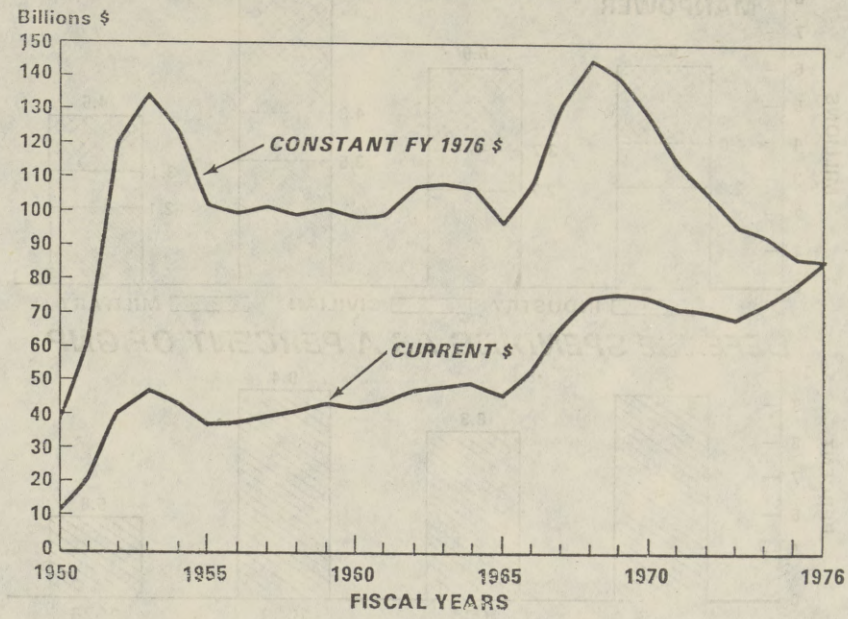
Currently estimated outlays for FY 1976 will constitute 26.6% of the federal budget (compared with 27.1% for FY 1975), and will consume 5% of the capacity output of the Gross National Product (somewhat less than the 5.2% for FY 1975). It should be emphasized, however, that if the President were not to receive the authority to limit federal pay increases to 5% (which will save us $1.8 billion), and if the Department were not to acquire the receipts from the production of oil at Elk Hills (currently estimated at $400 million), defense outlays for FY 1976 would rise to $95 billion instead of $92.8 billion.

Of these planned outlays, $6.9 billion will go to military retired pay alone; and another $42.3 billion is required for compensation of civil service and active duty military personnel. This total of $49.2 billion represents 53% of our proposed outlays for FY 1976.

Although TOA for FY 1976 appears to increase by $15.7 billion, the bulk of the increase is intended to deal with the effects of past and current inflation. Although there is a real increase in TOA from the eroded FY 1975 base, there is an actual decrease from the amount projected last year in our rolling 5-year defense plan. In fact, as a result of underestimates of inflation during the past two years, the Department is not able to buy $10 billion in contracted goods and services authorized and approved by the Congress in FY 1975 and prior-year budgets.

Outlays show an increase of $8 billion over FY 1975. Of this total, $3 billion is for pay increases alone. In addition, purchase prices have risen sharply in recent months. Even if they level off in the near future, our purchasing power in FY 1976 (on a full-year basis) will be considerably less than in FY 1975. Depending upon the overall inflation rate, the real program value of Departmental outlays for FY 1976 will be about the same as for FY 1975. That is to say, we will be able to purchase about the same amounts of goods and services in FY 1976 that we did in FY 1975, despite the seemingly large increase in proposed outlays. By comparison, we compute that Soviet defense outlays, measured in dollars, will rise by as much as 3% in real terms.

CURRENT AND REAL DEFENSE EXPENDITURES
(EXCLUDES MILITARY RETIRED PAY)



In order to keep our own outlays approximately level in real program value, and at the same time struggle to retain a force structure adequate to the fulfillment of U.S. responsibilities, the Department is taking further belt-tightening measures. Among the most severe are:

A reduction of 30,000 in military manpower;

A reduction of 9,000 in civil service personnel;

A rigid control over the consumption of petroleum.

The Department's five-year projection of future Defense budgets attempts to reverse this downward trend. The forecast shows current estimates of the minimum future financing needed to keep U.S. military forces of adequate size, readiness, and modernization. As shown in the top row of the table on page I–26, Department of Defense TOA will grow at a rate of about $2.8 billion a year in real terms from the proposed FY 1976 budget level of $104.7 billion.

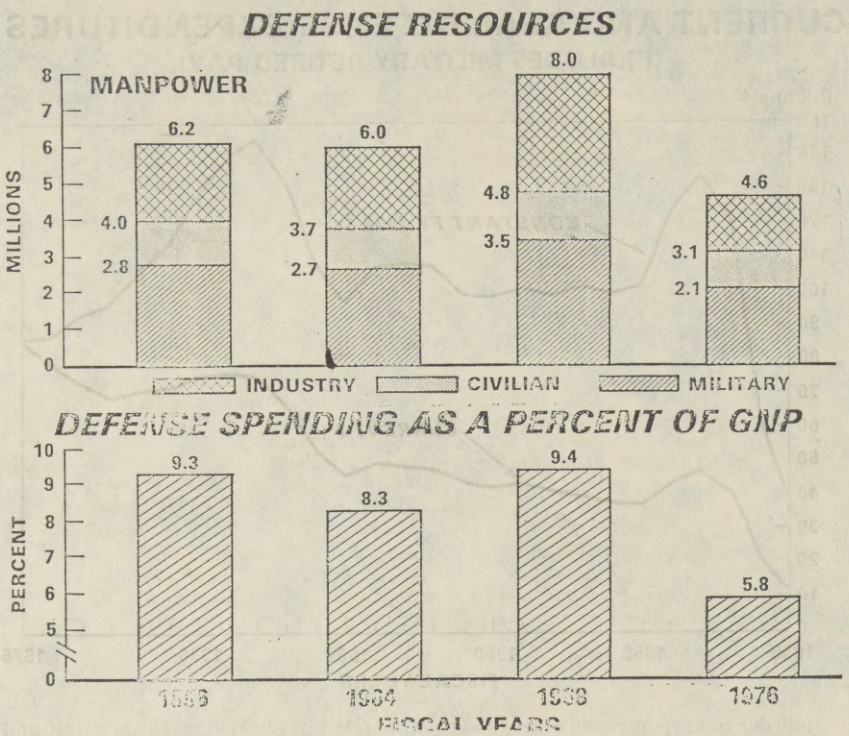
An average of $300 million a year of this $2.8 billion annual increase will be needed to keep pace with projected increases in the population of men and women who will have retired after 20 or more years of service in the armed forces. Increases for development of petroleum reserves, less decreases for military assistance, net to a growth of $.1 billion a year. The remaining $2.4 billion annual increase will be required to provide real (non-inflationary) growth in funding for the modernization and readiness of U.S. forces. This $2.4 billion annual increase, which represents an annual real growth rate of about 2% in the Defense Budget, is needed to cover the additional costs associated with improving the technology of modern U.S. weapon and support systems made increasingly urgent by the continuing technological advances in the military forces of the Soviet Union.

This five-year projection is based on the following general assumptions:

A world situation essentially unchanged from today, with the Soviet Union continuing the expansion of its present military establishment while remaining at odds with the People's Republic of China.

A continuing real growth of Soviet defense expenditures at a rate of 2-to-3% a year in dollar terms.

Continuation of the current Strategic Arms Limitation Agreements, including implementation of the Vladivostok understanding.



A relatively constant Defense active and reserve force, measured in military and civilian manpower, with continuing improvements in its combat power at the expense of reductions in headquarters and support personnel. This will result in some additional combat units, such as the planned increase to 16 Army divisions, and a growth in Air Force combat power, without increases in total Defense personnel. Further efficiencies will, of course, be sought in order to convert overhead into restored combat capability.

A continuation of the Navy program designed to reverse the recent trend of declining force levels while conforming generally to the requirements of Title VIII.

Continuation of the "high-low" force mix concept to avoid over-sophistication in all components of the force and to assure adequate numbers of systems.

Assurance of a dynamic RDT&E program, but one constrained in terms of total dollar resources.

Continuation of military assistance somewhat below the current level because of a projected decrease in aid to Southeast Asia.

Inflation has already reduced very severely the purchasing power of previous Defense budgets.[1] Current economic forecasts do not anticipate that future inflation will be as severe as it has been in the last 24 months. But there will still be inflation in the United States between FY 1977 and FY 1980. Consistent with current economic forecasts, the second row of figures in the table on page I–26 shows one series of fully inflated, "then-year" obligational authority estimate required to support our five-year projections.

The difference between the two projections is that the second projection includes all the estimated future inflationary price increases beyond those forecast in the Defense Budget for FY 1976. If future inflation is lower than the fore-

[1] For a more detailed discussion of inflation and "real program value," see Appendices A, B, and C.

cast upon which the projections in the second row are based, these "out-year" totals can be reduced. On the other hand, if inflation is higher than we have forecast, the Department will so advise the Congress and prepare new projections.

Two major points need emphasis here. The first is that projections of future Defense spending which include only the real growth are shown in deflated (constant) prices in the top line of the table. The second is that Defense outlays over this period will continue to decline as a percent of capacity GNP.

[Total obligational authority in billions of dollars]

5-yr. projection	Fiscal years—				
	1976	1977	1978	1979	1980
In deflated prices	104.7	107	111	114	116
In "then-year" dollars	104.7	117	128	138	148

Before explaining the basis for these requests, it is worth summarizing several assumptions of a more general nature that have guided the Department in preparing this Report.

The United States is inescapably the leader of the non-communist world; there is no other country to fulfill our role if we abandon it.

Grave challenges face the industrialized nations of the West, and they are as much external as internal.

If we are to realize our dreams of domestic progress, we must first stay alive and free.

National defense (and the men and women who perform so well in its service) provide an indispensable public good that is the basic duty of this Republic to its citizens.

As you review this Budget and its intellectual foundations, I trust that you will continually ask whether there are any different basic assumptions on which we could or should base our posture of defense.

II. Strategic Forces

The strategic nuclear forces are the foundation of our military strength. Given our primary objective of deterring attack on ourselves and our allies, it is essential that we remain on equal footing with the Soviet Union in regard to these forces. The Vladivostok understanding not only clearly establishes the principle of equality by setting equal numerical ceilings on the strategic offensive forces of the United States and the Soviet Union, but also provides a point of departure from which we can work toward equitable reductions in the two forces. That is the direction in which we propose to go, once the Vladivostok understanding has been negotiated into treaty form.

Despite its importance, the Vladivostok understanding still does not relieve us of the burden of unilateral planning. Within the ceilings set by the agreement, we must continue to determine what specific objectives we want our strategic forces to serve and what constitutes the most efficient and effective mix of forces for those purposes.

A. The Basis for the Strategic Nuclear Forces

It should be clear that deterrence must depend on a capability to respond effectively against the enemy, even after absorbing a first strike. A prospective opponent must, therefore, be aware of that capability, i.e., the ability of our forces to survive his attack and penetrate to their targets. Beyond that, he must be persuaded that in the face of a sufficient provocation, we will actually execute the retaliatory attacks. And we, in turn, must be fully prepared both physically and psychologically to launch those attacks; otherwise the effectiveness of the deterrent will be underminded.

While we tend to talk of deterrence as though it were in continuous operation, it is doubtful that the leaders of the great nuclear powers ask themselves on a daily basis whether they feel deterred. It is only in circumstances of con-

frontation and crisis that the credibility of the deterrent comes under test; at that point, what may have seemed like a plausible threat under normal conditions may appear grossly inadequate or inappropriate to the situation at hand. For better or for worse, the scientist in the lecture hall who announces that, in response to a Soviet attack on our nuclear forces, we should destroy a hundred Soviet cities and their populations, is unlikely to implement that threat should the situation arise. In addition, theorizing about these matters tends to be too abstract, and does not easily capture the agonizing nature and complex context of these fateful decisions, should they ever arise.

Since we have been fortunate enough never to have undergone such an experience in the thirty years of the nuclear age, the reaction of the policymaker in the face of such an attack cannot be foretold. But he and his advisers will have been exposed to a number of paper wars—i.e., hypothetical cases in which deterrence has collapsed and our opponent has launched some kind of a nuclear attack. They will know from these exercises that in many circumstances the most suicidal course for the United States—and hence the lest credible course—would be to strike the population in the opponent's cities. Thus, they quickly come to understand the desirability of being able to retaliate in other ways than by a massive attack against cities.

While the exercises may be hypothetical, the problem is not. The Soviet Union, for example, now deploys a strategic nuclear capability that goes far beyond anything required by the theories of minimum or finite deterrence. Her peripheral attack forces are such as to be able to take under attack every significant target in Western Europe. Her central strategic systems are sufficiently large in number so that she could strike at a substantial number of military targets in the United States, and elsewhere in the world, and still withhold a very large force whose future use we would have to consider in responding.

In addition, the People's Republic of China is slowly but steadily developing a strategic attack force of her own. And, as a result of the Indian nuclear detonation, we are once more aware that the danger of nuclear proliferation is still with us.

Another problem is the difficulty faced by our European and Asian allies. Most of them have no nuclear capabilities; those who do are dwarfed by the immensity of the Soviet strategic and peripheral nuclear attack forces. They still must look to the United States, as they have for thirty years, for some assurance that they cannot be blackmailed into submission by nuclear threats.

The problem is complicated still further by the range of nuclear contingencies that could arise. For planning purposes we have been conditioned to assume as the only contingency a massive surprise attack which comes, usually without motive or warning, as a bolt-out-of-the-blue. The case undoubtedly has its uses, but I would speculate that other contingencies are much more likely. The United States and the Soviet Union have exercised great care in the deployment and control of their nuclear weapons. Other nations may not do as well, and the concern with accidents and unauthorized acts may be with us again. Despite the increasingly stringent measures that we are taking, we cannot totally preclude the seizure or theft of a nuclear weapon and the need for countermeasures. In short, we face a wide range of possible actions involving nuclear weapons, and no single response is appropriate to them all.

There is also the ever present possibility that a conventional conflict might escalate into a tactical or even strategic use of nuclear weapons. Indeed, one of the minor ironies of recent polemics against current defense spending is that the polemicists manage to argue more or less simultaneously that:

The nuclear threshold must be kept high;

Nuclear options will lower the nuclear threshold:

Long-war conventional capabilities (for antisubmarine warfare, as one example) are unnecessary because conventional conflicts either will be short or will somehow turn nuclear.

I will not attempt to untangle the peculiar logic of this particular position. But it should be evident that the problems on our agenda, both today and in the future, make some of the earlier views of nuclear deterrence totally obsolete. Clearly, our requirements in this realm are for strategic forces capable of providing more than the simple response of a limited or wholesale destruction of cities.

This is not to say that a highly survivable force which can be withheld for substantial periods of time, if need be, and targeted against an enemy's major eco-

nomic and political assets is irrelevant. Most of us can agree on the need for such a force to serve, at a minimum, as a deterrent to attacks on the cities of the United States and its allies. But to treat such a reserve force as an all-purpose deterrent, as a sovereign remedy for the problems we face, would be the height of folly. To threaten to blow up all of an opponent's cities, short of an attack on our cities, is hardly an acceptable strategy, and in most circumstances the credibility of the threat would be close to zero, especially against a nation which could retaliate against our cities in kind. Granting the need for such a withheld force in order to deter coercive attacks against our cities, we must surely go on to something else if our deterrent is to be credible over a wide range of contingencies.

Last year I pointed out that in addition to such a force, we needed a capability for more limited response options and for rapid retargeting so as to provide the President with the maximum feasible amount of flexibility in a nuclear emergency. In reviewing that requirment, it is worth emphasizing again that:

Neither the United States nor the Soviet Union is capable of a disarming first strike against the other; in fact neither side has a high confidence capability of destroying a large fraction of the other's fixed, hard ICBM silos.

Neither side, for the foreseeable future, is likely to acquire a disarming first strike capability against the other, even if the fixed, hard ICBM forces become more vulnerable in the 1980s.

Because of the Anti-Ballistic Missile Treaty, neither side can deploy a combination of counterforce and damage-limiting capabilities that will have any serious prospect of success; barring carelessness, each side should be able to count on large surviving forces that it can use or withhold for substantial periods of time.

In these circumstances, one may ask, has nuclear strategy not reached a dead-end? As far as the massive attacks that preoccupied us in the 1960s are concerned, that may well be the case. Unfortunately, however, there remain a number of more limited contingencies that could arise and that we should be prepared to deter. I have already mentioned the danger of accidents and unauthorized acts. Our allies have good grounds for asking how we would respond to threats against them from intermediate and variable range nuclear systems. And we cannot rule out the possibility that a desperate or reckless enemy might engage in a nuclear "shot-across-the-bow" by firing at one or more of our military installations.

There is, moreover, another contingency about which we must remain concerned. Since both we and the Soviet Union are investing so much of our capability for flexible and controlled responses in our ICBM forces, these forces could become tempting targets, assuming that one or both sides acquire much more substantial hard-target kill capabilities than they currently possess. If one side could remove the other's capability for flexible and controlled responses, he might find ways of exercising coercion and extracting concessions without triggering the final holocaust.

I mention these contingencies—and no doubt there are others—for several reasons. First, we have to assume that, despite the appearance of stratgeic nuclear stalemate, others continue to explore their strategic and tactical possibilities just as they do their technological opportunities. Second, while many of the contingencies may seem bizarre and of extraordinarily low probability, the consequences of their occurrence could prove catastrophic.

Accordingly, I believe that it is our duty to drive the probability of these contingencies even lower by developing and displaying the capability and the doctrine of flexible strategic response. No potential enemy should believe that we are so rigid, so lacking in capability, or so fearful of the consequences that we cannot respond appropriately (according to our best interests) to any nuclear provocation on his part.

The Command Data Buffer System will help ensure this flexibility by substantially improving our capacity for rapid retargeting of the Minuteman force. As national policy, we shall continue to acquire and be prepared to implement a number of more limited response options. No opponent should think that he could fire at some of our Minuteman or SAC bases without being subjected to, at the very least, a response in kind. No opponent should believe that he could attack other U.S. targets of military or economic value without finding similar or other appropriate targets in his own homeland under attack. No opponent

should believe that he could blackmail our allies without risking his very capability for blackmail. Above all, no opponent should entertain the thought that we will permit him to remove our capability for flexible strategic response.

As I pointed out least year, the flexibility that we are developing does not require any major change in the strategic capability that we now deploy. Some modifications in command, control, and communications are necessary and are underway. I believe that our very modest civil defense program should continue; it makes clear to a prospective opponent contemplating a limited strike that, since we can protect our citizens against fallout, we have a credible choice between an all-out response and no response at all.

In addition, I believe that our response options would be enhanced by increased accuracy and a greater flexibility in the yields of the nuclear weapons available to us. In some circumstances, we might wish to retaliate against non-collocated, small soft targets, or facilities near large population centers; high accuracy and a low-yield, air-burst weapon would be the most appropriate combination for those targets. In other cases, we might wish to respond with attacks on a limited number of hard targets such as ICBMs, IRBMs, and MRBMs. The desired combination for these latter targets, especially as long as we have to depend on all-inertial guidance systems, is high accuracy and a higher-yield warhead than we now deploy.

Since any discussion of hard-target kill capability inevitably arouses controversy, I must stress that we are not now seeking to develop the capability to destroy the Soviet ICBM force. We have, as I pointed out least year, a limited hard-target kill capability in our missile forces at the present time, as do the Soviets. Our own capability against ICBMs is modest—partly because our missiles lack the proper combination of warhead yield and accuracy, and partly because of the complications introduced by the phenomenon known as fratricide. I believe that we should improve our hard-target kill capability so as to have higher confidence of executing limited hard-target attacks. To destroy all of the very hard components of the Soviet ICBM force that are now being constructed or upgraded would require not only major qualitative improvements on our part, but also a large number of high-yield and very accurate reentry vehicles. I am not proposing any such deployment programs here.

A number of other and more general concerns about our response options have arisen during the last year, and I believe that they deserve serious consideration. Accordingly, I will try to address the most salient issues.

One of the most serious allegations is that, with limited response options, we are promoting warfighting rather than deterrence. But such a change stems, in fact, from an erroneous conception of deterrence. This Administration is no less interested in deterrence than its critics: we recognize that the United States has more to lose from a nuclear war than any other country. But we also believe that our conceptions of deterrence must adapt to the large and growing capabilities of our rivals. Our objective remains deterrence, but modern deterrence across the spectrum of the nuclear threat. And that requires us to be prepared with credible responses to a variety of contingencies. Considering all the risks associated with the use of nuclear weapons, this kind of preparation does not in any way imply an effort to substitute limited nuclear response options for other instruments of military power. It is intended to make nuclear war of any kind less, not more, likely. I cannot help but add, in this connection, that nobody suggests that contingency plans, increased accuracy, or the avoidance of attacks on cities makes either non-nuclear or tactical nuclear war more probable. Why, then, should they make strategic nuclear war more probable?

A somewhat related charge is that, however good our intentions, limited response options will result in a lowering of the nuclear threshold. The fact is, as I pointed out last year, that we have had nuclear options for more than twenty years without their having notably affected the probability of nuclear war. Indeed, to believe that the development of contingency plans (which, after all, is what the search for options is all about) will increase the probability of nuclear use is to underestimate seriously the gravity of the decision to go to war, especially nuclear war. What is more, to the extent that concern about the nuclear threshold is more than hypothetical, the most effective way of keeping the threshold high is to increase the effectiveness and readiness of our non-nuclear forces. History, I believe, will show that on those rare occasions when

the use of nuclear weapons was seriously considered in the past thirty years, it was because of the impression that adequate conventional forces were not available to achieve the desired objectives.

Another allegation (not quite compatible with the first two) is that limited response options are illusory because any nuclear exchange would rapidly escalate and that its results, even if the war were confined to military targets, would be indistinguishable from attacks on cities. The implication of this argument is that limited response options are worthless and harmful and that we should bow at least to the rhetoric and the force requirements of minimum deterrence.

Certainly it would be foolhardy to preclude the possibility that a nuclear conflict could escalate to cover a wide range of targets, which is one more reason why limited response options are unlikely to lower the nuclear threshold. But I doubt that any responsible policymaker would deliberately want to ensure escalation, and forego the chance for an early end to a conflict, by refusing to consider and plan for responses other than immediate, large-scale attacks on cities. Surely, even if there is only a small probability that limited response options would deter an attack or bring a nuclear war to a rapid conclusion, without large-scale damage to cities, it is a probability which, for the sake of our citizens, we should not foreclose.

Furthermore, all of the evidence available to us suggests that very limited and quickly terminated nuclear exchanges could result in fatalities and casualties much lower than from some of the traditional conflicts we have experienced. And even if a nuclear exchange were to expand to all strategic nuclear targets in the United States, we would probably suffer at least 100 million fewer fatalities than if our cities were attacked. Approximately similar results would hold true for the Soviet Union as well.

None of this is to argue that a strategy of limited response options is a panacea, or that it solves all the problems that we face in this realm, any more than previous strategies of deterrence have done. However, I believe that the Soviet leaders understand quite clearly why we have adopted this strategy in an era of approximate mutual deterrence, and I see no evidence that they regard as destabilizing these efforts to strengthen our own deterrent. Accordingly, I continue to consider the capability for limited response options as one of the essential requirements of deterrence under current conditions.

An equally essential requirement of deterrence is parity with the Soviet Union in strategic offensive forces, as perceived by friend and foe alike. Not only does Public Law 92–448 (the Jackson Amendment) require us to achieve equality with the USSR in central strategic systems but such equality is also important for symbolic purposes, in large part because the strategic offensive forces have come to be seen by many—however, regrettably—as important to the status and stature of a major power. Clearly the Soviet Union places a very high value on achieving parity, at the very least, with the United States.

What is perhaps even more important, the lack of equality can become a source of serious diplomatic and military miscalculation. Opponents may feel that they can exploit a favorable imbalance by means of political pressure, as Hitler did so skillfully in the 1930s, particularly with Neville Chamberlain at Berchtesgaden. Friends may believe that a willingness on our part to accept less than equality indicates a lack of resolve to uphold our end of the competition and a certain deficiency in staying power. Our own citizens may doubt our capacity to guard the nation's interests.

Fortunately, the question of perceptions may to a large extent have been resolved by the understanding at Vladivostok, which so firmly establishes the principle of equality between the United States and the Soviet Union in central strategic systems. Assuming that the Soviet leaders exhibit restraint in their application of the agreement's principles, we are prepared to exercise restraint as well. However, until we obtain solid evidence of Soviet restraint, we shall plan for deployment of approximately 2,400 strategic delivery vehicles and 1,320 MIRVed missiles. How we proceed on these accounts will depend essentially on the actions of the Soviet Union. They currently have the initiative, and it is up to them to decide how much additional effort the two sides should put into these programs. In making their decision, they should remember that the tortoise won because the hare did not try very hard very often. This hare may be different.

A further requirement of deterrence that I should stress again is what has been called essential equivalence. Let me elaborate on what I mean by that term.

Despite the accomplishments of the Vladivostok understanding and the further agreements that might be reached in the future, we will continue to face many uncertainties about the long-term evolution of the strategic forces—and about which technologies and which components of these forces will be considered most important. Under the circumstances, I believe that it would be a mistake to allow any major asymmetry to develop between the United States and the Soviet Union in the basic technological and other factors that shape force effectiveness.

We must continue to think flexibly about the strategic forces and their deterrent functions. We must be sure to keep pace with the Soviet Union in the design of new offensive and defensive systems, in such areas as accuracy and reliability, and, if necessary, in throw-weight and its management. We may need to maintain an offsetting advantage in some areas to compensate for Soviet advantages in others. For example, the United States should seek to stay ahead in accuracy to offset the large and apparently growing Soviet advantage in throw-weight. I should stress in this latter connection that the Soviet Union has made more rapid strides in accuracy than is generally appreciated and has shown an intense interest in various applications of terminal guidance.

Progress by both sides in this latter area of technology will take time. Meanwhile, we in the United States must accept the fact that while our test-range accuracies with all-inertial guidance systems have shown marked improvement over the years, there remain considerable uncertainties about the extent to which accuracies will degrade on operational trajectories, especially since the world is not a perfect sphere. The Soviets face comparable uncertainties, but can compensate to an important degree for degradations in accuracy by using the high yields that the large throw-weights of their missiles permit. We are in a less advantageous position in this regard because of the severe constraints on our own missile throw-weights. Accordingly, I believe that we should both increase the yield-to-weight ratio of our warheads and—regardless of past preferences—be prepared to expand the throw-weight of our missiles however we may decide to base them in the future.

Despite these concerns for the future, we continue to deploy a highly effective second-strike strategic force. As matters now stand, we are able to fulfill the four requirements of deterrence that I have articulated in the first section of this Report. We currently possess:

A powerful and survivable force capable of being withheld for a substantial period of time;

A capability for limited response options, including some precision damage-avoidance and hard-target kill capability and a modest ability to provide our citizens with protection from radioactive fallout;

Perceived equality with the Soviet Union, even though our forces differ from hers in certain important respects;

Momentum in our program of strategic initiatives, to maintain essential long-term equivalence with the USSR and, to the extent necessary, with the PRC.

Since we do not seek a disarming first strike capability against the Soviet Union, there is no reason why she cannot have a capability comparable to ours, thus ensuring the mutual deterrence that is the foundation of equality, respect, and stability.

Despite these hopes and prospects, there remain two major problems on the horizon against which it is particularly important that we carry insurance. The first is that the new generation of Soviet ICBMs, if fully deployed, would carry a throw-weight exceeding that of the MINUTEMAN force by a factor of as much as five or six. The second problem is that this throw-weight, combined with several thousand high-yield MIRVs and accuracies that are well within the reach of the Soviets by the early 1980s, could come to jeopardize the survival of our fixed-based ICBM silos.

While such a development would not give the Soviet Union anything approximating a disarming first strike capability, it would:

Bring into question our ability to deter limited and selective attacks;

Give the Soviets a capability for damage and disruption that we ourselves would lack;

Cause precisely the fears and suspicions that our arms control efforts have been and are designed to dispel.

Here, in fact, is a case where unilateral planning, as I indicated earlier, might have to support and supplement our arms control programs.

We cannot expect, in all candor, that arms control agreements—any more than domestic laws—will solve all problems or close all loopholes. Those who hold such high expectations are doomed to disappointment. Where the possibility of loopholes exists, we should not insist on perfection as the price of agreement. Rather we should attempt to close the loopholes, by further negotiation if possible, by unilateral action if necessary.

You will recall in this connection, when I submitted a program of strategic initiatives last year, that I did so on three grounds. First, great uncertainty then existed as to the nature of any successor to the Interim Offensive Agreement that we might achieve. Second, essential equivalence would constitute a fundamental criterion in the future design of our strategic offensive forces. And third, how far we would proceed within these initiatives should depend on the evolution and pace of the ongoing and maturing Soviet strategic programs.

As a result of the understanding at Vladivostok, there now are fewer uncertainties about the shape of a successor to the Interim Offensive Agreement. But the other reasons for continuing with our program of strategic initiatives remain strong.

Until the Soviets decide to make a more stable distribution of their strategic offensive resources, we must take account of the heavy emphasis that they are giving to their ICBM force. Accordingly, we should keep open the option to replace some or all of the force with a larger throw-weight, less vulnerable system. We should continue with our accuracy improvement programs, whether to acquire a more efficient hard-target kill capability or to improve our overall effectiveness against soft point targets. Pending ratification of a threshold nuclear test ban, we should also diversify our warhead prototypes—particularly with the improvement of yield-to-weight ratios—so that we can exercise options in the future on how we load our missiles and bombers. It does not follow, for example, that more MIRVs are always better or that we might not want single-warhead replacements for the current POSEIDON missile and its successors. Finally, I believe that we must continue to explore the potentiality of long-range cruise missiles, evaluate the costs and performance of smaller ballistic missile submarines, and assess the practicality of developing an aircraft that can convert from a transport to a tanker.

With these initiatives, and the other programs that I shall discuss in detail later in this section, I am confident that we can maintain a highly credible, modern, second-strike strategic deterrent within the framework of the Vladivostok understanding and any future SALT agreements. Without them, I can give no such assurance.

B. SIGNIFICANT DEVELOPMENTS IN FOREIGN STRATEGIC CAPABILITIES

The strategic forces of the Soviet Union constitute by far the major external strategic capability which the forces of the United States must be designed to counterbalance. The strategic forces of the People's Republic of China, while growing slowly in size, are still significant only in a regional context. Hence, the following discussion deals principally with the Soviet forces.

1. The Soviet Union

Last year I reported to the Congress that the Soviet Union was in the midst of an ICBM development program which was unprecedented in its breadth and depth. Four new ICBMs—the "light" solid fuel SS–X–16, the "medium" liquid fuel SS–17, the "medium" liquid fuel SS–19 and the "heavy" liquid fuel SS–18—were being flight tested simultaneously. But of far greater importance with regard to the strategic balance, all four of those missiles employed a post boost vehicle (PBV), i.e., a bus type dispensing system, and all except the SS–X–16 were being flight tested with MIRVs. Now, a year later, I must report to the Congress that this most impressive development program is nearing completion and that we have evidence that all four of these new ICBMs have started, or soon will start, operational deployment. What remains to be ascertained at this time is simply the extent, composition and pace of that deployment.

Of the four new ICBMs being flight tested, the SS–19 is clearly the most successful. This new missile's throw-weight is about three to four times greater than the SS–11. In contrast to the SS–17 and the SS–18, the SS–19 has been flight tested solely with MIRVed payloads and probably will be deployed with six RVs.

CEPs are difficult to estimate with any degree of precision, especially when they are relatively small. We are convinced, nonetheless, that the SS–19 is clearly intended to achieve high accuracy; the Soviet designers have done everything right to attain that goal. The SS–19 missile itself probably has started deployment.

The SS–18, which is comparable in volume to the SS–9, is being flight tested in both a single RV and a MIRV mode. The single RV version has been designated the Mod 1, and the MIRVed version the Mod 2. The SS–18 Mod 1 has a computer aboard and is believed to be more accurate than the SS–9. With its large warhead yield, this missile would have a good hard target capability.

The SS–18 Mod 2 can carry as many as eight RVs or alternative MIRV payloads. Like the SS–19, it has several features which indicate that accuracy is a prime objective. We can assume that the accuracy of this system could also be improved in time by a series of refinements in the current guidance system.

Flight testing of the SS–18 Mod 1 is further advanced than that of the Mod 2. Consequently, we believe the Mod 1 is now operational, and will be followed later by the Mod 2.

The SS–18, like the SS–17, is designed to be cold-launched, i.e., the missile is boosted out of its silo by a gas generator before the main booster motors are ignited. The other two new ICBMs (the SS–X–16 and the SS–19) are hot-launched in the conventional manner, i.e., their main booster motors are ignited in the silos as in the case of the earlier Soviet ICBMs and all of the current U.S. ICBMs. The SS–18 will be deployed in the new type silos.

The SS–17 has certain features that are technologically more advanced than the SS–19, but high accuracy does not appear to be a prime objective at present. The SS–17 is not much larger in volume than the SS–11, but it carries four times the payload of the SS–11 Mod 1. We believe that the SS–17 will be deployed with four RVs. This missile would not have as good a hard target capability as the SS–19.

The SS–X–16 may be slightly smaller in volume than the SS–13, but it carries about twice the throw-weight over about the same range. Although equipped with a bus, the SS–X–16 has thus far been tested only with a single RV. However, we cannot preclude the possibility that the SS–X–16 will be deployed in a MIRV, as well as a single RV, mode.

A land-mobile version of the SS–X–16 may be under development. Although the Interim Agreement itself does not restrict the development of land-mobile systems by either side, the U.S. Government has unilaterally declared that it would consider the deployment of such missiles, during the period of the Interim Agreement, inconsistent with the objectives of the Agreement. Under a new SALT agreement, based on the Vladivostok summit meeting, any mobile ICBMs would counted against the aggregate limits. In any event, we believe the SS–X–16 would be deployed first in silos, and only thereafter in a land-mobile mode.

Speculation as to the rate of deployment of the new Soviet ICBMs and as to the buildup of its SLBM force are complicated by the provisions of the SALT I Interim Agreement which were to govern until mid-1977 and the ongoing negotiations to achieve a new agreement within the general outlines worked out at Vladivostok. The discussion here assumes that the provisions of the Interim Agreement will hold for the period up to mid-1977.

In order to allow for deployment of newer delivery systems, we assume that the Soviet Union will eventually phase out most, if not all 209 of the old SS–7s and SS–8s as long as the Interim Agreement remains in effect. The SS–7s and SS–8s will probably be phased out in favor of modern SLBMs in nuclear-powered submarines, which is permitted under the Agreement. Substitution of SLBMs for all of the 209 SS–7s and SS–8s would reduce the Soviet ICBM ceiling to about 1,400 launchers, excluding mobile ICBM launchers. If the new family of ICBMs is deployed along the lines we consider likely, the approximately 1,400 launchers could have a throw-weight of about 10,000,000 lbs.

This most impressive Soviet ICBM program, as I pointed out last year, appears to have three main objectives—expanded target coverage (particularly counter-military) with MIRVs, improved pre-launch survivability with the new hard silo designs, and the attainment of a significant hard target kill capability. The full deployment of the force I have just described would unquestionably permit the attainment of the first two objectives. The attainment of the last objective would depend upon the accuracy achievable with the SS–18 and the SS–19. We believe the CEPs of both of these missiles could be improved significantly. The

sizeable force of SS–18 Mod 2s and SS–19s which is projected, given their estimated warhead yields, could then pose a threat to our ICBMs in their silos, which threat, though limited by our silo upgrade program, would become increasingly serious as Soviet CEPs were improved. That force, with a balanced deployment of SS–17s, SS–16s and SS–11 Mod 3s, could be operational by the early 1980s.

The Soviet SLBM program during the past year has also produced some interesting new developments. The new model of the D–class submarine, which I discussed last year, is now under construction. This new submarine is apparently a longer version of the original D–class which in turn is a longer version of the Y–class. The new D–class submarine will probably have more tubes than the original D–class; both are designed to carry the 4,200 nm SS–N–8 SLBM. The Y–class submarine has 16 smaller tubes for the SS–N–6.

Production of the Y–class submarine has apparently ended with completion of the 34th unit (last year we thought it would end with the 33rd unit). Eight of the 12–tube D–class submarines have been launched. The Soviet Union probably intends to exceed the Interim Agreement's "base line" ceiling of 740 SLBM launchers and move toward the maximum limit of 950 "modern" SLBM launchers and 62 "modern ballistic missile submarines".

When the SSBN with the 741st or larger number of launchers enters sea trials, the Soviet Union is required to begin dismantling an equal number of SS–7 or SS–8 launchers and/or SLBM launchers on older submarines and, under the Interim Agreement, to notify the U.S. of its actions. In any event, it seems clear that the Soviet Union intends to expand its SLBM force up to the limit set in the Interim Agreement. An agreement in accordance with the general terms discussed at Vladivostok would allow the Soviet Union to further expand its SLBM force with compensating reductions in ICBMs or bombers within the 2,400 limit. Many of the detailed scheduling and counting problems would not exist.

Last year I noted that the Soviet Union was flight testing a new version of the SS–N–6 with MRVs. It is now clear that there are actually two new versions of the SS–N–6—the Mod 2 with a single RV and the Mod 3 with MRVs—both with a slightly greater range than the range of the Mod 1. Having mastered the MIRV technology in its ICBM program, there is no reason why the Soviet Union could not deploy MIRVs in its SLBMs as well. Should it do so, which it could under the terms of the Interim Agreement, the Soviet Union could exceed the United States in numbers of strategic missile RVs, as well as in total throw-weight, numbers of delivery vehicles, and megatonnage. The Vladivostok agreement is very important for the reason that it would not allow either the U.S. or Soviet Union to achieve superiority in all of these important measures of strategic offensive forces.

The Soviet strategic bomber program is progressing just about as anticipated last year. The BACKFIRE B bomber is clearly designed for air-to-air refueling. It is now generally agreed that with this refueling capability, staging through arctic bases and flying a high altitude subsonic profile all the way, the BACKFIRE B could cover virtually all targets in the U.S. and return to the Soviet Union. On one-way missions, recovering in non-hostile territory in the Western Hemisphere, the BACKFIRE B, flying subsonically, could operate from its home bases without any tanker support. The extent to which BACKFIREs will be assigned missions against the continental United States, however, remains an open question. We must await evidence from basing, operational and training patterns, or tanker development before we can confidently judge whether the Soviets intend the BACKFIRE for intercontinental mission and, if so, to what extent.

We have yet to identify a new tanker for the BACKFIRE, however. The tankers now compatible with the BACKFIRE are converted BISON bombers, and while it is possible that all 85 BISONS still in the bomber force might enventually be converted to tankers, a new tanker may be developed to increase intercontinental bomber capabilities. The best prospect for this tanker role appears to be the IL–76 CANDID jet transport and, indeed, there is some evidence that a tanker version of that aircraft may be under development.

If a small force of BACKFIRE B bombers, plus an appropriate number of tankers, is eventually deployed, we do not believe that the U.S. air defense problem would be substantially altered. However, if a large force of BACKFIRE B bombers were to be deployed, then we would have to consider which increased CONUS bomber air defense programs we would wish to undertake.

The number of older bombers in Soviet Long Range Aviation, particularly the intermediate range BADGERS, continues to decline, albeit at a relatively slow rate. Inasmuch as the BACKFIRE B is expected to initially enter the force at a moderate rate and be assigned first to the peripheral mission, we can assume that the older intercontinental long range bombers, the BISON and BEAR, will be continued in the force for some time to come.

With regard to strategic defensive forces, there is still no evidence of any additions to the 64 ABM launchers now deployed around Moscow, even though the ABM Treaty (with the 1974 Protocol) permits the deployment of 100 ABM launchers in that national capital area. This failure to deploy the full number of ABM launchers permitted under the Treaty, however, does not mean that the Soviet Union has lost interest in ABM research and development. Quite the contrary, the Soviet Union is continuing to pursue a very active R&D program at its principal ABM test base. Research and development on improved ABM systems is permitted under the Treaty.

Modernization of Soviet air defenses is continuing along the lines I described last year. 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 aircraft are entering the interceptor forces, but at a slower rate than the older aircraft are being phased out. A significant number of FLAGON E interceptors were added to the force last year. This aircraft has a moderately good intercept capability at low altitude and up to about 65,000 feet. The FOXBAT force continues to grow, but there is still no evidence that the Soviet Union has developed an advance AWACS or a "look-down, shoot-down" system for its air defense interceptors. Should such system be developed and deployed, we would have to counter them with new penetration devices and techniques such as the cruise missile, bomber defense missiles, and improved ECM. Without a "look-down, shoot-down" capability, the Soviet air defense interceptor aircraft are not likely to offer a serious obstacle to our bomber force, although the fact that improvements are being made requires continued efforts to maintain and improve our bomber forces.

2. The People's Republic of China

In contrast to the Soviet strategic forces program, the PRC strategic forces program in the last year or two appears to be losing some of its momentum, at least in part as a result of technical difficulties. A MRBM, which became operational in 1966, and an IRBM, which became operational in 1971, are progressing as expected. Their limited range ICBM, however, presents something of an enigma; its pace of development has been considerably slower than had been expected. While this missile could reach targets in European U.S.S.R., it cannot reach the United States, except for the western tip of Alaska. Hence, from our point of view it is also a regional missile.

The strategic missile program of most direct concern to the United States is the PRC full range ICBM. We believe that this ICBM is considerably larger in volume than either the Soviet SS–9 or the U.S. TITAN II and clearly could carry a multi-megaton warhead over a range of at least 7,000 nm, which, of course, would pose a direct threat to the United States. The PRC is expected to continue to develop this missile both as a satellite launcher and as an ICBM, with a number of these missiles possibly becoming ready for deployment in silos by mid-1980. We also believe that the PRC is determined to develop a submarine launched ballistic missile and a modern nuclear-powered ballistic missile submarine. The PRC would require a minimum of four years to achieve even a token operational SLBM capability.

Production of the BADGER medium-range bomber apparently ceased or was suspended in 1973, with a total of about 60 aircraft. Similarly, production of the BEAGLE light bomber (except for a small number to maintain inventory) apparently ended in mid-1973, after a total of some 400–450 had been produced.

The PRC strategic air defense program has also displayed a loss of momentum. Production of the PRC version of the MIG–21 ended about three years ago. We must conclude, therefore, that this program was a failure. Production of the PRC version of the MIG–19 clear-weather interceptor is continuing, and its continued production probably is intended to compensate for the failure of the MIG–21 program until a new interceptor is available for production. The new all-weather, long-range interceptor, which we thought last year might soon be placed in production, is apparently still in development. Production of the PRC's SA–1 surface-to-air missile (the PRC version of the Soviet SA–2) has also declined from earlier levels.

It is, of course, very risky to draw any firm conclusions from these trends. The apparent loss of momentum may simply reflect our past inflated expectations, or it may reflect a period of transition to a new, reoriented defense program, or quite possibly a major reassessment of national priorities in favor of economic development. In any event, it is clear that some important PRC programs have encountered technical difficulties, and that other programs have been deferred or curtailed far short of what we would consider to be a reasonably sized force.

C. U.S. STRATEGIC FORCES AND PROGRAMS

Pending the completion of negotiations on the final details of the Vladivostok agreement on the limitation of strategic offensive forces, we have continued to plan our forces within the general bounds of that agreement, as well as within the more specific limitations of the earlier agreements signed in Moscow in 1972 and 1974. We have assumed for purposes of intelligence estimating that the Soviet Union will also continue to plan its forces within the bounds of those agreements. A comparison of the projected U.S. and USSR strategic force levels through mid–1975 is shown on the following page.

1. Strategic Offensive Forces and Programs

I noted last year that well diversified strategic offensive forces are essential to our national security as a hedge against both foreseeable and unforeseeable risks and to enable us to make available to the President a reasonable range of strategic options. It is also worth noting that well planned force diversification greatly enhances deterrence because it severely complicates Soviet attack planning, thereby increasing the uncertainties and the risks confronting the initiator of an attack.

For example, the presence of both bombers and ICBMs in our forces virtually precludes the Soviet Union from destroying them both in a surprise attack. To pose a threat to our alert bombers the Soviet Union would have to station its ballistic missile submarines close to our shores. But that would place their submarines at risk to our antisubmarine warfare forces. Furthermore, to attack our alert bombers by surprise the Soviet Union would have to withhold the launch of its ICBMs until the SLBMs were launched. But this would mean that the first SLBM warheads would detonate over our bomber bases 15–20 minutes before the first ICMB warheads reached our MINUTEMAN silos. Whether our National Command Authorities would, under these circumstances, choose to launch some or all of our MINUTEMAN missiles before they were struck, no one, including the Soviet planners, can foretell in advance of the actual decision. Hence, that is a risk the Soviet decision makers would have to take in launching a nuclear attack against our land-based strategic forces.

Conversely, if the Soviet Union were to launch its ICBM forces first in order to achieve simultaneous arrival of the ICBMs and the SLBMs, our alert bombers would have ample time to clear their bases before the Soviet warheads arrived at their targets. Implicit in this statement, of course, is the assumption that our tactical warning systems can assuredly provide that time, and I will have more to say about this problem when I discuss the strategic defensive forces.

U.S. AND U.S.S.R. STRATEGIC FORCE LEVELS

	Mid-1974		Mid-1975	
	United States	U.S.S.R.	United States	U.S.S.R.
Offensive:				
ICBM launchers [1]	1,054	1,575	1,054	1,590
SLBM launchers [2]	656	660	656	700
Intercontinental bombers [3]	500	140	498	160
Force loadings weapons	7,650	2,500	8,500	2,800
Defensive:				
Air defense:				
Surveillance radars	67	4,000	67	4,000
Interceptors [4]	539	2,600	405	2,500
SAM launchers		10,000		10,000
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] These numbers represent total active inventory (TAI).

Finally, making the reasonable assumption that some fraction of each element of our mix of strategic systems would survive a Soviet first strike regardless of how it was carried out, each element would enhance the potential of the other in a retaliatory blow, a potential that would have to give the Soviets pause in their calculations. Missiles, for example, could help clear the way for bomber penetration, and bombers, in turn, could help to fill the gap of those important targets missed by missiles.

It is this mutually supporting deterrent capability, in addition to the reasons I enumerated last year, that strongly commends to us the continued retention in our strategic offensive forces of both ICBMs and bombers as well as SLBMs. The cost of maintaining this diversified strategic capability is considerable. Consequently, we must emphasize the mutually supporting characteristics of the TRIAD, rather than just the independent capabilities of each of the components.

(*a*) *ICBM's.*—Given the continuing growth in Soviet strategic offensive capabilities, albeit within the bounds of the Vladivostok and earlier agreements, we believe that the U.S. must now move forward in an orderly and deliberate manner with the qualitative improvements initiated last year for the ICBM forces. This action is unavoidable if essential equivalence in strategic power between the U.S. and the USSR is to be preserved through the 1970s and beyond.

In the near term (through the early 1980s), the only way in which we can achieve a major improvement in our ICBM capabilities, particularly in expanding our options and keeping pace with growing Soviet hard-target kill capabilities, is through the modification of the MINUTEMAN III. For the long term (mid-1980s and beyond), we can provide an option to develop an entirely new ICBM, namely what has now been designated the MX.

The principal options to improve the MINUTEMAN III are the refinement of the existing guidance system and the new higher yield warhead, the MK 12A reentry vehicle. The terminally-guided maneuvering reentry vehicle, which I associated last year with the MINUTEMAN III, will continue to be developed as a potential payload for the MX or the TRIDENT II. The time required for the development of this technology will place this reentry vehicle in the time frame of the MX and TRIDENT II, rather than the MINUTEMAN III.

As I pointed out last year, this improved MINUTEMAN III system would be heavily dependent upon accuracy for its hard-target kill capability. Consequently, even a small degradation in accuracy could greatly reduce its effectiveness in that role. The MINUTEMAN III therefore, is not a system that we would pursue if we were interested in developing a disarming first-strike capability. Inasmuch as we are interested in the improved MINUTEMAN III for its deterrent value, that is, to deter the Soviet Union from launching a first strike against some or all of our ICBM silos, this uncertainty about its accuracy should not negate its usefulness for our purposes. This is so because the Soviet planners would also be faced with uncertainties about both the size of the surviving force and the particular targets that the MINUTEMAN III, with its improved accuracy and increased yield, would be programed to attack.

Further improvements in our strategic missile capabilities must await the development of the MX and the TRIDENT II. How we proceed with the development of the MX and the TRIDENT II will depend upon future developments in the Soviet strategic missile forces. We should not deprive ourselves at this particular time of a reasonably wide range of ICBM and SLBM development options. Accordingly, we plan to pursue, at a pace closely linked to future developments in the Soviet strategic missile forces, the ICBM and SLBM force improvements initiated last year.

Minuteman.—First, we proposed to continue the production of the MINUTEMAN III at the rate of five missiles per month—the lowest feasible rate—through the first ten months of the FY 1976 procurement period. The MINUTEMAN III is the only U.S. ICBM still in production; the USSR currently has at least three or four. It would be imprudent, in my judgment, to close down that production line before we have a more definitive assessment of how many of each type of the new MIRVed ICBMs the Soviet Union intends to deploy under the Vladivostok agreement.

The $270 million required to procure another 50 MINUTEMAN III missiles and initial spares is included in the figures shown on the MINUTEMAN line of the Acquisition Costs table beginning on the following page. These 50 missiles would fulfill our requirements for follow-on flight testing and also preserve the option to deploy more MINUTEMAN IIIs, if that should be deemed necessary.

Second, we propose to complete the engineering development of the new higher yield warhead for the MINUTEMAN III, the MK 12A RV. The AEC test program for this weapon has been accelerated so that it can be completed before the end of March 1976, the proposed effective date of the Threshold Test Ban Treaty. The new arming and fusing mechanism and the reentry vehicle as a whole will be flight tested on MINUTEMAN III missiles already procured for the operational test program, as well as on the boosters to be procured specifically for the flight testing of the guidance refinements.

ACQUISITION COSTS OF MAJOR STRATEGIC FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS[1]

[In millions of dollars]

	Fiscal year			Transition period proposed funding[2]	Fiscal year 1977 proposed for authorization
	1974 actual funding	1975 planned funding	1976 proposed funding		
Strategic offense:					
Continued procurement of Minuteman III missiles, Minuteman silo upgrading and other related programs	720	728	780	105	458
Advanced ICBM technology, including MX	4	37	41	15	70
Development of advanced ballistic reentry systems and technology (ABRES)	90	112	101	29	125
Conversion of SSBN's to Poseidon configuration, continued procurement of Poseidon missiles and associated effort	323	183	91	7	35
Development, procurement and military construction—Trident submarines and missiles (Trident II not included in total)[3]	1,433	2,030	2,142	622	3,438
SSBN subsystem technology			2	1	4
B–52D modifications	38	95	43		
B–52/Harpoon modification			10	7	18
Continued development of new strategic bomber, B–1	449	445	749	196	1,652
Acquisition of short range attack missile (SRAM)	133	2	3	2	35
Initial development of advanced tanker/cargo aircraft		2	5	1	50
Development of the bomber launched and submarine launched version of the strategic cruise missile	13	98	153	55	296
Strategic defense:					
Continued development of the over-the-horizon (OTH) back-scatter radar	3	10	8	6	14
Continued development of site defense	110	115	140	38	160
Development of ballistic missile defense advanced technology	62	92	105	30	111
Continued improvements in the defense support program	88	118	68	9	55
Development and acquisition of the SLBM phased array radar warning system		38	50	2	17
Command and control:					
Development and procurement of advanced airborne command post (AABNCP)	50	78	43	192	26
Development and procurement of AFSATCOM I and development of AFSATCOM II	22	13	51	14	96
Development of Sanguine ELF communications system	12	8	18	4	24
Acquisition and modification of the TACAMO aircraft system	29	9	41	10	23
Civil defense: continued support of the civil defense program	80	87	88	20	94

[1] Includes costs of RDT&E, procurement of the system and initial spares, and directly related military construction.
[2] July 1 to September 30, 1976.
[3] Three in 1976, 1 in transition period, 10 in 1977.

Note: Total Obligational Authority includes $5 million prior year funds carried over from FY 1974.

As I pointed out last year, the new warhead, plus the more advanced, (i.e., miniaturized) arming and fusing mechanism, can be retrofitted into the existing MINUTEMAN III MK 12 RV without any changes in its weight, balance, or other flight characteristics. Accordingly, flight testing of the MK 12A RV can be limited to checkout of the new arming and fusing components and verification that flight characteristics of the RV have not changed.

The MK 12A development contract has been placed and design work started. Flight testing is expected to be completed in the summer of 1977; hence, pro-

duction could be started in FY 1977. A total of about $46 million has been included in the FY 1976 and Transition Budgets and another $31 million in authorization only is requested for FY 1977 to continue this development program. In addition, an authorization of $37 million in procurement funds is requested for FY 1977 to initiate production of the MK 12A RV.

The total development cost (DoD only) for the MK 12A is now estimated at about $107 million, compared with $125 million estimated last year. This reduction resulted from the elimination of the additional boosters which were to have been procured specifically for the MK 12A flight test program. No final decision has been made as to the number of MINUTEMAN III that ultimately will be equipped with the MK 12A RV. It is interesting to note, however, that the cost of producing sufficient MK 12A RVs for 550 MINUTEMAN III missiles is estimated at about $335 million. This does not include AEC costs for development and procurement of the MK 12A RVs.

Third, we propose to complete the development of the refinements in the existing MINUTEMAN guidance system and incorporate these refinements in all of the MINUTEMAN III missiles in FY 1978. Once the new guidance programs have been developed, incorporation of the refinements in the missiles simply involves the insertion of ground and flight software changes.

The total development cost of this program is now estimated at about $131 million, compared with the $100 million estimate presented here last year. The bulk of this cost, $108 million, is for the flight testing of the refined guidance system, including the cost of 10 boosters to be specially procured for this purpose. In order to maximize the return on these 10 boosters, some flight test missiles will carry two guidance systems. And, as noted earlier, these boosters will also be used to flight test the MK 12A RV.

The contracts for this project have been placed and the first flight test is expected to take place in the summer of 1976. Some $32 million was allocated to this program in FY 1975. Another $53 million is included in the FY 1976 and Transition Budgets, and the remaining $46 million is requested for authorization in FY 1977.

Fourth, we plan to continue work on the terminally-guided MaRV, but on a new, extended schedule, as indicated earlier. Since this is essentially a technology development project, it will be continued in the Advanced Ballistic Reentry Systems (ABRES) program which I will discuss later.

Fifth, we plan to complete the flight testing of two MINUTEMAN III missiles, each with several 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. The additional capacity would be useful as a hedge against large losses in the MINUTEMAN force, as a means of increasing our coverage of relatively soft point targets of value that are not collocated with population, for suppression of expanded Soviet defenses and as a hedge against unexpected failures in the bomber or SLBM forces. Even if only 50 MINUTEMAN missiles so equipped were to survive an enemy first strike, they could deploy a large number of RVs for attacks on such targets. The $18 million provided in FY 1974 and FY 1975 plus the $2 million requested in FY 1976 will be enough to complete this program. The first flight test is scheduled in May, and the second in August, 1975. No significant problems have been encountered in this project thus far, and the tests are expected to be completed successfully.

The amounts shown in the Acquisition Costs table for the MINUTEMAN program in FY 1976, the transition period, and in FY 1977, also include funds for the continuation of the Silo Upgrade effort and for the installation of the Command Data Buffer System. This system permits the MINUTEMAN III missiles to be retargeted remotely from the Launch Control Centers and reduces the time for retargeting a single missile from 16 to 24 hours to about 36 minutes.

All MINUTEMAN silos are included in the upgrading program, which is expected to be completed by the end of FY 1979. Only the MINUTEMAN III missiles, however, will be provided the Command Data Buffer System since their MIRVs can make the most effective use of the retargeting feature. Installation of the new system is being accomplished simultaneously with the upgrading of the silos. Deployment of the previously planned 550 MINUTEMAN III missiles will be completed on schedule by the end of FY 1975. But silo upgrading and installation of the Command Data Buffer System for the 550 MINUTEMAN IIIs will not be completed until sometime later.

Advanced ICBM Technology and the MX.—Last year we requested $37 million to continue the development of new technology leading to the development of an entirely new ICBM. We did so in order to ensure the availability of a realistic option for the modernization of our ICBM forces in the 1980s and beyond. I noted at the time that this effort would be focused primarily on three problem areas—the selection of the preferred basing mode, the unique guidance requirements for mobile missiles (both air-launched and ground-launched), and the technology required for more efficient rocket motors.

These three problem areas reflect our principal concerns with regard to the kind of an ICBM we ought to have available for deployment in the period beyond the early or mid-1980s. By that time, MINUTEMAN silos may become increasingly vulnerable to the Soviet ICBM forces; hence our interest in new basing modes. Air-mobile ICBM's, utilizing unaided, all inertial guidance, are inherently less accurate than fixed-based ICBM's, hence our interest in more capable guidance systems which would be needed to maintain the desired degree of accuracy.

Furthermore, the MINUTEMAN III, as compared with the new family of Soviet ICBMs, has a relatively small throw-weight. If the Soviet Union decides to replace all of its existing ICBMs with this new family of ICBMs, it could acquire an ICBM throw-weight advantage of 5 or 6 to 1—i.e., 10 to 12 million pounds for the Soviet Union versus 2 million pounds for the U.S. Such a great disparity in throw-weight, in my judgment, would be very destabilizing. It would give the USSR a distinct advantage in one of the basic parameters that shape the future effectiveness of the strategic offensive forces. Hence our interest in new rocket motor technology, which would give us a greater amount of throw-weight per pound of propellant.

By far the most difficult problem which must be resolved in this new ICBM program is the selection of the basing mode. Fixed silos may become vulnerable to a Soviet counterforce attack, but they have some very important advantages, namely, accuracy, good two-way communications up and down the chain of command, general responsiveness to control by the National Command Authorities, and low operating costs. These are very important considerations in context with our efforts to expand our range of response options (i.e., increase our targeting flexibility), and we want to preserve them to the greatest extent feasible should we find it necessary to shift to a new basing mode in the future.

A large part of the Advanced ICBM Technology Program investigations concern alternate basing modes. We have a great deal of experience in the operation of fixed-base ICBM systems but virtually no operational experience with air- and land-mobile systems and thus the reason for their emphasis.

There are several types of air- and land-mobile options under consideration. One of the leading land-based candidates is the so-called shelter system. This system depends for its survivability on deception, that is, the missile mounted on a transporter-launcher would move from one relatively hard shelter to another within a complex. The attacker would have to target all of the shelters, since he would not know in which shelter the missile was deployed. Thus, the cost to us per emergency shelter and the cost to him per reliable RV needed to destroy that shelter would be the critical factors driving the cost-exchange ratio of the shelter system. While this system would retain the accuracy of a silo-based system, its cost and operating problems are immediately apparent.

The air-mobile system would be the most expensive to acquire and to operate. It would require the acquisition of a fleet of suitable aircraft which could be modified wide-bodied jets or new low cost aircraft. To ensure pre-launch survivability, aircraft with the missile aboard preferably would be kept on airborne alert, and this we know is a very expensive operation. Alternatively, the aircraft with the missile aboard could be kept on ground alert, but then it would have the same pre-launch vulnerabilities as the bomber/tanker force.

Finally, as previously mentioned, the air-mobile system with unaided navigation is inherently less accurate than any of the land systems since without navigation aids it is difficult to precisely determine aircraft velocity and heading. An in-flight position fixing system for the aircraft or a terminal homing system for the missile would help to alleviate this problem. We have the potential solution to the position fixing problem in a new high precision satellite navigation system now under development, called the NAVSTAR Global Positioning System. However, both NAVSTAR and the terminal homing system are still in early stages of development.

Given the many problems that still have to be resolved, we now propose advanced development of an ICBM that could be deployed interchangeably in the existing MINUTEMAN silos, in a land-based shelter or random deployment mode, or in an air-mobile mode. The new MX ICBM would have new, more efficient rocket motors and a new, more accurate guidance system. The MX could be designed to be cold-launched from a cannister in a silo or on a transporter-launcher. In the air-mobile system, the missile could be pulled out of the cannister by parachute and fired when vertical stability had been achieved.

The MX could be deployed in the existing MINUTEMAN silos, since that is the least expensive mode, until such times as the threat to those silos has been definitely ascertained. At that point, we could commence deployment of the missile in one of the mobile modes.

Meanwhile, we propose to continue advanced development of the key components of the mobile systems. A series of air drops has already been conducted from the C–5A, including three "Bathtub" drops (concrete slabs of increasing size and weight), three "mass simulation" drops (to investigate missile shape stability), one inert but instrumented MINUTEMAN I, one fueled but unfired MINUTEMAN I (the "dress rehearsal" test), and one "short burn" MINUTEMAN I (the final test of the series). These tests have proved the feasibility of air-dropping an ICBM, but many other problems remain to be solved before the technical feasibility of the air-mobile system as a whole can be demonstrated. The MINUTEMAN I, moreover, weighs about 75,000 pounds; the MX will weigh about 150,000 pounds.

Some work has also been done on the land-mobile systems. The problem here is not so much the technical feasibility of these systems as it is their operational feasibility. And the economic feasibility of all three mobile systems needs a great deal of additional study.

Accordingly, we are requesting for the Advanced ICBM technology program (i.e., MX and related projects) a total of $41 million in FY 1976, $15 million in the three month transition period, and $70 million for authorization only in FY 1977. Most of these funds would be devoted to guidance, control and propulsion. The cost to completion of the MX development is estimated at about $2.5 billion.

ABRES.—Last year I noted that while the Advanced Ballistic Reentry Systems program (ABRES) is managed by the Air Force, the work being done also supports Navy and Army projects. Consequently, the Director of Defense Research and Engineering has been charged with the general direction of the program. He is responsible for defining the scope and priorities of the program and for providing the necessary guidance to the Air Force in order to ensure that the needs of the several Services are satisfied with a minimum amount of duplication.

The ABRES program has been the source of much of the advanced reentry technology incorporated in our strategic missile programs. Although the Soviet Union has made advances in this area of technology in recent years, we still enjoy a distinct lead. But given the Soviet Union's great advantage in strategic missile throw-weight, we must ensure that we maintain our lead in this critical area of reentry technology.

We are requesting for this program about $101 million in FY 1976, $29 million in the three month transition period, and $125 million for authorization only in FY 1977. About one quarter of these funds will be devoted to the pre-prototype development of maneuvering reentry vehicles, including the terminally-guided MaRV I discussed eariler. Also included in this program is work on a large advanced ballistic reentry vehicle; penetration aids; optical, radar and electronic countermeasure technology; and supporting technology such as nosetips, heatshields and arming and fusing components.

(*b*) *SLBM's.*— The portion of the SLBM force at sea is still the least vulnerable element of our strategic TRIAD; and as far as we can see ahead, it is likely to remain so. It behooves us, nonetheless, to take whatever measures may be necessary to ensure the continued survivability and operational effectiveness of that force.

The existing fleet of POLARIS/POSEIDON submarines eventually will have to be replaced, if for no other reason, because of aging. We believe that these submarines can be operated safely and effectively through their 20th year of service, and possibly longer. Since the last of the existing SSBNs went into service in 1967, we should plan on replacing the entire fleet by the late 1980s or the early 1990s.

In order to ensure the future survivability of the SLBM force, both a quieter submarine and a longer range missile are deemed necessary. The TRIDENT submarine is designed to meet the first requirement and the TRIDENT I missile the second, at least in the near term, ie., through the early 1980s. A still longer range missile, the TRIDENT II, which would more fully utilize the volume of the TRIDENT submarine missile tubes, may be needed in the long term, i.e., beyond the mid-1980s. This longer range missile would permit us to increase our SLBM throw-weight.

Accordingly, we propose to complete the POSEIDON conversion program, continue the TRIDENT submarine construction program, complete the development and commence production of the TRIDENT I missile for the TRIDENT submarines, and pursue our studies of the TRIDENT II missile. Beyond these programs, we also propose to backfit the TRIDENT I missile into ten of our 31 POSEIDON SSBNs.

The last three of the 31 POSEIDON conversions and the last one of the four submarine tender conversions were funded in FY 1975, except for outfitting and post-delivery costs. Because of the impact of inflation, however, another $85 million will be required to complete the funding of the last three submarine conversions. We plan to finance $33 million of that amount through reprogramming; the balance of $52 million is included in the FY 1976 Budget. The $98 million requested for POSEIDON in the FY 1976 and Transition Budgets will provide for completion of the POSEIDON conversions, outfitting and post-delivery costs, the support of POSEIDON missiles, and the POSEIDON Modification Program. The total authorization requested in FY 1977 is $35 million which will provide for post-delivery costs, support of POSEIDON missiles, and the POSEIDON missile modification program.

Of the 31 POSEIDON conversions, 23 have been completed and 22 are currently deployed, and six are undergoing conversion. The 30th submarine will start conversion in April 1975, and the last in FY 1976.

The POSEIDON Modification Program is an outgrowth of the deficiencies encountered in the POSEIDON Operational Test (OT) program in 1973. The corrections discussed here last year have been made. By December 1974, 8 operational flight tests, with the fixes installed in whole or in part, were completed.

The latest series of POSEIDON operational tests supports the judgment that the deficiencies identified last year were minor in nature and could be successfully corrected. The tests will continue, using improved missiles selected at random from POSEIDON submarines returning from patrol, to determine the best estimate of true missile reliability possible.

As indicated last year, improved missiles will be installed in the 21st through the 31st converted submarines; the first 20 submarines, which had already been deployed when this problem arose, will be retrofitted with the improved missiles over a period of about 4 years. The entire modification program is expected to be completed by 1978.

Trident (Excluding Trident II Missile).—To ease the financial strain on the Defense Budget and to relax the pressure on the shipbuilder, we have again slowed the TRIDENT submarine construction schedule from a two-a-year to an alternating 1–2–1–2 a year rate. The lead submarine was funded in FY 1974 and two follow-on submarines in FY 1975. Accordingly, only one submarine is included in the FY 1976 Budget and two submarines are requested for authorization in FY 1977.

We are still planning for an FY 1979 IOC for the TRIDENT submarine and TRIDENT I missile. Also, we still plan to retrofit the TRIDENT I missile in ten of the POSEIDON submarines.

Of the $2,142 million requested in FY 1976, about $817 million is for RDT&E ($84 million for the submarine and $733 million for the missile), $1,130 million is for procurement ($290 million additional to cover the cost increase projected for the three ships funded in FY 1975 and prior years as a result of abnormal inflation, $560 million to complete the funding of the fourth ship, $43 million for advance procurement of long lead time components for the fifth, sixth, and seventh ships, and $237 million for TRIDENT I missile production start-up costs), and about $195 million is for military construction and construction planning (mostly for the TRIDENT support facility).

The $622 million in the Transition Budget would provide $184 million for RDT&E ($12 million for ships and $172 million for missiles), $437 million for procurement ($253 million for ship advanced procurement, $1 million for sub-

marine outfitting, and $183 million for missile production start-up costs) and $1 million for military construction planning. The $3,438 million for the FY 1977 authorization request includes $547 million for RDT&E, $2,708 million for procurement ($1,221 million to complete funding the fifth and sixth ships, $166 million for advance procurement of long lead time components for the seventh through tenth ships, $6 million for submarine outfitting, and $1,315 million for 98 missiles) and $183 million for military construction and construction planning including $8 million for POSEIDON SSBN backfit.

In compliance with the requirement in the FY 1975 Military Construction Authorization Act that funds be authorized for community impact assistance in conjunction with TRIDENT-related community growth, we are including, in addition to the funds discussed above, $7 million in the FY 1976 Budget and $11 million in the FY 77 authorization request for this purpose.

The TRIDENT system, it should be borne in mind, represents a great advance over the POLARIS/POSEIDON system. The submarine will have a submerged displacement of about 18,700 tons, compared with 8,250 tons for the POSEIDON submarine. It will carry 24 missiles, compared with 16 for the POLARIS/POSEIDON, and each TRIDENT missile tube will have a greater volume than that of the POLARIS/POSEIDON. Moreover, it will be considerably quieter than POLARIS/POSEIDON. It will also have a much more efficient command and control system, and a more capable sonar system.

The TRIDENT I missile will have a range of 4,000 nm, compared with the POSEIDON which has a range of about 2,500 nm. Moreover, the TRIDENT I at 4,000 nm is planned to be as accurate as the POSEIDON at 2,500 nm.

The TRIDENT program thus far is moving along close to its planned schedule. The lead ship contract was awarded in July 1974, and the contractor's physical plant rearrangements and the production of detailed design drawings are now well underway. Indeed, the formation of hull sections has already been started. The shipbuilder's labor force and facilities are being greatly expanded to accommodate the TRIDENT program on top of the already on-going shipbuilding programs, notably the 688 class SSNs. Development of new subsystems are receiving special attention. These are proceeding on schedule and special facilities have been established to provide the step-by-step testing of these subsystems.

The development contract for the TRIDENT I missile also has been awarded and the first flight test is expected in 1976. Four supplemental flight tests of the TRIDENT I MK 4 RV using ATLAS/MINUTEMAN boosters have already been successfully completed. Flight test on a TRIDENT I missile of the MK 500 MaRV Evader will be carried through advanced development only.

In view of our experience with the POSEIDON operational tests, we plan to conduct a larger proportion of such operational tests early in the TRIDENT program. For these tests to be valid, however, missiles which actually have been operationally deployed must be used. Thus the OT flight tests cannot be conducted prior to operational deployment. Assuming that the desired submarine delivery dates are met, we would have the first TRIDENT I missiles deployed by the end of FY 1979.

Trident II Missile.—To provide an option to deploy a higher throw-weight, more accurate SLBM in the late 1980s, if such a system should be needed at that time, we propose to continue our studies of the TRIDENT II. The new missile would be designed to utilize more fully the available volume of the TRIDENT submarine launch tubes.

We plan to proceed with the TRIDENT II effort at a very moderate pace. Only about $3 million is included in the FY 1976 Budget for this purpose, plus $1 million more in the Transition Budget. An authorization of about $10 million is requested for FY 1977.

SSBN Subsystem Technology.—As indicated earlier, we must continue our search for technology that will provide less expensive alternatives for use in future SLBM systems. Accordingly, we have established a new program element, "SSBN Subsystem Technology", to focus attention on this essential effort. About $2 million is included in the FY 1976 Budget and $1 million in the Transition Budget for this purpose. In addition, we are requesting an authorization of about $4 million in FY 1977.

(c) *Bombers.*—As I indicated at the beginning of this discussion of strategic offensive forces and programs, we believe the retention of bombers in our forces for the foreseeable future is essential to a well balanced U.S. strategic posture. The current bomber force, particularly the B–52Gs and Hs, should be able to ful-

fill this need into the 1980s. But if we are to maintain an effective bomber force beyond that time, a new aircraft will have to be procured. While we can continue to modify and improve the B–52Gs and Hs for some time to come, and even equip them with stand-off cruise missiles, these aircraft may well become less effective during the next decade.

The principal potential threat to the pre-launch survivability of our current bomber force is the rapidly growing fleet of Soviet SSBNs which, if equipped with depressed trajectory missiles and operated close to our shores, could catch many of our alert B–52s before they could escape from the vicinity of their bases. While we still have no evidence of a Soviet depressed trajectory SLBM development program, such a system is clearly within their technical competence. We have already taken some steps to hedge against that potential threat, e.g., the satellite basing and the quick engine start modification programs. But beyond these measures we need a bomber which has both increased hardening to nuclear effects, and a significantly faster airfield escape time than the B–52.

With regard to penetration at very low altitude, the currently preferred U.S. mode, the principal potential threat to our current bomber force is the deployment of a Soviet AWACS/fighter air defense system with a good look-down, shoot-down capability. We have no evidence as yet that the Soviet Union has such a system under development but as we ourselves have already demonstrated, such a system is technologically feasible. Effective penetration at low altitude against an AWACS/fighter air defense system would require a faster bomber with a smaller radar cross section which is much more difficult to "see" against the ground clutter, and which is more difficult to intercept in a tail chase.

A B–52 force armed with Air Launched Cruise Missiles (ALCMs) could attack targets within the Soviet Union without the B–52 penetrating the air defenses. But a bomber force limited to stand-off operations would have far less capability and flexibility than a force which includes penetrating aircraft. A pure stand-off bomber force could not provide reconnaissance or attack targets of opportunity as could a penetrating bomber force.

For these reasons, a bomber force which includes penetrating aircraft is much to be preferred over a pure stand-off bomber force, providing that the cost of the former is reasonably commensurate with the benefits to be gained. The difference in costs, we feel, would be modest in comparison to the difference in gain. Accordingly, we believe the B–1 development and test program should be continued to provide us the option to modernize our bomber force with that aircraft in the 1980s.

A bomber force is not only expensive to acquire and keep modern, it is also expensive to operate. Accordingly, we have carefully reexamined our operational plans and procedures to determine where savings can be made with minimum additional risk. As a result of this reexamination, we are now making two major changes in the operation of the bomber force.

The first change involves a reduction in the proportion of the force to be maintained on day-to-day ground alert. When this pre-launch survival technique was first introduced in the late 1950s, the ground alert objective was 33% of the force, i.e., 33% of the UE aircraft. In the early 1960s, this objective was raised to 50%, but in more recent years it was reduced to 40%.

Inasmuch as we consider a Soviet surprise attack "out of the blue" to be quite unlikely under the current circumstances, we believe that a further modest reduction in the proportion of the force to be maintained on day-to-day ground alert would be acceptable. A nuclear attack on the United States, even one which is limited to our strategic offensive forces, would most likely be preceded by a series of crises, and certainly by a sharp deterioration in our relations with the Soviet Union. Under these circumstances, we would have the time to place virtually the entire force on ground alert.

Moreover, during the last few years we have greatly increased the number of strategic missile warheads on line; by June 1975 we will have more than 500 MINUTEMAN III missiles and more than 350 POSEIDON missiles deployed. With the large number of RVs these strategic missiles provide, we believe we can prudently take the additional risk entailed in the reduction of the bomber forces on day-to-day ground alert.

We calculate that a ratio of 1.29 crews per UE bomber and 1.27 per UE tanker would provide an adequate number of crews to generate the entire force in a relatively short time and maintain it on a fully generated ground alert for an extended period. This same number of crews would permit us to maintain about

30% of the bomber/tanker force on day-to-day ground alert, a reduction of about 10 percentage points.

The second major action involves the transfer of 128 UE KC–135 tankers from the active force to the Air Reserve Components. These 128 aircraft will be formed into 16 squadrons of eight UE aircraft per squadron. Each Reserve Component squadron will maintain at least one of its eight aircraft on day-to-day alert in support of active force alert bombers. Also, the Reserve Component units will be afforded the same number of flying hours per aircraft as the active forces. Since reservists can devote only part-time to their military activities, these Reserve Component squadrons will be provided with a higher crew ratio than the active forces—1.5 vs 1.27.

This transfer to the Reserve Components, and the phaseout of seven F–101 interceptor squadrons and nine KC–97 tanker squadrons for which we no longer have an urgent need, will result in overall cost savings while at the same time helping us to meet the Congressional mandate to maintain 91 flying units in the Air National Guard.

The reduction in the bomber crew ratio from 1.64 to 1.29 will permit us to reduce the number of bomber crews from 622 to 472. The reduction in the active force tanker crew ratio from 1.5 to 1.27, together with the transfer of KC–135s to the Reserve Components, will permit us to reduce the number of KC–135 crews in the active force from 925 to 585. The first four squadrons of KC–135s will be formed in Reserve Components in FY 1976 and the remaining 12 squadrons by FY 1979. These two actions, when fully implemented, will produce a savings of about $272 million per year in operating costs.

B–52D Modifications.—Included in the FY 1976 Budget is about $43 million to complete the installation of structural modification on 80 B–52D aircraft to extend their safe service life into the 1980s. A total of 79 B–52Ds are being structure-tested prior to modification and retention. Including the cost of the test program, the total cost for the modification of 80 aircraft is now estimated at about $237 million. The program is expected to be completed by the fall of 1976.

B52/HARPOON Modification.—In keeping with our major effort to ensure a greater degree of mutual support among the Services, the Air Force will undertake prototype development of a B–52/HARPOON system, using two modified B–52 Ds. These HARPOON-equipped B–52s would supplement the Navy's capability to search out and destroy maritime targets. The project will require about $10 million in FY 1976, $7 million in the three month transition period, plus an authorization of $18 million in FY 1977. Most of these funds will be devoted to the development and flight testing of the two HARPOON-equipped B–52D aircraft, including engineering studies, prototype drawings, specifications, instrumentation and component testing. In addition, we are requesting an authorization of $41 million in FY 1977 to initiate procurement of 90 HARPOON missiles for use by B–52s.

B–1 Bomber.—Given the need to strengthen and to modernize the bomber force sometime in the 1980s, I see no better alternative to the continued development of the B–1 bomber, notwithstanding its high unit cost. We have again examined the entire bomber modernization problem and the results of that study have been provided to the Congress. Of the six "equal cost" alternative forces examined against the estimated threat in the late 1980s, those including the B–1 appear to be the most cost-effective. Because of its greater speed and greater ability to withstand the effects of nuclear detonations, it will have a distinctly shorter airfield escape time than the B–52; and because of its smaller radar cross-section and its ability to fly at very low altitudes at high subsonic speed, it should have a much better capability to penetrate improved Soviet air defenses. Moreover, because of its wider range of air speed options and larger number of internal weapon spaces, the B–1 will provide considerably greater employment flexibility than the B–52, thereby enhancing our ability to execute a wide range of attack options in response to potential enemy actions. In short, the B–1 provides us with a weapon system which is least sensitive to potential increases in the threat.

Before we commit this aircraft to production, however, we want to be sure that it will be able to perform satisfactorily the mission for which it is designed, and that its cost will be commensurate with its expected capability. These assurances, with regard to both performance and cost, can be obtained only by extensive flight testing. Accordingly, we are allowing a period of about two years for flight testing before a production decision is scheduled to be made. By that time we should have a total of 250 flying hours on Air Vehicle (AV) No. 1, which began flight tests late last year, 30 hours on AV No. 2, and 85 hours on AV No. 3.

AV No. 1 will be used primarily to demonstrate the flight characteristics of the aircraft, including take-off and landing, low-level and high-level penetration, aerial refueling, and range/payload. AV No. 2 will be used initially to demonstrate structural integrity in static tests (i.e., proof loading), and then be assigned to the flight test program. AV No. 3 will be used primarily for flight testing the offensive avionics.

We have already informed the Congress that the crew escape module is being eliminated from the B–1 program. Instead, the aircraft will be equipped with ejection seats. The crew escape module has presented the most troublesome engineering problem in the entire program. The elimination of this feature will reduce the airframe weight by a few thousand pounds, but it will entail some additional risk to the flight crew. Considering the difficulties, delays and additional costs involved in trying to perfect this module, the Air Force has decided to take that added risk. It should be noted, however, that AVs 1, 2, and 3, which are already equipped with this crew escape module, will be flight tested as currently configured.

In order to place ourselves in a position to initiate production in late CY 1976, if such a decision is appropriate, certain actions must be taken beforehand. These actions include the commencement of construction of AV No. 4, the preproduction prototype, and the procurement of advanced materials for the six production aircraft tentatively planned for FY 1977. AV No. 4 would reflect all of the lessons learned from the fabrication and initial flight tests of the first three aircraft, as well as the elimination of the crew module. That vehicle would help us to maintain continuity between RDT&E and production should we decide to produce and deploy the aircraft.

The approximately $749 million requested for the B–1 in FY 1976 includes $672 million for RDT&E (of which about $70 million will continue the 4th aircraft) and $77 million for advanced materials. The comparable figures for the three month transition period are $165 million for RDT&E (including $22 million for the 4th aircraft) and $31 million for advanced materials. In addition, we are requesting an authorization of $1,652 million for FY 1977, including about $433 million for RDT&E and $1,219 million for the procurement of the first six production-aircraft. While none of the FY 1977 procurement funds would need to be committed prior to the production decision, we would need some advance material funds in FY 1976 and the transition period if the results of the flight test program warrant a limited commitment of funds to facilitate the initiation of production in FY 1977. Without these funds, the cost of a production program would increase due to the necessity of reconstituting the work force and inflation.

SRAM.—I noted last year that the acquisition of the SRAM would be essentially completed with FY 1974 funds. The amounts requested for SRAM in the FY 1976 and Transition Budgets, a total of about $5 million, is for the development of a new motor for that missile. The missile itself was designed for a ten year life, but the motor was designed for only a five year life. While it is still not clear how long these solid fuel motors will actually retain their effectiveness, the first SRAMs entered the force in FY 1972, and we should be prepared to begin the replacement of the existing motors by as early as FY 1977. However, the chemical process involved in the manufacture of the solid propellant is now unacceptable from a pollution control point of view; hence, the motor must be redesigned to accommodate a new propellant and liner, and then thoroughly tested.

Of the approximately $35 million requested for authorization in FY 1977, $15 million is included for completing development of the new motor and about $20 million for tooling and startup costs for production of missiles for the B–1. As in the case of the FY 1977 procurement funds for the B–1 aircraft, the use of these SRAM funds would be contingent on the decision to produce the B–1.

Advanced Tanker/Cargo Aircraft.—We are continuing to study the requirement for additional refueling support of our strategic and general purpose forces. Alternative approaches which are being examined include commercial wide body candidates as well as modification of exsting refueling aircraft. Preliminary study results indicate that additional tankers to support general purpose forces, including airlift aircraft, may be required. Accordingly, we are requesting $5 million in FY 1976 and $1 million in the transition period to initiate development

if the final study results warrant such action. In addition, we are requesting an authorization of $50 million in FY 1977 to continue the proposed development.

Cruise Missiles.—Last year the Congress was informed of the DoD's decision to proceed with 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 sea-launched cruise missile, and the Navy was to pursue the development of guidance technology which was also to be common to both missile systems. The Air Force was to commence engineering development of the Air Launched Cruise Missile (ALCM) in FY 1975, making maximum use of the previously terminated SCAD engineering program for air vehicle design and engine development, while the Navy was to continue with advanced development of a Sea Launched Cruise Missile (SLCM) in both a strategic and tactical variant.

The Congress expressed concern about these cruise missile programs, and we share that concern. As a result, we have completely reappraised the programs, examining in detail both the need and the technical considerations. The major conclusions which evolved from this reappraisal are as follows:

An ALCM would enhance the capability of the pure penetrating bomber in advanced threat environments; however, the extent of the need for ALCM depends on how the threat evolves.

A SLCM would provide a desirable augmentation of our strategic capabilities and a unique potential for unambiguous, controlled, single-weapon response from relatively invulnerable submarines as well as from other surface platforms.

Both ALCM and SLCM, because they are designed for use on existing carrier vehicles, would have a relatively low incremental cost, but they would impose on the Soviet Union large additional expenditures for air defenses to counter them.

A tactical cruise missile variant of the strategic version could provide the Navy with a highly effective over-the-horizon antiship capability.

There is a potential for improving management and the allocation of scarce RDT&E resources by restructuring the ALCM and SLCM programs.

Cruise missile technology, though well in hand, has not yet been integrated into a functional whole which could demonstrate proof of concept.

Of these conclusions, the last is the most crucial. While the separate pieces of technology required for the development of a cruise missile are well in hand, the problem of integrating them into a useful cost-effective system has not been solved. Consequently, it would be premature to consolidate the cruise missile efforts into a single, integrated engineering development program at this time. It is in the engineering development phase that expenditures begin to reach high levels. By keeping the two systems in the advanced development stage where expenditure levels are relatively low, we can afford to keep all viable options open.

Accordingly, we propose to keep the ALCM in advanced development until the cruise missile concept has been satisfactorily demonstrated. We also propose to continue the SLCM program in advanced development but on a revised schedule that would permit important milestones to be reached concurrently with ALCM. Both programs would be scheduled for first flight in early 1976 and for an engineering development decision (DSARC II) in early 1977. Both programs would continue to emphasize commonality of major components.

This proposed program would enable us to proceed toward our IOC with a more deliberate pace in the earlier years. We are requesting for the development of the ALCM $51 million in FY 1976, $13 million in the transition period, and an authorization of $104 million in FY 1977. For the SLCM development, the amounts are $102 million in FY 1976, $42 million in the transition period, and $192 million in FY 1977. SLCM funding is higher because the Navy's competitive contractor approach and because both a strategic and a tactical variant of the missile are being developed.

2. Strategic Defensive Forces and Programs

The strategic defensive forces include the air defense and ballastic missile defense forces, the bomber and strategic missile surveillance and warning systems, and the space surveillance system. These components of the strategic defensive forces are not only interrelated with one another but also with the strategic offensive forces.

As I noted last year, without effective ABM defenses, air defenses are of limited value against potential aggressors armed primarily with strategic missiles. That is to say, if we cannot defend ourselves against strategic missiles, there is little to gain from trying to defend ourselves against strategic bombers. With reduced emphasis on active defenses, however, we become more dependent on warning for the survival and, hence, the deterrent effectiveness of our strategic offensive forces, particularly in the case of bombers, which are very vulnerable when on the ground. Consequently, as we proposed at that time, a basic readjustment in our air defense program and some major improvements in our tactical warning systems should be made.

(*a*) *Air Defense.*—With regard to air defense, the reasons that led us to propose a major realignment of our forces last year are even more compelling this year. The level of ABM deployment has been further limited by agreement between the U.S. and the USSR. Thus, the utility of air defense in a major attack on the United States is further restricted. More importantly, the high rate of inflation experienced during the past year has compelled us to exercise the Defense Program forces and activities that we no longer need or can no longer afford in relation to more urgent requirements.

Both of these developments reinforce the need to move forward promptly with the realignment of our air defense forces in support of their current primary mission, namely, to ensure the sovereignty of our air space in peacetime. This mission requires three related capabilities—surveillance to detect and warn of intruders, forces to deter intrusion, and command and control to coordinate the two.

The major impact of this realignment is on the second of these capabilities, the interceptor and surface-to-air missile forces. Given the very tight constraints on the defense budget, I have no choice but to propose again the phaseout of the Air National Guard F–101 units which, in my judgment, are no longer worth their cost to operate and maintain. As noted earlier, the 91 flying units mandated by the Congress would be retained, if that mandate is continued, but the composition of the force would be changed. The seven F–101 units (including one Combat Crew Training Squadron) would be replaced by other types of aircraft, notably the KC–135.

Thus, by the end of FY 1977 the dedicated interceptor force would consist of F–106 squadrons in both the Active Force and in the ANG. These F–106 squadrons, operating at peacetime alert rates, could support various alert locations around the periphery of the 48 contiguous states. Additional alert locations, mostly in the South, could be provided by CONUS-based general purpose forces to enhance coverage along that periphery. These additional sites would be located on Air Force tactical bases and manned by F–4s (two aircraft each) drawn from the Air Force tactical units on the bases. The tactical aircraft, while on air defense alert, would operate under the control of the North American Air Defense Command, and the necessary communication links would be provided for that purpose. General support of the detachments would continue to be provided by the parent organizations.

We believe this application of the principle of mutual support and force interdependence is completely feasible and, indeed, desirable. The F–4 is currently our primary theater air defense aircraft and its tactical air-to-air capabilities have been well demonstrated not only in Vietnam but also in the Middle East. Moreover, service with our dedicated air defense forces in peacetime would provide very useful training for the F–4 crews involved. The main disadvantage is that a major war abroad, particularly in Europe, would require a prompt decision on the allocation of the available air defense resources between our needs at home and our needs abroad. But, this is the kind of military risk we must be prepared to take in a Defense Budget as tightly constrained as that proposed for FY 1976.

Although the air defense forces are being sized to perform their primary mission—surveillance and control of U.S. air space in peacetime—a force adequate for that mission would have an inherent capability in times of crisis to inflict attrition on penetrating bombers or reconnaissance aircraft, thus precluding them from having a "free ride" over the United States. In a crisis we would expect at least some strategic warning, which would give us time to increase the readiness of our air defense forces and augment them with appropriate general purpose forces. The Joint Chiefs of Staff and the Services have prepared detailed plans for this contingency.

Portions of the strategic air defense force could also perform air defense missions on a worldwide basis should contingencies requiring air defense arise. It should be noted in this connection that many of the AWACS aircraft, which we now propose to acquire for the tactical air mission, normally would be stationed in the U.S. Hence, AWACS would be available to train with the Continental Air Defense forces in peacetime and to take over the mobile command and control function in wartime. The older EC–121 airborne radars will be phased out by end FY 1977 as previously planned, consistent with the planned introduction of AWACS.

Last year we had planned to phase out in FY 1975 all of the remaining Continental Air Defense NIKE–HERCULES (both active and reserve) and their Fire Coordination Centers. Pressure on both personnel and funds, however, caused the Army to phase out these units in FY 1974.

We also planned last year to phase out over a period of years all of the existing CONUS Air Force regional command and control centers—the Regional Control, BUIC Control and Manual Control Centers—and replace them with 13 USAF/FAA Joint Control Centers (JCCs). I noted a the time that a new command and control plan tailored specifically to the revised air defense structure and missions was under development by the Air Force, and that the JCC plan could change.

This plan has now been completed. The principal change concerns the joint use of the 13 FAA Control Centers. Further study has convinced us that the command and control of the interceptor forces from 13 separate JCCs would be inefficient in peacetime and unworkable under actual combat conditions. Accordingly, we now propose to establish four Region Operations Control Centers (ROCCs), one in each of the four regions into which the forty-eight contiguous states would be divided. Each ROCC would be able to handle the input from as many as 15 surveillance radars and would be able to control all of the interceptors stationed in its region. All four ROCCs, of course, would be tied into the North American Air Defense Command (NORAD).

Under the new plan, 43 military/FAA joint-use surveillance radars will be required. However, five military radars would have to be retained to cover areas in which FAA has no requirement for radar coverage.

The total investment cost of this new command and control system is estimated at about $95 million, of which $80 million would be for procurement (including installation and check-out) and $15 million for military construction. As shown in Table 2 of the Appendix, the first two ROCCs would become operational in FY 1977 and the last two in FY 1978. The realignment of the surveillance radars would be completed in FY 1978, and all of the existing CONUS Regional, BUIC, and Manual Control Centers would be phased out by end FY 1979.

I noted last year that the Air Force was investigating the feasibility of modernizing the Alaskan air defense system. In view of the new ROCC program proposed for CONUS, the Air Force has developed a plan to establish such a control center in Alaska. The ROCC, which would also be tied into NORAD, would replace the existing Regional Control Center and Manual Control Centers in Alaska by end FY 1979.

Inasmuch as Canada is a partner in NORAD, discussions have been held with the Canadian authorities concerning realignment of the North American Air Defense system. These authorities have indicated that the proposed changes in the NORAD structure, particularly the establishment of two regions in Canada, will meet their national air space surveillance and control requirements.

In addition to the DEW Line radars in northern Canada, there are a number of surveillance radars in southern Canada which are part of the NORAD system. Moreover, Canada operates several squadrons of CF–101s to ensure the sovereignty of its own air space as well as to contribute to the defense of the North American continent.

Along with the CONUS air defense forces, we will also continue to maintain 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. We will also continue inplace the active Army general purpose forces NIKE-HERCULES and HAWK batteries now operational in Florida. We will continue, of course, to have options to improve our F–106s, deploy a follow-on interceptor (e.g., F–15, ACF or F–14), or to deploy a new SAM system (e.g., SAM–D) for CONUS air defense, since these programs are being pursued in any event for the general purpose forces.

CONUS OTH–B Radar.—As I indicated earlier, with the sharp reduction in active defenses which has taken place in recent years, tactical warning assumes even greater importance than in the past. Consequently, I believe that we should continue our efforts to develop the CONUS Over-The-Horizon Backscatter (OTH–B) radar. This radar promises to extend our surveillance and early warning capability against bombers (or any other aircraft) to more than 1,000 nautical miles from our costs, at both high and low altitudes. The detection range of our current surveillance radars out over the oceans is about 200–250 nm at high altitude and about 30–50 nm at low altitude.

Although the technology required for this radar has been under development for more than a decade, some technological risks still remain to be resolved. Therefore, we propose to pursue this program in two steps—first, the development of a limited coverage prototype radar; and second, if the first step is successful, the deployment of a full two-site soverage system. The prototype radar would be used to validate system concepts, develop operational procedures for wide area surveillance, and establish performance and cost parameters prior to the commitment of funds for operational sites. It would be designed initially to cover a reduced azimuth, but would be designed to be expansible to full coverage if the decision is made to deploy the system.

The currently planned program involves two OTH–B radars—one near Cutler, Maine (the prototype) looking northeast, and one in Washington or Oregon looking northwest. With regard to the northern approach, we now plan 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. The need for south-looking radar will be considered later.

About $10 million has already been appropriated for this prototype program, and another $14 million is requested for FY 1976 and the transition period. In addition, an authorization of about $14 million is requested for FY 1977.

(*b*) *Ballistic Missile Defense (BMD).*—The R&D portion of our ballistic missile defense (BMD) effort is comprised of a restructured Site Defense program and an Advanced Technology program. The third element of our BMD program, SAFEGUARD, will successfully complete its R&D phase on schedule and begin its operational phase early this year. We have significantly reduced and streamlined our BMD management structure concurrent with the reduction in overall BMD funding as the SAFEGUARD system approaches completion. All elements of our BMD program are now controlled in the Army by a single program manager.

I believe we must continue a BMD effort of significant breadth and depth to ensure that we can keep pace with the continuing Soviet BMD efforts and improvements that I discussed earlier. Our continued effort is essential not only as a hedge against a sudden abrogation of the ABM Treaty, but also because our demonstrable competence in this field will continue to motivate the Soviet Union to negotiate additional limits on strategic arms. In addition, R&D in this strategic area assists in the design and evaluation of our strategic offensive systems by providing data on their ability to penetrate missile defenses. It also assists our intelligence agencies in the assessment of Soviet BMD capabilities by providing a core of expertise in this complex technology.

Our overall BMD program provides operational experience with a deployed system, SAFEGUARD, the advancement of system technology in the Site Defense program and research on the more futuristic technologies and concepts in the Advanced Technology program.

SAFEGUARD.—Last year I informed the Congress that we planned to bring the SAFEGUARD site near Grand Forks, N.D. up to full operational capability. I also noted at the time that the Army was working out the details for a SAFEGUARD operating plan.

The operating plan for FY 1976 has now been completed. The Equipment Readiness Date of 1 October 1974 for the Grand Forks site, which was set in April, 1970, was met on schedule. The Missile Site Radar (MSR) and the Perimeter Acquisition Radar (PAR) are operational and the missiles are undergoing installation.

No additional R&D funds will be required for the SAFEGUARD program after FY 1975. R&D flight tests were completed in August 1974 and no further upgrading of the system is planned. Production verification flight tests will be completed in April 1975. The cost of the Army's Meck Island R&D installation at the Kwajalein Missile Test Range will be reduced by closing down and storing the

interceptor launch facilities in the spring of 1975 and the MSR at the end of that year. Until that time the MSR will support (and be funded by) the Ballistic Missile Defense Advanced Technology Programs as the SAFEGUARD activity is phased out. The $2 million in acquisition costs shown for SAFEGUARD in FY 1976 is for replenishment of spare parts.

Site Defense.—In conformance with the desire of the Congress, the Site Defense program, which had been directed toward the demonstration of a prototype ABM system specifically designed for the defense of MINUTEMAN, now has been reoriented to a systems and component technology and validation effort. This system-oriented technology effort is important because the integration of complex components such as phased-array radars and large digital computers into a smoothly working system is still the most demanding challenge in missile defense. The new program will be pursued in two phases—(1) a validation phase to prove that our solutions to technical problems associated with the Site Defense concept of terminal defense are adequate, and (2) a second phase which will incorporate advances in technology into the Site Defense design and thereby keep the system concept abreast of newly emerging offensive and defensive capabilities.

The first phase will seek to validate the technical solutions to five key problem areas—bulk filtering of tank fragment radar returns, discrimination of warheads in the midst of clutter, effective operation in a nuclear environment, prompt activiation of the system from a peacetime dormant posture, and software required to permit real time engagement. Since these technical areas involve the radar, data processor and the software, the new effort will be concentrated on those three components of the system. The missile portion of the program—i.e., the development of the SPRINT II—will be de-emphasized; no flight tests will be conducted. We will, however, pursue improvements in interceptor performance by incorporating recent advances in the state-of-the-art into the improved interceptor design.

To test and verify our solutions to the key technical problem areas, it is critical that we conduct a limited number of field tests at the Kwajalein Missile Test Range. The new Site Defense Radar is scheduled to be installed at Kwajalein by the summer of 1976.

The total cost of the validation phase of the reoriented Site Defense program (including the $115 million appropriated for FY 1975 but excluding the $275 million appropriated for FY 1974 and prior years) is now estimated to be less than $600 million. The second phase will be a continuing introduction of advanced technology to better solve systems problems. It will enter the program gradually, beginning in FY 1976. We are requesting for this combined effort $140 million in FY 1976 and $38 million in the transition period, plus an authorization of $160 million in FY 1977.

BMD Advanced Technology.—In the strategic world of the future we cannot continue our leadership or even remain competitive without a sound understanding of the new emerging technologies. The BMD Advanced Technology Program keeps us abreast of new defensive techniques and radically new concepts, and thereby reduces the likelihood that we would be caught technically unaware of BMD advances by the USSR. To achieve this, the program maintains an aggressive search for new ideas, and conducts additional research to prove the feasibility of the most promising ideas. BMD Advanced Technology concentrates on five major areas of technology—discrimination, data processing, optics, radar, and interceptors.

The ability of an ABM system to discriminate between RVs and other objects such as decoys and tank fragments is absolutely essential to its effectiveness against a sophisticated opponent. Although a great deal of progress has already been made in this area, much more data on the radar and optical signatures of tank fragments and other non-RV objects is needed for more efficient designs to improve performance and reduce the cost of future systems.

Data processing software is generally the largest single cost item in the development of an ABM system and requires the longest lead time to develop. Consequently, more efficient methods for designing, planning and managing the development of this critical component will be pursued in this program. Moreover, improvements in data processing hardware also appear feasible, and these are being developed.

Optics technology appears to hold great promise for overcoming some of the shortcomings in radar sensors. Much remains to be learned, however, about

target signatures and the application of optical sensors in a typical target environment.

Current ABM radars are very expensive to acquire. New approaches to antenna design, such as the dome shaped antenna, show promise of large reductions in construction costs. Similarly, solid state power amplifiers, if they can be economically produced, would improve radar performances and permit further economy in radar design and operation.

Improvements in interceptors beyond the SPRINT class of vehicles will require faster burning propellants, harder missile structures, electronic components which can stand the shock of high acceleration, and new guidance and flight control techniques. The development of a much faster burning propellant which can be produced economically in large quantities is currently being emphasized.

These five areas of technology, in our judgment, are the most critical at this stage of our knowledge and experience. A reasonable degree of success in these areas should enable us to maintain our lead in ABM technology, provided that the current pace of the Soviet R&D effort in this field is not accelerated. To continue this important basic technology program as a relatively constant level of effort, we are requesting $105 million in FY 1976 and $30 million in the transition period, plus an authorization of $111 million for FY 1977.

Ballistic Missile Attack Warning Systems.—Because of the importance of high confidence warning to our overall strategy, we have adopted the policy of ensuring coverage of all relevant strategic missile launch areas by at least two different types of sensors (sensing different phenomenology). Such an approach minimizes false alarms and potential natural interference, and insures critical areas are always covered.

With regard to ICBMs, first warning of a Soviet (or PRC) launch would be provided by the Satellite Early Warning System satellite maintained on station over the Eastern Hemisphere. Previously, this warning would have been verified first by the forward scatter Over-The-Horizon (OTH) radar system and then by the Ballistic Missile Early Warning System (BMEWS). But, as I pointed out last year, the forward scatter OTH System is very sensitive to atmospheric disturbances and hence considerably less reliable than the satelllite and BMEWS systems. We, therefore, had planned to phase out this system with its four transmitters and five receivers, in FY 1976. At the urging of the House Appropriations Committee, however, the system is being phased out in FY 1975 to achieve an additional year of savings in operating costs. We are quite confident that the remaining two systems, together with available intelligence sources, will continue to provide highly credible warning of ICBM attack.

Our surveillance and early warning capability against SLBM attack, however, leaves much to be desired. First warning of SLBM launches against the United States is provided by the early warning satellites maintained on station over the Western Hemisphere. Complementary warning coverage is provided by the 474N SLBM Detection and Warning System consisting of seven FSS–7 radars—three on the East Coast, three on the West Coast, and one on the Gulf Coast. However, as I explained to the Congress last year, the FSS–7 radars have low reliability and can be bypassed by the Soviet SS–N–8 and SS–N–6 Mod 2 SLBMs. Moreover, there are occasional gaps in our satelllite coverage caused by natural phenomena, i.e., solar reflections.

Accordingly, we had proposed last year to replace those seven "dish" radars with two new SLBM phased array early warning radars— one on the East Coast and one on the West Coast. These much more reliable and capable radars, together with the Western Hemisphere satellites, would provide highly credible warning of a Soviet SLBM launch against the United States. The new SLBM radars would not only corroborate the warning received from the satellites, but would also fill in any gaps that may occur in satellite coverage as a result of solar reflections.

Now, at the urging of the House Appropriations Committee, we propose to make three further changes in the plan presented last year in order to effect some reduction in operating cost in this area. First, the standby radar at Moorestown, New Jersey was phased-out in December, 1974, instead of maintaining it until the East Coast SLBM phased array radar is available.

Second, we will phase out the FSS–7 site at Laredo, Texas later this year when the modification of the Space Track radar at Elgin AFB, which will give it an SLBM warning capability, is completed.

Third, in line with an understanding with the House Appropriations Committee, we plan to close down the BMEWS radar at Clear, Alaska when the ability of COBRA DANE and the new West Coast SLBM phased array radar to take over Clear's warning functions has been determined.

The first SLBM phased array radar would replace the three East Coast FSS–7 dish radars. The second phased array radar would replace the three West Coast FSS–7 dish radars. The acquisition cost of the two SLBM phased array radars still is estimated at approximately $118 million.

We are requesting about $50 million in FY 1976 and $2 million in the transition period, plus an authorization of about $17 million in FY 1977, for the acquisition of the second of the two SLBM phased array radars. For the acquisition of the satellite system and its ground segments, we are requesting about $68 million in FY 1976 and $9 million in the transition period, plus an authorization of about $55 million in FY 1977. The FY 1976 amount includes funds for the procurement of ground elements which are intended as a backup for the existing ground stations to enhance survivability through redundancy of this satellite warning system.

3. Strategic Command and Control

The system devised for the command and control of the strategic forces, both in peace and in war, is part of a larger system designed for the control of all of our forces worldwide. This more comprehensive system of command, control and communications is discussed later in this Report. This section deals specifically with the new elements of the system that would be of particular importance to the command and control of the strategic forces during and after a nuclear attack on the United States. These include the Advanced Airborne Command Post (AABNCP) aircraft, the Air Force Satellite Communications System (AFSATCOM), and the SANGUINE extremely low frequency (ELF) radio system.

AABNCP (E–4).—The heart of our national level command and control system is the National Military Command System through which the National Command Authorities (NCA) issue their orders to subordinate commands and receive information in return. The command facilities of this system include the National Military Command Center (NMCC) at the Pentagon; the underground Alternate National Military Command Center (ANMCC); and the National Emergency Airborne Command Post (NEACP) primarily based at Andrews AFB, Maryland.

Normally, national level command and control is carried out in the NMCC. As the threat increases, however, control can be transferred to the ANMCC or to the NEACP. This system of command centers maintains connectivity to the ICBMs, the manned bombers, and to the sea-based strategic missile forces by means of a deliberately redundant system of communications.

High confidence in the continuity of command and control throughout the spectrum of conflict is an absolute necessity if the NCA are to maintain control of the forces during a conflict. If this confidence is to be ensured, a major improvement in the most survivable command post, the Airborne Command Post (ABNCP) must be achieved. Thus, we have undertaken the development of the Advanced Airborne Command Post (AABNCP) aircraft, the E–4, because of limitations in capacity, endurance, and survivability of the current ABNCP, the EC–135.

The survivability of the E–4 will be substantially increased over the current EC–135 airborne command posts by virtue of two factors. First, it will have a satellite communications capability and, therefore, it will not be geographically constrained by line-of-sight communications to ground stations as in the case of the EC–135. Second, its protection against electromagnetic pulse (EMP) effects are expected to be much greater than the EC–135.

The E–4 design allows sufficient room for the NCA and their close advisors. It should be stressed, however, that the validity of the airborne command post concept does not depend on the presence of the NCA on board the aircraft as long as communications can be maintained with them or their authorized successors.

As indicated last year, the AABNCP program is divided into "blocks". The current Block I program is further divided into three phases, A, B, and C. Phase IA, the equipping of the first three aircraft with C^3 packages from three existing EC–135s to provide an interim NEACP, is nearly complete. The first aircraft was operational in December, 1974, and the final operational capability with three aircraft is expected in the near future.

Phase IB provides for the acquisition of a test bed aircraft, development of an advanced C^3 package consisting of new and more powerful communications equipment, including terminals for interface with the AFSATCOM satellite system and the Defense Satellite Communication System (DSCS), and procurement of three additional operational E–4s, complete with the new C^3 package. The more powerful communications equipment will be resistant to degradations caused by a nuclear environment and jamming. The new C^3 package will include an automated message switching capability, a computer terminal for interfacing with the ground command and control computer system, and consoles to display data to the battle staff.

Phase IC involves the retrofit of the first three E–4 aircraft with the new C^3 package.

Future Blocks will continue the definition and development of the airborne computer system and studies of additional improvements. For example, one of the important objectives of Block II is expected to be a substantial increase in the capability of the E–4 to support flexible nuclear response.

In FY 1974 Congressional guidance stated that the procurement of the last three aircraft and the six production C^3 packages should be deferred until completion of threat level EMP testing. This deferral would not only delay the program but would also increase the cost by an estimated $35 million, since the Air Force would not be able to take advantage of the option in the existing Boeing contract for the procurement of the last three E–4s. That option expires in July 1976. In our judgment, deferral of procurement of the last three E–4s is unnecessary. The aircraft itself is a low risk item and it already has been subjected to a lower level EMP test. Moreover, a great deal of attention has been given to EMP protection in the design of the system.

The $43 million requested for FY 1976 would provide $36 million to continue development of the Block IB C^3 and $7 million for the Block II program. The $192 million in the Transition Budget would provide $173 million for the procurement of the last three aircraft (including their C^3 packages), $11 million for initial spares, and $8 million for RDT&E ($2 million for the Block IB C^3 package and $6 million for Block II). The $26 million requested for authorization in FY 1977 includes $4 million for Block IB C^3 package development, $12 million for Block II, and $10 million to initiate construction of hangar facilities for the E–4 at Offutt Air Force Base, Nebraska.

The total cost of the Block I program is now estimated at about $560 million, provided that we are permitted to procure the last three aircraft in July 1976. Otherwise, the total cost would be about $593 million.

AFSATCOM/SURVSATCOM.—The AFSATCOM system consists 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.

Service test models of the various terminals have been acquired and are now in test and evaluation. The production of terminals is scheduled to begin in late 1975. Host satellite launches are also scheduled to begin in 1975.

AFSATCOM II is now in program definition. The principal objective of AFSATCOM II is to achieve a major upgrade in ECCM capability over AFSATCOM I, and to enhance further the physical survivability of the space segment. AFSATCOM II consists of the AFSATCOM I earth terminal segment, modified to give it a much higher antijamming capability, and a new space segment (SURVSAT I) to be installed in upgraded host, or possibly dedicated, satellites. The LES 8 and 9 experimental satellites, which are scheduled to be launched in late 1975, will demonstrate new technology for improvements in the physical and ECCM survivability of satellites. The results of these experiments are expected to influence significantly the definition and design of the SURVSAT I system.

The $51 million requested for FY 1976 would provide for AFSATCOM I development and initial procurement. The $14 million requested in the Transition Budget also supports AFSATCOM I procurement and integration development. The $96 million requested for authorization in FY 1977 would provide $42 million for AFSATCOM I and $44 million for AFSATCOM II development and support.

SANGUINE.—As noted last year, the SLBM force, when at sea, is the element of our strategic offensive forces least vulnerable to sudden nuclear attack. The prospect of maintaining effective command and control of that force in a nuclear war environment, however, is the least satisfactory, because the communication links from the NCA to the individual ballistic missile submarines are less survivable than the submarines themselves. This shortcoming is a matter of deep concern with regard to our ability to deter aggression, to maintain stability in a nuclear crisis, and to deter escalation of a strategic nuclear war, especially before cities are struck. Therefore, we must make every effort to ensure reliable and survivable communications with the SLBM force under all foreseeable circumstances, without increasing the vulnerability of our SSBNs to Soviet ASW forces.

The SANGUINE system holds the best promise of providing a survivable communications link with our ballistic missile submarines, and possibly with our other strategic forces. In addition, the SANGUINE signals would decrease susceptibility of our communications to atmospheric disturbances and enemy jamming, and improve the survivability of our submarines by permitting them greater operational flexibility in depth and speed.

Our funding requests—$18 million in FY 1976, $4 million in the transition period, and the $24 million requested for authorization in FY 1977—would permit the continued development of the SANGUINE system. Design validation activities are being conducted at existing facilities. Propagation validation experiments will be conducted to provide measured propagation data using operational submarines for data collection. Environmental compatibility activity will be continued to study the biological and ecological effects of extremely low frequency radio waves.

Although accomplishment of the FY 1976 program is not dependent on any particular site, it is recognized that site selection is of critical interest to the Congress and the public. Over the past several months the Navy has investigated a number of sites in the United States that may be suitable for construction of the SANGUINE transmitter complex. The Deputy Secretary of Defense will lead an in-depth review of the entire SANGUINE program in February, including the results of the site investigation. We will then select a site which will best accommodate the overall objectives of the program. The Congress will be advised of the site selection well before full-scale development is scheduled to start. The Navy will also work with the federal, state and local government agencies in the area of the site to ensure their understanding of the system.

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 years of work at the Wisconsin test site. Moreover, notwithstanding some fears to the contrary, the SANGUINE system would pose no known environmental, ecological, or biological dangers to the area in which it is installed. I, therefore, strongly urge the Congress to support this program.

TACAMO.—At the present time, our primary communications to our Fleet Ballistic Missile Submarines are by means of several fixed, low and very low frequency radio stations located in various parts of the world. The TACAMO airborne radio relay system, which consists of EC–130 aircraft, is the more survivable emergency back-up to those fixed stations. The Navy now has a total of 11 of these aircraft; however, we believe this number should be increased to 14.

Two additional aircraft have been funded but not yet delivered, and we now propose to buy one more in FY 1976. The $41 million requested for FY 1976 would permit the procurement of the additional aircraft, the continuation of the ongoing major modification program to improve TACAMO operational capabilities, and some minor development work. The $10 million requested for the transition period and an authorization of $23 million in FY 1977 will continue the improvement programs.

4. Civil Defense

Our Civil Defense Program is, and has always been, an essential element of our overall strategic deterrence posture. Hence, one would expect that the recent shift in emphasis toward a more flexible strategic response policy, which I discussed earlier in this section of the Defense Report, would be reflected in our Civil Defense Program. That is indeed the case. We are seeking to reflect in our civil defense planning the wider range of response options that we are now introducing into our military planning.

The Soviet Union for many years has given a great deal of attention to civil defense, including not only the construction of shelters and the training of civilians but also the preparation of plans for evacuation of the bulk of the population from its major cities in the event of a crisis. Thus, the Soviet leaders have the option to evacuate the cities or to shelter the population in place, depending upon their assessment of the situation at the time.

We believe that the United States should have a similar option for two reasons: (1) to be able to respond in kind if the Soviet Union attempts to intimidate us in a time of crisis by evacuating the population from its cities; and (2) to reduce fatalities if an attack on our cities appears imminent.

Similarly, this nation should have the option in the event of an intense crisis to evacuate the civilian population from high risk areas near such military installations as SAC bases, ICBM fields, SLBM support facilities, etc., to less hazardous areas while protecting the rest of the population against fallout. As noted last year, a Soviet counterforce attack which deliberately avoids our cities would still produce a large amount of nuclear fallout which could drift over areas that are downwind from strategic military installations. This civil defense option would complement the military response options that we are now introducing into our planning to strengthen deterrence against a Soviet counter-force attack.

Accordingly, we propose to continue our efforts, within the limits of the resources available, to improve our ability to protect the population in place against fallout and to develop in an orderly way two major options for the relocation of the population in a crisis. The first option, which would be designed against the threat of a Soviet counterforce attack, would involve the relocation of the population from high risk areas near key military installations and the protection of the rest of the population against fallout. This option could reduce nationwide fatalities due to fallout from a limited Soviet counterforce attack to relatively low levels—well under one million—provided that the people in the communities that would be most exposed to fallout from such an attack make effective use of the shelters available.

The second option, which would be designed against an all-out Soviet nuclear attack, would involve the evacuation of the population from cities, as well as from areas near key military installations. Repeated studies have shown that the evacuation of the bulk of the population from our major metropolitan areas could save some 70 million lives in an all-out Soviet attack on the United States, over and above those saved by in-place protection options.

Pilot-project work undertaken in areas near some of our important military installations during fiscal years 1974–75, has established the feasibility of developing plans to allocate risk area populations to surrounding host areas, including the development of standby public information (for publication during a crisis) on "where to go and what to do" should relocation be implemented. Public officials at state and local levels in the pilot areas accepted the need for this type of contingency planning but pointed out that federally-supported planning assistance would be needed.

Other studies indicate that it would be feasible to relocate population from cities over a period of several days, and to provide for their reception and care in host counties for a period of up to two weeks. Specially-tailored solutions, however, would have to be developed for the most densely-urbanized parts of the U.S. such as the Northeast. It would also be feasible to redirect the distribution of food and other essentials to support evacuees in host areas, provided adequate state-level planning is done with industries concerned. Pilot-project experience with a "host area survey" indicates that local plans in host areas can provide for protecting evacuees from fallout radiation by use of best available existing protection, plus crisis action to improve fallout protection in existing buildings and to construct expedient shelters.

In fiscal year 1976, we propose to move that work forward by training a group of planners, hired under contracts with the states, to work with additional states and cities in developing allocations of risk area population to host areas, and in the preparation of standby instructions for the public. Concurrently, we will continue our research and development efforts, with emphasis on development of special solutions for densely urbanized areas such as the Northeast. We will also conduct host area surveys in counties near selected high risk areas and the "all-effects" shelter survey in selected areas. The latter identifies the best protection available from fallout in existing structures in all areas of the U.S.

In high risk areas, it also identifies best available protection from the direct effects of nuclear weapons. Should the bulk of the population be relocated from the high risk areas, the direct effects protection facilities would be used by "key operating personnel", i.e., persons who would commute into cities from nearby host areas to keep the most essential industries and services in operation during the relocation period.

Developing flexible-response capabilities for use in case of a severe crisis or nuclear attack requires that local jurisdictions throughout the United States be able to conduct emergency operations to support and assist their citizens. This in turn generates, as a highly desirable bonus, improved readiness to conduct coordinated local operations in peacetime emergencies or disasters. Such peacetime capabilities are accordingly a secondary, but important, objective of the Civil Defense Program.

The Department of Defense (through the Defense Civil Preparedness Agency) provides to state and local governments shelter surveys which identify inherent protection against fallout and other weapons effects in existing structures. It provides radiological detection instruments and training on their use under attack conditions and in peacetime emergencies involving radiological hazards, as well as periodic maintenance and calibration for the instruments. It provides the National Warning System, through which attack warning can be disseminated in less than two minutes, from the primary National Warning Center at Cheyenne Mountain to over 1,200 warning points throughout the United States (this system is also used to disseminate severe-weather warnings, based on inputs from the National Weather Service).

In addition, the Civil Defense Program provides matching funds to assist state and local governments to weld the elements of emergency readiness into an all-hazard civil preparedness capability to conduct lifesaving operations during peacetime emergencies or in the event of war. These funds support the construction of Emergency Operating Centers, the procurement of warning sirens, communications equipment and other hardware, and the basic management structure—the Civil Defense Directors and their staffs.

To fulfill these civil defense responsibilities of the Defense Department and to make a modest start on the relocation planning effort, we are requesting a total of $88 million in the FY 1976 Budget and $20 million in the Transition Budget. The $88 million requested for FY 1976 would provide $8 million for the shelter program, $43 million for financial assistance to state and local governments, and $37 million for other programs such as attack warning, emergency operations, research and development and program management. The $20 million requested for the transition period would provide $2 million for shelters, $11 million for financial assistance, and $7 million for the other programs.

III. General Purpose Forces

A. The need for general purpose forces

The strategic nuclear forces are only the first part of the U.S. defense TRIAD. As President Ford as pointed out, they require no more than about 20% of the total budget, even when a number of indirect costs are allocated to them. The general purpose forces, consisting of our theater nuclear and non-nuclear capabilities (which for all practical purposes, include our mobility forces and support to other nations), are by far the most expensive part of our defense establishment. For FY 1976, the National Guard and Reserve forces alone will cost the Federal Government $5.6 billion in total obligational authority.

Even during a generation of great U.S. strategic nuclear superiority, the theater nuclear and non-nuclear forces had important roles to play. Now, in the era of Vladivostok and strategic equivalence, their importance has increased still more. It is essential, therefore, that the basis for these two parts of the defense TRIAD be discussed in some detail.

1. The Basis for the Theater Nuclear Forces

I hardly need remind the Congress that it was the American scientific community which in its wisdom led the effort to develop and deploy our theater nuclear forces. But however much the original initiative lay with us, the Soviet Union has shown the liveliest possible interest in the concept of theater nuclear warfare. As a consequence, it is now the Soviets who set the pace here, as they do in some other respects.

Soviet peripheral attack and theater nuclear forces are numerous, diversified, and of high quality. Their MRBM and IRBM capabilities represent a powerful potential threat to our allies in Europe and Asia as well as to U.S. forces stationed in these theaters. In addition, Soviet sea-launched cruise missiles (SLCMs)—while primarily seen as antiship weapons—could be used for strategic missions, including attacks on European and Asian targets as well as on U.S. coastal cities and installations. Other long-range forces include a major portion of the Soviet medium bombers which, while assigned to the Long-Range Aviation (LRA) of the USSR, and having a marginal intercontinental attack capability, are oriented primarily toward targets in Europe and Asia.

Shorter-range Soviet capabilities include nuclear-capable tactical aircraft and a series of mobile surface-to-surface missiles, many of which have an offroad capability. These forces can be rapidly deployed from one front or theater to another and, as we know, can be transferred to other countries as well. Past commanders appear to plan on the rapid application of firepower, with priority given to NATO nuclear delivery units. Pact armored forces are postured to exploit these attacks by rapidly seizing territory in the West.

This is not a situation that we can ignore or wish away, particularly where our NATO Allies are concerned. Accordingly, we continue to deploy our own theater nuclear forces in both Europe and Asia. In the case of Europe, we have three basic reasons for our deployments. First, the maintenance of theater nuclear capabilities in NATO is essential to deterrence as long as the Warsaw Pact deploys theater nuclear forces of its own. They help to deter the use of nuclear weapons by the Pact and, along with our strategic nuclear and conventional forces, provide a general deterrent across the entire spectrum of possible aggression. Second, should deterrence fail, our theater nuclear capabilities provide a source of limited and controlled options other than the early use of U.S. and allied strategic forces. Third, in keeping with NATO's flexible response strategy, we do not rule out the use of nuclear weapons by the United States and its allies if that should prove necessary to contain and repel a major conventional attack by the Warsaw Pact.

While the NATO Alliance has made progress in developing an armory of nuclear weapons for tactical purposes, much work on this leg of the NATO TRIAD remains to be done. This includes—as stipulated by Public Law 93-365 (the Nunn Amendment)—striving further to reduce the vulnerability of the tactical systems already deployed, improving our doctrines for the tactical use of nuclear weapons, and improving our ability to minimize collateral damage and escalation if the Alliance decides to resort to the use of nuclear weapons. As we continue to come to grips with these problems NATO should also consider whether, in the future, there are serious possibilities of replacing the existing stockpiles with nuclear weapons and delivery systems more appropriate to the European environment.

It would be premature at this time to summarize ongoing work to grapple with these problems within the Alliance or to provide a specific report along the lines required by Public Law 93-365. Nonetheless, we can already see in outline five major conditions that our theater nuclear forces must meet if their effectiveness as a deterrent is to be materially increased.

First, we must reduce their vulnerability to sabotage, seizure, and conventional assault. Measures are already underway to ensure this condition in cooperation with our allies.

Second, the vulnerability of these forces to surprise nuclear attack should be reduced, and the more exposed dual-capable systems should have the capability to disperse quickly so as to match a surprise dispersal by the Warsaw Pact. And even after dispersal, all forces should remain under central command and control, which may imply the organization of new units with more specialized nuclear missions. The introduction of the LANCE missile with its improved munitions should also increase the survivability, controllability, and effectiveness of the force.

Third, we need to improve our centralized command and control and campaign assessment capabilities to the point where reliable and comprehensive information about both non-nuclear and nuclear attacks, and the status of defending forces, can be more rapidly and reliably communicated to those political leaders who hold the responsibility for nuclear decisions and the release of nuclear weapons.

Fourth, target acquisition systems that can survive at least the first phase of any nuclear use still remain essential if we are to be able to implement a range of selective and controlled options, and at the same time limit the collateral damage from their implementation.

Fifth, we should continue to develop selective, carefully controlled options that will permit us: (a) to enhance our ability to deal with major penetrations of an allied sector and achieve a quick, decisive reversal of the tactical situation; and (b) to engage, if necessary, in a highly discriminating interdiction campaign against enemy lines of communication. Both basic options are designed so as to minimize the incentives for the enemy to reply at all or to respond with uncontrolled attacks. As I indicated earlier, changes in the size and composition of our deployed nuclear stockpiles and systems will improve our ability to accomplish these ends.

It should be evident that these are demanding conditions, and that they will be difficult to satisfy. For that reason, and for many others as well, we cannot regard our theater nuclear forces as a substitute for powerful conventional capabilities. They have a unique role to play in the spectrum of deterrence, and we should continue to maintain and improve them. But we cannot lean on them as a crutch in place of a strong non-nuclear leg to the deterrent TRIAD.

2. The Basis for the Non-nuclear Forces

Last year, this Report emphasized the importance of modernizing our concepts about nuclear deterrence. This year, it is equally essential to think in fresh terms about the role of our non-nuclear forces. The deterrence of non-nuclear war is probably the most challenging and complex problem that faces the defense planner. In part this is simply because credible conventional deterrence across a broad range of contingencies is difficult to achieve with high confidence in a turbulent world. But in addition, the challenge is so great because of the magnitude of the non-nuclear capabilities fielded by potential rivals in the international arena.

(*a*) *Opposing Capabilities.*—The most imposing of these capabilities is at the command of the USSR. We currently estimate Soviet ground forces at about 1.7 million men (paramilitary organizations aside) marshalled into 166 divisions of varying sizes and degrees of readiness. These forces could deploy over 40,000 tanks and would have the support of more than 7,000 tactical aircraft (excluding the medium bombers of Long-Range Aviation and Naval Aviation). Soviet naval forces consist of about 220 major surface combatants (including one new aircraft carrier already launched and two helicopter ASW carriers) and approximately 265 general purpose submarines (of which about 80 are nuclear). These naval forces are distributed among four separate fleets.

The Soviets maintain 31 divisions in Eastern Europe, along with about 1,500 tactical aircraft. Of this imposing total, 27 divisions and 1,200 tactical aircraft are deployed against the sensitive Center Region of NATO. The total Warsaw Pact capability in East Germany, Poland, and Czechoslovakia consists of 58 divisions, about 16,000 tanks, and nearly 2,900 tactical aircraft. A powerful assault force, nearly half of it Soviet in origin, stands poised near the heart of Western Europe.

The USSR also maintains a force of more than 40 divisions and 900 tactical aircraft deployed in Soviet Asia. This force probably exceeds what is required to defend against a Chinese attack. Therefore, some of this capability, along with the Pacific Fleet of the USSR, could be used against U.S. forces or allies if the need should arise. The Soviets, in short, have the forces to wage a two-front war—in Europe against NATO, and in Asia against either the People's Republic of China or the United States and its allies.

The Chinese, with an Army of around 3.5 million men and 210 divisions, deploy more than 90 of their divisions in regions opposite these Soviet forces.

(*b*) *Non-nuclear Deterrence.*—It is the continued view of the United States and its allies that all parties would gain from a mutual and balanced reduction of forces, particularly in Central Europe. But as is the case with SALT and the strategic nuclear forces, even if we were to achieve reductions and a state of parity in conventional capabilities, we would still face the problem of how unilaterally to plan our forces and assure a condition of deterrence. Here as elsewhere, detente and arms control do not absolve us from dealing with force-planning issues in a systematic way. To proceed otherwise—and especially to cut away more or less casually at our general purpose forces—would be not merely

to sink us to the status of a second-rate power, as it were, by default; it would be to undermine deterrence and collective security, and bring the fundamental interests of the United States (and perhaps its survival as well) into the gravest possible danger.

Unfortunately, the legend still lingers, especially in Europe, that because potential opponents have such imposing non-nuclear capabilities, the conventional deterrence of major conflict is infeasible, and that we present our budgets for these very costly forces based on the product of some inner bureaucratic interest and momentum. But while both aspects of the legend are false, it is certainly the case that the requirements of non-nuclear deterrence are, if anything, even more complex and stringent than they are for strategic nuclear deterrence. Perhaps that is why they attract so little outside analysis.

Nonetheless, there are a number of reasons why an understanding of non-nuclear deterrence and its requirements is crucially important. After thirty years of the nuclear era, most nations have developed a deep and understandable reluctance to resort to the use of nuclear weapons. By contrast, the inhibitions against the use of traditional force are not nearly so great. However unpredictable the course and outcome of conventional conflicts, we probably understand them better than the risks and consequences of a nuclear campaign. If military force finally seems in order, familiar force is what is most likely to be used.

Once the decision to commit conventional force is made, surprise, shock, speed, and the rapid acquisition of territory tend to be even more seductive to the non-nuclear attacker than to the operational planner of a nuclear assault. In fact, in the nuclear era, there may be a special premium on surprise and rapid advance; they permit the achievement of valuable objectives before the agonizing nuclear decision can be made.

The ability to resist and repulse such conventional attacks (and we have seen many of them during the last 35 years) calls for a much more diversified inventory of capabilities than we currently understand to be the case with respect to the strategic retaliatory forces.

One such capability, however distasteful, is that of toxic chemicals. The Soviet Union has the world's largest capability to conduct chemical warfare, both offensively and defensively. You will note, by contrast, that our own modest budget for chemical munitions stresses protection against and deterrence of chemical warfare.

Finally, it must be repeatedly stressed that the deterrence of nuclear war depends not only on the adequacy of our strategic and tactical nuclear capabilities. It also rests heavily in the first instance on our ability to deter the outbreak of conventional conflict among the great powers. All of us recognize the theoretical utility of large-scale bolt-out-of-the blue surprise nuclear attack scenarios for force planning purposes. Nonetheless, most of us would agree that the more likely first use of nuclear weapons would arise out of a setback at the conventional level of conflict. To keep the nuclear threshold high, we must therefore maintain strong conventional forces and work unceasingly to deter the outbreak of any major conflict.

(c) *The Strategic Concept.*—This would be a tall order even if our policymakers were operating in a more traditional world of conventional military force only, and multiple centers of great power. Now, however, we must deal with three different tiers of force and only two real superpowers. Even so, we must still try to find our way to safety in an environment that is governed more by traditional considerations than by the simple equations of nuclear attack and retaliation—especially when the answer to these equations is usually stalemate.

Despite the relative good fortune and self-sufficiency of the United States, we still must care about such matters as access to the Persian Gulf, passage through the Straits of Malacca, and other important waterways. Despite our strategic and theater nuclear capabilities, non-nuclear forces remain the prime coin of the military realm. Hence, deterrence depends very basically on these forces, on allies, and on our ability to hold certain strategic areas. Shifts in the balance of economic power still matter; certain areas of the world continue to affect our well-being and, ultimately, our integrity and independence. Despite all the nuclear calculations and theology, we cannot forget geopolitics as the world becomes truly interdependent. Unless we are prepared to join in defending portions of the world lying outside North America, we shall soon find ourselves with nothing else but North America to defend.

Granted the importance of these considerations, the United States should not attempt to solve all the world's problems—not that it has ever tried. We could not hope to create and sustain the military establishment necessary to stand guard throughout this turbulent world, nor could we command the resources to defend on all fronts simultaneously. In any event, our allies have an equal interest in collective security and international stability; they should bear a fair share of the burden of keeping the peace and deterring major conflict.

But even with allies, there is a need for us to decide what, at a minimum, we should be prepared to defend and how we should design and deploy our forces for that purpose. In short, we require a strategic concept and the capabilities to go with it. If we should have learned one lesson from the 1930's, it is that collective security is a hollow term if there is no conception of where and how to apply it, and if there are no forces of any consequence to back it up.

The utility of the strategic concept for collective security (or deterrence as we now seem to call it) is fourfold:

—By defining certain primary contingencies (such as an attack on Western Europe) as of critical concern to the United States, it narrows down the force planning problem to manageable proportions even though it does not preclude the development of a wide range of contingency plans.

—It sets a specific force requirement for the defense establishment to satisfy; in the process, it precludes fortification of the moon.

—It establishes priorities by defining the primary missions of the Armed Forces and the individual Services.

—But it does not preclude the use of the forces thus generated for other purposes as directed by the President and approved by the Congress. In fact, even as we design and implement the concept, we must recognize the need for enough flexibility to deal with other than the standard planning contingencies.

The strategic concept itself cannot, of course, tell us what are the main contingencies on which we should focus, but certain considerations help to make the choices fairly evident. It is noteworthy, for example, that Soviet ground forces are divided almost evenly east and west of the Urals. Although they are deployed in such a way that they could operate in a number of different directions, two points about them are reasonably evident: despite the increasing mobility of their forces, the Soviets would have grave difficulty in opening up a series of offensives more or less simultaneously; and their main concerns (whether offensive or defensive) are obviously in Central Europe and Northeast Asia.

What this suggests for the United States in general is that we should not plan forces, even with allies, to attempt to deal simultaneously with a large number of contingencies. Instead, we should continue to maintain a small number of strongpoints in areas of the most critical interest to us, acquire the bases necessary to support these points, and develop forces flexible enough to reinforce our forward positions and to deal with unforeseen contingencies.

Western Europe is the most obvious place for a strongpoint and a conspicuous display of collective security. Not only do we have long historical, cultural, and economic ties with the nations of Europe, we would not want to see them united and dominated by an alien power. Yet, as has been the case for many years, a very large force of Warsaw Pact divisions and aircraft continues to stand on the borders of our European allies.

That force alone is sufficient reason for the collective defense established by NATO, to which the U.S. Army and United States Air Forces, Europe, and the Sixth Fleet make such signal contributions. Surely it is far better that we should establish a forward defense in this sensitive area and deter hostile action there rather than risk the failure of deterrence because of insufficient force and then undergo the agonizing and costly effort to recover lost and devastated territory.

In addition, power in the Center has beneficial effects on the flanks of NATO. As long as the Pact countries know that the forces in the Center are strong and mobile, they will exercise greater caution on the more vulnerable northern and southern flanks. Indeed, they should recognize that NATO, while a defensive alliance dedicated to collective security, does not completely foreswear offensive action in one theater should there be aggression in another.

Whether there should be a comparable presence in the Western Pacific is a more complex issue. While we continue to maintain tactical air forces in Thailand, their strength is on the decline. The military situation in South Vietnam

remains a cause for grave concern, but there is little outside threat to the Philippines and Taiwan at the present time, which leaves open the question of the role that Northeast Asia should play in our force planning.

Because it is an area where the interests of the United States, the Soviet Union, the People's Republic of China, and Japan converge, Northeast Asia will continue to be an area of concern from the standpoint of collective security. The importance of Japan, and the special nature of our mutual defense relationship, make it important to maintain forces sufficient to give visible evidence of the seriousness of our commitment to the stability of the region and to provide a credible ability to respond quickly and effectively to unforeseen events.

I believe that there are a number of reasons for using a major contingency in Asia as a basis for testing the adequacy of our conventional force planning:

U.S. interests in the area remain strong, and we continue to have mutual security treaties with Japan, Taiwan, and the Republic of Korea.

We cannot preclude political changes that would make the direct threat to the Republic of Korea much more serious than we now consider it to be.

We continue to be concerned about developments in Southeast Asia, and we are closely allied with Australia and New Zealand.

The Korean peninsula is relatively easy to defend at a minimum cost in U.S. deployments and reinforcements.

U.S. ground, naval, and tactical air power can project power over a wide area from strongpoints in Okinawa and the Philippines.

Generally speaking, quite apart from any specific contingency, U.S. military power still has a stabilizing role to play in the Pacific area.

It should be clear that our interest in the Caribbean and the Panama Canal continues undiminished, and the Middle East must remain a matter of military as well as economic and diplomatic concern. It would also be unwise from a strategic standpoint to ignore the proximity of Alaska, our fiftieth state, to the mainland of Asia. All in all, then, there appears to be a limited number of key areas where we would want to deploy forces and a relatively small number of contingencies for which we should size our forces.

In designing our conventional military establishment, we could, of course, ignore the geography and the possible contingencies and devise some other approach to force planning. I await with interest suggestions on that score. Alternatively, we could decide to program forces sufficient, in conjunction with our allies, too:

Deal simultaneously with a major contingency in Europe, a major contingency in Asia, and one or more lesser contingencies elsewhere;

Deal simultaneously with one major contingency (wherever it might occur) and one minor contingency, with the capability to "swing" with some speed from one major theater to the other.

The first concept governed conventional force planning in the 1960's, at least in principle. The second concept was adopted in 1970 and has been in effect since then. With the end of our involvement in Vietnam, the emphasis of our planning has shifted toward Europe; however, we still retain a presence in South Korea with backup forces primarily in Okinawa. Most of our forces already are or soon will be oriented toward a war in Europe, but we maintain some less heavily armored and mechanized units for a lesser contingency and as the basis for a rapid swing toward Asia, or some other theater.

The success of this concept as the basis for defending our interests obviously depends to a large extent on the assumption that the USSR and the PRC would not strike more or less simultaneously in Europe and Asia, whether separately or in renewed cooperation. Since the United States obviously cannot carry the burden of implementing the concept alone, its success also depends on continued cooperation from our allies in Europe and Asia. Most important of all, the concept as a basis for planning will continue to have validity only as long as there is agreement within the United States itself that these minimum strongpoints and the military balances that we attempt to maintain in their immediate areas remain in the best interests of collective security, deterrence, and peace.

It seems reasonable to believe that the commitment to Europe continues to command widespread U.S. support, even though we continue to have periodic disagreements with our NATO Allies over budgets, forces, and base utilization under certain conditions. The Allies have cooperated in our efforts to comply with the Jackson-Nunn Amendment without the withdrawal of any U.S. forces from Europe. Now, given the serious impact of oil prices on the European economies,

balance-of-payments issues no longer should be allowed to exacerbate relationships within the Alliance. Instead, we must focus on the more basic strategic questions that the Nunn Amendment has raised. Here, again, the Allies are assisting in the various reviews and assessments required by the amendment, particularly with respect to the need for standardization and further improvements in combat-to-support ratios in both ground and air forces.

It is also worth noting that most of our European Allies are attempting to maintain and increase their real defense expenditures despite the heavy inflationary and balance-of-payments pressures from which they are suffering. Moreover, they recognize increasingly, despite the magnitude of Warsaw Pact capabilities, that their non-nuclear efforts are worthwhile. As a consequence, the chances are improving that NATO will develop a solid defensive posture in Central Europe. In the circumstances, quite apart from the MBFR negotiations, this would be the wrong time and place to reduce the U.S. defense contribution. On the contrary, as will be explained later, the combat power of that contribution should be increased.

Our position in Northeast Asia may not command as much attention as our deployment in Europe, but the security of Japan and the peace of Northeast Asia are critical to international stability. We should also keep in mind the fact that President Ford has recently reaffirmed our commitment to the Republic of Korea and to the continued maintenance of U.S. forces there. Our critics should realize that if we withdrew these forces, we might reduce the risk of involvement in some unwanted conflict, but at the price of losing leverage in the area. There is no risk-proof policy.

There is another problem as well. Our intelligence does not pretend to understand the convolutions of Kim Il Sung's mind, but there is no evidence for believing that he is friendly to the Republic of Korea or to the United States. A withdrawal of our forces might tempt him into adventures even more imprudent than those in which he indulges as of now. Our presence, however modest, operates as a restraint on North Korean adventurism. It also means that other powers in the area must think twice before instigating major trouble on the Korean peninsula or redeploying forces to theaters where they might prove more threatening to us.

For all these reasons, there are solid grounds for believing that the basic strategic concept is sound. As was stressed last year, the concept enables us to put bounds on our force requirements and plan prudently to deal with the contingencies that would have the most adverse effect on U.S. interests. It also helps to underline those strategic areas where it makes the greatest sense to concentrate our strength. But the concept does not oblige us to think about these areas and contingencies to the exclusion of all others or to tie the forces generated for the strategic concept to these theaters. While Europe and Asia remain important for force-planning purposes, it is essential to maintain powerful reserves centrally located in the Continental United States, along with increased strategic mobility. Our defense establishment, as an instrument of deterrence, must be able to respond rapidly and effectively to any emergency as directed by the President and approved by the Congress.

The strategic concept helps to establish the framework within which more detailed planning of the conventional forces can go forward. But it leaves a number of issues unresolved. One of the most important is the length of the war that we should be prepared to fight with our non-nuclear capabilities. Views range from the position that we should have only enough conventional capability to meet the initial enemy assault, to the argument that we should have the capability to fight indefinitely on a non-nuclear basis.

The view of this Department is that, within the framework of the strategic concept, we have two fundamental needs: the capacity for a successful strong initial forward defense based primarily on our active forces; and a long-war hedge that depends primarily on our guard and reserve forces and our production base. As has been stressed on a number of occasions, our first concern must be to dissuade a potential enemy from believing that, by means of a short, intense, fast-moving assault, he can either destroy our deployed defenses or gain a favorable territorial position from which to negotiate advantageous peace terms. Failure to deal with this contingency makes long-war preparations hopeless and pointless.

However, once we have ensured our capability for a stout initial defense, we must hedge against the possibility that a conventional conflict could continue

well beyond this first, intensive stage. Such an approach has met, and continues to meet, with something less than universal understanding. Some students of strategy argue that we should pour all our resources (including most support forces) into making certain that we can last as long as our opponent in the first phase of the conflict. Others assert that, given the high probability that a war among the great powers would rapidly escalate to nuclear exchange, any commitment of resources to an extended non-nuclear campaign would be wasted.

Despite these arguments, it is worth remembering that previous calculations about the duration of a war and the nature of high policy decisions have usually been in error. According to most of the conventional wisdom available at the time, World War I should have ended after about six weeks; yet it went on for four more years. Britain supposedly should have come to terms with Germany after the fall of France in 1940; certainly Hitler thought she should. To her credit, she did not.

As for an early use of nuclear weapons, that too is uncertain. Here as elsewhere, our responsibility is to present choices for the highest policymaker, not to trap him into decision by default. That is to say, depending on costs, we should have the option to continue a non-nuclear campaign for an indefinite period of time. To prepare otherwise could indeed lower the nuclear threshold. Alternatively, it might leave a vulnerability in our deterrent posture that a determined and well-supplied opponent might seek to exploit. How much we should invest in our long-war hedge is an issue that deserves the most serious consideration. That we should hedge to some degree against a long conventional war hardly seems to be a matter for dispute.

As was noted previously, the main test of our deterrent—whether nuclear or conventional—is the credibility and effectiveness of our military response in the event that deterrence should fail. If our forces, and those of our allies, can give a satisfactory account of themselves in combat, it seems reasonable to assume that an opponent would be loath to challenge them. It should be clear, moreover, that deterrence is not an either/or proposition. Instead, we have to gauge our requirements in terms of probabilities and confidence-levels when we make choices about the size and composition of our forces.

On this score, we ought to be no less prudent in the design of our non-nuclear forces than we are in the determination of our nuclear capabilities. Surely, if we wish to preserve our essential interests and maintain the nuclear threshold at a high level, we should keep sufficient active and ready conventional forces, along with selected, high-priority reserves, to have a high probability of repelling an initial attack in such crucial theaters as Central Europe and Northeast Asia. It is worth adding, in this context, that while history provides many inspiring examples of units that have repulsed attackers ten or more times their size, no one would argue that (on the average) those are acceptable odds or that a deterrent based upon such a large asymmetry of forces would inspire high confidence.

There is always room for debate about the precise force structure needed to exercise deterrence over a wide range of possible contingencies, especially when the structure is intended to complement those of allies. But there should be no real disagreement about the main requirements of a non-nuclear deterrent under modern conditions. Each of these main requirements will be discussed briefly before our specific programs for the general purpose forces are described.

(*d*) *The Ground Forces.*—Despite the advances of modern technology, no one doubts the need for ground forces in most conventional conflicts. There is no other full countermeasure to enemy ground forces. They are the key element in holding territory against attack, and (of course) they can also seize enemy territory or threaten to do so. Because of this versatility, they provide the most effective leverage that we have available in bringing an enemy to terms. For all these reasons, the ground forces are an indispensable ingredient of any non-nuclear deterrent.

In 1964 we set our Army strength at 16⅔ active and 8 reserve divisions. In the aftermath of Vietnam, the change in strategic concept, budgetary pressures, and the concerns about the feasibility of the all-volunteer force, we reduced the Army objective to 13 active and 8 reserve divisions. (The Marines, as you know, maintain 3 active divisions and air wings by law.) Now we believe that we should return to the 16 active and 8 reserve division objective provided that the Army is able to improve its "teeth-to-tail" ratio and find more combat spaces within its existing manpower total.

Some observers have asked why, if 13 active divisions was a good enough number several years ago, we now need to revise the number upward. Others have suggested that, if there are support spaces to be saved, we should return the money to the Treasury rather than provide the Army with this allegedly perverse and unnecessary incentive to become more efficient. But these criticisms miss the point that we had already gone too far in reducing our active-duty ground forces.

When the previous administration changed the strategic concept and set an objective of 13 active Army divisions, it did so on the assumption that our high-priority National Guard and Reserve Divisions would achieve sufficiently high standards of combat readiness so that we could deploy them almost as rapidly as our active Army divisions. We have now concluded, however, that such heavy reliance on the Guard and Reserve divisions for initial defense missions would be imprudent. It is worth remembering, in this connection, that it took a minimum of eleven months to ready these divisions for combat in World War II and Korea.

Our plans for initial defense should depend primarily on the active forces for two main reasons. First, we might have very few days or weeks in which to ready and deploy forces before the outbreak of fighting. Second, as matters now stand, we must depend primarily on active-duty ground force units to meet such demanding schedules.

This is not to say that Guard and Reserve units would not have important roles to play in conventional conflicts of the future. Mobilization and deployment schedules might prove less demanding than I have indicated, in which case we might be willing to call up the main reserve units. In addition, they can continue to serve as the long-war hedge described earlier.

In other words, if we are to act responsibly toward the National Guard and Reserve, we should stop pretending that we can use all of them as full substitutes for active-duty ground forces. Obviously they can be useful in special circumstances such as the callup during the Berlin crisis of 1961. Eventually they did play an important role in World War II and Korea, and they might have done so in Vietnam had there been the political will to call them to active duty. But in circumstances where there are only short periods of warning and the most decisive battles of the war occur during the first days and weeks of conflict, then the active-duty ground forces must bear the brunt of the initial defense. Nonetheless, we will still rely on two brigades and a number of separate maneuver battalions from our Reserve Components to round out the 16 division active Army force that we are planning.

There still remains the question of why we need 16 rather than 13 active-duty Army divisions. Part of the answer obviously lies in a greater substitution of active-duty components for reserve units in our initial defense force. But of even greater importance is our belief that in the aftermath of Vietnam and the changeover to the all-volunteer force, we basically went too far in reducing our active-duty ground forces.

For most contingencies, the ground force requirement depends on several factors. The first is the ratio of force to space. Whether we are talking about Central Europe or Korea, if a front is to be held along its length with a reasonable degree of confidence, there must be a minimum density of manpower along that front, with no significant gaps between units. Second, there should be a reserve—both locally and at higher levels, that can be allocated to halt penetrations or develop counterattacks. Third, certain ratios—whether we are talking about manpower, manpower in maneuver battalions, firepower scores, or weapons effects indicators—should not be allowed to favor an attacker by too great a margin. For example, if an attacker could achieve a favorable overall ratio of perhaps 1.5:1 in several of these respects, he could embark on such large local concentrations that the defender would find it difficult to prevent one or more breakthroughs.

With these factors in mind, and a detailed knowledge of the capabilities of both allies and potential enemies, it becomes possible to calculate the needed input of ground forces by the United States to provide an adequate initial defense in any given theater, and the deterrence that goes with it.

Our current strategic concept, the maintenance of two major strongpoints in conjunction with our allies, and the need to provide a highly combat-ready force for initial defense pretty well dictate our ground force requirement. To satisfy this minimum initial defense requirement (the United States ultimately

deployed 90 large divisions in World War II), not only would we want 16 active-duty Army divisions; we would also have to depend heavily on the three active-duty Marine divisions to help fill the need.

Within a total active Army strength of 785,000 men and women, we obviously cannot expect to acquire the full 16 division force or anything like it as part of the standing Army. Even if we are able to bring our overhead for training support and command down to 25 percent of the total, that will still leave us with fewer than 590,000 people for the ground forces. At this level, we must continue to draw on the reserve for selected combat units as well as for critical supporting elements of the division slices.

Given all these circumstances, I believe that the Congress not only should endorse the goal of 16 active-duty Army divisions, but should also join in:

—continuing to offer the Army the incentive to convert spaces from support to combat by allowing them to retain the benefits of real efficiencies in the form of increased combat power;

—maintaining active-duty Army strength at the minimum level of 785,000 despite the high cost of manpower and the understandable temptation to reduce military personnel as an allegedly quick way to save money;

—considering whether, in fact, we should not increase active Army manpower so as to reduce still further our dependence on the Guard and Reserve for our initial defense forces.

If the Congress will provide this kind of support, the Department is confident that General Weyand—following the example so powerfully set by General Abrams—will ensure the evolution of a lean and capable Army of which we can all be proud. We are also confident that our overall non-nuclear deterrent—and thus all deterrence—will be substantially strengthened.

(*e*). *The Tactical Air Forces.* The need for tactical air forces is well accepted, but the precise role of these forces in non-nuclear deterrence is not always understood. We have, of course, had spectacular demonstrations of the effectiveness of tactical airpower: during World War II in the Normandy campaign, and during the 1967 six-day war in the Middle East. But our tactical air forces have also come under some criticism on grounds of both performance and cost. It is not uncommon to hear the argument that tactical aircraft have very low probabilities of kill against important targets and that they are much less cost-effective than artillery.

These criticisms miss several important points about the attractiveness of tactical airpower to the United States. Tactical air forces are complementary to, rather than competitive with, ground forces. They cannot prevent an enemy from infiltrating on the ground, but because of their range and speed, they have the ability to concentrate very rapidly and to attack important targets outside the range and surveillance of our ground forces. And with the advent of precision guided munitions (PGMs) the cost of destroying relevant targets is in the process of going down. In any event, measuring the effectiveness of tactical airpower by its ability to kill specific arrays of targets overlooks the "virtual attrition" that it imposes on an enemy by forcing him into air defenses, dispersal, night movement, and the general "heads down" mentality that goes with the presence or threat of enemy airpower in the vicinity.

We also have to face the stark fact that because of rising manpower costs and the difficulty of going beyond quite minimal levels of active ground forces, tactical airpower quickly becomes a potentially efficient way of acquiring additional firepower without relying on manpower-intensive means. In many instances, to the extent that allied and other friendly nations are able to provide adequate ground forces, the most effective way for the United States to assist them is by the timely provision of tactical air support. Several wings of modern attack aircraft can deliver as much high explosive tonnage in one day as an entire division, and they can do so at about a seventh of the manpower cost. What is more, fewer of those men are at risk.

Despite these advantages, there is no doubt about the heavy dollar cost of tactical airpower. Air Force tactical airpower alone runs to about $12 billion a year. If we add to it the cost of Marine Corps wings and carrier-based tactical air, the total comes to around $24 billion a year—much more than we pay for our strategic nuclear forces. Accordingly, we should be as precise as we can in determining the size and composition of these forces. Since the carrier-based airpower performs multiple land and unique sea-based missions, I shall discuss

them later in connection with our naval forces. Here the focus will be on our land-based tactical air forces.

There are two issues to resolve: the nature of the overall requirement, and the mix of aircraft within the required total.

One factor in determining the overall number is the size of the total tactical air force of the other superpower and our ability to match it. The difficulty with this approach is threefold. First, the Soviet tactical air force is somewhat different from our own in function and capability. Second, we should credit ourselves and the Soviets with the tactical air forces of our respective allies in the theater when arriving at any such balance. Third, we should allow for the fact that the United States tends to substitute tactical air forces for ground forces more heavily than does the USSR. Nonetheless, as a matter of prudence, NATO as a whole should not allow the tactical air forces of the Warsaw Pact to achieve any substantial numerical superiority. At present, depending on how certain Soviet interceptor aircraft are counted, approximate parity exists between the two sides. On the most pessimistic assumptions, the Pact might enjoy a 50 percent superiority in total aircraft, but NATO would hold a substantial qualitative advantage.

A second factor to consider is the capability to counter the ground threat that our tactical air forces will assist in stopping. The size of that threat has increased in quantity and quality, especially in terms of armor, requiring an increasing ground attack role for tactical air forces. Warsaw Pact armor is expected to be used in massive, concentrated thrusts against the NATO line early in any European conflict, presenting a demand for flexible, numerically sufficient tactical air forces.

A third factor in sizing our land-based tactical air is to relate it to the number of divisions that we field. For example, the Marine Corps is organized as a combined air/ground force built around division and wing teams. These teams are particularly suited for offensive employment. Marine tactical air forces are sized to provide a full spectrum of air support, especially because of the immediate need for responsive firepower in the amphibious assault phase.

Because of the central control exercised over its forces, the Air Force believes that it can perform its diverse missions in a somewhat different way. Its operational planning tends to be based in part on its ability, if necessary, to provide a certain number of fighter-attack sorties per division per day rather than integrating their wings into a combined air/ground force. The number of Army divisions to be supported, as we have seen, will grow over the next few years.

The second and third factors translate to providing a required daily level of ordnance on the Forward Edge of the Battle Area (FEBA), a level that should increase with the increase in threat and in the number of units supported. The achievement of an optimum level is realized by varying the proportion of TACAIR sorties allocated to anti-armor attacks, close air support, defense suppression, air superiority, etc., depending on how the enemy attack develops.

Also adding to the quantitative requirement in a NATO conflict is the possibility that we may become engaged in a conflict elsewhere first, attriting the force remaining for NATO. There are yet additional demands on our tactical air forces that do not impinge on force size, such as sea surveillance and augmentation of CONUS air defense forces.

At present, we have the equivalent of about 22 active Air Force fighter-attack wings. Although it would be preferable to have a more systematic way of computing tactical air wings, the factors outlined here are based on experience which for the most part, has proved satisfactory.

The three main missions performed by the tactical air forces have been air superiority, interdiction, and close air support. Historically, the Air Force has put the main weight of its effort into the first two missions and has given less attention to the function of close air support. This, in turn, has led the Army to push the development and deployment of attack helicopters.

As the cost of procuring and operating tactical aircraft has risen, the Air Force has tended to select multipurpose aircraft optimized more toward pursuing the air superiority battle and the interdiction campaign than toward close air support and shallow interdiction. The result has been the long-range, heavy fighters of recent vintage. Now, however, several conditions dictate, not a reversal of this trend, but a shift in emphasis.

As we have seen from the last war in the Middle East, sheltered aircraft are extremely difficult to destroy. And where concentrated air defenses are present, they can exact a heavy toll of attacking aircraft. There is also the problem in

Eastern Europe that the network of railroads and roads is sufficiently dense so that a deep interdiction campaign, even with Precision Guided Munitions (PGMs), would take considerable time to work its impact on the fighting front, and probably could not prevent a considerable leakage of tonnage to the forward edge of the battle (FEBA). In a war of surprise and rapid movement, these effects might well occur too late to break the momentum of an enemy assault.

This is not to say that we should abandon the air superiority or deep interdiction missions. Nor is there a case for jettisoning the heavy, long-range fighter exemplified by the F–14 and F–15. As PGMs become more versatile, and as countermeasures to modern air defenses continue to improve, these two missions may again prove sufficiently worthwhile on a large scale to warrant a substantially increased investment. For the foreseeable future, however, our policy, within the force objective, should be to procure and maintain a sufficient number of sophisticated deep penetrators to preserve the threat of a long-range air superiority/interdiction campaign and thereby, at a minimum, force potential enemies to spread their defenses.

Following that policy will obviously facilitate the task of shallow interdiction and close air support, where we should increase our investment. That in turn will require more emphasis on the air combat fighter for air defense and local air superiority in the vicinity of the FEBA, and on the A–10 for shallow interdiction and close air support. Movement in these directions should also help to satisfy the Army. And it should bring our tactical airpower more effectively to bear during the early phases of a conflict when the main effort, particularly in Europe, must go to halting fast, armor-heavy assaults on the ground.

It is a pleasure to report, in this connection, that under the imaginative leadership of General David Jones (Chief of Staff, USAF) and General John Vogt (Commander-in-Chief, USAFE) we are now taking meaningful strides toward the prompt battlefield application of tactical airpower in the Center Region of NATO. The 4th and 2nd Allied Tactical Air Forces (ATAFs) are being brought into much closer coordination. General Vogt is establishing a centralized headquarters for the two ATAFs so that the flexibility and economy of force inherent in our tactical airpower can be effectively exploited. And due consideration is being given to the most effective use of our air assets during the initial phases of a campaign. It would not be surprising if note of these developments were being taken at the Soviet military headquarters in Potsdam, and that the credibility of the NATO deterrent has risen substantially as a consequence.

(*f*) *The Naval Forces.*—In the discussion of our strategic concept, mention was made that for force planning purposes we focus on possible conflicts in Europe and Northeast Asia. It hardly needs to be added that we must also be concerned with getting to and from those two great theaters, and other areas of the globe as well. The seas have been and remain—despite the continuing revolution in air transportation—the great highway upon which, in peace and war, vast quantities of goods must travel.

As a traditional maritime nation, the United States has lived by and fought for the freedom of these seas. A major component of deterrence, therefore, must be our demonstrated ability to support our ground and tactical air forces overseas, and to supplement their capabilities to the extent that it is necessary to do so.

Since World War II, the U.S. Navy has performed four missions as its contribution to collective security and deterrence. First, it has sought sufficient command of the seas to ensure our sea lines of communication (SLOC). Second, it has provided a special means of projecting power ashore through its attack carriers and amphibious forces. Third, with its various ships, it has provided a presence—a visible reminder of U.S. interest and power in distant seas. Fourth, and most recently, it has contributed very substantially to nuclear deterrence through its sea-launched ballistic missile submarines (SSBNs).

This last mission has already been discussed elsewhere. Here, it should only be added that the SSBNs should continue to be regarded as the Navy's main contribution to nuclear deterrence. While other naval vessels may be able to carry nuclear weapons (and do), their main missions and their main justification should be non-nuclear. Aside from the SSBNs, there is no current basis for building new ships on the premise that their primary mission would be to add to nuclear deterrence. Again excluding the SSBNs, we must justify naval forces on the basis of their contribution to non-nuclear deterrence.

To determine the nature and size of that contribution, we must look first and foremost to the Soviet navy. It is a force, to borrow from Churchill, that is to

some degree a riddle wrapped in a mystery inside an enigma. It is divided into four separate fleets, three of which have relevance to our Atlantic and Mediterranean interests, the fourth of which bears on our concerns in the Pacific and the Indian Ocean area. In peacetime there is, of course, the possibility of interchange among these fleets, and it will presumably increase to some degree with the reopening of the Sŭez Canal.

We have no doubt about the anti-shipping and anti-carrier missions of these fleets. It also seems reasonably clear that the Soviets value their Navy's role in providing an overseas presence. As is well known, they frequent the Norwegian Sea, various parts of the Atlantic, the Mediterranean, the Indian Ocean, the Pacific, and even the Caribbean. However, it is not at all clear that they plan to increase their deployments above the levels of the past few years.

Whether the Soviets have still more ambitious objectives for their naval forces is not at all clear. They continue their flirtation with the Cuban facility at Cienfuegos, but at the same time they are concentrating on longer-range missiles for their ballistic missile submarines. They have launched one Essex-sized carrier and are constructing a second, presumably to supplement the reach of their land-based naval airpower. They have built-up a substantial fleet of ocean-going major surface combatants (about 220 in all) with a heavy concentration of first-strike firepower, but without much sustained combat capability or support from underway replenishment groups. Perhaps as a partial substitute for this shortcoming, they have sought base rights of various kinds in the Mediterranean, along the Horn of Africa, and in the vicinity of the Persian Gulf.

Whatever lies behind all of this activity—and the trends that it portends—the Soviets now possess or are acquiring the capability to:

Challenge our attack carrier task forces in such areas as the Norwegian Sea, the Mediterranean, and the Sea of Japan;

Undertake a major assault on U.S. and allied sea lines of communication and the surface combatants protecting them;

Provide a limited degree of long-range protection for their merchant shipping in contrast to the situation that prevailed during the Cuban missile crisis (when they were not in a good position to challenge the U.S. quarantine);

Maintain at least a modest presence in such distant waters as the Caribbean and the Indian Ocean.

The United States, as a traditional maritime power, naturally favors freedom of the seas not only for itself but for all other nations as well. At the same time, because of our extended interests overseas, we intend to maintain the capabilities essential for the protection of these interests. U.S. naval forces, especially in light of the Soviet developments I have just outlined, remain a vital component of those capabilities. Without them, the rest of the deterrent will not work and collective security will return to the realm of farce.

Our carrier task forces have three main functions to perform in strengthening the deterrent. First, they provide us with mobile platforms under our own sovereignty that permit us to project tactical airpower ashore where land bases are not available to us or where the number of land bases is insufficient for our purposes. Second, they provide support for amphibious operations. Third, they continue to be the dominant ship in any contest among surface combatants. No foreign power can assume that the denial of land bases will nullify our tactical airpower. No belligerent can ignore the prospect of flanking operations from amphibious forces protected by carrier-based air. No hostile surface fleet can expect to operate unchallenged by the long reach and the firepower of the attack carriers.

From all of this, it should be clear that the issue surrounding this force for a decade or more has never seriously been whether or not we should have carrier task forces. The argument has centered, instead, on the number of carriers that we should maintain and on the rate at which we should modernize the force. It is the first part of the issue that must be of the greatest concern from the standpoint of force planning. What we decide on that score will largely govern what we do in the future about modernization.

It would be misleading to pretend that there is any generally acceptable formula for determining our inventory of attack carriers. However, quite apart from the need for peacetime deployments (which I shall discuss later), we have

had two historical instances where, despite the availability of land bases, we found it desirable to place at least five carriers on line in combat for the projection of tactical airpower ashore. In the case of Korea, when the enemy had driven us back to the Pusan perimeter, the carriers proved of particular value. In Vietnam they helped to split the air defenses and control our losses.

If we are to preserve positions of strength and contribute to collective security in Europe, the Middle East, and Asia, and keep a basic power equilibrium in those three great theaters, I see no choice but to maintain roughly 13 carrier task forces over the current planning period. Such a capability should enable us to:

Provide adequate coverage against marauding surface combatants in the Atlantic and Pacific and other waters;

Place a substantial number of carriers on line in both the European and Western Pacific theaters during an emergency (even though they might have to operate in high-threat environments);

Keep a number of carriers on station in the Mediterranean and Western Pacific, should we continue to desire to do so;

Dispatch a carrier task force into other seas and oceans from time to time as diplomatic interests dictate. A periodic presence in the Indian Ocean and occasional visits to the Persian Gulf may be a case in point.

This last policy, and the expansion of our facilities on the island of Diego Garcia, have become a source of some misunderstanding. There are, however, two arguments for the policy that deserve consideration. Not only the United States, but Western Europe and Japan as well, have a rather considerable interest in the area of the Persian Gulf and access to it. Not the least of our interest is that the area be kept out of unfriendly hands. While the problem is not yet of alarming proportions, a Soviet force is in fact in the Indian Ocean and has been there since 1968. With the reopening of the Suez Canal, maintenance of a larger Soviet force will become feasible. Under the circumstances, it seems only prudent to observe the situation in the Indian Ocean and to demonstrate from time to time that the United States can make its presence felt there should our interests, and those of our allies, be jeopardized. Diego Garcia will allow us to support such operations efficiently without additional mobile logistics capability.

In sum, 13 carrier task forces (with 12 active air wings) should give us the dual capability of maintaining strong off-shore tactical air forces and countering any surface challenge to our sea lines of communication. The fact that the Soviets are building aircraft carriers of their own can be taken as testimony that the carrier, despite frequent announcements of its imminent demise, remains the capital ship of the modern navy.

Despite the gradual growth of the Soviet surface fleets, the greatest potential danger to our sea lines of communication arises from the large Soviet attack submarine force. The principal threats come from the forces in Murmansk and Vladivostock. Depending on the circumstances, one of these forces could support the other; the Soviets could also draw on their Baltic and Black Sea fleets for reinforcements. But however they might choose to allocate and deploy these forces, the possibility of interfering with our sea lines of communication (SLOC) would be substantial.

One issue that arises in this context is whether, considering the emphasis currently being given to short conventional wars, it makes sense to continue a major investment in anti-submarine warfare (ASW) forces, even though the magnitude of the threat from the attack and cruise-missile submarines continues to be great. What is certainly the case is that in times of rapid mobilization, deployment, and attack by an enemy, the first phase of an assault might already have occurred before our protected sealift could begin to deliver equipment and supplies to the front. There remain a number of reasons, however, why we should continue to strengthen our ASW forces and programs:

The fast mobilization and deployment scenarios are not the only cases that we should consider. Slower buildups are equally plausible; where they occur, protected sealift continues to make sense.

If we and our allies do what is necessary to ensure our initial defenses, protected sealift can make a significant contribution to the early stages of our resistance; it will also add significantly to our long-war hedge.

In any event, we should not put all our mobility eggs into the basket of airlift, which has vulnerabilities of its own.

It would be unthinkable, finally, to allow any competitor in the international arena to believe that we could not protect our shipping, whatever the circumstances; to leave our SLOC unprotected would create a vulnerability that would obviously degrade our deterrent. Our deployed forces should not be left dangling from the slender thread of our airlift and its capability for long-range resupply.

While the continued need for ACW forces seems evident, there is continuing debate about the preferred size and composition of these forces. The Congress has complicated the debate by its passage of Title VIII of the Department of Defense Appropriation Authorization Act, 1975 which requires that we now procure only nuclear-powered ships for our major naval strike forces.

As was indicated last year, our preferred ASW strategy is to establish a series of barriers (speaking somewhat figuratively) which enemy submarines must penetrate in order to attack our merchant shipping and main fleet units. The first of these barriers, because of geography, can be most effectively created by a combination of passive defenses, attack submarines, and patrol aircraft. The second barrier depends primarily on long-range patrol aircraft and attack submarines assisted by surveillance systems, but carrier-based aircraft can also help to strengthen it. The third, close-in barrier—whether supporting merchant shipping or the main units of the surface fleet—involves principally our escort forces and the helicopters that accompany them.

With our current and programmed force of attack submarines, ASW aircraft, and surface combatants, I believe that, in conjunction with our allies, we would have the platforms necessary both to man the barriers I have described and to provide protection for any major shipping convoys that we may desire to form. Our problem, in other words, is not the number of platforms that we have in the fleet and on order. Rather, it is the modernization of these platforms and their sensors and weapon systems, together with essential surveillance systems, that we need. Simply adding to the total number of platforms beyond the required number, or making them all nuclear-powered, will not significantly increase the effectiveness of the barriers; increasing the kill probability of each available platform will obviously do so.

Our shipbuilding program has already suffered severely from the impact of inflation. As a consequence, our plan for modernizing the fleet is badly behind schedule, and we will require substantial increases in budget authority if we are to complete the program already authorized by the Congress. If, in addition, there is to be more nuclear propulsion than had previously been programmed still more budget authority will be required for our shipbuilding program.

If nuclear power is to become the main source of propulsion for the Navy in the future, we must also consider the versatility of nuclear attack submarines both on the ASW mission and against enemy surface ships. Indeed, despite their high cost, we may well want to regard them as competitive with surface escorts and combatants of other types. Visibility and presence remain of capital importance in the design of a navy. But, the SSBNs aside, non-nuclear threats and our combat effectiveness against them must remain the first priority of the U.S. Navy.

In addition to our carriers and ASW forces, we maintain the amphibious capability for the assault portions of slightly over one Marine division-wing team, and are continuing to build toward a 1⅓ division lift objective. This capability, in turn, will make demands on our escort forces and underway replenishment groups as well as on our carriers.

The amphibious forces are not cheap. Moreover, we are modernizing them not only so as to replace vessels of World War II vintage, but also so that all ships will have a 20-knot capability. These programs, their costs, and the delays that have attended their completion have raised questions about the need for an amphibious assault force which has not seen anything more demanding than essentially unopposed landings for over 20 years, and which would have grave difficulty in accomplishing its mission of over-the-beach and flanking operations in a high-threat environment.

Despite these doubts, I believe that the modernized amphibious forces will be well worth their cost. The entire globe is not defended by sophisticated surface-

to-air missiles and high-performance fighters. Nor is it the case that the United States has lost all interest in beachheads and flanking operations. Moreover, there is certain salutary value in having reinforced Marine battalions aboard their assault ships in various sensitive parts of the world. But to maintain such forces on-station in the Mediterranean, the Atlantic, and the Western Pacific effectively requires that we have two equivalent forces in reserve for each one on station. Our amphibious lift objective is only just sufficient for these deployments. We would be ill-advised to reduce it.

(*g*) *Forward Deployments.*—It is generally accepted that forces in forward visible deployments make an important contribution to non-nuclear deterrence. One has only to recall our withdrawals from South Korea in 1949—and the events that followed—to recognize the inhibiting value of a military presence. But there continue to be issues about the necessary location and size of these deployments for purposes of deterrence. Since they are important issues, and central to the future role of the United States in the world, it is worth addressing them separately from the questions of strategy and basic force structure.

If we are to take our strategic concept seriously (not only for force planning purposes, but also for the realistic implementation of collective security and deterrence), we should maintain military deployments in Europe and Asia. To ensure these deployments, we should be in a position to control the approaches to the Atlantic and the Western Pacific. In addition, for quite obvious reasons, we should be able to make our presence felt in the Mediterranean and the Indian Ocean.

This does not mean, in our naval deployments, that we must keep certain fixed levels of force permanently on station in these strategic areas. Rather, we should give consideration both to altering the mix of our on-station forces from time to time, and to reducing fixed on-station commitments. A more impressive policy than one of fixed forces would be to surge large numbers of U.S.-based naval capabilities into wider areas for relatively brief intervals on an unscheduled basis.

With deployments of this general character, we are in a position to:

Contribute immediately to collective security and the deterrence of attack in critical strategic areas;

Lay the groundwork for reinforcements and provide a strong initial defense in the event of an attack;

Prevent major losses of territory and the terrible human and material costs of taking the counteroffensive;

Keep the nuclear threshold high;

Project power into other areas so as to deter or respond to unforeseen contingencies;

Stabilize relationships in these areas because of our presence as one of only two superpowers, and because of the great potential that lies in back of our presence.

All of these functions are important in a world of competition and conflict. But political justifications for military deployments, however relevant, rarely provide the basis for specific numbers and types of forces in a theater. A corporal's guard may be as effective as a division if our main purpose is merely to demonstrate a U.S. interest and presence in the area. In order to justify the current deployments, we can and should provide the military and deterrent basis for their presence.

It is generally accepted that we should maintain strong naval forces in the Atlantic, Western Pacific, and Mediterranean, even though we may wish to vary their strength along the lines I have indicated. They act as deterrents to Soviet surface and submarine forces and they are in a position to provide early protection to our sea lines of communication. They also give us some capability for early power projection in key areas with our attack carrier and amphibious forces.

Much more at issue is our base in Diego Garcia and the periodic sailing of U.S. naval forces into the Indian Ocean. The view that we should guard against overextending ourselves and assuming new and potentially dangerous commitments is understandable. But the strength of the opposition to such a modest base and such a modest presence is puzzling. Surely no one needs reminding that the area of the Persian Gulf, with its large oil reserves, has become a matter of the keenest possible interest to a number of powers, including the

USSR. Surely we have not yet forgotten that in December 1940, during one of those several tete-a-tetes between Nazi Germany and the Soviet Union, M. Molotov claimed for his country the area of the Persian Gulf as one of the spoils of World War II. And surely, we should not simply ignore the Soviet presence in the Indian Ocean and Soviet efforts to obtain base rights of various kinds both in the Gulf itself and along the Horn of Africa. Considering the stakes that are involved—not only for the United States itself, but also for its partners—it makes elemental sense to have some capability to operate our forces efficiently in the area. The modest base at Diego Garcia and the occasional detachment of task forces from the 7th Fleet hardly seem out of proportion to the situation and our interests there.

Our forward deployments in Europe and Korea are determined by such tested planning considerations as the ratio of men to space, the ratio of our own forces to opposing forces, and the ratio of allied to opposing firepower. Although we would expect, at least initially, to be on the defensive in both these theaters (should deterrence fail), we do not believe that any of the basic planning factors should be allowed to favor opposing forces excessively. It is particularly important that, whatever the overall manpower and firepower ratios, allied forward defenses be manned in sufficient strength and depth so that an opponent would not be tempted into exploiting gaps in our lines in order to obtain a quick and cheap territorial advantage.

There has been concern for some time that our forward defenses in Central Europe were not being held in sufficient strength. Despite the efforts on the part of our allies there to sustain their strength and despite the major contributions made by 7th Army and USAFE, which are the political and military backbone of NATO, the balance of military power in the Center Region still tilts toward the Warsaw Pact. In fact, any U.S. withdrawals would shift the ratio in favor of the Pact to an unacceptably dangerous degree, quite apart from their psychological impact and their implications for MBFR.

Public Law 93–365 (the Nunn Amendment) now offers us the opportunity and incentive to strengthen U.S. combat forces in the Center Region provided that we keep our total force levels constant and trade in support spaces for additional combat power. With the cooperation of the Army and the Air Force, we are making distinct progress precisely in that direction. Accordingly, we should be able, in calendar year 1975, to add two combat brigades, and other ground combat elements, and to strengthen U.S. Air Forces in the Center Region. These additions not only should improve our combat manpower and firepower ratios relative to the Pact; they should also give us better division frontages and increase our confidence in being able to withstand an initial assault from deployed Pact forces.

Greater strength in these respects also increases our chances of bringing in reinforcements—both ground and air—at a rate that will permit us to repulse the much larger Pact assaults that were discussed with you last year. Of the utmost importance in this regard is that we continue four major programs with our allies: continued sheltering of our tactical aircraft; standardization of weapons; reception facilities for the large reinforcements that we are determined to provide in the event of a crisis; and provision of a central reserve for SACEUR.

At the same time that we move to strengthen the U.S. contribution to NATO, in an effort to counterbalance Soviet increases and fortify deterrence, we continue to hope for progress in the negotiations toward Mutual and Balanced Force Reductions in Central Europe in the interest of detente. These are compatible and complementary goals, and the Department of Defense will work toward both. The agreement in principle at Vladivostok, setting a common ceiling on the central strategic systems of the United States and the Soviet Union, could well serve as a precedent for our deliberations in Vienna. And, just as we believe it would serve the interests of both sides to lower the agreed ceilings on the central strategic systems, so we are convinced that both NATO and the Warsaw Pact would benefit from having a common ceiling at reduced levels on their conventional forces in Central Europe.

U.S. deployments in Thailand do not fall into the same category as those in Europe and Northeast Asia. The forces there, while substantially reduced from their peak levels, remain as a hedge against an overt North Vietnamese attack on South Vietnam of the character that we witnessed in the spring of 1972. Whether such a flagrant attack is likely to occur again in the near future remains a matter of some uncertainty. However, the North Vietnamese have certainly deployed the manpower and the means to launch one.

Accordingly, while we can reduce our deployments in Thailand still further, it seems prudent to continue our presence there as a deterrent to reckless action by Hanoi and as a contribution to a more stable and lasting settlement in Southeast Asia.

Our main strongpoint in Northeast Asia remains in South Korea, with backup forces in nearby Okinawa. The 2nd Division in South Korea, along with the ROK forces on line, assures a solid front and a sufficiently favorable ratio of manpower and firepower to provide reasonable assurance that we could repulse any sudden attack from North Korea alone. Our deployments also provide the necessary foundation on which to build a much larger force in an emergency.

Perhaps of even greater importance, should a crisis erupt in Europe, we would have several major objectives in Asia: first, to deter adventures by other Asian nations; second, to prevent forces currently deployed in Asia from being transferred west of the Urals; and third, to discourage the opening of another front in Northeast Asia, whether on land or at sea. Our deployments in Korea and Okinawa, together with the "swing" forces in Hawaii, California, and Washington, provide us with the basic means to achieve these objectives. Indeed, these deployments are an outstanding example of the classical military principle of economy of force. We would be making a mistake to disrupt it.

Nonetheless, our overseas deployments have become an annual source of controversy in connection with the defense budget, and there are recurring pressures for withdrawals on grounds that we are overcommitted, are discouraging our allies from carrying their fair share of the collective burden, are incurring excessive balance-of-payments deficits, are risking becoming involved in unwanted wars, and in any event have been playing the leadership role too long. In addition, of course, troops cut from overseas deployments or overseas bases that are closed create few political problems at home.

These are understandable and popular arguments, but they miss the point of what we are trying to do. We are attempting to create a genuine system of collective security, balance, and deterrence—not the hollow shell of such a system. As this Report emphasizes, we have explicit strategic reasons for our deployments: they accord with our interests and commitments, and they complement the forces of our Allies. Moreover, our overseas deployments are now 100,000 fewer than they were in 1964. Not only have we managed to make cuts (however painfully) without any loss of combat power or strategic position; we have also done our utmost to comply with the Jackson-Nunn Amendment. Our military balance of payments costs are being largely offset by our Allies, and we would save little in real costs by returning deployed forces to the CONUS, unless we then demobilized them. To do so would be a serious strategic error.

As matters now stand, our baseline overseas posture is at the minimum that our commitments, our strategy, and our position as one of the two superpowers requires. To reduce it to any measureable degree in the absence of agreed reciprocal action by the other side either calls for greater faith in the goodwill of other nations than we have experienced in the past, or requires a much more restrictive definition of the U.S. role in the world than the one to which we now adhere.

We are now entering the thirtieth year of relative peace among the great powers, and the record, however modest, owes much to the generosity and steadfastness of the United States. The course has been long and the role burdensome, but the prize has been great. I doubt that we should want to surrender it now out of fatigue, pique, or a mistaken sense of priorities.

If our relations with former adversaries continue to improve, perhaps we can begin to plan our forces and their deployments on some basis other than opposing capabilities. But that time has not yet arrived. Our posture, in prudence, should continue to be based on the objective realities of what competitive postures contain. If and when those realities change, our posture should change as well. Meanwhile, we should entertain a certain skepticism toward those in whom persuasion and belief have ripened into faith, and faith has become a passionate intuition. As a statesman of some repute is alleged to have said: "It's a good thing to make mistakes so long as you're found out quickly." Our passion may have become focused on troop withdrawals; the mistake of it might not become apparent for several years to come.

(*h*) *Strategic Mobility.*—At the present time, our operational strategic mobility forces consist of our heavy airlift (70 C–5 and 234 C–141 aircraft) and a

controlled sealift force of only 34 ships (troop ships, cargo ships, and tankers). Their essential contribution to collective security and deterrence hardly needs elaboration.

These forces not only symbolize our ability to move forces and supplies rapidly over great distances, they are essential to the flexibility of response that should characterize modern non-nuclear strategy. If we are to minimize our deployments in strategic areas, maintain a powerful central reserve in the CONUS that can "swing" in a number of different directions, and persuade potential competitors that we can put our ground and tactical air forces "on line" at rates that match their own mobilization and deployment, both the deterrent itself and its credibility will have been strengthened.

The alternatives to strategic mobility (if we are to achieve the same objectives of initial forward defense) are either to lock large forces into particular theaters—with all the costs, rigidities, and frictions they cause—or to engage in very large-scale pre-positioning of equipment and supplies in those theaters. This latter course is also costly (because units in the CONUS must have another set of equipment to train with), lacking in flexibility, and risky in that it creates high-value targets and requires protection.

Accordingly, as I indicated last year, while it makes sense to deploy some forces forward and pre-position a limited amount of materiel and supplies in critical theaters, we can best meet our planning objectives by maintaining a substantial strategic lift which has the space and structurual strength to move even the heaviest and most bulky equipment. This means primary dependence on large, wide-bodied jets which are able to receive, carry, and unload large and heavy materiel.

Unless we are willing to make the necessary investment in strategic lift, we run the risk of several unpalatable consequences. Either we will have to deploy more forces forward, with resulting decreases in strategic flexibility and increases in both budgetary and balance-of-payments costs, or we will have to accept the risk that an opponent, by a rapid buildup, would overwhelm U.S. and allied deployed forces before our reinforcement could arrive. At the same time, we will have to acknowledge that some of our more distant and informal but nonetheless likely obligations will become increasingly difficult to fulfill. In these circumstances, it would make more sense to reduce our commitments and strategies that depend on a rapid response—whether of forces or of materiel—and cut back on our central reserve in the CONUS, with non-trivial budgetary savings, than to maintain the facade of non-nuclear deterrence and keep in our inventories both forces and materiel that we are incapable of delivering anywhere in meaningful amounts.

There remains a temptation to restrict or abandon our strategic mobility forces on the premise that, by so doing, we will be kept from meddling and becoming involved in distance places of little or no concern to the United States. As Neville Chamberlain said in 1938: "How horrible, fantastic, incredible it is that we should be digging trenches and trying on gas-masks here [in England] because of a quarrel in a far-away country between people of whom we know nothing!" That is one possibility.

There are, however, several difficulties with that premise. The Congress, by various acts, has asserted itself to the point where meddling (if that is the right word for it) is presumably less likely than in the past. The premise assumes, moreover, that decisions of war or peace are made on the basis of force availability rather than on the interests of this Republic. There is no evidence to support that case.

We should also keep in mind that tides of opinion change in the United States, and that whereas some of us may have deplored U.S. actions of a decade ago in one distance place, the very same groups may now deplore with equal vehemence our inability to act with power and speed in some other distant place. Faced with these uncertainties, it would be a mistake to deprive ourselves capriciously of adequate strategic mobility.

We should be as precise as possible, however, about how much strategic mobility we need. This is not an easy task considering the varied demands that are made on our mobility forces, particularly our airlift. Not only has it been called upon for the movement of troops and their equipment, as in the case of our REFORGER exercises to Germany when we test our capability to reinforce the

U.S. Army, Europe; it has also met the test of a 22,000-ton lift of equipment and supplies to Israel, the movement of UN forces to Cyprus, and the delivery of food and medicine to Bangladesh.

Despite all the uncertainties, if we have the capability to move (on the average) about 10,000 tons a day in wide-bodied aircraft over a distance of about 4,000 nautical miles (without any dependence on intermediate bases), we should be able to meet most of the demands on our strategic airlift. In other words, if we are able to lift a division with all its equipment each week from the CONUS to bases in Europe, we should have in hand the capabilty to deal with most of the other contingencies that could arise.

This was the objective set last year when I proposed increasing crews and spare parts for the C–5 and C–141 fleet, stretching the C–141s, and modifying 110 wide-bodied jets in the Civil Reserve Air Fleet (CRAF). While the program we are proposing this year is somewhat different, the basic approach and philosophy remain the same.

More lift would clearly give us greater confidence in our ability to match a rapid mobilization and deployment by the Warsaw Pact. Less would put our defensive posture in Europe at greater risk. The objective being proposed here is the minimum commensurate with a sober view of Pact capabilities and reasonable expectations about what our allies can contribute to collective security and deterrence in Central Europe.

We have no present plan to expand our sealift capability. Our sealift forces are not expected to add much to our initial defense in Europe unless both sides mobilize more slowly than we have assumed for planning purposes. If our planning assumptions are wrong, there is more than enough sealift capability in merchant fleets controlled by the U.S. and our allies to meet war needs. We are less certain about the adequacy of our sealift for contingencies other than major war in Europe. Our experience in resupplying Israel during the October War, for example, indicates that airlift is indispensable for the rapid transport of a limited tonnage of critical items, but sealift must be used to haul the bulk of large, heavy equipment. Availability of shipping for contingencies less than general war is uncertain. Mobilization for general war implies the authority to direct the activities of merchant shipping; lesser contingencies, and, indeed, a period of indecision leading up to general mobilization, would be characterized by lack of such authority. The Navy has under continuing review the question of how much sealift capacity we may need to command for various contingencies.

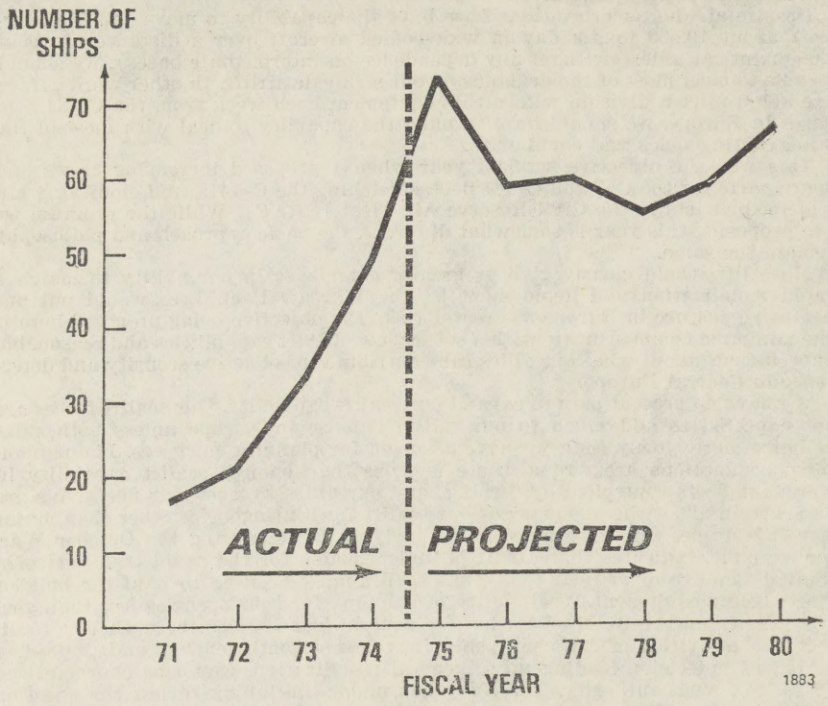
(*i*) *Readiness.*—The main requirements to implement our strategic concept for collective security and non-nuclear deterrence should now be clear. However, it should be stressed that it is not sufficient simply to have our initial defense forces and long-war hedges in being. We must also maintain a high level of readiness in our active forces. Otherwise we will have the facade, rather than the reality, of deterrence.

By readiness, I mean forces that are well trained, have modern unit equipment in good operating order, and hold war reserve stocks on which they can draw for the early stages of any conflict. For example, in order to attain this goal, the Air Force portion of the FY 1976 budget request includes the largest funding of aircraft spare parts in recent years. This increased request is to permit the procurement of War Reserve Materiel to enhance the surge and sustaining capabilities of our strategic airlift and our tactical fighters.

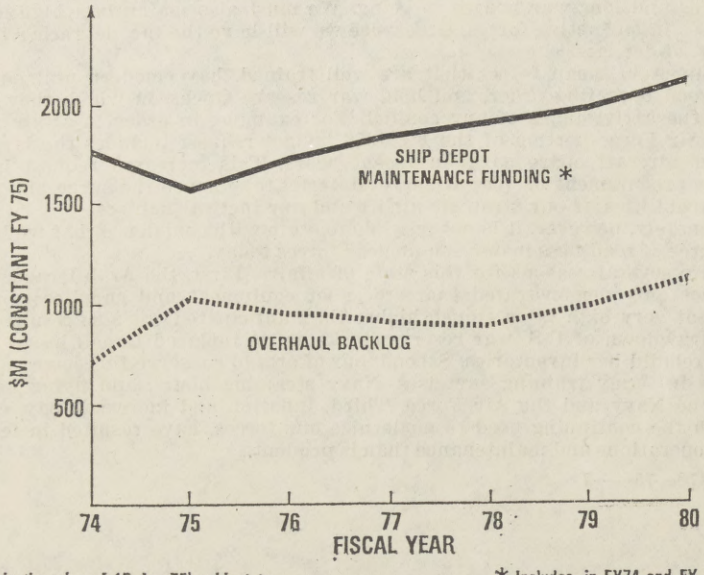
Unfortunately, however, it is not possible to state with confidence that we have a high degree of readiness in our non-nuclear forces today.

There are several reasons for this state of affairs. First, the Arab-Israeli war of 1973 not only demonstrated that stocks of equipment and supplies can be consumed at very high rates (much higher than anticipated), it also resulted in a major drawdown of U.S. war reserve stocks as we replaced Israeli losses and helped to rebuild her inventories. Second, our efforts to conserve fuel have meant reductions in Army training exercises, Navy steaming hours, and flying hours for both the Navy and the Air Force. Third, inflation and increased pay, combined with the continuing need to modernize our forces, have resulted in fewer funds for operations and maintenance than is prudent.

BACKLOG OF NAVY SHIPS OVERDUE FOR OVERHAUL



SHIP DEPOT MAINTENANCE PROGRAM
(INCLUDING MODERNIZATION)



Projections (as of 15 Jan 75) subject to change during continuing development of FY 77 and outyear budgets.

* Includes, in FY74 and FY 75, repair and modernazition in conjunction with SCN funded conversions.

There is a tendency, understandably, to hold down on O&M funding when budgets are tight. The conventional wisdom is that, in an emergency, these funds can be quickly acquired and the necessary state of readiness rapidly achieved. Meanwhile, scarce resources should be concentrated on the long lead time items, which means funding R&D and modernization at the expense of readiness.

This philosophy may have had merit in those bygone days when the United States did not have such large responsibilities for collective security and had time to mobilize. Now, as events have recently demonstrated, it is an anachronism. We must keep up our training not only because our forces may be sent into action with very little warning, but also because we rely increasingly on the sophistication of our equipment to compensate for superiority in enemy numbers. It is essential to keep our war reserves high, not only for our own needs, but also for the resupply of our friends. We must keep our equipment overhauled and combat-ready because, owing to unit costs, we have less of it to bring to bear in an emergency. In short, unless we are prepared to fund these components of readiness, collective security and deterrence will be seriously undermined.

(*j*) *The Production Base.*—The Arab-Israeli war was so short, and consumption rates of equipment and supplies so high, that for all practical purposes it was fought out of inventories. But, as we have subsequently discovered with some pain, inventories must be replenished from a production base. And that base should have the skills, diversity, and responsiveness to supply these needs in a timely fashion; otherwise, the readiness that we require simply cannot be adequately maintained.

It is not clear, however, that these attributes characterize our production base at the present time. It is worth recalling, in this connection, what the U.S. arsenal of democracy proved capable of doing in World War II. On the average, we managed an annual production of more than 50,000 aircraft, 20,000 tanks, 500,000 trucks, 1.5 million rifles, and 80,000 artillery pieces. As late as 1963, we could still launch 13 Polaris and 4 attack submarines in one year. Now, while the Soviets produce 2,000 tanks a year, we are struggling to build to an annual rate of some 800. New military aircraft are coming off the lines at a rate of about 600 a year, and helicopter production over the last decade has fallen by a factor of ten.

One cause of this rather modest recent performance is the dramatic decline in real defense procurement dollars. What looks like a great deal of money for the purchase of military goods and services has been badly eroded by inflation. For example, jet fuel that used to cost 11 cents a gallon is now over 35 cents a gallon. Map paper that was $24 a ream only a year ago, is now up to $52 a ream. Manila rope, at $28 a coil last year now is $40 a coil. Further examples are shown on the following chart. And in many areas lead times on deliveries have more than doubled.

But other factors have also had an adverse impact on our ability to acquire needed goods and services. Our new maritime subsidy programs have caused a crowding of our shipyard capacity, driven up prices, and lessened the attractiveness of naval contracts to shipyards. Environmental programs and higher standards of health for industrial workers (which I support) have eliminated reserve capacity, increased prices, and slowed reaction times in the production of such diverse products as forgings, castings, and propellants. In some instances, because current defense demands are low (and we do not have the resources to maintain standby capacity), we find ourselves reduced to a single supplier of vital military goods—with considerable uncertainty as to whether we can generate enough orders to keep that one line in production.

None of us should begrudge the very real increases in pay that have gone to our military personnel as well as our civil servants. But we should recognize that we have provided these increases largely at the expense of other outlays. One result has been that our production base for the general purpose forces has now shrunk to an alarming degree. It may well prove less than adequate to our needs, especially if it is again put under the kind of pressure that resulted from the drawdown of stocks in the Arab-Israeli war. Remedial action clearly is in order.

(*k*) *Support To Other Nations.*—Effective collective security and non-nuclear deterrence must obviously depend to a crucial degree on the contribution of our allies. In some cases, especially where guerrilla and subversive threats arise, we expect them to solve these problems without the involvement of U.S. forces. However, where our interests are involved, we may be willing to provide military and economic assistance.

There are other cases where friends and allies are in strategic positions and eager to participate in collective security efforts, but lack the economic base and the resources to provide adequate forces for their role. In these circumstances,

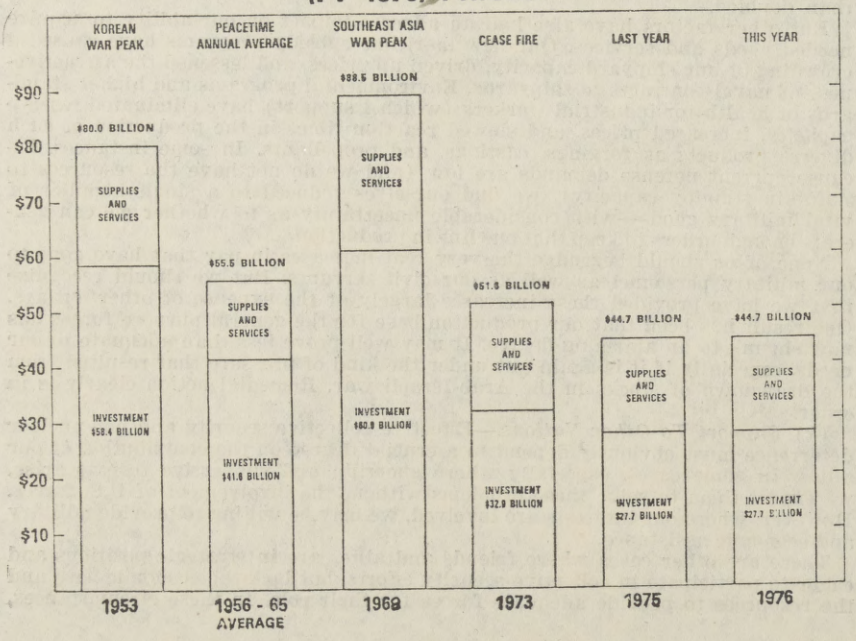
it is preferable to provide support for the necessary forces through security assistance rather than to incur the even heavier burden of adding forces of our own.

Our assistance may take the form of grants or foreign military sales. We prefer to provide it solely in order to help defeat externally inspired subversion and maintain the kind of military balance that will deter external attacks. In supplying our assistance, we seek to ensure that regional stability is maintained. We have no interest in fueling local arms races.

EXAMPLES OF UNIT COST INCREASES FOR FY 1975 PROGRAM

ITEM	UNIT COST IN FY 1975 BUDGET	CURRENT UNIT COST	% INCREASE
M60 MACHINE GUN	$ 833	$ 1,000	20.0
LASER RANGE FINDER FOR M551	40,124	45,110	12.4
ROCKET, 66MM, HEAT	49	68	38.8
CARTRIDGE, 105MM, SMOKE, WP, F/HOW	37	54	45.9
CARTRIDGE, 105MM, HEP-T, W/FUZE, F/TANK	73	109	49.3
PROJECTILE, 155MM HE	38	45	18.4
TRUCK, STAKE	6,995	7,774	11.1
TRUCK, UTILITY	3,688	4,560	23.6
TRUCK, PICKUP	2,743	3,167	15.1
SHELTER, EXPANDABLE	37,000	43,746	18.2
TRACTOR, CRAWLER	71,800	120,000	67.1

DEFENSE PURCHASES FROM INDUSTRY IN CONSTANT (FY 1976) PRICES



But we must also recognize the fact that today, as never before, foreign countries have alternatives to the acquisition of defense equipment from the United States—particularly if some form of purchase is involved. Nonetheless, we shall continue to review most carefully potential sales of military equipment, even to close allies, and to refuse them where regional security or other U.S. interests would be adversely affected.

Despite the issue that arose over military assistance to Turkey—a nation of considerable strategic importance to us—it is generally appreciated that security assistance, properly managed, strengthens collective security and reduces the military burden on the United States. There is, however, a marked exception to this general appreciation, and it applies to the Republic of Vietnam. There, in Churchill's words, we seem to be decided only to be undecided, resolved to be irresolute, adamant for drift, solid for fluidity, and all powerful for impotence. Our forces are now out of that tortured country, and the cost to the United States of the continuing conflict is currently about 3% of what it was at the peak of the war. The South Vietnamese did not say to us: "Give us the tools and we will do the job." Instead, we simply informed them that we would provide them with the tools—and the munitions—and would expect them to do the job as best they could.

Since that time, three things have happened: The South Vietnamese have pretty well held their own despite our departure; our assistance to Saigon has declined; and outside aid to Hanoi has increased. A small state, beholden to us, still struggles to maintain its independence, but we have neither the temerity to sever its lifeline nor the resolution to pay the relatively small but necessary price to assure its continued existence. We have chosen, instead, to put an ally—facing an increasingly intensive attack—on the military equivalent of starvation rations.

This is not an edifying spectacle. As a contrast, consider what occurred when conflict resumed in the Middle East in October, 1973. Members of Congress—not all of whom sympathized with the equipment and munitions requirements of the South Vietnamese—persistently urged the Department of Defense to do whatever was necessary to ensure the survival of Israel. A supplemental request of $22 billion for military assistance to Israel was sent to the Hill, and the Congress quickly approved it.

It is worth noting that the hostilities in the Middle East lasted for three weeks. In a sense, the bill to the United States for the war worked out to $700 million a week. Yet we now begrudge the South Vietnamese $700 million a year for munitions and refuse to appropriate the resources necessary for the replacement of their losses in equipment. Some may say that the decision does not relate very strongly to collective security and deterrence as such, but I cannot say that it enhances our credibility or demonstrates our resolve. Yet credibility and resolve, along with ready military power, are precisely what we must demonstrate if we are to have collective security deterrence, and a meaningful peace.

B. LAND FORCES

The most significant change in the land forces program from that originally planned in the FY 1975 Budget is the increase in the number of active Army divisions from 13⅓ to 16, with only a slight increase in the current number of active duty personnel of 785,000. This new 16 division plan was developed on the initiative of the late Army Chief of Staff, General Creighton W. Abrams, in response to my request that the Army find a way to obtain more combat capability from the manpower resources made available to it. Land forces, by their nature, are manpower intensive, and manpower is a very expensive resource. Hence, an increase in active Army combat forces, which for the reasons I discussed earlier is needed urgently, should be achieved within the existing budgetary constraints only through the more efficient use of available military manpower resources.

The ambitious nature of General Abrams' plan may be better appreciated when one recalls that prior to our involvement in the Vietnam conflict the Army had more than 970,000 active duty personnel for 16 divisions. Indeed, in the last year of the Eisenhower Administration the Army had more than 870,000 men for 14 divisions, even though three of those divisions were used for training. And in 1950, before we entered the Korean war, the Army had 10 divisions and about 600,000 men.

The composition of the Army force structure has undergone some significant changes over the years. For example, the Army's role in continental air defense, which was very substantial in 1960, is now quite minor. Hence, fewer people are

needed for that strategic defensive mission and more are available for the division forces. Nevertheless, most of the increase in the number of Army divisions under the new plan is being achieved by the reduction in military manpower devoted to headquarters and support, and by the more extensive use of Reserve Component units to affiliate (roundout and augment) with the active divisions. The reduction in division forces support would mean greater reliance on the U.S. and allied civilian sector for such services as construction, transportation and communications, at least during the initial stages of a conventional war in Europe.

Our plan to affiliate Reserve Component units is an expansion of a concept which has been in use for some time. One Reserve Component brigade (two maneuver Bns) plus four separate Reserve Component maneuver battalions were earmarked to roundout two of the 13 active divisions in the Army force structure at end FY 1974. By end FY 1976, the 16 active divisions will be organized, and by FY 1978 there would be two Reserve Component brigades (six maneuver Bns), plus nine separate Reserve Component maneuver battalions earmarked for the roundout of the 16 active divisions, i.e., to bring them up to their "standard" configuration. In addition, six Reserve Component brigades plus three separate battalions (total of 22 maneuver Bns) would be affiliated with active divisions, compared with five brigades (15 maneuver Bns) affiliated at end FY 1974. These augmentation affiliation units would be operationally attached to divisions at least during the initial combat period. None of these Reserve Component affiliation units, roundout or augmentation, would come from the eight National Guard divisions (82 maneuver Bns) or eight of the separate brigades; these divisions and brigades would remain intact. Thus, we would have 24 divisions and 14 separate brigades at end FY 1976, compared with 21 divisions and 16 separate brigades at end FY 1974, in the division forces (excluding maneuver units in special mission and general support forces).

The active divisions in peacetime would provide assistance to their affiliated Reserve Component units (both roundout and augmentation) in training, maintenance and other areas, and where feasible the Reserve Component units would serve their two weeks active duty for training with their designated active Army divisions. Upon mobilization, command of the affiliated Reserve Component units would be transferred to the commanders of their designated active Army divisions. No Reserve Component units are affiliated with the five divisions deployed wholly abroad—i.e., the one division in South Korea and the four full divisions in western Europe—because it would not be practical for those deployed divisions to maintain this kind of close relationship with the reserve units.

In addition to the four full divisions deployed in Europe, there is one brigade of another division, the 1st Infantry Division (Mech.). The remaining two brigades of this division are stationed in the U.S. We now propose to deploy one brigade each from the 4th Infantry (Mech.) and the 2nd Armored Divisions to Europe, increasing the force there to four complete divisions plus one brigade from each of three additional divisions. The elements of the brigades from the 4th Infantry (Mech.) and the 2nd Armored divisions deployed to Europe would be reconstituted in CONUS. These two brigades would be deployed TDY to Europe without dependents and with only austere support (except for command and certain support elements). Units from the U.S.-based brigades of these two divisions would rotate through the forward deployed brigades. The CONUS-based elements of all three dual-based divisions, including their affiliated Reserve Component units, would be maintained in a high state of readiness.

Our new programs—the three new divisions, the affiliation program, the forward deployment to Europe of two more active brigades, and the improving capabilities of the Guard and Reserve units—provide the capability for a more rapid but sustained introduction of combat forces into a theater of conflict.

The increase in Army combat strength in Europe will be accomplished within the currently authorized Army troop level of about 198,000. The additional combat spaces for the two brigades would be provided by the reduction of support in consonance with the Nunn Amendment, which requires a reduction in support forces strength in Europe (predominately Army and Air Force) of 6,000 military personnel in FY 1975 and an additional 12,000 by end FY 1976.

To accomplish this plan, however, the Army will need much greater personnel stability than it has experienced during the last decade. The sharp increase in Army active duty personnel during the Vietnam buildup and the even sharper decrease in personnel since 1968, together with the shift to an all volunteer force,

produced such great personnel turbulence that good manpower utilization was virtually unattainable. Consequently, I promised General Abrams that if the Army would undertake a determined effort to achieve a major increase in combat power within the then authorized active duty personnel strength (i.e., 785,000), I would do everything I could to maintain that strength at least for the next few years. As explained in the first part of this section on general purpose forces, I believe that we have cut our land forces too thin in relation to the tasks they must be prepared to perform. In my judgment, one of the most significant investments we can make in our national security is to continue to support the Army's current active duty strength of 785,000 so as to enable it to continue to shift a larger proportion of its manpower to the combat forces. However, in order to continue to support the same size structure in the Army in the transition period and in FY 1977, we must ask for a small accounting adjustment in end fiscal year strength, from 785,000 to 793,000. The seasonal nature of our recruiting program, combined with the change in fiscal years, habitually causes the number of students and trainees to rise, in the fall. This will result in a 30 September 1975 projected strength of 793,000. The upward variance should be smoothed out in later years as our accession and loss pattern changes.

This new approach to the Army general purpose forces, it should be acknowledged, does involve some sacrifice in our ability to sustain a conventional war in Europe. As indicated earlier, however, the Warsaw Pact forces appear to be geared for an intense, short war. Hence, the first few weeks of a war in Europe could be the most critical. If the NATO forces cannot survive that initial period, our ability to sustain a conventional war in Europe would have little value. Therefore, first priority must be given to combat and combat support forces which could be placed on the line in Europe in the early weeks or months of a war. The support forces could be augmented later, as required. Some extra sets of long lead time equipment for selected unmanned support units for this eventuality would be retained or procured. With more careful management of our Reserve Component manpower pool, we believe that these unmanned support units could be organized, trained and deployed in time to meet the need. In any event, NATO's mobilization capabilities for a major conventional war are at least as good as those of the Warsaw Pact, and our industrial base is larger and more efficient.

The Marine Corps, in contrast to the Army, is designed primarily for amphibious operations and short periods of intense combat and relies for long-term sustaining support on the Army and the Navy. Consequently, the Marine Corps has a smaller proportion of its troop strength in the support units. Nevertheless, the Marine Corps is making a determined effort to increase the proportion of its troop strength in the combat forces; the Mission Forces/Support Forces ratio is expected to improve from 60/40 in FY 1974 to 63/37 in FY 1976. Manpower savings from reductions in headquarters and other areas will be used to man six more rifle companies (leaving 12 still unmanned) and to organize a separate TOW company for each of its four divisions (three active and one reserve).

1. Force Structure Changes

The increase in the number of active divisions with only a slight increase in the number of active duty personnel, and the shift of manpower spaces from support to combat units, have caused us to reassess our concept of a Division Force Equivalent (DFE) which we have used as the planning factor for land forces. These developments have also necessitated a reassessment of the current Army reserve component structure and troop lists, reassessments which are still in progress.

The total number of Army divisions increases from 21 at end FY 1974 to 24 at end FY 1976 when the Army's 16 active division force is expected to be in place. The Marine Corps will continue to maintain its four divisions (three active and one reserve).

The Army's TRICAP division is being reorganized. The division base and the two brigades will be joined in FY 1975 with another brigade and organized as an armored division; the TRICAP division's Air Cavalry Combat Brigade (ACCB) is being reclassified as a new type of cavalry unit.

As pointed out earlier, combat elements of a fourth brigade are being added to the 2nd Armored Division. Thus, by the end of the current fiscal year there would be four armored divisions with a total of 13 brigades in the active Army. Also in this year, a fourth infantry division (with a division base and one brigade) will have been added to the active force, raising the total number of

divisions to 14. In FY 1976, two more divisions will be added, one infantry and one mechanized, raising the total to 16 active Army divisions. Combat elements of a brigade will be added to the 4th Infantry Division (Mech) in FY 1976, giving that division 12 maneuver battalions rather than the normal ten. No changes are contemplated in the eight Reserve Component divisions.

Two of the five active separate brigades will be absorbed by the new divisions to be activated in FY 1976. The remaining three active separate infantry brigades are all deployed for special missions—Panama, Alaska and Berlin. Of the 21 Reserve Component separate brigades, four have special missions and one is a school troops training brigade. Of the remaining 16 brigades, eight are programmed for affiliation with active divisions, and eight are maintained as separate brigades.

No change is planned in the number of active and reserve Armored Cavalry Regiments. The decrease of one active Special Forces Group in FY 1975 reflects the pressing need for manpower economy.

The surface-to-surface missile battalion program for the active forces is the same as was proposed last year—four PERSHING and eight LANCE battalions. Lance is presently deployed with six battalions in Europe and one in CONUS (training base). An eighth battalion previously scheduled for movement overseas will be retained in the U.S. in a combat deployable status for the present time. The six HONEST JOHN battalions programmed for the Reserve Components last year are being retained in the force.

Air defense of our ground forces in the field continues to be a priority concern. Because of the creation of new divisions and because of the need for a greater density of air defense, we are increasing the number of active Chaparral and Vulcan batteries in the FY 1975–80 period. This program will provide each of our 16 active Army divisions with a low altitude air defense (C/V) battalion (two CHAPARRAL and two Vulcan batteries) by FY 1978, plus units for air defense in Corps rear areas.

The Hawk batteries are being converted to the Improved Hawk and the number of tactically deployed batteries will be increased. The Nike-Hercules batteries in our forces will be reduced in FY 1976 and in FY 1977. Given the urgent need for manpower in our combat division forces, it very well may be that we can no longer afford to retain these units in our forces. For the high altitude air defense of our bases abroad, I believe we will have to rely primarily on the Improved Hawk and our fighter aircraft, pending a final decision on Sam–D. The remaining U.S. batteries will be retained in southern Florida, and Alaska and two, which serve as a training base for U.S. and Allied troops, will be retained at Ft. Bliss, Texas.

The Marine Corps forces are essentially the same as those presented last year. On the plus side, as noted earlier, is the reduction in the number of unmanned infantry companies from the 18 planned last year to 12 planned now, and the addition of one TOW antitank missile company to each of the four tank battalions (three active and one reserve). As was noted last year, the Marine Corps in an emergency could quickly fill the 12 remaining unmanned companies by drawing on trained personnel in other less essential assignments.

2. Land Forces Modernization and Material Readiness

I noted last year that in addition to continued equipment modernization we now need to improve substantially the materiel readiness of our land forces, including the replacement of assets provided to other nations. Further study of our inventory objectives in the light of the recent Middle East War has convinced us that in many cases we have been underestimating wartime attrition and consumption rates. Moreover, the unanticipated needs of our friends and allies abroad have resulted in a serious drawdown of stocks of many key items of land forces equipment and consumables and, to make matters worse, we have permitted our industrial base to deteriorate to the point where we are now experiencing great difficulty in expanding production of some major items of equipment to meet these increased requirements.

Clearly, this problem of equipment modernization and materiel readiness must now be approached on a more rational and comprehensive basis. We should plan over the next few years to fill as quickly as feasible the inventory requirements for our own forces, including war reserves. To avoid the abrupt drawdown of our own inventories to meet the unanticipated emergency needs of our friends and allies abroad, appropriate buffer stocks of key items of equipment and war con-

sumables should be acquired. Wherever economically feasible, a warm production base should be maintained for all major items of equipment and consumables; and where such a course is not feasible, higher stock levels and appropriate industrial mobilization planning measures should be undertaken. I will have more to say about our industrial mobilization planning program later in this Report.

These policy goals are reflected in our FY 1976 and Transition Budget requests and in the amounts requested for authorization in FY 1977. The major equipment acquistion programs that we are proposing for these years, together with the amounts provided for these programs in FY 1974 and now planned for FY 1975, are shown on the table beginning on the following page.

a. Close Combat (Tank/Antitank) Program. Our continuing analysis of the recent Middle East war has convinced us that the tank is still the single most important land forces weapon system wherever armored forces can be utilized effectively. This is true even in the European context, where NATO's overall strategy is primarily defensive and the Warsaw Pact strategy is primarily offensive. While we believe that modern antitank weapons fired from the air as well as the ground can provide an effective counter to the modern tank, it should be recognized that these weapons are useful primarily in a defensive role. The ground-based versions do not have the protection, mobility and versatility of the tank, particularly when used in the local counter-offensive role; the air-launched versions, although highly mobile, are still weather-limited.

ACQUISITION COSTS OF MAJOR LAND FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS[1]

[In millions of dollars]

	Fiscal year			Transition period proposed funding[2]	Fiscal year 1977 proposed for authorization
	1974 actual funding	1975 planned funding	1976 proposed funding		
Close combat (tank/antitank):					
Continued modification and procurement of M60 series tanks (including USMC) and major modification of M48 tanks and development of a new thermal night sight	224	318	686	223	685
Procurement of armored vehicle launch bridge M60 chassis (AVLB M60)					30
Development of new main battle tank (XM-1)	54	65	52	40	160
Modification and procurement of M88 recovery vehicle (including USMC)	3	58	101	9	116
Procurement of armored personnel carrier (M113A1)		8	104	28	73
Development of mechanized infantry combat vehicle (MICV)	21	15	32	8	37
Continued procurement of TOW and Dragon antitank missiles (including Marine Corps), and development of a thermal night sight for TOW	191	241	312	60	278
Attack helicopters:					
Procurement of TOW modification for COBRA attack helicopter (AH-1Q)	73	80	17	1	3
Procurement of improved COBRA-TOW attack helicopter (AH-1S)	9	21	52	30	105
Procurement of Sea COBRA attack helicopter (USMC)	30		42	13	58
Development of advanced attack helicopter	49	61	65	18	100
Acquisition of Hellfire helicopter launched antitank missile	6	8	5	4	27
Development of aerial scout helicopter (ASH)		1	11	9	46
Air defense:					
Procurement and modification of Chaparral/Vulcan air defense system	4	14	74	7	167
Acquisition of the Stinger missile system (including USMC)	25	32	21	2	95
Acquisition of the short range air defense missile system	2	18	65	13	102
Development of advanced forward area air defense systems	9	10	17	2	15
Acquisition of improved Hawk surface-to-air missile systems (including USMC)	138	112	110	3	93
Continued development of SAM-D surface-to-air missile system	194	105	130	40	157
AN/TSQ-73 air defense command and control system	16	7	7	1	25

See footnote at end of table.

ACQUISITION COSTS OF MAJOR LAND FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS[1]—Continued

[In millions of dollars]

	Fiscal year				
	1974 actual funding	1975 planned funding	1976 proposed funding	Transition period proposed funding[2]	Fiscal year 1977 proposed for authorization
Fire support:					
Acquisition and modification of the Pershing IA missile and development of Pershing II	67	20	37	7	39
Acquisition and modification of Lance missile system	81	66	4	1	2
Modification of 8" SP howitzer and 175 mm SP guns (including USMC)	7	11	19	9	12
Acquisition of 155 mm howitzer and 105 mm howitzer	11	15	19	0	21
Acquisition of cannon-launched guided projectile (CLGP)	7	6	18	7	32
Combat support (air mobility helicopters): Acquisition of utility tactical transport aircraft system (UTTAS)	103	53	92	19	211

[1] Includes costs of R. D. T. & E. procurement of the system and initial spares, and directly related military construction.
[2] July 1 to Sept. 30, 1976.

Ground-based antitank weapons, however, are considerably less expensive than tanks; hence they can be deployed in much larger numbers. Given our defensive strategy in Europe, therefore, we believe that modern antitank weapons deployed in sufficient numbers can help to offset the Warsaw Pact's quantitative superiority in tanks. Accordingly, we do not believe it is necessary to match the Soviet Union in numbers of tanks, but we do believe most strongly that our tanks, by and large, should be at least the equal in firepower, armor and mobility to the best the Soviet Union has fielded.

M60 Series Tank: Last year we requested funds to increase the production of M60 series tanks from 43 per month to about 55 per month so that we could replace in our inventory those tanks furnished to Israel and modernize our own tank fleet more rapidly. The year before, for the first time since FY 1965, the M60 production rate had been increased from 30 per month (the lowest sustaining rate) to 43 per month to permit the Marine Corps to replace its M48 tanks over a period of about 4 years. Now, we are proposing a further increase in tank production to about 103 a month.

There are a number of very pressing reasons why we deem it necessary to increase the tank production rate once again. First, a detailed review of the tank wartime attrition rate estimates has convinced us, partly as a result of the Middle East war experience, that additional war reserves are needed. Second, additional tanks are required for the three new divisions being added to the active Army forces. Third, we have provided to other nations since October 1973 a total of 853 medium tanks, of which 569 were M60 series; moreover, we have accepted commitments to provide an additional 795 tanks to other nations, 411 of which are M60s (111 from inventory and 300 from new production). Fourth, we now believe it is essential to establish a special contingency stock of about 500 tanks to meet unanticipated emergency requirements of friends and allies abroad.

The recalculation of wartime attrition rates, the three new divisions, and the additions to stocks for friends and allies have served to increase the Army tank inventory objective from about 10,000 to 13,500 (including about 3,150 for War Reserve Stocks for Allies (WRSA), and 500 for the Special Contingency Reserve). Against this requirement, the Army had at the end of 1974 a total of about 8,000 usable and repairable tanks, of which some 5,000 were M60 series. The Marine Corps, which at the end of FY 1974 had 431 M48A3s and 58 M103s in its inventory, now has an inventory objective of 408 M60A1s.

We would prefer, of course, to fill all of our tank requirements with the M60 or better tank, but as a minimum we believe that all U.S. tanks should have at least a 105 mm gun and a diesel engine.

The M60 meets these minimum requirements but the M48 does not. The M48A3 has a diesel engine but mounts a 90 mm gun; the earlier M48s have gasoline engines as well as the 90 mm gun.

To fill the Army and Marine Corps active and reserve inventory objectives (about 10,300 tanks) and the Special Contingency Reserve (500 tanks) with M60 series tanks within the next five years, while at the same time satisfying foreign requirements, we would have to increase the M60 production rate to almost 150 tanks a month. Unfortunately, we have permitted our tank production capacity to deteriorate to such a point that we are now having difficulty in increasing the M60 production rate to 64 tanks per month. The principal bottleneck is in the production of hull and turret castings; there is only one foundry that can produce castings of this size and that foundry can turn out no more than 65–72 sets per month. We have decided, therefore, on a two-fold approach: (1) to increase M60 production to about 103 tanks per month by opening a second source for hull and turret castings and expanding the related production facilities; (2) to satisfy the remaining U.S. forces and special contingency stock requirements by converting 1,209 M48s, (849 A1s/A2Cs and 360 A3s) to a new M48A5 configuration with a diesel engine and a 105 mm gun. As the XM–1 enters the forces, the older M48A1/A2C tanks in the inventory will be replaced by about 1989 with the M48A3/A5 and the early model M60.

The cost of converting the M48A3s and the M48A1s/A2Cs to the M48A5 configuration in FY 1975 (including the cost of installation and overhead as well as the parts kits) is about $110,000 and $236,000 per tank, respectively. The cost of a new M60A1 in the FY 1976 Budget is about $494,000, excluding funding for component capacity expansion.

The $686 million requested for FY 1976 includes:

(1) $484 million for the procurement of 816 M60 series tanks (562 M60A1s and 100 M60A3s, for the Army, and the last 154 M60A1s for the Marine Corps).

(2) $88 million to upgrade existing M60A1s to the improved M60A3 configuration by installing such new features as the laser range finder and solid state computer.

(3) $6 million for the expansion of casting and related production facilities to provide a total capacity for 103 tanks per month. (A request for the reprogramming of $32 million in FY 1975 funds to start this facility expansion has been submitted separately to the interested Congressional Committees.)

(4) $100 million for the conversion of 504 M48A1/A2Cs to the M48A5 configuration. (A request for the reprogramming of $52 million in FY 1975 funds to procure kits for the conversion of the first 213 M48A1 and the 360 M48A3s to the M48A5 configurations has also been submitted separately to the Committees.)

(5) $8 million for the continued development of the new thermal night sight.

The almost $223 million requested in the Transition Budget includes $167 million for another 248 M60 series tanks for the Army, plus additional funds to upgrade additional M60A1s, convert the last 132 M48A1/A2Cs to the M48A5 configuration, and provide for RDT&E.

The $685 million requested for authorization in FY 1977 provides $572 million for the procurement of 886 M60 series tanks (200 A1s and 686 A3s) for the Army, $104 million to upgrade additional M60A1s, and $9 million for the thermal night sight development.

The last 638 Army M60 series tanks—all M60A3s—would be procured in FY 1978. In FY 1979, the first new main battle tanks (XM–1) would be procured.

Armored Vehicle Launch Bridge, M60 Chassis (AVLB M60): The AVLB is an M60A2 tank, less the turret, which is designed to carry and emplace a scissor-type bridge. This vehicle thus provides a bridging system that is just as mobile and armor-protected as the M60 tank itself. Over the years the Army has acquired a total of 342 of these M60-type AVLBs. We now propose to replace with the M60 chassis AVLB all of the remaining M48A1/A2C chassis AVLBs in both the active and reserve forces. These older AVLBs, like the M48A1/A2C tanks, are powered by gasoline engines. Since we plan to convert to an all-diesel powered tank force, it would be desirable from a logistics, as well as a modernization, standpoint to eliminate these gasoline engine vehicles from the inventory.

We calculate that another 211 AVLB M60s would be required to replace the remaining AVLB M48s and provide for the support of the tank units in the three new divisions. The $30 million requested for authorization in FY 1977 is for the procurement of 105 AVLB M60s. The remaining 106 vehicles are programmed for procurement in FY 1978.

New main battle tank (XM–1): Development of the XM–1 new main battle tank is now well started. The principal advance in this system, as compared with the M60, is the use of a new type armor which promises a major increase in

survivability against modern antitank weapons. In addition, the XM–1 will have a somewhat lower silhouette, a more powerful engine, a new transmission, and better compartmentation of ammunition and fuel to reduce vulnerability to antitank weapons. The XM–1 prototype will mount the current 105mm gun, but the main gun for the production model will be determined after the shoot-off evaluation of other U.S., UK and German gun and ammunition systems.

Development of the XM–1 is proceeding on schedule. The two development prototype contractors are continuing both their design work and the test evaluation of armor configurations, compartmentation techniques, mine protection, etc. Fabrication and assembly of prototype chassis and ballistic hulls and turrets is scheduled to start in the current fiscal year. The development prototypes from each of the two contractors are scheduled to be delivered in February 1976, and test and evaluation to be completed by May 1976. A single full-scale development contractor would then be selected. Engineering development and the fabrication and testing of the development vehicles is expected to be completed in FY 1979, at which time a decision on initial limited procurement would be made.

The Federal Republic of Germany is modifying one of the developmental prototype Leopard II tanks in an effort to meet the goals established for the U.S. XM–1 tanks in armor protection, system performance reliability, maintainability, and production costs. We plan to evaluate this prototype as a competitor to the winner of the XM–1 prototype competition. It may be possible to arrive at a design which could meet the needs of the U.S., the FRG, and other allied countries, thus making possible a joint production program.

The $92 million requested in the FY 1976 and Transition Budgets would provide for the continuation of the competitive development effort and the testing of the development prototypes and initiation of engineering development. The $160 million requested for authorization in FY 1977 includes $106 million for the continuation of engineering development and the fabrication and testing of the eleven development vehicles, and $54 million for the procurement of long lead time tooling in preparation for the start of limited production. The actual use of these procurement funds would, of course, depend upon our assessment of the cost and performance of the XM–1.

As I noted last year, it is reasonable to assume that the Soviet Union is working on a more advanced modern tank than the M1970 which is just now entering large scale production. Consequently, we believe it would be wise to continue the development of the XM–1 to provide both an option for the production of a new, more survivable main battle tank for the 1980's, as well as a hedge against a Soviet breakthrough in tank technology.

The M88 Recovery Vehicle: Last year we began a program to buy a diesel engine version of the M88 recovery vehicle and to convert all the existing gasoline engine M88s to diesel power. This vehicle is designed to retrieve, under combat conditions, disabled tanks up to the size of the M60 and XM–1 from the battlefield. It is armored and full-tracked, and has a .50 caliber machine gun which provides a limited self-defense capability. The intrinsic value of this vehicle was dramatically demonstrated in the Middle East war where the Israelis utilized it to recover many slightly damaged tanks which were then quickly repaired and returned to combat.

The $110 million requested for this program in FY 1976 and the transition period includes $82 million for the procurement of another 159 diesel-powered M88A1s (144 for the Army and the last 15 for the Marine Corps), and $28 million for the conversion of an additional 189 gasoline engine M88s to the diesel version. The $116 million requested for authorization in FY 1977 includes $89 million for the procurement of the last 168 M88A1s for the Army and $27 million for the conversion of another 240 gasoline engine M88s to diesel power. Conversion of the final increment of M88s to the diesel version is planned for FY 1978.

Armored personnel carrier (M113A1): Last year we had proposed, pending the availability of the Armored Reconnaissance Scout Vehicle (ARSV), to replace with the M113A1 the M114 three-man command and reconnaissance vehicles used by our armored cavalry units in Europe. Subsequently, the Army informed the Congress that procurement of the ARSV would be delayed until the suitability of that vehicle had been completely reviewed in light of the Middle East war experience; the advisability of introducing another special purpose vehicle, especially in view of the small ARSV crew size, was questioned.

Pending a final decision on ARSV, we have replaced the M114s in our European based cavalry units with M551 Sheridan light tanks on a three for five basis. We

further propose to replace all of the other M114s in our inventory with the M113A1s. As was pointed out last year, the M114 has proven to be very difficult and costly to maintain and we believe it should be replaced as soon as possible.

This requirement, plus the three new divisions and the recalculation of wartime attrition rates, has increased the Army's M113A1 inventory objective from about 11,750 to over 16,000. Against that requirement the Army has on hand and funded through FY 1975 a total of about 11,500 M113A1s. The FY 1976 Transition Budgets include $132 million for 1,650 more vehicles (1,320 in FY 1976 and 330 in the transition period). The $73 million requested for authorization in FY 1977 would provide another increment of 868 vehicles. The balance of the inventory objectives, less that portion which would be filled by the MICV, will be funded in the FY 1978–80 period.

Mechanized Infantry Combat Vehicle (MICV): The $40 million requested for the MICV in FY 1976 and the transition period includes $20 million for the continued development of the vehicle itself and $20 million for the development of the armament. The funds requested for the vehicle will provide for completion of seven engineering development prototypes, testing of the prototypes, and initiation of advanced production engineering and planning in preparation for limited production. The funds requested for armament include $5 million for product improvement of the current M139 20mm gun and ammunition for interim use as the main armament on the MICV, $15 million for development of a new main armament system (Bushmaster or an alternative) and $.4 million to complete the development of the supplemental weapon system, i.e., the dismountable automatic weapon for use in the firing ports of the MICV.

The $37 million requested for authorization in FY 1977 includes $30 million for the vehicle and turret trainers, ($5 million for continued development and $23 million for the procurement of the first limited production increment of 43 MICVs and $2 million for MICV turret trainers), $2 million for product improvement of the M139 gun, $4 million for the development of the main armament, and $.7 million to initiate procurement of the supplemental armament. Production of the vehicle would be continued on a limited basis in FY 1978, pending troop testing and a final decision on full-scale production.

The MICV, in our judgment, represents a major advance in mechanized infantry vehicles. It will be the first U.S. "infantry fighting vehicle", i.e., a heavily armored personnel carrier in which a full infantry squad can conduct combat operations without dismounting. The MICV will have six one-man firing stations in addition to the main gun and the secondary 7.62mm machine gun mounted in the turret. In addition, the squad will be equipped with the standard complement of infantry weapons, which will now include one DRAGON firing unit, i.e., a tracker plus missiles (we are also considering the possibility of mounting a TOW launcher on some of the MICVs). Finally, the MICV will incorporate an improved night sight, a better swim capability, better armor protection, and will be air transportable.

In short, the MICV is the U.S. counterpart to the Soviet BMP armored infantry combat vehicle which has been in production since 1967. We hope that some of our NATO Allies will buy it for their forces (the FRG already has an armored infantry combat vehicle in its forces). Other, non-NATO countries, have already indicated an interest in the MICV.

Tow and Dragon: Last year we proposed, and the Congress approved, a major increase in the production of antitank missiles; Tow missile production was increased from about 12,000 to more than 30,000 per year and Dragon missile production, which was in an early stage, was increased to about 8,800 per year. We now propose to hold Tow production at the 30,000 per year level until U.S. force requirements are substantially completed with the FY 1977 buy and foreign requirements are met. Dragon missile production for our own forces will continue to increase to about 42,000 per year in the FY 1977 procurement period, and then taper off to a level sufficient to meet foreign demand as the U.S. requirements are completed with the FY 1978 buy. I should caution, however, that the impact of the three new divisions and the recomputation of wartime consumption rates on the inventory objectives of these weapons has not yet been fully assessed.

In the Army the Tow will be widely deployed on helicopters, jeeps, and M113A1 armored personnel carriers. On the ground, Tow will be deployed down to the company level. The man-portable Dragon in the Army will be deployed down to the squad level. The allocation of these antitank weapons down to the company and squad levels will greatly strengthen those elements of our infantry forces

which would be the first to bear the brunt of an enemy armored attack. In the Marine Corps the Tow will be deployed, as noted earlier, in separate companies organic to the tank battalions; the Dragon will be assigned to the infantry battalions.

The $372 million requested in the FY 1976 and Transition Budgets includes $182 million for Tow (about 29,800 missiles and 2,809 launchers for the Army, and about 1,200 missiles and 51 launchers for the Marine Corps), $180 million for Dragon (about 25,240 missiles and 2,154 trackers for the Army, and about 9,200 missiles and 332 trackers for the Marine Corps), plus $10 million for the continued development of a night sight and electronic countermeasure hardening for Tow.

The $278 million requested for authorization in FY 1977 would provide $94 million for Tow (about 16,700 missiles and 75 initial production night sights for the Army and about 2,500 missiles for the Marine Corps), $183 million for Dragon (about 27,000 missiles, 3,900 trackers, and 190 initial production night sights for the Army, and 228 trackers and 6,564 missiles for the Marine Corps), and about $1 million for the continued development of the night sight and electronic countermeasure hardening for Tow.

b. Attack Helicopters.—As noted last year, we believe that the TOW-armed attack helicopter would be very useful in the antiarmor role, particularly with respect to Europe where the Warsaw Pact enjoys a substantial superiority over NATO in numbers of tanks. Accordingly, we intend to press forward with the TOW-armed helicopter programs presented to the Congress last year.

Cobra-Tow modification: The $18 million included in the FY 1976 and Transition Budgets, plus the $3 million requested for authorization in FY 1977, will complete the funding of the COBRA-TOW modification program. The first phase of this program, which has already been fully funded, involves the installation of the TOW missile system on 290 COBRA attack helicopters (AH–1G), thus converting them to the COBRA-TOW (AH–1Q). The second phase of this program, for which we are now requesting funds, involves the installation of an upgraded engine, gearbox and transmission to permit the AH–1Q to carry a full load of fuel, TOW missiles and other standard ordnance. This upgraded AH–1Q is designated the AH–1S.

Approximately half of the 290 AH–1Gs will have already been converted to the AH–1Q configuration by the end of the transition period. These aircraft will be further modified to the AH–1S configuration in the field, beginning in FY 1976. The remaining AH–1Gs will be converted directly to the AH–1S configuration, i.e., they will receive both sets of improvements on the modification line, beginning in FY 1976. Testing of the improved components is now underway and a final decision on installation is expected to be made in June, 1975.

Cobra-Tow Procurement: For reasons which were explained last year, in addition to the modification of 290 AH–1Gs to the AH–1S configuration, we are now embarked on a program to buy a total of 305 new production AH–1S COBRA-TOW helicopters. With three new divisions and a more realistic assessment of war reserve requirements, the Army will need about 1,426 attack helicopters, compared with the former inventory objective of 1,335. Against this requirement, the Army had on hand at the end of FY 1974 a total of about 1,100 attack helicopters of which about 350 were UH–1 utility helicopters used as substitute attack helicopters.

While the new Advanced Attack Helicopter (AAH) now under development promises to be a distinctly more capable aircraft than the AH–1S, it is expected to cost about twice as much per unit. Accordingly, we plan to buy only enough AAHs to meet the most demanding requirements. The balance of the inventory objective would be filled with the AH–1Ss, and the remaining AH–1Gs, and to the extent required, with the UH–1 substitute attack helicopter. This approach to the quantitative aspect of the attack helicopter problem is still another example of our effort to apply the high-low mix principle wherever it is appropriate.

Last year the Congress provided $21 million for the procurement of the first six new production AH–1Ss and for advance procurement against the FY 1976 buy. Our new budget request includes $52 million in FY 1976 for 38 AH–1Ss and $30 million in the transition period for another 22. An authorization of $105 million is requested for FY 1977 to procure 82 more.

Sea Cobra Attack Helicopter: Last year we had planned to buy a total of 124 AH–1J attack helicopters for the Marine Corps (enough to equip three active squadrons and two training elements), the last 57 of which were to be the "improved" version. This Improved AH–1J was to have an uprated engine and

transmission and was to be configured to carry TOW as well as certain newly developed protective devices (e.g., infrared suppressors, detectors, jammers and decoys) in addition to the current payload. The increased weight of new equipment, however, tends to make the Improved AH–1J somewhat tail-heavy and we now plan to lengthen the forward section of the fuselage by 12 inches to solve that problem.

In view of this structural change, we believe it would be prudent to postpone procurement of the Improved AH–1J until the modified version of the aircraft has been satisfactorily tested. Accordingly, we plan to modify the last two of the 20 AH–1Js procured in FY 1973 to the Improved AH–1J configuration, including the uprated engine and transmission and the 12-inch fuselage extension. One of these two test aircraft would be equipped to fire TOW (i.e., TOW configured), the other would be designed so that a TOW kit could be easily installed at depot level (i.e., TOW convertible).

The uprated engine and the uprated transmission needed for the Improved AH–1J are currently being developed and tested on the Iranian Improved AH–1J and Iranian Improved UH–1 (HUEY), respectively. The other modifications are expected to be completed by early 1976, and we would then flight test the two Improved AH–1Js, to include the test firing of TOW missiles from the TOW-configured version.

The $30 million provided by the Congress for the AH–1J program in FY 1974 will be used to modify and test the two flight test aircraft and to procure ten Improved (Tow convertible) AH–1Js would be provided with the $42 million requested for FY 1976, and six more with the $13 million requested for the transition period. The $58 million requested for authorization in FY 1977 would provide for the procurement of 23 Improved (TOW configured) AH–1Js. This program would provide the Marine Corps with 67 AH–1Js, 33 Improved (TOW convertible) AH–1Js and 24 Improved (TOW configured) AH–1Js.

The flyway unit cost of the Improved (Tow configured) AH–1J is estimated at $2.3 million and the Improved (Tow convertible) AH–1J at about $1.7 million, compared with about $1.2–1.3 million (in comparable dollars) for the AH–1J. Nevertheless, since the Marine Corps has a limited number of attack helicopters, we believe the costs of these Improved AH–1Js are justifiable in view of their ability to carry the Tow system (8 Tow missiles), as well as increased ordnance for the Sea Cobra's other standard armament (20mm nose mounted turret gun and 2.75-inch air-to-ground rockets) along with the newly developed air defense suppression devices.

The Government of Iran is funding the non-recurring RDT&E costs of the uprated engine and transmission for the improved version of the AH–1J it intends to acquire.

Advanced Attack Helicopter (AAH) : Development of the AAH is proceeding and no major technical problems have been encountered. The funds provided in FY 1975 and prior years will complete the development and fabrication of two flyable prototypes and a ground test vehicle by each of two contractors. The funds requested in the FY 1976 and Transition Budgets ($65 million and $18 million, respectively) would support the continuation of contractor prototype testing and an Army conducted "fly-off" between the two sets of prototypes. The FY 1977 authorization request of $100 million would permit the awarding of a contract to the winning contractor for subsystems development and the initiation of fabrication of three additional flyable prototypes with integrated full mission equipment. During 1975, cost growth occurred primarily because of inflation. The result has been a six month extension in the development schedule. Barring any major problems, procurement is scheduled to begin in FY 1979.

The approved AAH program provides for the procurement of 472 helicopters at a unit flyaway cost of $1.7 million in FY 1972 dollars, a per unit cost considerably less than that of the Cheyenne program which was terminated in 1972. The AAH will be slower and less sophisticated than the Cheyenne, but it will have more agility with performance maximized for hover and slow speed. Since the AAHs would be employed in conjunction with ground forces along the forward edge of the battle area, their agility would make them even less vulnerable to ground fire than the Cheyenne. Furthermore, the AAH with its night and adverse weather capability and high point-firepower should be especially valuable in Europe where the design of the Warsaw Pact forces reflects a high speed day and night armored offensive strategy.

Hellfire helicopter-launched antitank missile: The helicopter-launched TOW missile, like all Tow missiles, is wire-guided; consequently, the launching helicopter must remain in the line-of-sight of the target until the missile strikes home, thus lengthening its exposure to return ground fire. It would be highly desirable, therefore, to equip the attack helicopters with an antitank missile which would permit them to "fire and leave". The Air Force's laser-guided Maverick antitank missile will have this feature but it is too heavy for an attack helicopter. The Army, therefore, has initiated the development of a smaller, shorter range laser-guided missile, the Hellfire. The laser designator would be mounted either in the attack helicopter itself, in a scout helicopter or in a ground vehicle. When the laser designator is in some other aircraft or ground vehicle, the attack helicopter could launch the missile toward the designated target and leave, while the laser operator guides the missile to its target with a laser beam.

The $9 million requested in the FY 1976 and Transition Budgets would allow the Hellfire program to continue in advanced development. We still have a number of key problems that need to be satisfactorily resolved—remote designation capability, engagement range, degradation resulting from environment and countermeasures, total system reliability and the practicality of multiple launches per exposure. Twenty-seven million dollars is requested for authorization in FY 1977 to maintain the option to enter full-scale development if the results of further field tests warrant. Initial deployment of the Hellfire is tentatively planned for the early 1980s.

Aerial Scout Helicopter (ASH): As the Congress is aware, the Army needs, as a complement to the increased capabilities of the Advanced Attack Helicopter (AAH) and Utility Tactical Transport Aircraft System (UTTAS) helicopter, a modern Aerial Scout Helicopter (ASH) which can acquire and transfer targets and defend itself in a high-threat environment. To fulfill this requirement, the Army is evaluating three alternatives: modification of an existing U.S. Army helicopter, an adaptation to military specifications of a commercial (domestic or foreign) helicopter, and the development of a new helicopter. This evaluation is expected to be completed in February, 1975, at which time we will make a decision on the approach we propose to pursue in developing the ASH. Our program proposal will be presented to the Congress as soon thereafter as possible. Pending the submission of that program, we have included for development of the ASH $20 million in the FY 1976 and Transition Budgets, and $46 million in the authorization request for FY 1977.

c. Air defense.—As noted last year, it is generally agreed in the Defense Department that major improvements in our theater Army air defense capabilities are urgently needed to counter the increasing capabilities of Soviet tactical airpower. The Soviet Union, with its SA–4, SA–6, SA–8, and SA–9 SAMs, and the 57mm and ZSU–23–4 radar-guided guns, has a distinct advantage in this area, and it is clear that the improvements are technically feasible.

Our most immediate need for air defense of the Army in the field is an effective all-weather, highly mobile, low altitude system. Our Vulcan gun and Chaparral short-range missile are mounted on tracked vehicles and are highly mobile, but they are not radar-directed and therefore lack an all-weather capability. Our Hawk missile is radar-directed and has an all-weather capability, but it moves on several wheeled vehicles and requires too much time to set up and fire.

We also need an improved follow-on to the Redeye man-portable SAM, which like the Soviet SA–7, has a tail-chase-only engagement capability. 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.

Chaparral/Vulcan: Pending the availability of a new, low altitude, mobile, all-weather air defense system for the Army in the field, we propose to buy additional Chaparral fire units to equip the three new active divisions and, as previously planned, five of the eight reserve divisions. No additional Vulcan guns are planned for procurement. The three new divisions will be equipped with on-hand Vulcan assets. A Chaparral fire unit consists of a fully-tracked, modified M548 cargo carrier and mounted launching station with four missiles mounted and a number stored on board. A Vulcan fire unit is a 20mm Gatling machine gun mounted on either an armored personnel carrier or a towed vehicle. The Chaparral/Vulcan units are deployed together with a Forward Area Alerting Radar (FAAR) but this radar, as its name implies, is an alerting (it provides target range and azimuth), and not a tracking and guiding radar.

Inasmuch as the Chaparral/Vulcan systems are likely to remain in our force for many years to come, we plan in FY 1976 and beyond to continue our efforts to upgrade these systems. Vulcan will be modified to improve its reliability, availability and maintainability. With regard to Chaparral, we have recently completed development of a new fuze, a new blast fragmentation warhead and a new all-aspect guidance package. To further enhance the performance of Chaparral, we now propose to undertake the development of an anti-glint canopy for the fire unit and a new set of improved components for the missile—an IRCM (Infrared Countermeasures) immune seeker, a smokeless missile motor, and an electronic IFF.

The $81 million requested for this program in the FY 1976 and Transition Budgets ($74 million and $7 million, respectively) would provide $39 million for the procurement of another 52 Chaparral fire units to complete the equipping of the 16 active divisions, $21 million for Vulcan modifications and $21 million for the development of the new modifications for the Chaparral system. The $167 million requested for authorization in FY 1977 would provide for the procurement of 86 Chaparral fire units and 2,500 missiles, the completion of the development of the new modifications for Chaparral, and the modification of Vulcan.

Stinger: The Stinger man-portable air defense missile system is now well along in development. Some difficulties, however, have been encountered with the guidance system in the first phase of the guided vehicle test firings. In this missile, the seeker senses the exhaust plume of the target aircraft and the guidance system makes the necessary course adjustments for the missile to hit the aircraft itself. It is this feature, together with a more powerful motor, which enables Stinger to engage targets from any aspect, in contrast to Redeye which can engage targets only in a tail chase. Hence, the proper performance of the guidance system is critical to the effectiveness of the Stinger missile.

Assuming the guidance problem is satisfactorily resolved within the next few months, the first production quantity of Stinger for the Army would be procured in FY 1977 instead of FY 1976 as previously planned. The $23 million requested in the FY 1976 and Transition Budgets ($21 million and $2 million, respectively) is for the continued development of Stinger. The $95 million requested for authorization in FY 1977 would provide $9 million for continued development and about $86 million to initiate production of the Stinger missile system, including ground support equipment and 645 missiles for the Army, and ground support equipment only for the Marine Corps. As the new Stinger missiles enter the active forces, the remaining serviceable Redeye missiles will be transferred to the Reserve Components.

Short range air defense (Shorad) missile system: Last year we had proposed to evaluate the results of U.S. conducted preliminary firing tests of three foreign short range air defense missile systems—the French Crotale, the German Roland II, and the UK Rapier—with the view of selecting one of them for production under license in the United States. We proposed this approach because a major improvement in our low altitude, all-weather, mobile SAM capability for our forces and bases is urgently needed and the development of these foreign systems had already been completed.

The reaction of the Congress to this proposal ranged from very favorable to very unfavorable. The Conference Report of the House and Senate Armed Services Committees states explicitly that "it is [not] necessary to procure a foreign developed Shorad system . . . [simply] because of the earlier availability of test firing data." The Senate Appropriations Committee, however, stated that "it will not tolerate a drawn out Shorads research and development program" and directed that "the most economical and most easily deployed system under consideration" be selected. To complicate the problem further, the Congress in the Department of Defense Appropritaion Authorization Act of 1975 (PL 93-365) directed, "The Secretary of Defense shall undertake a specific assessment of the costs and possible loss of nonnuclear combat effectiveness of the military forces of the North Atlantic Treaty Organization countries caused by the failure of the North Atlantic Treaty Organization members, including the United States, to standardize weapons systems . . .".

Let me say at the outset that I fully agree with the intent of the provision incorporated in PL 93-365. Given the ever rising costs of defense, we and our NATO Allies simply can no longer afford any unnecessary duplication of effort. While I certainly agree that key weapon systems used by our forces should be produced in the United States as a matter of prudence, I can think of no logical reason

why we cannot produce in this country suitable weapon systems developed by our Allies. Indeed, this is the one area where the greatest degree of mutual exchange and cooperative effort should take place. We have no monopoly on good ideas or inventiveness. Some of our Allies, and it should be acknowledged, even some of our adversaries, are ahead of us in certain fields of military technology. It is in our interest, as well as in the interest of our NATO Allies and the Alliance as a whole, to make maximum use of each other's inventiveness. And where feasible, weapon systems should be selected and standardized for use NATO-wide. Suitable arrangaments can be made for joint production in the United States as well as in Europe. We have had such joint programs in the past, and there is no reason why we cannot have even more of them in the future.

The United States is preeminent in certain fields such as aircraft, but our Allies have developed some outstanding guns, surface-to-air missiles and armored vehicles. Where these systems meet our needs it is sheer waste to duplicate the development effort in the United States, just as it is sheer waste for our Allies to duplicate our development efforts.

The Short Range Air Defense missile system is a case in point. Each of the three foreign systems we have tested has performed as specified. Since there is a U.S. licensee for each of these systems, production in the U.S. offers no particular problem. Nevertheless, to satisfy the desire of the Armed Services Committees, we opened the competition for Shorad to U.S. designers. A final selection of the Roland II has been made recently. Total RDT&E cost is estimated to total $226 million.

The $78 million requested for the Roland II program in the FY 1976 and Transition Budgets ($65 million and $13 million, respectively) would provide for the fabrication of hardware for development and cooperative (FRG, France and the U.S.) tests of Roland II, in addition to the conduct of some limited U.S. contractor tests. The $102 million requested for authorization in FY 1977 would provide for the continuation of development and completion of U.S. prototype qualification testing and for initial production.

Advanced forward area air defense systems (AFAADS) : Grouped under this heading are three related air defense efforts—the Man-portable Air Defense System (MANPADS), the Low Altitude Forward Area Air Defense System (LOFAADS) Gun, and the Evaluation of Foreign Weapon Systems (EFWS). The Manpads effort is concerned principally with the development of improvements for the Stinger system, particularly new seekers and guidance systems. The Lofaads Gun project is oriented toward the development of a radar-directed gun system to replace the Vulcan. Foreign, as well as U.S., designs will be considered in this project, but whatever design is selected, the system will be produced in the United States . The Evaluation of Foreign Weapons Systems (EFWS) project, for which we are requesting only about $100,000 a year, will focus attention on the search for innovations in air defense technology abroad.

The funds requested for Afaads in FY 1976, the transition period and FY 1977 would provide for the continuation of these three efforts. The increase in FY 1976 as compared with prior years is for the Lofaads Gun project which will enter a competitive feasibility demonstration phase in that year. Fabrication and testing of prototype systems will continue into FY 1977.

Improved Hawk: For the Improved Hawk program we are requesting a total of $110 million in FY 1976, $3 million in the transition period, and an authorization of $93 million in FY 1977. The FY 1976 and Transition Budgets include funds for the Army for RDT&E, procurement of missiles, modifications for existing Improved Hawk missiles, and for Marine Corps procurement of 140 missiles. The FY 1977 authorization would provide for RDT&E, the procurement of missiles, and for modification of Army Improved Hawk missiles and ground support equipment. The RDT&E funds would be devoted to improvements in mobility, optics, ECCM, and command and control.

The Army's inventory objective is now 95 battery sets of equipment. The Marine Corps' inventory objective is 14 battery sets of equipment. The Marine Corps' objective will be completed with FY 1977 funding. The Army's inventory objective will be completed with FY 1978 funding. It should be noted, however, that the Army's missile inventory objective is still under review and there is a good possibility that it will be raised next year.

Compared to the Basic Hawk, the Improved Hawk is significantly superior in target acquisition and has a far greater capability to "kill" high speed, maneuvering targets employing electronic countermeasures. For these reasons, it is the

primary low-to-medium altitude air defense system for both the Army and the Marine Corps.

Sam–D: As indicated last year, initiation of full-scale engineering development of the SAM–D has been delayed pending a more thorough demonstration of the technical feasibility of its Track-via-Missile (TVM) guidance system.

Ten Controlled Test Vehicle (CTV) missile firings have been conducted through the end of 1974. In these tests the TVM guidance system is not in operation, and the missile has an on-board program which guides the missile over a preselected course. Eight of these test firings to test the missile itself were completely successful and two were partially successful. CTV #1 was inadvertently destroyed due to range instrumentation error, and CTV #10 experienced a momentary loss in power during the initial turn but performed properly during the remainder of its trajectory.

In order to test the feasibility of the TVM guidance concept, we propose to proceed with the scheduled sixteen guided test vehicle (GTV) tests at a very deliberate pace in order to provide the time required to analyze the data collected from each test, make corrections and reformulate the objectives of the succeeding tests. The planned completion date (January, 1976) of this test program has slipped six months from that reported a year ago due to procurement delays and technical difficulties. The balance of the SAM–D program will be continued at a pace commensurate with this TVM test program in order to preserve, at the lowest feasible cost, the option to deploy the system.

As noted last year, the SAM–D, which is intended as a 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 targets that potentially could be employed against U.S. forces in the field in the 1980s and beyond.

The funds requested for the Sam–D program—$130 million for FY 1976, $40 million for the transition period, and an authorization of $157 million for FY 1977—will allow us to complete the proof of principle testing of the TVM guidance portion of the flight test program in early FY 1976 and, if successful, permit the initiation of full-scale engineering development.

AN/TSQ–73 Air Defense Command and Control System: Last year I noted that procurement of additional units of the AN/TSQ–73 Air Defense Command and Control system had been deferred pending the satisfactory completion of tests and the successful accomplishment of the necessary engineering changes. These actions are still underway and we will not proceed with the procurement of the system until FY 1977 in order to provide time to complete final operational testing prior to a production decision. The $8 million requested in the FY 1976 and Transition Budgets ($7 million and $1 million, respectively) will support this testing and includes funds to incorporate engineering changes resulting from the tests in the three prototype and five low-rate initial production models. Of the $25 million requested for authorization in FY 1977, $.3 million is for RDT&E and slightly less than $25 million is for the acquisition of the first 12 of 25 full production systems.

The AN/TSQ–73 will be configured inside a single metal shelter mounted in the back of a standard 5-ton truck. The 3-man crew will use the highly automated equipment to coordinate the firing of Hawk and other Sams, as well as to integrate Sams and air defense artillery with joint air defense command control centers. The AN/TSQ–73 is a significant improvement over the AN/MSG–4 system which has been in use since 1958. The latter system is extremely costly to operate and maintain, it does not integrate easily into other Services' C^2 systems, and it can be easily jammed.

d. Fire Support.—Grouped under this heading are two surface-to-surface missile systems (Pershing and Lance) and four artillery systems (the 8'' self-propelled howitzer, the new towed, extended range 155mm and 105mm howitzers, and the cannon-launched guided projectile). The missile programs were discussed here last year; the artillery programs were not.

As other Defense witnesses have pointed out in previous years, Soviet artillery generally out-ranges ours. Moreover, our longest range artillery piece, the self-propelled 175mm gun, lacks accuracy as it approaches maximum range. Consequently, we propose to make some major improvements during the next few years in both the range and the accuracy of our artillery weapons.

Pershing: The $44 million included for Pershing in the FY 1976 and Transition Budgets would provide $17 million for the currently deployed Pershing IA system and $27 million for the advanced development of the Pershing II follow-on system. The $39 million requested for authorization in FY 1977 would provide $3 million for Pershing IA and $36 million for Pershing II.

The $17 million requested for Pershing IA in FY 1976 and the transition period is for the procurement of the last 72 automatic Azimuth Reference Systems (ARS) and 25 telemetry sets. the ARS will enhance the survivability of Pershing by enabling the fire units to use unsurveyed launch sites. The telemetry sets are required for the Pershing missiles used for training. The $3 million included for Pershing IA in the FY 1977 authorization request would provide for the procurement of a new safety and arming device, and for a modification to the radio system to eliminate its unique signature.

Last year we requested about $11 million to continue feasibility testing of a new radar area correlation guidance system (the development of which was separately funded) and to initiate the design of a new terminally-guided RV for Pershing II. The Congress appropriated the $12 million requested for the development of the guidance system but reduced the $11 million requested for the new RV to $2 million because of its concerns about the need for the Pershing II in Europe, its cost-effectiveness, and the sharing of its development cost with our NATO Allies.

While it is true that we are reexamining our tactical nuclear weapon deployments in Europe, we have no plans to eliminate either the Pershing or the Lance missile systems. The Warsaw Pact forces have a wide variety of Soviet nuclear capable missile systems for use against targets in Western Europe, including not only MRBMs and IRBMs but also ICBMs with minimum trajectories of about 500 nm.

A Pershing missile employing the new terminally-guided RV and the new radar area correlation guidance system (the development of which is nearing completion) would greatly increase the accuracy of Pershing, thus permitting the use of small yield warheads and, hence, reducing unintended collateral damage. The only alternative to the 400 nm range Pershing in the European theater is the Quick Reaction Alert (QRA) aircraft, i.e., tactical aircraft loaded with nuclear weapons and held on ground alert. The cost of operating and maintaining one F–4 on QRA is about equal to the cost of operating and maintaining one Pershing launcher, but the aircraft on the ground is more vulnerable to surprise nuclear attack than Pershing, which can move about from one launch site to another. The QRA aircraft, of course, have their own advantages of range and mobility.

With regard to cost-sharing, the Federal Republic of Germany will be thoroughly briefed on the Pershing II project and we believe that it will participate with us in the development and deployment of the system. That Government, it should be noted, has bought every Pershing improvement offered.

The funds requested in the FY 1976 and Transition Budgets for Pershing II would permit design and development work on ground test hardware, and the new RV (funding of the new guidance system was essentially completed in FY 1975), and fabrication and testing of one engineering model RV. The authorization requested for FY 1977 would provide for procurement of the prototype hardware for six advanced development flight tests of the Pershing II missile scheduled for FY 1978.

Lance: The $5 million requested for Lance in the FY 1976 and Transition Budgets would provide for the procurement of 63 practice warheads, and the first increment of a four year modification program. The $2 million requested for authorization in FY 1977 would provide for the second year increment of the Lance modification program. This modification program would equip all Lance missiles with a new safety and arming device and a protective cover for the warhead section.

The Army's Lance program provides for one training battalion in Conus and seven battalions to be deployed overseas. Of the six battalions to be deployed in Europe, all have received their equipment and five are now operational. The need for the seventh operational battalion to be deployed overseas is still under review.

8'' Self-Propelled Howitzer: Beginning in FY 1976, we propose to replace with a new, improved tube all of the existing tubes on our self-propelled 8'' howitzers and 175mm guns, both of which are mounted on the same chassis. The current

8" howitzer tube has a maximum range of about 16" km; the 175mm gun has a maximum range of 32 km but it is somewhat inaccurate at that range. The new 8" tube, when firing the new rocket-assisted projectile now completing development, would have the same accuracy as the current 8" howitzer tube does at 17 km but with considerably increased range. Moreover, the new tube will have a longer life, and also will be able to fire the current 8" conventional round as well as the 8" nuclear round.

With these improvements, U.S. heavy artillery would be a better match for current Soviet heavy artillery; particularly in counter-battery operations. Furthermore, the replacement of the 175mm gun tubes with the new 8" howitzer tubes will greatly simplify the ammunition logistics problem.

The $28 million requested for this program in the FY 1976 and Transition Budgets included $26 million for the Army and $2 million for the Marine Corps. The Army amount includes $.2 million to compelte RDT&E, and $26 million to begin the modification of existing self-propelled 8" howitzers and 175mm guns. The $2 million for the Marine Corps will complete the modification program for that Service. The $12 million requested for authorization in FY 1977 would complete the Army's modification program.

105mm and 155mm Towed Howitzers: As an integral part of the program to improve the effectiveness of our artillery, we also propose to replace all of the existing towed 105mm and 155mm howitzers in the Army (both active and reserve) with the new, towed, extended range 105mm (XM204) and 155mm (XM 198) howitzers that are just completing development. The new 105mm howitzer firing the current round will have a greater range compared with 11 km for the existing 105mm howitzer. The new 155mm howitzer firing the new 155mm rocket-assisted projectile will have a much greater range compared with 15 km for the existing towed 155mm howitzer firing the current round. Moreover, the new 155mm howitzer also will be able to fire the current 155mm conventional round as well as the 155mm nuclear round.

The $19 million requested in FY 1976 Budget would permit the Army to complete development of the new howitzers and procure the first 19 105mm and the first 17 155mm howitzer for final operational test and evaluation. The $21 million requested for authorization in FY 1977 would permit the Army to procure an additional 42 105mm howitzers and, providing that a decision on full-scale production is made in FY 1976, 44 more 155mm howitzers. The Army's inventory objective is scheduled to be completed with the FY 1983 buy. Marine Corps procurement of the XM198 and XM204 is programmed for FY 1978–80.

Cannon-Launched Guided Projectile (CLGP) : Field artillery has been designed primarily for area fire, but as the trend toward armored warfare continues the need for hard point target (i.e. antiarmor) weapons increases. This need is now being met primarily by the antitank weapons programs, but obviously it would be extremely helpful if our extensive field artillery forces could also be used against hard point targets. But to do so, a dramatic increase in the accuracy of artillery must be achieved, and that is the objective of the Cannon-Launched Guided Projectile (CLGP) program.

Thee CLGP is a projectile equipped with a semi-active laser guidance system. It is fired from an artillery tube, using conventional fire direction techniques. As the projectile arrives over the target area, either a ground or an air observer equipped with a laser designator illuminates the target with a thin laser beam. The CLGP, with its semi-active laser guidance system, homes in on the laser energy reflected from the target, thus giving it a very high kill capability even against moving hard targets such as armored vehicles.

Three such projectiles are now under development—a 155mm round for the 155mm howitzer, by the Army; a 5" round for the 5" naval gun, by the Navy; and an 8" round for both the new lightweight 8" naval gun and the 8" howitzer, jointly by the Army and the Navy. Consistent with the House and Senate Armed Services Committees' Conference Report on the FY 1975 Authorization Bill an extensive program of tests and evaluation of the saboted Navy 5 round fired from a 155mm howitzer has been planned. Due to difficulties encountered by the Navy, this program has not been completed, but the DSARC will review the available results early in 1975 as planned and the results of this review will be communicated to the Congress.

Meanwhile, we have included $25 million in the FY 1976 and Transition Budgets to continue the Army's successful development efforts. The $32 million requested for authorization in FY 1977 would provide for about 85% of the development cost of the round that is selected to enter full-scale engineering development.

c. Combat Support (Air Mobility Helicopters).—The U.S. still leads the rest of the world in the use of helicopters to enhance the mobility of the land forces. Our large inventory of tactical transport helicopters, however, was acquired during the Vietnam war buildup, and these aircraft are now aging.

Utility Tactical Transport Aircraft System (UTTAS): The UTTAS program is progressing satisfactorily and on schedule. However, higher costs than expected have been encountered due to inflation. Nonetheless, the total is within the original UTTAS RDT&E funding profile. The two airframe contractors have begun engineering flight testing, which will continue through January 1976. The $111 million requested for this program in the FY 1976 and Transition Budgets ($92 million and $19 million, respectively) would support continued contractor airworthiness qualification testing, Army testing of the two competing aircraft, and the initiation of source selection. The $211 million requested for authorization in FY 1977 ($75 million for RDT&E and $136 million for procurement) would provide for the completion of development testing (including a competitive flyoff in November 1976) and the procurement of the first 15 UTTAS at low initial production rates. Full-scale production is not scheduled to begin until FY 1979, thus providing ample time for thorough troop testing of the production model of the UTTAS before a major procurement commitment is made.

The UTTAS is designed to replace the UH–1 (Huey) in assault helicopter, air cavalry and aeromedical evacuation units. With a crew of three, it can airlift a complete, fully-equipped Army infantry squad of 11 troops into combat, resupply these troops while in combat, perform associated aeromedical evacuation, reposition reserves and perform other combat support missions. Because of its increased payload, reduced specific fuel consumption, decreased maintenance requirements, improved reliability and enhanced survivability, the Uttas promises to be a very cost-effective replacement for the UH–1.

We believe the UTTAS would also be highly effective in fulfilling other helicopter requirements. Accordingly, we are considering this aircraft as a replacement for the Marine Corps CH–46 troop lift helicopter and as a candidate for the Navy's requirement for a Lamps MK III ASW helicopter, although certain doctrinal and design considerations must be resolved before UTTAS can become fully effective for other than Army requirements.

C. NAVAL FORCES

Last year I pointed out that because of the prevailing fiscal constraints and the block aging of many World War II-constructed ships, the Department of Defense, in planning the modernization of our naval forces, has had to adopt two fundamentally harsh policies. The first was the sharp reduction of force levels over the near term to help provide the funds needed for modernization over the long term. The second was the vigorous application of the so-called "high-low mix" approach to the acquisition of new ships and other Navy weapon systems. The implementation of these policies has been complicated by three additional factors—the unprecedented inflation in shipbuilding costs, the apparent reluctance of some U.S. shipbuilders to accept Navy work, and the Congressional mandate on nuclear-powered surface ships.

As noted earlier, the impact of inflation on the Navy shipbuilding program has been exceedingly severe; shipbuilding costs in recent months have been rising at a rate of more than 20% per year and we expect an increase of about 11.5% for FY 1975. Since major ships typically require four to five years to construct, the shipbuilder, even in a relatively stable economic environment, is particularly vulnerable to cost increases. Consequently, all major "fixed price" type shipbuilding contracts normally contain a labor and material escalation clause under which the Government is obligated to reimburse the contractor for increases in those costs during the life of the contract. In addition, some shipbuilding contracts contain clauses which provide for the resetting of target prices on the basis of actual cost experience, but normally not to exceed the ceiling price.

Because the Defense Department must budget for the cost of a new ship at least four or five years before its completion, the budget estimate must include some provision for the escalation of labor and material costs during that period. Last year, for example, we included in our budget request for new ship construction a factor of about 4¼% per year for such cost escalation; the estimates for earlier shipbuilding programs were even lower. Inasmuch as labor and material costs actually have been rising at a far more rapid rate, it is not surprising that the Navy shipbuilding program is now in a severe deficit position. Complicating

the problem further, but to a lesser extent, are the changes that had to be made in some of these programs. We now estimate that somewhat more than $2 billion of new funds will be required to cover the aggregate costs of completing the ships authorized by the Congress in FY 1975 and prior year programs. The additional funds are included in our FY 1976 Budget request.

The same cost increases and the estimates of further increases expected over the next few years, have been reflected in our budget request for the FY 1976 shipbuilding program and in our authorization request for the FY 1977 shipbuilding program. We have included in these estimates the following allowances for aggregated labor and material cost escalation—11.5% in FY 1976, 11% in FY 1977, and 7.5% in FY 1978 and thereafter. Navy witnesses will be prepared to discuss these estimates in greater detail, but it should be recognized that these projections are intrinsically uncertain and that further adjustments may be required in future years.

Simultaneously with the growth of the inflation problem, the U.S. shipbuilding industry has been showing diminishing interest in building Navy ships In the 1950s and '60s, when commercial demand for new ships was much smaller, shipbuilders generally were eager to bid on Navy contracts. Now, with both Maritime Administration-supported and other private demands for shipbuilding capacity on the rise, the competitive picture is much less favorable from the Defense Department point of view. Although major Navy contractors should be able to meet most of the Navy's needs, many shipyards already are having difficulty recruiting and maintaining a work force adequate for near-term work. Consequently, the problem of capacity cannot be solved merely by the expansion of facilities. Finally, as a number of industry witnesses informed the Congress last year, the contract administration requirements of the Defense Department are significantly more burdensome than those of private customers, or even the Maritime Administration (MARAD). The net result of these factors is a distinct reluctance on the part of U.S. shipbuilders to seek Navy work.

There are at least two steps which the Executive Branch can take unilaterally to alleviate these problems. One, which we are now working on, is to achieve a better integration of MARAD and DOD ship acquisition programs under the aegis of the Office of Management and Budget. Another is to carefully examine our contracting methods and monitoring procedures to see if we can reduce those administrative requirements which impose additional costs and management burdens on the shipbuilding industry but provide little or no real benefit to the Government. With regard to the latter, the interested Congressional committees can help by supporting our efforts to ease those burdens.

Another step, which requires Congressional action, is to provide a stronger measure of assurance to shipbuilders that the Navy's long-term procurement programs will be carried forward to completion in an orderly way. This would involve some form of multi-year authorization for selected Navy ship acquisition programs. These longer-term commitments would encourage shipbuilders to set aside capacity for Navy programs with some assurance that such capacity would be gainfully employed for a definite number of years. Clearly, such an authorization should be enacted only after the Congress has had a full opportunity to examine the requirements, hardware configuration, cost goals, and production plans. The Defense Department, on its part, would do everything in its power to provide that information in a timely and useful manner.

Last year the Congress reaffirmed its interest in nuclear propulsion by enacting Title VIII of the Department of Defense Appropriation Authorization Act, 1975. This new Title requires the Navy to procure only nuclear-powered ships for its strike forces (defined as submarine, carriers, and the surface combatants which accompany carriers) unless the President advises the Congress that construction of nuclear-powered ships for that purpose is not in the national interest.

Before I describe our efforts to comply with the provisions of Title VIII, I would like to make two general points with regard to nuclear propulsion for major combatants. First, there is no doubt that a nuclear-powered ship is superior to a conventional-powered ship with equivalent sensors and weapons. No one has ever seriously contended otherwise; the issue that has been raised is whether the added military benefits are worth the extra cost involved.

Second, our most recent analysis of the relevant data has convincingly demonstrated that nuclear-powered ships are more expensive—both to acquire and to operate over their service lives—than their conventional counterparts, even at current and expected fuel oil prices. Thus, the notion that higher nuclear ship

acquisition costs can be eventually amortized by lower operational costs is simply not borne out by the facts. In the case of submarines, nuclear propulsion is clearly worth the extra cost; it gives us a capability which cannot be duplicated by a conventional-powered submarine, regardless of its cost. In the case of surface ships, however, the cost-benefit realtionship is by no means as clear.

To provide a basis for evaluating our surface warship program in light of Title VIII, the Defense Department is examining a wide range of cost and capability trade-offs. The fundamental objective of this effort is to compare an all-nuclear major warship acquisition program with our previously planned mixed-propulsion program. We adopted this approach because the total military capability provided by the mixed-propulsion force was considered minimally adequate to carry out our strategy and preserve the maritime balance.

With respect to surface combatants which operate with carriers, our trade-off analyses indicate that an all-nuclear program of approximately equal aggregate capability and cost of the previously planned mixed-propulsion force would result in a small force level decrease. However, in view of the major reduction in surface combatants already made, we are still not sure that we can afford to trade-off additional numbers for further increases in the capabilities of individual ships. Our evaluations in this area are continuing, and we will inform the Congress of the resulting changes in our shipbuilding program when the review is completed.

In accordance with Section 803 of Title VIII, the current DoD five-year plan for construction of nuclear-powered vessels, including strategic submarines, is shown in the table below. Because surface combatant construction programs beyond FY 1976 are still uncertain, no such ships are shown on the table.

FYDP NUCLEAR-POWERED SHIP CONSTRUCTION PROGRAM

	Fiscal year—				
	1976	1977	1978	1979	1980
Carriers			1		1
SSBN's	1	2	1	2	1
SSN's	2	3	2	3	2
Surface combatants	1				

Title VIII also requires that contract placement dates for nuclear warships be identified. Months in which contracts have been, or are expected to be, signed for FY 1974 and FY 1975 nuclear ships are shown in the table below. For the FY 1976–80 period, we plan to contract for nuclear ship construction during the fiscal year in which construction funds are budgeted.

Fiscal year 1974 program	
CVN–70	March 1974.
Trident I	July 1974.
SSN–706	January 1974.
SSN–707	January 1974.
SSN–709	January 1974.
SSN–708	October 1973.
SSN–710	October 1973.
Fiscal year 1975 program	
DLGN–41	January 1975.
Trident II	February 1975.
Trident III	February 1975.
SSN–711	April–June 1975.
SSN–712	April–June 1975.
SSN–713	April–June 1975.

For carriers, an equal-capability trade at the expense of force levels is not considered acceptable. We regard a force of 12 fully-equipped active carriers as the minimum needed to support our strategy and peacetime commitments. Indeed, we now propose to retain in the force a 13th carrier without a dedicated air wing to provide greater flexibility for contingency deployments. Moreover, we believe it would be unwise to slow the pace of carrier procurement, because it would exacerbate the block obsolescence problem that will confront us when the *Forrestal*-class carriers begin to reach retirement age in the mid-1980s. Consequently, in the case of the carrier, the increased costs resulting from compliance with Title VIII will have to be added to the Navy shipbuilding program.

To improve further the utilization of available resources, we are increasing our emphasis on the use of Naval Reservists in important, combat-oriented missions. To this end, we plan additional reserve manning of selected surface ships and the expansion and accelerated modernization of the reserve air ASW forces.

I would now like to turn to the specific naval forces programs we are proposing for funding in FY 1976 and the transition period and for authorization in FY 1977. These are shown in the table beginning on the next page.

1. Aircraft carriers

Last year, pending the completion of homeporting arrangements for a carrier in the Mediterranean, we had planned to hold the carrier force at 15 through FY 1975, reducing to 13 in FY 1976 and to 12 in FY 1977. Although the prospects for homeporting a carrier in the Mediterranean are now quite unpromising, some reduction in the size of the carrier force is unavoidable largely due to the intense fiscal and manpower pressures on the Defense program. Moreover, the two *Hancock*-class carriers still in the force are more than 30 years old and should be retired in FY 1976 as planned. In view of the current uncertainties in the world situation, however, we believe it would be desirable to retain a 13th carrier to enhance our flexibility.

We had planned last year to retire the *Roosevelt* in FY 1976, when the second of the three nuclear-powered *Nimitz*-class carriers (the *Eisenhower*) joined the fleet, and retire the *Coral Sea* in FY 1977. Delivery of the *Eisenhower*, however will be delayed until FY 1977. Consequently, to privde a force of 13 carriers through FY 1976, the retirement of the *Roosevelt* has been deferred until at least FY 1977.

To provide a 13th carrier at least through FY 1980, we intend to review the material condition and operating costs of the *Midway*-class carriers, *Coral Sea* and *Roosevelt*, prior to deciding which ship to keep in service. This 13th carrier would be maintained in a special category—it would not be equipped to handle our more sophisticated aircraft, it would not have a dedicated air wing or support ships, and it would not be deployed overseas on a routine basis. Instead, the ship would be available to improve the readiness of our reserve aircraft squadrons and to deploy in an emergency with either USMC or reserve squadrons embarked.

ACQUISITION COSTS OF MAJOR NAVAL FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS[1]

[In millions of dollars]

	Fiscal year—				
	1974 actual funding	1975 planned funding	1976 proposed funding	Transition period proposed funding[2]	Fiscal year 1977 proposed for authorization
Aircraft carriers:					
Procurement of Nimitz-class aircraft carriers	705	24	268	1	10
Acquisition of the CVNX aircraft carriers					350
Design and development of the light V/STOL support ship	29				60
ASW aircraft:					
Development and procurement of S–3A carrier-based ASW aircraft	545	560	516		
Modification of SH–3 helicopter	17	21	54	10	58
Development of the HSX		2	1		21
Continued procurement of the P–3C land-based ASW aircraft	152	151	177	62	183
Surface combatants and weapons:					
Procurement of CGN (formerly DLGN) nuclear-powered ships	82	255	397	1	18
Continued development of Aegis ship air defense system (to include combat systems engineering development site)	39	63	111	16	95
Procurement of DD–963 destroyers	612	465	781		17
Acquisition of guided missile frigate, FFG–7 (formerly patrol frigate)	6	186	1,095		1,239
Development of advanced naval vehicles (formerly surface effect ship–SES) technology and alternatives	61	46	38	17	70
Modification and acquisition of the light airborne multipurpose system (LAMPS)	23	18	35	4	107
Acquisition of active Standard antiship missile	7	8	1		1
Acquisition of the Harpoon antiship missile	92	151	162	45	183
Acquisition of patrol hydrofoil missile ship	25	108	220	25	394

See footnote at end of table.

ACQUISITION COSTS OF MAJOR NAVAL FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS[1]—Continued

[In millions of dollars]

	Fiscal year—				
	1974 actual funding	1975 planned funding	1976 proposed funding	Transition period proposed funding[2]	Fiscal year 1977 proposed for authorization
Attack submarines:					
Procurement of SSN–688 class nuclear attack submarines	916	545	819	192	815
Acquisition of the MK–48 torpedo	180	151	125	7	109
Acquisition of the AN/BQQ–5 sonar system	61	73	89	43	2
Undersea surveillance systems: Development and deployment of Sosus and Improved Sosus and development of Surtass	119	127	126	24	55
Amphibious lift: Acquisition of amphibious assault ships (LHA)	174	8	115	----------	11
Mines and mine counter-measures forces:					
Acquisition of the Capitor ASW mine	22	21	33	10	65
Modification of RH–53D mine countermeasure helicopters	----------	----------	9	----------	----------
Mobile logistic support force ships: Procurement of underway replenishment and support ships	4	218	735	1	491

[1] Includes costs of R.D.T. & E., procurement of the system and initial spares, and directly related military construction.
[2] July 1 to Sept. 30, 1976.

We still expect the first of the *Nimitz*-class carriers (i.e., the *Nimitz*) to be delivered to the fleet in FY 1975, and the last of the three (the *Vinson*) in FY 1981, at which point the *Coral Sea* or *Roosevelt* and *Midway* probably could be retired. We would then have a 12-ship carrier force composed entirely of large post-World War II carriers, including four which are nuclear-powered.

I noted last year that while no further changes in the estimated costs of the three *Nimitz*-class carriers had been reported to my office, delays in the delivery of the *Nimitz* and the *Eisenhower* could increase their costs. Now, as in all ship programs, we have the additional problem of financing the extraordinarily rapid increase in labor and material costs on all three *Nimitz*-class carriers. To cover both categories of cost increases and minor support costs, we are requesting an additional $268 million in the FY 1976 Budget for these three ships.

The program to convert attack aircraft carriers (CVA) to the multi-purpose, 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). Four *Forrestal*-class carriers are now being operated as CVs, and two more will be converted to that configuration in FY 1975. The *Nimitz* will be converted to the CVN configuration in FY 1977, and *Eisenhower* will be delivered as a CVN. The last of the Forrestal-class ships will be converted in FY 1977. After that we expect to operate 11 CV/CVNs and two *Midway*-class CVAs until the *Vinson* is delivered and the two *Midway*-class carriers are retired.

The reduction in the carrier force level, coupled with the uncertain prospects for homeporting a carrier in the Mediterranean, will require some changes in our forward deployment plans. The United States, since the Korean War, has kept five or more carriers continuously deployed in forward areas—two in the Mediterranean, and at least three in the Western Pacific. Normally, with all carriers homeported in the U.S., a total of 15 ships would be required to support five deployed forward in peacetime. With a total of only 12 routinely deployable carriers, including one homeported overseas in Japan, only four can be continuously deployed forward on a normal peacetime basis. Accordingly, we plan to reduce our routine carrier deployment in the Western Pacific from three to two in FY 1976, and to continue for the present the deployment of two carriers in the Mediterranean.

We are examining the feasibility of reducing the routine operating tempo of the remaining carriers. This could ease personnel hardships, improve material readiness and, most important, improve the "surge" capability for crisis response. We are also planning to deploy occasionally one of our new general purpose helicopter assault ships (LHAs) to forward areas in lieu of a carrier. These ships are equivalent in size to the old World War II *Essex*-class carriers and,

with their V/STOL aircraft, helicopter, and Marine Corps troops aboard, they could perform a wide range of crisis responsive functions.

In order to maintain the carrier force level beyond the mid-1980s, we will have to begin the replacement of the *Forrestal*-class carriers, the first of which were delivered to the fleet in 1955. Accordingly, we plan to start the first of these replacement carriers in FY 1978 and then procure additional carriers at the rate of one every two years. Even at this rate, the *Forrestal* carriers will each complete more than 30 years of service as they are replaced by new carriers.

These new carriers, in conformance with Title VIII, would be nuclear-powered. We estimate that they will cost much more per ship than the new class of conventional-powered carriers we had in mind last year. Notwithstanding their somewhat greater capabilities, we would still need to replace the *Forrestal*-class carriers on a one-for-one basis. A total of $350 million is included in the FY 1977 authorization request for the procurement of long lead time items for the carrier to be started in FY 1978. Assuming a six-year construction time, this carrier would be delivered in FY 1985, four years after the *Vinson*.

Multi-purpose carriers are required for the employment of high performance fighter and attack aircraft in areas where the enemy air threat is expected to be very strong. On other areas, notably in the major sea lanes, a smaller, less expensive ship employing a small complement of V/STOL fighter/attack aircraft and ASW helicopters could perform the sea control functions. This was the purpose the proposed 14,000 ton Sea Control Ship was intended to serve. Inasmuch as the Congress rejected that proposal in favor of a larger, more capable ship, we are now considering a new, small aircraft support ship with a better offensive, as well as defensive, potential. Such a ship would provide greater flexibility for employment in a wider range of situations. Offensive options being examined include the operation of V/STOL strike aircraft and assault helicopters for an embarked Marine Corps unit. Our plans in this area are not firm, however.

2. ASW Aircraft

The Navy's ASW aircraft force includes fixed- and rotary-wing aircraft which operate from carriers and long-range maritime patrol aircraft which operate from land bases. Our most modern patrol aircraft (DIFAR-equipped P–3s) have repeatedly demonstrated that they are one of our most effective ASW systems. Their range would allow them to cover most ocean areas of interest in a global conflict with the USSR.

In consonance with the CV/CVN concept, the Navy plans to operate its multi-purpose carriers with a mix of ASW and tactical aircraft. This aircraft mix can be varied within limits, depending upon the specific mission of the carrier, i.e., primarily force projection or primarily sea lane defense. In peacetime, a multi-purpose carrier would normally operate with a "balanced" load of aircraft, including one squadron each of fixed- and rotary-wing ASW aircraft.

S–3A: As indicated last year, we plan to buy one squadron (10 aircraft) of the new S–3A for each of 12 multi-purpose carriers expected to be in the fleet in the early 1980s. During the early stages of a major conflict, the carriers directly engaged in the protection of the sea lanes could be provided with two squadrons of S–3s (20 aircraft) each by drawing down the S–3 complements of other carriers—e.g., those undergoing overhaul, those which are least likely to encounter large submarine threats, and those for which ASW protection could be provided through other means.

Procurement of 138 production aircraft has already been funded. A total of $516 million is included in the FY 1976 Budget to buy the last 41 of these aircraft.

The weapons systems portion of the Board of Inspection Survey (BIS) trials, in which the S–3 avionics were tested and evaluated, was successfully completed in March, 1974. The Navy expects to have its second fleet squadron changed over to the S–3 in the near future, and the first carrier deployment with S–3s is scheduled scheduled for July, 1975. Six S–3 squadrons are expected to be operational in FY 1976, and the full 12 squadrons in FY 1978. Since the aircraft carriers converted to the CV configuration will not be equipped to operate the S–2s, the six reserve S–2 squadrons will be phased out in FY 1976.

SH–3: The active fleet ASW helicopter force currently consists of ten squadrons (8 UE aircraft per squadron) of SH–3s which are allocated for CV use. In addition, there are four squadrons of SH–3s (8 UE aircraft per squadron) in the Naval Reserve. A program is underway to modernize the active force SH–3

A/D/G helicopters to the new SH–3H configuration, and we now propose to include the Naval Reserve SH–3s in that program, starting in FY 1977. This would provide us with a total of 12 squadrons of SH–3Hs, enough to meet the needs of the carrier force and other helicopter-capable ships in a major conflict. Consequently, we no longer plan to resume production of the SH–3H.

The modernization program includes sensor improvements in the radar, MAD, ESM, and sonobuoy systems which will provide an increased ASW and surveillance capability. Modification of four active SH–3 A/D/G squadrons to the H model has already been funded. Another $64 million is included in the FY 1976 and Transition Budgets for the modification of an additional 32 SH–3s. Included in the FY 1977 authorization request is $58 million for the modification of 22 more SH–3s, including the first 12 reserve force helicopters.

HXM: Further study of an eventual replacement for the SH–3H has convinced us that this requirement might be incorporated in the development of Lamps MK III, since the range/payload characteristics of the Lamps MK III air frame candidates are compatible with the mission intended for the HXM. The funds provided for the HSX in FY 1975 are being applied to study efforts related to Lamps MK III, the HXM (Marine Corps replacement of the CH–46) and the testing of the "Arapaho" concept involving positioning ASW helicopters on non-combat ships, as directed by the Congress.

P–3: The Navy currently has 36 squadrons of land-based, long-range ASW aircraft—24 active and 12 reserve. Since large-scale ASW operations would be required only in a conflict that directly involved Soviet forces, it is an appropriate mission to assign in part to the Naval Reserve forces. These Reserve forces undoubtedly would be fully mobilized in such a conflict and, if properly equipped and trained, they could perform the wartime ASW mission nearly as well as active forces—and at a somewhat lower peacetime operating cost.

The active P–3 force is now composed of A, B and C models, but the older P–3As are being replaced, at about one squadron per year, by the new P–3Cs. All the P–3B aircraft and most of the P–3A aircraft have been retrofitted with the new DIFAR directional sonobuoy system, but the P–3C has a more capable, computer-integrated avionics and acoustic processing system which provides a significant increase in overall ASW effectiveness.

The $239 million included in the FY 1976 and Transition Budgets would provide for the procurement at another 15 P–3Cs. The $183 million included in the FY 1977 authorization would provide for 12 more P–3Cs.

The P–3A and B aircraft released from the active forces would be used to modernize the reserve forces, and by the end of FY 1980, all of the old P–2 ASW aircraft would be replaced with P–3s.

3. Major Surface Combatants

In addition to aircraft carriers, the Navy's surface warship force includes cruisers, destroyers, frigates, and patrol combatants. Beginning in FY 1976, the designations of these ships will undergo a major change to bring them more in line with the designations used in other navies. Under the new system, most of our frigates will be redesignated as cruisers; a few smaller frigates will become guided missile destroyers (joining the DDG classes); non-missile destroyers will become "gun" destroyers; and all ocean escorts and the new PFs will become either guided missile frigates or simply frigates, depending on their armament. Patrol vessels will be known as patrol combatants.

Heretofore, we have considered major surface combatants, other than aircraft carriers, as primarily defensive, i.e., forces required for the protection of other maritime forces. Actually, all of these ships have some offensive capabilities against other ships and land targets. But now that most of these ships are scheduled to be equipped with the Harpoon antiship missile, their offensive capabilities against other ships will be far more pronounced. Hence, it will be no longer appropriate to think of these ships as primarily defensive.

Nevertheless, the defensive requirements still govern in large part the overall size and basic configuration of our ocean-going surface combatant force. Fundamental to our sea control strategy is the concept of defense in depth. Consistent with this concept, aircraft and submarines in time of war would establish barriers around enemy bases and exact open-ocean attrition on deployed enemy units, while surface combatant screens would provide the primary ASW point defenses in the vicinity of high-value units. Our analyses show that surface combatants are very effective in the point defense role, particularly in defend-

ing against aircraft and missiles, and in countering torpedo attacks by those Soviet submarines, which survive the ASW barriers and open-ocean sweep operations.

Our quantitative requirements for surface combatants in defensive screens are determined by four factors: (1) the number of high-value units which need to be protected; (2) the amounts of defense needed by each protected force in basic planning scenarios; (3) expected contributions from allies; and (4) provision of an allowance to cover non-availability of ships in overhaul/repair status.

The high-value forces for which we program protection in the outyears include 12 carriers, 10 underway replenishment groups, lift shipping for 1⅓ Marine division/wing teams, and five military resupply ship convoys. As I indicated last year, we expect our allies to allocate surface combatants to help defend the convoys, but these allied ships cannot be counted upon to arrive very early in a conflict. Consequently, we plan to use U.S. ships to protect the convoys sailing early in a war. We, therefore, would have some ships on hand to replace surface combatant losses elsewhere, which could be quite high, as allied ships arrive to take over convoy duties.

To protect programmed high-value units in an all-out war with the Warsaw Pact, Navy estimates indicate that a large number of surface combatants would be needed for the numerically more demanding ASW mission. (The open-ocean Soviet naval threat, it should be noted, consists largely of cruise missile- and torpedo-firing submarines.)

In the 1960s, the policy was to provide an AAW capability on about a third of the active ocean-going surface combatants. In view of the great increase in the aircraft and antiship missile threat in recent years, however, it is now considered prudent to include at least an austere AAW capability on all our new open-ocean combatants. Our proposed modernization programs reflect this policy.

At the end of the current fiscal year, we will have a total of only 211 surface combatants (164 active, one in conversion, 34 reserve, plus 12 Coast Guard cutters which are configured for ASW and would come under Navy control in wartime). Thus, we are considerably short of our overall force level objective, but it should be recognized that this deficit results from a conscious decision to accept higher near-term risks in order to speed needed modernization in this segment of the naval force structure.

In addition, as I noted earlier, we propose to improve the offensive power of the surface combatant force. These improvement programs do not alter the numbers of ships required; instead they change, at relatively modest cost, the configuration of ships we would procure in any event for defensive missions. The principal improvement is in the area of antiship missiles. Almost all existing and programmed surface combatants will receive the new Harpoon missile, which will provide a greatly improved capability over the current improvised antiship missile—the Standard AAW missile employed in the surface-to-surface mode.

Before I discuss our proposed ship and weapon system acquisition programs, there is one other general matter which warrants some comment. As in the case of the other forces, we are intensifying our efforts to make better use of Navy Reserve personnel in our surface combatant force. One such action is the transfer of eight patrol combatants to the Naval Reserve in FY 1976, leaving only seven in the active force.

Another, more important, initiative is our plan to man some of our active surface combatants at 80% of active manning, relying on Selected Reserve personnel to fill the remaining billets upon mobilization. These 80/20 ships, in terms of combat readiness, would fall somewhere between the fully manned active ships and the Naval Reserve ships which typically are manned at 60% active and 40% reserve. Hence the 80/20 ships would be expected to be available somewhat earlier than the Naval Reserve ships in a major contingency involving mobilization. Moreover, by filling in the remaining billets with active shore establishment personnel designated in advance, they could be used to augment fully manned active ships during a prolonged contingency for which reserves are not called up.

Admittedly, there are some potential problems involved in the 80/20 concept, most of which center around the interrelated factors of maintenance and operational tempo. The concept is predicated on the assumption that the understrength active crew, augmented by reserves during drill periods, would be able to main-

tain their ship in adequate material condition and conduct required training for basic combat missions. Thus, the 80/20 ships could not be considered "deployable" to meet peacetime commitments.

We plan to test the 80/20 concept on five destroyers in FY 1976 and FY 1977. If the concept proves successful we are prepared to expand the program in subsequent years. We must, however, retain a sufficient number of fully manned active ships to handle non-mobilization contingencies, to meet early combat requirements in a major war, and to support our peacetime forward deployments.

As indicated earlier, we have adopted a new set of designations for our major surface combatants. These new designations, with the old designations in parentheses, are used in the following discussion of our proposed surface ships and weapons acquisition programs.

CGN–38 (DLGN–38) : We now have in the fleet or under construction a total of eight nuclear-powered surface combatant ships—CGNs 9, 25, and 35 through 40. Funds for CGN–41 are provided in the FY 1975 Budget, and we awarded the contract for that ship last month. The $397 million requested in the FY 1976 Budget includes $140 million in additional funds for CGNs 38–41 to cover unanticipated cost growth/escalation and routine minor support costs, and $257 million to complete the funding of CGN–42 for which $111 million was provided in prior years. When CGNs 41 and 42 are delivered in 1979–80, there will be a sufficient number of nuclear-powered surface combatants to provide an austere level of ASW and AAW protection for two of the four nuclear-powered carriers which will then be in the fleet. Thus, we will have two rapid-reaction, all-nuclear-powered carrier task groups.

Aegis: The Aegis system is being developed to provide an improved area air defense capability to counter the aircraft and antiship missile threat of the 1980s and 1990s. Current systems, including their projected improvements, are inherently limited in defending against high intensity, coordinated attacks. Aegis would provide significant enhancement in defensive capabilities on present and future ships primarily through reduced reaction time, increased firepower and jamming resistance. Aegis (single quadrant) is now installed in the U.S.S. *Norton Sound* and tests have met or exceeded expectations, including successful intercepts using the SM–1 missile.

This year we are modifying the Aegis development program to incorporate some lessons learned, to improve program efficiency, and to aim for early introduction in the fleet. The $127 million requested in the FY 1976 and Transition Budgets includes $76 million to continue development leading to the next at sea test phase of Aegis with the SM–2 missile, and $51 million to build a Combat System Engineering Development Site (CSEDS). The primary functions of the CSEDS will be to integrate and test the total Aegis weapon system prior to the delivery of the lead Aegis system, to serve as a training facility for precommissioning crews of Aegis follow-on ships, and to proof future Aegis system cost/weight improvements. The $95 million requested for authorization in FY 1977 would provide $26 million for development and $69 million for CSEDS. To support early fleet introduction, we are well along in our planning to install the Aegis system on existing and new construction ships.

DD–963: The last seven units of the 30-ship DD–963 program were funded in FY 1975. This program, like most of the other ship-building programs, has encountered severe inflation problems as well as construction delays. The $781 million in the FY 1976 Budget includes $772 million to cover unanticipated inflation and cost growth in the DD–963 program. Our current best estimate is that the final ships in this program will be about one year late in delivery. The Navy is doing its best to ensure the earliest possible delivery of ships completed to contract specifications. Any reductions in program quantity would require payment of cancellation charges and have an adverse impact on our capability to provide adequate ASW protection for our carrier forces in the early 1980s, when the last of our World War II destroyers will have changed over to the Naval Reserve.

FFG–7 Guided Missile Frigate (Patrol Frigate) : The CGN and DD–963 classes are designed primarily to defend our carriers, which could be called upon to operate in areas of severe enemy air threat, and to conduct sustained independent operations. These missions require large, sophisticated and, hence, relatively expensive, ships. There are other missions which require greater numbers of somewhat slower, more austere AAW ships—for example, to protect high-value units which proceed at relatively slow speed and are generally expected to

operate in areas of less technologically advanced and intense air threats. The FFG–7 Guided Missile Frigate (formerly the Patrol Frigate) is designed to meet this less demanding requirement in keeping with the concept of a high/low mix.

FFG–7 frigates will have sensors and weapons which are fully adequate for their projected AAW and ASW point defense missions. Moreover, the lower cost of this ship will permit us to acquire it in sufficient numbers to build our surface combatant force up to the required level of about 240 ships. Without the FFG–7 program, we would have less than 200 surface combatants by the end of FY 1983, rather than the presently programmed 237.

Our current estimates indicate that the FFG–7 will have a total program unit cost of about $122 million per ship in a large-quantity buy. A unit cost of $70 million was presented last year for the PF. The increase over last year primarily reflects the much higher allowance for labor and material cost escalation, the addition of a fourth generator, and the addition of the Phalanx close in weapons systems (CIWS). The basic FFG configuration has not changed, since it was always planned to add CIWS once an appropriate one was developed.

Last year the Congress cut the PF buy for FY 1975 from 7 to 3 ships, primarily because of its concern that insufficient time was allowed in the construction schedule for testing. In response to this Congressional action, we have stretched the FFG–7 schedule to accommodate additional testing. We now are requesting $1095 million in the FY 1976 Budget. This will fund ten FFG–7s and cost growth, escalation for prior year programs. We also are requesting an FY 1977 authorization of $1,239 million for 11 more. We plan to continue this program at approximately the same level through FY 1980. For this essential program to proceed in an orderly manner at the least cost to the government, it is very important that the Congress approve the funds we are now requesting. Under current market conditions, shipbuilder interest and strong competition for this program can be assured only if it is clear that the program has the full support of the Congress.

Advanced naval vehicles (formerly SES) : We have been planning a 2,000 ton, 80 knot ocean-going Surface Effect Ship (SES) prototype, with a larger and more capable operational ship as the ultimate goal. The testing of two 100 ton prototype craft was completed in 1972. A year ago it was expected that the high technical risks of this program would have been resolved to the point where we could proceed with the building of a 2,000 ton prototype in FY 1976. The program has been progressing well, but there remain some problem areas to be resolved. Therefore, for this reason and due to the budgetary constraints on R&D funds, an additional year of testing of the two 100 ton crafts is the prudent course to follow to reduce the risk in this important new program before requesting funds for a 2,000 ton prototype. Concurrently, a reevaluation will be undertaken to consider other technology alternatives to achieve a high speed ocean going vehicle. For this reason, we have redesignated this program, Advanced Naval Vehicles. The amounts requested—$38 million in FY 1976, $17 million in the transition period and an authorization of $70 million for FY 1977—would permit us to carry forward the SES technology and design effort at a prudent pace in parallel with the reevaluation.

Lamps: The Light Airborne Multi-Purpose System (Lamps) program provides for the acquisition of helicopter aircraft to be operated from about half of the surface combatant force planned for the early 1980s. Employment of Lamps helicopters permits a significant extension of the parent ship's sensor and weapon coverage, particularly in ASW and antiship operations. The first phase of this effort, which consists of modifying 105 SH–2 aircraft to Lamps MK I configuration (SH–2F), will be completed with FY 1975 funds. MK–I aircraft are now operational in the fleet and reports indicate that they are proving very useful for a wide range of missions.

Current Navy planning is directed toward development of a single helicopter to perform both surface combatant (Lamps MK III) and carrier-based helicopter missions. Further commonality and commensurate reduction in unit costs are expected from combining acquisition of these Navy helicopters with the Army's UTTAS, since basic UTTAS airframe characteristics are compatible with both projected naval missions. The $39 million requested for FY 1976 and the transition period ($35 million and $4 million, respectively) and $107 million requested for authorization in FY 1977 would permit continuation of the Lamps MK III development effort.

Antiship missiles: Our current antiship missile capability consists of the semi-active Standard missile used in the surface-to-surface mode and Standard Arm (anti-radiation missile). The semi-active Standard missile is installed in all of our major missile ships and the Standard Arm in two patrol gunboats (PGs). The semi-active Standard provides an austere antiship capability limited in range to the radar horizon. The Standard Arm provides an over-the-horizon capability against radar-emitting targets. The Standard Arm system is additionally being installed on six DDGs and six DEGs. We also had under development as a backup for Harpoon a third system, the Active Standard antiship missile. This development was terminated by Congressional direction.

The Harpoon development program has met or exceeded our expectations with regard to performance, but it, too, has encountered rising costs. Production of 150 pilot line missiles, 58 for operational test and 92 for deployment, was funded in FY 1975. The 92 deployment missiles will be in some of our patrol aircraft and non-missile frigates.

We intend to review the final test and evaluation results later this year. If progress warrants, we will then initiate full-scale production. Accordingly, we have included in the FY 1976 Budget $150 million for production of 270 missiles and $12 million to complete development of this missile. The Transition Budget includes $45 million for 95 missiles. The $183 million requested for authorization in FY 1977 would provide for the procurement of 420 missiles. As noted earlier, the Harpoon will also be carried by Air Force B–52s.

4. Patrol Combatants (Patrol Vessels)

PHM: The Patrol Hydrofoil Missile (PHM) program is structured to provide a small, fast surface combatant to help counter the Soviet surface naval threat. The program has been a cooperative NATO development effort with the United States and West Germany (FRG) having immediate plans to procure PHMs.

The PHM will operate against surface combatant ships and craft in the conduct of surveillance, screening, and special operations in coastal and island areas, and inland or narrow seas. The FRG is currently interested in purchasing the PHMs, since these ships with their high speed, good sea-keeping, and potent firepower would constitute a useful force for NATO Baltic and North Sea operations.

Two prototype PHMs were funded in prior years and four production PHMs were funded in FY 1975. Inasmuch as some problems of cost growth and schedule slippage were encountered in the fabrication of PHM–1 which was launched last November, only one prototype ship is funded to completion. We are requesting only two more PHMs in FY 1976. This action is intended to keep our options open and at the same time sustain FRG interest by demonstrating a U.S. commitment to purchase at least seven of these PHMs. The almost $220 million requested for FY 1976 would provide $11 million to complete test and evaluation on PHM–1, another $85 million for the four ships funded in FY 1975, $40 million for tooling costs to support a production program of 12 ships per year, and $83 million for the construction of two more PHMs. The $25 million requested in the Transition Budget is for long lead time funding of the nine PHMs planned for FY 1977. Assuming that the current difficulties will be resolved in the next year, we are requesting an authorization in FY 1977 of $394 million for these 9 PHMs.

5. Attack submarines

Nuclear attack submarines are a highly effective component of our ASW forces. Because they are uniquely able to operate covertly, they can establish ASW barriers and conduct other missions in waters that 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.

Most modern Soviet submarines are stationed in the Murmansk area; the remaining modern units are stationed in the Vladivostok and Petropavlovsk areas with the Pacific Fleet. We believe that, in the event of war, we should have sufficient "first-line" SSNs to establish ASW barrier lines across the Soviet submarine routes from those areas into the Atlantic and Pacific Oceans.

In addition, SSNs would be needed in the Mediterranean, and for open ocean search of those areas in which there is a high probability of hostile submarine concentration and where other ASW forces would be less effective. The Navy is also evaluating its doctrine regarding the use of SSNs for the protection of high-value surface ships in open ocean areas. There are, however, several tactical employment problems that must be resolved before submarines can be effectively

employed in such missions; for example, there are difficulties involved in coordinating a "friendly" submarine with other types of ASW forces in wartime.

Given other priorities, we believe that a force of about 90 nuclear attack submarines, together with other ASW forces, should be sufficient to support these essential requirements. At the end of FY 1975 we will have 64 SSNs in the fleet, plus 27 funded but not yet delivered.

SSN–688: Of the 26 688-class nuclear-powered SSNs funded through 1975, none as yet have been delivered to the fleet. The 688-class lead ship, *Los Angeles*, was originally scheduled for commissioning in August of 1974. This ship, however, has been delayed 15 months primarily due to late delivery of contractor-furnished equipment and a slower-than-planned buildup of the work force at Newport News, which is also building a variety of surface ships. Thus, the first 688-class SSN is expected to be delivered in FY 1976, and the other 25 by the end of FY 1981.

Our current plan is to procure two 688-class SSNs in FY 1976 and five every two years thereafter for the remainder of the five-year planning period. The FY 1976 and Transition Budgets include $1,011 million for the SSN–688 program—$272 million for escalation, outfitting, and post-delivery costs on prior-year ships; $439 million to complete the funding of the two SSNs in the FY 1976 program ($52 million for long lead time funding of these ships was provided in the FY 1974 budget) $291 million for long lead time funding of the five SSNs planned for FY 1977 and FY 1978, and $9 million for directly related military construction projects. The $815 million requested for authorization in FY 1977 would provide $27 million for outfitting and post-delivery costs on prior-year ships, $598 million for three more SSNs, $68 million for long lead time funding of the two SSNs planned for FY 1978 and $122 million for long lead time funding of three in FY 1979.

Looking to the longer term, we are examining the feasibility and desirability of building a new class of SSNs. We are particularly interested in a less costly SSN; the cost of a 688-class SSN in FY 1976 is approximately $225 million.

MK–48 Torpedo: The MK–48 wire-guided, acoustic homing torpedo was designed primarily for use against submarines, but it also has an excellent capability against surface ships. Operational evaluation of the MK–48 was completed in 1972, and the system was fully approved for fleet use in October of that year. By the end of FY 1975, a significant number of the SSNs will be carrying, and certified to fire, MK–48 torpedoes.

Procurement of the MK–48 torpedo in quantity began in 1972, and some 500 torpedoes were funded both in FY 1973 and in FY 1974. We had planned to buy 450 more in FY 1975 and complete procurement in FY 1976–77. Since there is now only one active submarine torpedo manufacturer left in the United States, namely, the current MK–48 contractor, we want to keep the current production line going as long as feasible. To do so, we now propose to buy 425 MK–48s in FY 1975, 175 in FY 1976 and 150 in FY 1977. The $132 million included in the FY 1976 and Transition Budgets and the $109 million included in the FY 1977 authorization would support that program. For the longer run, however, we will have to deal with the basic problem of ensuring some minimum level of torpedo manufacturing capability in the United States.

AN/BQQ–5 Sonar: While the MK–48 torpedo is the primary weapon of the attack submarine force, the new digital, multi-beamed sonar system, with both hull-mounted and towed acoustic arrays, is the principal sensor. This system, designated the AN/BQQ–5, underwent extensive developmental testing and was approved for production in 1973. 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 $132 million requested in the FY 1976 and Transition Budgets for this program would provide $5 million for development and $127 million for the procurement of 14 systems for the backfit program.

6. Undersea Surveillance systems

There are currently two key U.S. Undersea Surveillance Systems under development, the fixed Sound Surveillance System (SOSUS) and the Surveillance Towed Array Sensor System (SURTAS).

It was decided in 1972 to undertake a SOSUS improvement program. This improvement program has been structured in three phases to limit development risks. Phase O, which involves relatively low cost improvements in existing processing capabilities at the individual Naval Facilities (NAFACs) as well as the Evalua-

tion Centers, is nearly completed. Phase 1 is currently in the engineering development stage and includes fabrication of a system Validation Model (SVM) which upgrade current systems by the addition of more capable, generally "off-the-shelf" processing equipment and software. The resulting system will be thoroughly tested and evaluated prior to any further significant backfit installation. If Phase 1 results warrant, a Phase 2 program leading to further system integration would be undertaken.

While this improvement program should increase SOSUS effectiveness, it is clear that the mobile systems now in development, such as the Surveillance Towed Array Sensor (SURTASS) system, will also be needed to supplement SOSUS. The tactical towed array ships would have a processing capability on board to evaluate contacts. Lamps or other ASW aircraft could be used as tactical follow-up forces. Analyses and at-sea tests have shown that towed arrays should make a significant contribution to the ASW effectiveness of surface combatants.

A recent review of the progress on the Surveillance Towed Array Sensor System (SURTASS) indicated that it was ready for full-scale engineering development. The Navy has started design and fabrication of an engineering development model and will subject this model to at-sea tests and evaluation.

The $150 million included in the FY 1976 and Transition Budget requests would provide $126 million for Sosus improvement and $24 million for the development and testing of the surveillance towed array sensors. The $55 million requested for authorization in FY 1977 would provide $40 million for Sosus and $15 million for the SURTASS program.

7. Amphibious Lift

The present amphibious force of 65 ships has sufficient capacity (if all ships are available) to transport simultaneously the assault elements of slightly more than one Marine Amphibious Force (MAF), i.e., one Marine division/wing team and supporting elements. Our amphibious shipping, however, is about equally divided between the Atlantic and Pacific Oceans. Thus, to conduct a single MAF-size lift and subsequent assault, it would be necessary to shift half of our amphibious shipping from one ocean to the other. Moreover, about 15% of the Navy's ships are in overhaul status at any given time and thus are not immediately available.

We are now able to maintain two Marine Amphibious Units (MAUs), each corresponding to about ⅙ of a MAF division/wing team deployed afloat continuously in forward areas with one in the Mediterranean and the other in the Pacific. Because of the shortage of helicopter decks, two additional Battalion Landing Teams (BLT) are usually deployed without helicopters. One is deployed in the Western Pacific and the other is deployed intermittently in the Caribbean. The utility of these forces was recently demonstrated when a MAU in the Mediterranean was instrumental in evacuating American citizens from Cyprus.

Our programmed objective for amphibious lift is to provide the lift capability to transport the assault elements of 1⅓ Marine Amphibious Forces. This capability would enable us to conduct (after shifting ships from one ocean to the other) a MAF-sized amphibious operation in a major combat theater (for example, on the northern or southern flanks of NATO) and a limited assault elsewhere.

When the five large general purpose Amphibious Assault Ships (LHAs) now under construction are delivered to the fleet, our amphibious force objective will be essentially achieved. The overall lift capacity will be increased to about 1⅓ MAFs (excluding provision for ships in overhaul), and the helicopter platform shortage will be eliminated. When the last LHA is delivered, the amphibious lift will consist of 66 active ships and 3 Naval Reserve Force (NRF) ships, all with speeds of about 20 knots. With this force, we will be able to maintain four MAUs (battalion-size amphibious forces), all with major helicopter ships, continuously forward deployed. As noted earlier, the substantial capability of the LHAs may also permit us to use these ships for occasional forward deployment in place of an aircraft carrier.

The LHA program, as reported to the Congress in previous years, 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 September, 1975, a delay of about two years from the original contract delivery date. LHA #2 is also expected to be delivered in FY 1976, LHA #3 and #4 in the transition period and FY 1977, and LHA #5 in FY 1978, about 44 months beyond the original delivery date. All of these ships have been funded in prior years, except for outfitting, post-delivery and claims reservations.

Current operational doctrine for a MAF-sized amphibious operation assumes that two carrier air wings (CVWs), or their equivalent, will be available for direct support, and that surface combatants accompanying these forces would provide gunfire support as necessary. The last active Navy major-caliber-gun (8" or larger) warship, the heavy cruiser NEWPORT NEWS, has been retired. Future gunfire support would be essentially limited to the 5" guns carried by many remaining surface combatants. A new Major Caliber Lightweight Gun (MCLWG) development program has been underway for some time as a potential replacement for the large-caliber gunfire support previously provided by the cruisers and battleships. The relatively small bulk of this weapon would permit its installation in a variety of surface combatants. The MCLWG will complete development in FY 1976, but we have not yet established which ship classes might carry this weapon.

8. Mines and Mine Countermeasure Forces

Mines can be used for port closure, to form barriers against surface ships or submarines, and to impede amphibious lands. The mining of the principal ports and harbors of North Vietnam in May, 1972 demonstrated the military, psychological and political effectiveness of this form of naval warfare.

One of the most recent and effective products of the mine development program is the Captor ASW mine. Captor consists of an MK 46 antisubmarine torpedo housed in a capsule. Because of the mobility of the torpedo, Captor has a damage radius several orders of magnitude greater than any conventional mine. Production tooling for this weapon was started with FY 1975 funds. The $43 million included for this program in the FY 1976 and Transition Budgets would provide for the procurement of a substantial number of mines. The $65 million requested for authorization in FY 1977 would allow procurement of additional mines.

The active and reserve mine countermeasure forces have undergone substantial reductions in recent years. Currently, the surface force consists of 3 active and 22 NRF ocean minesweepers. In part, this reduction has been offset by the greater use of mine countermeasures helicopters (specially equipped RH–53Ds), of which there are now 21 in the force. However, these helicopters do not have a good airborne mine-hunting capability. Furthermore, our ability to clear mines is not good. To correct this deficiency and provide an improved mine-clearing capability, we are requesting $9 million in FY 1976.

9. Mobile logistic support force (MLSF)

The Navy operates a total of 129 MLSF ships, all of which are in the active force. These include 51 underway replenishment (UNREP) ships, 20 major fleet support ships (tenders and repair ships) and 58 minor fleet support ships (primarily salvage ships, tugs, and submarine rescue vessels). These ship provide both wartime and peacetime underway logistics support and mobile, forward area maintenance and repair facilities for deployed naval forces. In peacetime, MLSF ships routinely deploy to the Mediterranean and the western Pacific to support the Sixth and Seventh Fleets. Additional MLSF ships can be deployed if required to sustain increased combatant ship activity in these or other areas.

The wartime requirements for Unrep ships are derived from assumptions concerning the number of naval forces to be supported simultaneously, their expected distance from logistic bases, estimated consumption rates for ordnance, fuel, stores, and repair parts, and the projected duration of the conflict. Peacetime demand for Unrep ships is determined by requirements to support a smaller number of deployed ships compared to wartime deployments; however, the requirement for Unrep ships is not reduced proportionately because this smaller number of vessels operates in more widely dispersed areas than would probably be the case in wartime. Forward peacetime deployments of Unrep ships generally total roughly 16 to 18 ships, several of which are homeported overseas.

Planned Unrep ship forces will provide a wartime capability to support deployed carrier and amphibious task groups in up to five locations simultaneously, using ten underway replenishment groups. Denial of foreign logistic bases, however, would reduce the number of simultaneous fleet operating areas which could be supported with our currently programmed Unrep forces. The increase in Unrep ship cycling distances caused by loss of foreign bases could force a significant drawdown in combatant ship capability and/or deployments elsewhere.

Beginning in FY 1972, the Navy initiated a program to have a small number of Unrep ships operated by the Military Sealift Command (MSC). Five Fleet Oilers and one Stores ship are being operated by MSC in FY 1975, and three more oilers

are programmed to be transferred to MSC operation in FY 1976, for a total of nine Unrep ships under MSC control. MSC-operated ships are manned by U.S. civil service crews, at a reduced manning level compared to military manning, and by a military communications detachment. As a consequence of the smaller civilian crew, MSC-operated ships have a reduced military capability, a risk that has been accepted. These ships also have all their defensive armament removed during peacetime.

The Unrep ships currently operated by MSC have remained forward deployed, accomplishing necessary maintenance locally within the theater, and the crews have been rotated annually by air. Consequently, MSC-operated ships can be programmed and funded to achieve greater time on-station and higher utilization rates in peacetime than active Navy-operated ships. In light of the cost and manpower savings associated with MSC-operated Unrep ships, efforts are continuing to identify Unrep missions which MSC-operated vessels and possibly commercial ships can carry out.

The transfer of a Stores ship to MSC during FY 1975 is the first MSC operation of an Unrep ship dedicated to the transfer of solid stores. Existing MSC Unrep ships all are oilers which carry vey limited or no solid stores cargo. The extent to which Unrep ships can be transferred to MSC operations is limited, however, by the current operational practices involved in storage, transfer, and protection of munitions. Moreover, the Navy tentatively plans to provide greatly improved self-defense for major Navy Unrep ships, including the installation of the Philanx Close In Weapons System for antiship missile defense on large multipurpose ships (AOEs and AORs) and the new large *Kilauea* (AE–26) class ammunition ships (AE). Such armament improvements probably would not be possible for ships operated by the MSC.

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 Destroyer Tender (AD) forces can provide sustained maintenance and a limited battle damage repair capability for most deployed surface ships forces in wartime, assuming concurrent availability of U.S.-operated ship repair facilities in either Japan or the Philippines. The programmed force of six modern Submarine Tenders (AS) is adequate to support maintenance of planned submarine operations in wartime, assuming that a few forward area anchorages are available for basing. Peacetime forward deployment of tenders is generally limited to two ships in both the Atlantic and Pacific Oceans (in addition to tenders supporting ballistic missile submarines); this posture 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, repairs, 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 peacetime, forward deployments are limited largely to a few submarine rescue vessels, ocean tugs and salvage ships, all of which can be accommodated within the planned force. As in the case of the Unrep force, the Navy plans to have the MSC operate more minor fleet support ships. A total of 9 such minor fleet support ships (including 4 ships from the MLSF) will be MSC-operated by the end of FY 1976.

Because of their lower priority and severe fiscal constraints, modernization of the MLSF ships has been repeatedly deferred and now lags far behind modernization of combatant ship forces. 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 MLSF ships now under construction or funded will be delivered. At that time, the average age of MLSF ships will be about 24 years. As noted last year, a major effort to modernize the MLSF can no longer be deferred. Our plans to add a wide variety of new combatant ships, designed to be manned with reduced crews and therefore requiring increased intermediate-level maintenance support, must be paralleled by the provision of adequate support forces.

Accordingly, we propose to fund in the FY 1976–1980 period a substantial shipbuilding program in this area. A total of 31 ships would be built, at a currently estimated cost of about $4 billion. The program includes nine Fleet Oilers (AO), six Destroyer Tenders (AD), two Submarine Tenders (AS), two Ammunition ships (AE), three Combat Stores Ships (AFS), and nine Fleet Ocean Tugs (ATF). These ships would be delivered to the fleet between FY 1979 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 $735 million is included in the FY 1976 and Transition Budgets to procure two ADs, two AOs, and three T-ATFs. The $491 million requested for authorization in FY 1977 would provide for the construction of one AS, two AOs, and one ATF. Previous difficulties in contracting for the construction of MLSF ships have been largely overcome. In November, 1974, the contract for construction of the FY 1972 and FY 1973 Submarine Tenders (ASs) was awarded to Lockheed Shipbuilding in Seattle.

D. TACTICAL AIR FORCES

Last year I pointed out that our tactical air forces—the Navy carrier air wings, the Marine Corps aircraft wings, and the tactical air units of the Air Force—are the most expensive components of the general purpose forces in terms of investment costs and that the cost per unit, even after adjusting for inflation, is steadily rising. Consequently, if we and our NATO Allies are to maintain the numbers of tactical aircraft required to cope with the growing capabilities of the Warsaw Pact tactical air forces, we must introduce lower cost aircraft into the forces and exploit to the maximum extent feasible the mutually supporting capabilities of those forces.

I also noted that our experience in Vietnam and the Israeli experience in the recent Middle East conflict impressed upon us the urgent need to improve substantially the defense suppression capabilities of our tactical air forces. In both those conflicts it was convincingly demonstrated that tactical air forces equipped with appropriate defense suppression weapons and electronic counter-measures device can successfully accomplish their mission even in the face of heavy, sophisticated ground air defenses. Given the high cost per unit of tactical aircraft, we must be prepared to make the additional investment required to minimize losses from those air defenses.

These basic principles, together with the need for continued modernization in general, have guided the formulation of the tactical air programs proposed in the FY 1976 and Transition Budgets and requested for authorization in FY 1977.

1. Force Structure

The composition of the Navy air wings is tailored specifically to the composition of the aircraft carrier force. As noted in the preceding section, the number of carriers will decline to 13 in FY 1976 as the last two *Hancock*-class carriers are phased out of the active fleet. Hence, all of the remaining Navy A–4 and F–8 squadrons, which were retained solely for use on the *Hancock*-class carriers, will also be phased out of the active force in FY 1976.

Last year's plan called for a reduction to 12 carriers in FY 1977. After reconsideration we have now decided to retain one of the *Midway*-class carriers formerly scheduled for deactivation. This thirteenth carrier would not have an active air wing assigned, but would instead provide us with a deck to be utilized by our Naval Reserve tactical air units during mobilization. During peacetime it will be used by our training squadrons and fleet squadrons whose parent carrier is in overhaul. This will enable us to increase our operational readiness and also provide a significant surge capability in times of crisis.

The phaseout of one of the three *Midway*-class carriers and the delivery of the second *Nimitz*-class carrier to the fleet in FY 1977 (thereby retaining the number of carriers at 13) will result in a further change in the composition of the carrier air wings. The *Nimitz*-class carrier, in contrast to the *Forrestal* and *Midway*-class carriers, is large enough to accommodate three (instead of two) light attack squadrons in addition to one medium attack squadron and two fighter squadrons. Thus, the 12 air wings programmed through end FY 1980 for the 13-carrier force will require 12 medium attack squadrons (A–6), 26 light attack squadrons (A–7), and 24 fighter squadrons (F–14 and F–4).

Initially, F–14s will be deployed in pairs on F–14 configured carriers, but as noted last year, we plan to eventually deploy as part of each carrier air wing at least one squadron of F–14s as well as one squadron of F–4s or NACFs (Navy Air Combat Fighters). However, in order to accommodate the sale of 80 F–14s to Iran without severely peaking the production rate we propose to stretch out somewhat the delivery of F–14s to our own forces, and thus maintain a warm production line for a longer period. In the case of the Navy carrier air wings, the eleventh and twelfth squadrons would be delivered to the fleet in FY 1979

instead of FY 1978 and two F–4 squadrons will be retained in the active force one year longer. We have also decided to buy two more squadrons of F–14s to give the Navy some flexibility in tailoring the aircraft complement more closely to the particular mission of a given carrier, e.g., embarking two F–14 (instead of one F–14 and one F–4) squadrons on a carrier scheduled to be deployed to a high threat area. These last two squadrons would be delivered in FY 1981.

We also had planned last year to deliver the first two squadrons of VFXs (now designated NACF–Navy Air Combat Fighter) to the active fleet in FY 1979. As the result of Congressional action on the FY 1975 Budget, this program is being reoriented and two more F–4 squadrons will have to be retained in the active force for at least two years longer than previously planned.

In addition to the fighter and attack squadrons, each carrier is provided with a complement of electronic countermeasures, airborne early warning, tanker, and reconnaissance aircraft, as well as ASW aircraft for particular missions. The Navy is still in the process of acquiring sufficient EA–6B electronic countermeasures aircraft to equip the 12-wing force. The specialized reconnaissance aircraft (RF–8, RA–5), however, will be phased out over the next few years and replaced with reconnaissance pods which would be carried by dedicated A–7s in the attack inventory, or other carrier aircraft. This is an example of the mutual support concept noted earlier.

The Marine Corps active tactical air force structure proposed for the FY 1976–80 period is the same as that presented here last year except for one change. That change reflects the decision to stretch out the delivery of F–14s to our own forces. In the case of the Marine Corps, delivery of the third and fourth F–14 squadrons will be slipped by one year, i.e., from FY 1977–78 to FY 1978–79.

Because of the stretch-out in F–14 deliveries and the change in the VFX program, there will be a lag in the transfer of F–4s from the active to the reserve units of the Navy. Consequently, two squadrons of F–8s, which we had previously planned to phase out in FY 1978, will be retained in the reserved forces.

The active Air Force at the end of the current fiscal year will have a total of about 2,280 fighter and attack aircraft organized in 69 squadrons. At the end of FY 1980, the active Air Force is programmed to have considerably increased this force. The Air Force is achieving this increase together with an increase in tactical fighter crew ratios from 1.1 to 1.25 (and maintenance personnel) while undergoing a reduction in end-strength because of successful efforts to reduce resources devoted to overhead and support. This will provide for both greater combat power and staging power. The ten squadrons of A–7s now in the force are programmed to be replaced by A–10s. The 45 squadrons of F–4s would reduced, and F–15s would be added. The F–111 force would be continued throughout the programmed period. This is essentially the same force structure presented last year, but projected forward one more year.

The Air Force's dedicated defense suppression force now consists of two F–105G squadrons and two F–4C squadrons. As noted last year, we now plan to modernize and expand this force substantially over the next few years. The two F–105G and two F–4C squadrons are scheduled to be replaced with four squadrons (116 a/c) of F–4Es. In addition we are considering the buildup of two squadrons (42 a/c) of EF–111s equipped with high-powered jammers. These new units would greatly increase our defense suppression capabilities.

The first two squadrons of E–3As (AWACS), with a total of seven aircraft, are scheduled to become operational in FY 1977. The planned force of three squadrons with a total of 34 aircraft is scheduled to be in place by the end of 1981. The basis for this force requirement is discussed later in this section in connection with the E–3A acquisition program. The active reconnaissance force of 13 RF–4 squadrons plus one special squadron will be reduced.

The A–7s, F–4s, and RF–4s released from the active Air Force are programmed to be transferred to the Reserve Components. In addition, we plan to procure some A–10s specifically for these Reserve Components. In the Air National Guard, all of the remaining A–37s, F–100s, F–105s, and RF–101s are scheduled to be phased out. The ANG tactical air force structure at that time would consist of A–7, A–10, F–4 and RF–4 squadrons. As noted earlier in connection with the strategic forces program, the ANG KC–97 tankers would be replaced with KC–135s from the active force. In the Air Force Reserve, A–37 squadrons would be replaced by A–10s, and F–4s would replace the F–105s.

2. Acquisition Programs

Shown on the table beginning on the following page are the major tactical air forces modernization and improvement programs. The two largest programs,

in terms of acquisition costs, are the F–14 for the Navy and Marine Corps and the F–15 for the Air Force. Both of these programs continue to dominate the funding requests for tactical air procurement in the FY 1976 and Transition Budgets, and in the FY 1977 authorization.

F–14: Last year we had planned to produce the F–14 at a rate of six per month—four for the U.S. Navy and Marine Corps and two for the Government of Iran to fill its order for 30 aircraft. Subsequently, the Government of Iran placed an order for another 50 F–14s, making a total of 80 aircraft. To accommodate the Iranian purchase of 80 aircraft without peaking the production rate, we have decided to hold procurement for our own forces to three per month, leaving the remaining output of three per month for the Government of Iran. As noted earlier, this arrangement will delay somewhat the deliveries of F–14s to the U.S. Navy and Marine Corps. But, in view of the economic and foreign policy benefits to be gained by accommodating the Iranians, this delay is considered acceptable.

After the Iranian orders have been filled, the F–14 production rate is scheduled to decline to three per month, and then gradually to two per month. The decision to buy another two squadrons of F–14s for the Navy, which was mentioned earlier, would increase the total number of F–14s to be procured from the 334 planned last year to 390. With this additional U.S. procurement and a gradual reduction in the production rate once the Iranian order is completed, we hope to keep the production line open through at least the FY 1980 procurement period, i.e., calendar year 1981 deliveries. By keeping the line open, we retain the options to procure more F–14s to meet the attrition requirements of our own forces and to sell more F–14s abroad if new orders are received. We believe these advantages more than compensate for the increased unit costs which would result from the lower production rates.

ACQUISITION COSTS OF MAJOR TACTICAL AIR FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS [1]

[In millions of dollars]

	Fiscal year—				
	1974 actual funding	1975 planned funding	1976 proposed funding	Transition period proposed funding [2]	Fiscal year 1977 proposed for authorization
Navy and Marine Corps Systems:					
Procurement of F–14 multi-mission fighter aircraft	733	733	620	138	616
Procurement of PHOENIX missiles	98	98	101	27	85
Development of the Navy air combat fighter (NACF)		20	110	23	131
Procurement and modification of A–6 attack aircraft	204	212	300	55	180
Acquisition of CONDOR missiles	33	6	92	11	54
Procurement and modification of A–7E attack aircraft	157	145	187	41	192
Procurement and modification of A–4M aircraft	136	15	75	----------	11
Development of the Navy V/STOL fighter/attack aircraft	25	14	22	6	40
Procurement of EA–6B electronic countermeasures aircraft	120	129	120	14	107
Procurement of E–2C fleet early-warning aircraft	160	125	161	23	132
Procurement of KC–130 tankers (Marine Corps)	27	44	----------	41	----------
Air Force Systems:					
Continued development/procurement of F–15 air superiority fighter	1,129	1,096	1,683,	356	1,436
Development of the AF air combat figther (including lightweight fighter prototypes and engine)	48	57	273	83	317
Development and procurement of A–10 close air support aircraft	107	261	460	107	849
Development and procurement of MAVERICK	68	91	171	39	218
Development and procurement of F–4E wild weasel modifications	29	28	92	4	81
Development and procurement of EF–111A modifications	15	37	5	5	37
Development and acquisition of E–3A AWACS [3]	163	617	690	85	504
Navy/Air Force Air-to-Air Missiles:					
Acquisition of SIDEWINDER Missiles	34	33	113	1	69
Acquisition of SPARROW missiles	55	104	151	5	173

[1] Includes costs of R. D. T. & E., procurement of the system and initial spares, and directly related military construction.
[2] July 1 to Sept. 30, 1976.
[3] Does not include costs of directly related military equipment.

Research and development and the procurement of the first 234 production aircraft have already been funded through FY 1975, including $70 million for advanced procurement. The $620 million requested for FY 1976 would provide for the procurement of 36 more aircraft, including $89 million for advanced procurement. The $138 requested for the transition period would provide for the procurement of nine more aircraft, including $59 million for advanced procurement. The $616 million requested for authorization in FY 1977 would provide for the procurement of 36 more aircraft, including $102 million for advanced procurement.

More than 100 F–14s have already been delivered to the Navy and two squadrons are deployed aboard the *Enterprise*. The first Marine Corps squadron is expected to become operational by the end of 1975. The F–14 is performing extremely well, and we are fully confident that this aircraft, armed with the Phoenix missile, can successfully accomplish its primary mission of fleet air defense. Armed with the Sparrow and Sidewinder air-to-air missiles and the M–61 Gatling gun, we are confident the F–14 can also accomplish a wide variety of other tactical air missions.

The major contractual and financial problems which have plagued the F–14 program have now been satisfactorily resolved. With the receipt of the follow-on order for 50 more F–14s from the Government of Iran, Grumman was able to reopen commercial lines of credit with a bank consortium. This return to commerical financing has eliminated the need for advanced payments that existed last year. We do not foresee any further major contractual difficulties in the F–14 procurement program.

Phoenix: For the Phoenix program we are requesting $101 million in FY 1976 to buy 340 additional missiles and $27 million in the transition period for advanced procurement, plus an authorization of $85 million in FY 1977 to procure another 340 missiles. The final procurement of Phoenix for our own forces is now scheduled for FY 1979, based on our restructured F–14 program.

The Phoenix is a long-range, supersonic missile that was specifically designed for the F–14 in its fleet air defense role. The F–14 can carry six of these 985 pound missiles and, with the AN/AWG–9 fire control system, can launch and simultaneously guide all six against six different targets. The Phoenix has been integrated on all Navy F–14s, and to date has demonstrated successful guidance and fusing during test and evaluation and training firings.

Navy Air Combat Fighter (NACF): Last year I pointed out to the Committees that while a minimum number of F–14s is clearly essential for fleet air defense, we cannot afford, nor do we need, an all F–14 carrier or Marine Corps fighter force. Consequently, the Navy was requested to formulate the characteristics of a new, austere, low-cost fighter (then designated the VFX) to serve as the eventual replacement for the remaining F–4s in both the Navy carrier and the Marine Corps air wings. The Navy subsequently proposed a fighter/attack aircraft (then designated the VFAX) to serve as the eventual replacement for the A–7 as well as the F–4.

The House and Senate Appropriation Committees fully supported the concept of a high/low mix but directed that in developing the new, low-cost fighter/attack aircraft the Navy should make full use of the Air Force Air Combat Fighter technology and hardware. We heartily support the Committees' objective, but we should not overlook the fact that aircraft designed to operate from carriers have certain unique structural requirements which are not essential in aircraft designed to be operated solely from land bases. With this problem in mind, we have provided the Navy's Air Combat Fighter specifications to the two Air Force Air Combat Fighter contractors, General Dynamics and Northrop, and requested them to submit proposals for full-scale development of a Navy derivative of their Air Force designs. To assist them in this effort, the two Air Force contractors have joined forces with two Navy contractors—General Dynamics with LTV and Northrop with McDonnell Douglas. We hope to complete our evaluation of these contractor proposals in March and submit a report of our findings to the interested Congressional Committees shortly thereafter.

Pending the outcome of that evaluation, we are requesting $110 million in FY 1976 and $23 million in the transition period, plus an authorization of $131 million in FY 1977, to enable us to move forward promptly with the full-scale development of the Navy Air Combat Fighter should the results warrant such action. The availability of these funds would depend, of course, on Congressional action. But we agree with the Appropriations Committees that no time should be lost in

moving forward with this project if it should prove to be feasible. The F–4s and A–7s in the active forces should be replaced with more modern aircraft in the 1980s, and we cannot afford to replace them solely with F–14s and F–15s.

A–6E: Last year we had planned to buy sufficient A–6Es to equip 12 Navy and five Marine Corps squadrons with 12 aircraft each and convert all the older A–6s to the A–6E configuration. However, we presently plan on terminating A–6E procurement after FY 1976 and the rate of conversions of older A–6s to A–6Es in FY 1976 will be somewhat slower than planned last year—36 instead of 48 a year.

We also propose to complete the development of the A–6E Tram (Target Recognition and Attack Multisensor), install the system in all production aircraft beginning in FY 1976, and retrofit it in all of the other A–6Es. Tram includes a passive imaging infrared sensor for target classification and identification, a laser target designator boresighted with the infrared sensor for delivery of laser-guided weapons, and a laser search mechanism to locate targets illuminated by external laser designators. It will provide the A–6E crew with a greatly improved nighttime operating capability.

The $300 million requested for FY 1976 would provide $156 million for the procurement of another 12 A–6Es, $140 million for modifications including the modification of 36 older A–6s to A–6Es, and $4 million for the development of the A–6E TRAM. The $55 million requested for the transition period would provide for the conversion of nine A–6Es. The $180 million requested for authorization in FY 1977 would provide for another 27 A–6E conversions and other A–6 modifications.

Condor: The Condor air-to-surface missile has an excellent capability for precision strikes against selected land targets. Navy A–6 aircraft will be modified to carry the Condor missile and avionics pod. The $103 million included in the FY 1976 and Transition Budgets for CONDOR would provide $1 million to continue development, and $102 million for the procurement of 243 missiles. The $54 million requested for authorization in FY 1977 provides $52 million for the procurement of another 162 missiles, and $2 million for additional development.

A–7E: As noted last year, we plan during the next few years to replace all of the Navy A–7As and Bs with the new A–7E. The older A–7s would be transferred to the Naval Reserve where they would in turn replace the early model A–4s. In addition, we plan to install in all of the A–7Es the new A–7E Tram system which is now completing development. This system is similar to the Tram system being developed for the A–6E, but is specifically designed for use in the A–7E with its more limited avionics.

The A–7E acquisition plan calls for the procurement of 666 aircraft, of which 506 have been funded with FY 1975 and prior year appropriations. The $187 million requested for the A–7E program in FY 1976 would provide for the procurement of another 30 aircraft, the continuation of Tram development, and the installation of Tram and other modifications in A–7E aircraft. The $41 million requested for the transition period would provide for the procurement of six more A–7Es, for Tram development, and modification of A–7Es. The $192 million requested for authorization in FY 1977 would provide for the procurement of 30 A–7Es, installation of Tram and other modifications, and completion of Tram development.

A–4M: The $75 million included in the FY 1976 Budget for the A–4M program would provide $70 million for the procurement of the last 24 aircraft, $1 million for the last increment of a modification to install improved electronic warfare equipment, and $4 million to continue development of the Angle Rate Bombing System (ARBS). The $11 million requested for authorization in FY 1977 would provide the first increment of modification funds to install the system in the A–4M.

The delivery of these 24 A–4Ms would permit the Marine Corps to complete the modernization of its five light attack aircraft squadrons. All of the remaining A–4Es and A–4Fs would then be transferred to the Marine Corps Reserve where, in turn, they would replace some of the even older A–4s.

V/STOL Tactical Aircraft: In response to Congressional concern with some aspects of our current V/STOL development effort, we have now reoriented that program to concentrate the effort on the proven technology required to give us the option to initiate a full-scale V/STOL fighter/attack aircraft engineering development program in FY 1979. The three current projects—the XFV–12A prototype with the thrust-augmented wing (TAW), the lift-plus-lift cruise

engine, and the AV–16 with the Pegasus engine—will all be brought to completion in FY 1976 and the transition period. A new project, a lift-fan technology demonstration effort, would be initiated in FY 1976, and in the transition period the best available technology would be selected for possible advanced development of a new V/STOL prototype aircraft. We plan to continue advanced development efforts through FY 1978 to provide options for full-scale engineering development by FY 1979.

Our funding requests—$22 million in FY 1976, $6 million in the transition period, and $40 million in the FY 1977 authorization—would provide for the completion of the current efforts and the initiation of the new efforts.

The United States has worked for many years on the development of a useful V/STOL aircraft. The U.S. Marine Corps is now operating three squadrons of the UK-developed AV–8 Harrier in order to evaluate the use of this type of aircraft in the close air support of ground forces. However, a more capable V/STOL aircraft than the current Harrier is needed both for the Marine Corps and the Navy. While development is proceeding on the approach for a completely new V/STOL, the Navy is examining the evoluationary growth potential which can be derived from the operational AV–8 Harrier. The options for a second generation AVX range from aerodynamic refinement of the AV–8 design with the presently installed Pegasus 11 engine to a redesigned aircraft incorporating the Pegasus 15 engine. The product of such an effort would be a V/STOL candidate to replace A–4 and AV–8 in the U.S. Marine Corps inventory as those aircraft reach the end of service life.

EA–6B: The funds requested for the EA–6B program—$120 million in FY 1976, $14 million in the transition period and $107 million in FY 1977 authorization—would permit the continued procurement of this aircraft at the rate of six per year to complete the equipping of the 12-wing force. The Navy needs a total of 77 of these aircraft to provide a complement of four aircraft per carrier. The last five aircraft required to fill this inventory objective are scheduled for procurement in FY 1978.

E–2C: Last year, we had planned to buy 36 E–2C fleet surveillance and early warning aircraft to equip six of the 12 carrier air wings and to modify and improve 36 existing E–2A/Bs to equip the remaining six wings. The Congress, however, disallowed the funds requested for the modification program on the grounds that the expenditure to modify E–2A/Bs would be a questionable investment in view of the age and high maintenance cost of these aircraft.

In light of that Congressional action, we now propose to procure six additional E–2Cs in FY 1976 and about $161 million is included in the FY 1976 Budget for this purpose. In addition, we are requesting $23 million for one aircraft in the transition period and an authorization of $132 million for six aircraft in FY 1977, pending an overall review next year of a program combining E–2C, E–2B, and other options.

KC–130 tanker: The $41 million included in the Transition Budget for the KC–130 would permit the Marine Corps to procure the last four aircraft needed to support its authorized inventory of aircraft through the mid-1980s. The primary mission of this tanker force is to provide aerial refueling for the deployment of Marine Corps attack and fighter aircraft.

F–15: The Air Force F–15 Air Superiority Fighter Program is proceeding as planned; the major milestones are being achieved on schedule, and demonstrated performance confirms the F–15 will fulfill its intended role. The flight test program has been very successful thus far and the engine, which was still the cause of some concern last year, has performed satisfactorily in more than 3,000 hours of flight. The first production aircraft were delivered to the Tactical Air Command in November, 1974, and follow-on testing and evaluation, and initial pilot training have been started. The final development milestone, Initial Operational Capability (IOC) of the first training squadron, is still expected to be achieved on schedule in July, 1975.

The armament and the Tactical Electronic Warfare Suite (TEWS) of the F–15 have had some development problems, which are presently being resolved. The F–15 was designed to carry a variety of armament—the GAU–7A 25mm caseless ammunition Gatling gun; the Aim–7F Sparrow medium-range, semi-active air-to-air missile; and the Aim–9L Sidewinder shortrange, infrared homing air-to-air missile. All three of these programs have encountered varying degrees of developmental delays and difficulties. The problems involved in the development of the Aim–7F have now been resolved and the missile has been released for full produc-

tion. The Aim–9L is now undergoing an operational test and evaluation to verify the fixes devised to solve the problems encountered in its development. We believe the results of this test will be satisfactory, but if not, the Aim–9E, which has been flight certified on the F–15, will be available to serve as an effective substitute.

The GAU–7A development, which had encountered great development difficulties in cost, weight, accuracy, and ammunition performance, has been cancelled. As an alternative, we plan to install initially the proven M–61 20mm Gatling gun, and to replace that system later with the improved M–61 Gatling gun and ammunition system which is now in development. An F–15 equipped with the M–61 gun has already been flight tested.

With regard to the Tactical Electronic Warfare System (TEWS), we believe that the technical problems encountered in its development have now been solved. The warning sensors have satisfactorily achieved their development milestones and have been ordered into production. The development of the jammers, which was initially delayed by technical problems, has now reached the flight test stage, but we must still reduce the costs of the jammer somewhat. The complete TEWS system has undergone an Air Force preliminary flight evaluation and with successful cost reduction efforts should be available for installation in the aircraft by the end of the next fiscal year.

As noted last year, we intend to procure a total of 729 F–15s (excluding the 20 RDT&E aircraft) to equip the planned squadrons. A total of 164 production aircraft has been funded through FY 1975. The $1,683 million requested for FY 1976 includes $40 million to complete development and $1,643 million to procure 108 aircraft. The $356 million requested for the transition period would procure 27 more aircraft and the $1,436 million requested for authorization in FY 1977 would procure an additional 108. The remaining 322 aircraft are programmed to be procured in the FY 1978–80 period. The first F–15 squadron is scheduled to become operational in FY 1976, and by the end of FY 1980 we expect to have most of the remaining planned squadron operational.

Air Force Air Combat Fighter (AFACF): As in the case of the Navy and Marine Corps, we cannot afford, nor do we need, a completely high-capability fighter force in the Air Force. We have, therefore, pressed forward with the development of two prototype "lightweight" fighters and with the new, high thrust-to-weight engine. Both prototype designs have met their flight test objectives, namely, to demonstrate the technical feasibility and combat value of a low-cost, high performance, visual combat fighter aircraft incorporating the newest and most advanced aerodynamic and propulsion technologies and design concepts. Hence, we are now ready to proceed with full-scale engineering development of the Air Force Air Combat Fighter, utilizing the funds appropriated by the Congress for this purpose last year.

On January 13, 1975, we announced that the General Dynamics' YF–16 was selected for full-scale engineering development as the Air Combat Fighter. This decision was based on cost and technical engineering proposals submitted by the two companies and results of the prototype flight test evaluations conducted at the Air Force Flight Test Center, Edwards AFB, California. In selecting this aircraft for Air Force requirements, we also considered not only the U.S. Navy's need for an air combat fighter, but also the needs of several of our NATO Allies. As Deputy Secretary of Defense Clements noted in his letters of September 10, 1974, to the Chairman of the Armed Services and Appropriations Committees, the Netherlands, Belgium, Denmark and Norway have formed a consortium for the purpose of selecting a new aircraft to replace their F–104s. The members of the consortium informed us that they had narrowed the field to four candidates—the Swedish JA–37 Viggen, the French F–1/M53, the U.S. YF–16, and the U.S. YF–17. We agreed with them that their requirements for a new air combat fighter, while more sophisticated, were similar to our own, and that it would be mutually beneficial to develop and produce an aircraft that could satisfy their requirements as well as our own.

We also agreed that if a U.S. ACF is selected by the NATO consortium, we would accept a production-sharing arrangement. Under this arrangement consortium firms would produce 10% of the procurement value of the 650 USAF ACFs, 40% of the procurement value of the 350 consortium aircraft, and 15% of the procurement value of third country sales. The U.S. Government agreed that the value of the offset for this program shall be limited to no more than the total value of the European participating governments' initial investment in this pro-

gram (which includes dollar value of 350 aircraft, spares, AGE, etc.). Offset agreements for production beyond this number would require further negotiation. The U.S. would manage the program, and a full production capability would be located in the U.S. to retain the ability to produce the entire aircraft.

I believe we can all agree that such an arrangement would offer many benefits. It would reduce the cost per unit to the U.S. as well as to the members of the consortium, it would have a favorable effect on our balance of payments, it would improve NATO equipment standardization, and it would significantly enhance a key NATO strength—tactical airpower. With a unit flyaway cost of $4.6 million (in FY 1975 dollars) and austere support and training requirements, the F–16 ACF should be an attractive aircraft for many other of our friends and allies.

Our current plan calls for the production of a minimum of 650 ACFs for the USAF. We are informed that the members of the consortium have a collective initial requirement for about 350 aircraft, making a total of about 1,000. When the potential of this aircraft is discovered by other nations a much larger production run can be anticipated.

The need for this aircraft is urgent both for us and the members of the consortium. We must replace most of the F–4s in the active Air Force in the mid-1980s, and we cannot afford to replace them solely with F–15s. The members of the consortium are equally pressed to replace their even older F–104s. Hence, we propose to move forward with production at the earliest feasible time. This would result in some degree of concurrency, but on the basis of the extensive flight testing already accomplished with the two experimental versions of the lightweight fighter, I believe the risks involved are quite modest. In view of the Congressional concern regarding this matter of concurrency, we plan to consult with the interested Committees at each step of the way to production. No commitment to production will be made until it has been specifically approved by the Congress.

The $273 million requested for this program in FY 1976 would permit us to move into full-scale engineering development on an accelerated basis. The $83 million requested for the transition period is for RDT&E. The $317 million requested for authorization in FY 1977 would provide $245 million to continue the development effort, including the development of a new lightweight, low-cost pulse doppler radar and the fabrication of 15 development, test and evaluation aircraft, and $72 million for advance procurement.

A–10: The A–10 close air support aircraft program has progressed to the point where we can start limited production. The fly-off with the A–7, using one of the two A–10 prototype aircraft, has been conducted as directed by the Congress, and the results, to include my certification that the YA–10 was the winner, have been reported to the interested Committees. The two back-to-back 150-hour engine qualification tests have been successfully completed, and the technical problems encountered in the development of the GAU–8 gun and ammunition have been resolved. The gun/aircraft compatibility tests will be conducted with the second of the six full-scale development models of the A–10, the first of which is now scheduled for delivery in February of this year.

A contract was awarded in December, 1974, for the first 22 production aircraft (funded in FY 1975), with an option for 30 more. No decision on full-scale production will be made until the six full-scale development aircraft have been thoroughly flight tested, which we expect will be accomplished by the end of this year. The $460 million requested for FY 1976 would provide $52 million to continue development, $351 million for 61 aircraft and $57 million for advance procurement. The $107 million requested for the transition period would provide $1 million to continue development, and $91 million for 33 aircraft and $15 million for advance procurement. On the assumption that a decision on full-scale production can be made by the end of this year, we are requesting an authorization of $849 million for FY 1977—$2 million to complete development, $806 million for 221 aircraft and $41 million for advance procurement.

It is generally agreed within the Defense Department that the A–10, as compared with the A–7, is the superior aircraft for the close air support role particularly in a European environment. It will have the maneuverability, responsiveness, lethality, survivability, long loiter time and simplicity that are essential in an aircraft specifically designed to perform that mission. Armed with the high velocity 30mm GAU–8 gun, the Maverick air-to-surface missile and other ordnance, the A–10 promises to be a very effective weapon system against all

close air support targets, particularly tanks and other armored vehicles. We currently plan to buy a total of 733 production aircraft (i.e., excluding the two prototype and six full-scale development aircraft).

Maverick: Our extensive testing of the Maverick air-to-surface missile and its successful use in the recent Middle East war have convincingly demonstrated the value of this missile in the antitank role. The current version of the Maverick, however, is equipped with an electro-optical (T.V.) sensor and, hence, it is essentially a clear weather, daytime weapon system. While such a weapon is completely satisfactory for use in such areas as the Middle East, its effectiveness in Europe would be more limited because of the less favorable weather conditions. Consequently, we have undertaken the development of two new versions of the Maverick missile—one with a laser seeker which would give it both a night and day capability in clear weather, and one with an imaging infrared (IIR) seeker, which would provide for a launch and leave capability and a better adverse weather capability in both day and night.

The $171 million included in the FY 1976 Budget for Maverick would provide $139 million for the procurement of 6,000 Maverick missiles, and $32 million for the development of the laser- and IIR-guided Maverick missiles. The $39 million requested in the Transition Budget would provide $25 million for the procurement of 1,200 T.V. Maverick missiles and $14 million for the development of the laser and IIR Maverick missiles. The $218 million requested for authorization in FY 1977 would provide $103 million for the procurement of 4,650 T.V. Maverick missiles, $52 million for the continued development of the laser and IIR Maverick missiles, $26 million for the procurement of the first 350 laser Maverick missiles and $37 million for the procurement of the first 350 IIR Maverick missiles.

F–4E (Wild Weasel): As noted last year, the Air Force is particularly deficient in tactical aircraft configured primarily for defense suppression. The F–105G and F–4C Wild Weasel (WW) systems now in the force were developed during the Vietnam conflict and do not have the capability required to cope with the very intense air defense environment we would expect to encounter in a war in Europe. We propose, therefore, to replace the two squadrons of F–105G (WW) and two squadrons of F–4C (WW) aircraft with four squadrons of F–4E (WW) aircraft equipped with the latest defense suppression systems. In addition to the standard F–4E electronic countermeasures equipment (warning sensors, jamming pods, and chaff dispensers), the F–4E Wild Weasel aircraft will be equipped with the capability to detect, identify and locate threat systems. Like the F–105G and F–4C Wild Weasel aircraft, they would also be equipped to launch anti-radiation missiles, i.e., STANDARD ARM, SHRIKE and HARM Thus equipped, they would accompany our fighter and attack aircraft, and when a ground based radar-directed air defense threat is encountered, they would detect, locate, and attack the radars with their anti-radiation missiles.

The $92 million requested for this program in FY 1976 would provide for the final development phase of the new avionics package and modification of F–4E aircraft. The $4 million requested in the transition period is primarily for support equipment development. The $81 million requested for authorization in FY 1977 would provide for demodification of test bed aircraft and aircraft modifications. A total of 116 F–4Es would be modified to the Wild Weasel configuration.

EF–111A: Our fighter/attack aircraft, including the Wild Weasel-configured aircraft, have room for only a small electronic countermeasures capability—enough to cope with the few air defense weapons-tracking radars that pose the most immediate danger. To operate effectively in a very intense air defense environment, our tactical aircraft need a jammer with a much greater capability to provide jamming coverage over a wide area. The EF–111A is intended to fulfill that area jamming requirement. The EF–111A would be an Air Force F–111A equipped with ALQ–99 jammers of the type used in the Navy EA–6B. It would also be able to locate the emitting radars, but it would not carry weapons since it would operate normally in conjunction with our F–4 (Wild Weasel) and fighter/attack aircraft.

The EF–111A development program was started in FY 1973 and is expected to be completed by the late 1970s. Two competing contractors undertook systems design analyses of a prototype EF–111A, and one of them has been awarded a contract for full-scale engineering development. The work will involve the determination of the final design and modification of one or both of the government-furnished aircraft, integration of sub-systems, and testing of a full-scale

development EF–111A. If the development phase is successful, forty additional aircraft could then be modified (plus the second prototype if it is not modified in the RDT&E program) to provide an inventory of 42 aircraft for two EF–111A squadrons.

The $10 million requested in the FY 1976 and Transition Budgets for the EF–111A would permit the continuation of the development effort. The $37 million requested for authorization in FY 1977 would provide for completion of nearly all RDT&E. If the EF–111A demonstrates greater military worth than other defense suppression systems, the modification of the first increment of EF–111A aircraft would then be funded.

AWACS (E–3A): Last year we requested funds for the procurement of 12 AWACS aircraft, looking toward the acquisition of a total of 34 operational AWACS aircraft, including the retrofitting of three RDT&E aircraft already on hand. The Congress reduced the FY 1975 buy to six aircraft, principally because of its concern about the vulnerability of AWACS to Warsaw Pact employment of electronic countermeasures (ECM) in a major conventional war in Europe. In addition, the Senate Armed Services Committee recommended "that the Secretary of Defense appoint a group of disinterested radar and ECM technical experts . . . to examine this issue and to report to him on the potential vulnerability of the system to jamming, with an assessment of the GAO and Air Force claims on the subject." Finally, the Department of Defense Appropriation Authorization Act, 1975, requires the Secretary of Defense to determine, and certify to the Congress, that AWACS "is cost effective and meets the mission needs and requirements of the Department of Defense."

In response to these concerns of the Congress, I appointed a panel of disinterested experts, under the chairmanship of Dr. H. P. Smith, Jr. The panel examined the three major roles envisioned for AWACS in a NATO-Warsaw Pact conflict:

(1) To provide the NATO command with timely information of significant aircraft or ECM deployments prior to hostilities, i.e., early warning;

(2) To provide surveillance information required for effective direction of the air battle over NATO-held territory, i.e., the defensive mission; and

(3) To provide the information required for effective direction of strikes into enemy-held territory, i.e., the offensive mission.

As a result of this examination, the panel found AWACS "to be an impressive technical accomplishment that has met its design goals and in so doing is less susceptible to ECM than ground surveillance radars now employed in Europe." More specifically, the panel concluded that:

"(1) attempts to jam AWACS prior to initiation of hostilities constitutes, in itself, warning; (2) AWACS (Block I) will be substantially less vulnerable to ECM than the present air surveillance network; (3) the present ECM equipment of the Warsaw Pact forces should not seriously degrade AWACS performance in support of defensive operations; (4) such equipment could degrade AWACS performance in support of offensive operations; and (5) early implementation of the Panel's ECM recommendations will insure that future Warsaw Pact ECM deployments will have no greater effect than the present situation. The recommended programs are in addition to the Block III enhancements proposed by the Air Force and are estimated (in a very cursory manner) to cost tens of millions of dollars, an investment comparable to threat ECM equipment proposed by the Panel. In summary, if the offensive mission is secondary to the defensive mission, and if our recommended programs are implemented in the near future, the Panel concludes that the vulnerability of AWACS to ECM is a secondary consideration with regard to acquisition and deployment of this system in Europe."

With regard to offensive operations, it should be noted that the report states that AWACS surveillance could be degraded but not denied and current systems have virtually no capability to control forces in hostile territory. For these reasons and since NATO's strategy is primarily defensive, I have determined that AWACS "is cost effective and meets the mission needs and requirements of the Department of Defense," and I am certifying this to Congress. Accordingly, we now propose to move ahead with the initial production of operational AWACS aircraft.

These AWACS would be operated as a pool from which aircraft could be drawn and used as needed on a worldwide basis. For example, aircraft could be deployed to Europe in the event of a NATO-Warsaw Pact conflict; or deployed to

defend vital air and sea LOCs; or be used to support a minor contingency operation; or be retained in CONUS in times of crisis.

AWACS force levels depend not only on our requirements but also on whether our NATO Allies procure AWACS. We are now working closely with our NATO Allies in defining a NATO AWACS program in which most of the costs would be borne by nations other than the United States. A NATO decision on the eventual procurement of AWACS could be made as early as November, 1975.

In the absence of such a NATO decision our ultimate AWACS force level is uncertain. We believe it prudent to stretch procurement both to reduce somewhat the yearly procurement expenditures and to allow time for NATO nations to reach a decision. For this reason we have adopted the six-a-year production rate established by Congress for the FY 1975 buy. Considering the varied requirements for AWACS the 34 aircraft proposed program appears prudent until a clearer indication of NATO's desires are received.

Three RDT&E AWACS aircraft, and the System Integration Demonstration (SID) aircraft, were funded in prior years; the first six production aircraft were funded in FY 1975. The $690 million included in the FY 1976 Budget for this program would provide $476 million for the procurement of six more AWACS, $15 million for advance procurement and $199 million to continue development of the system, including the Time Division Multiple Access (TDMA) digital data link and a minor modification to the mission system to provide an improved maritime surface surveillance capability. These first 12 production aircraft (six in FY 1975 and six in FY 1976) would be very useful even without the later "enhancements", but they (and the three RDT&E aircraft) will be retrofitted with them eventually.

The $85 million requested in the Transition Budget includes $55 million for continued development and $30 million for advance procurement. The $504 million requested for authorization in FY 1977 would provide $358 million for procurement of six more aircraft (all with the "enhancements"), $22 million for advance procurement, and $124 million for continued development. The additional U.S. and any NATO AWACS (with "enhancements") would be procured in FY 1978 and FY 1979, and the first 12 production aircraft, as well as the three RDT&E aircraft, could be modified to the final "enhanced" configuration at that time. Thereafter, further improvements would be incorporated as they are developed. This aircraft is expected to remain in the force for 20–30 years and during that time it will undoubtedly undergo essential configuration changes as the threat and operational requirements dictate.

Sidewinder and Sparrow: In FY 1975–76 we will begin the procurement of new versions of both the Sidewinder and Sparrow air-to-air missiles. The Sidewinder is a short-range, infrared homing missile; the Sparrow is a medium-range, radar-guided missile which is also used as a ship-to-air missile for fleet air defense. The Sidewinder and Sparrow are the standard air-to-air missiles used by the tactical air forces of the Air Force, Navy, and Marine Corps.

The last procurement of the Sidewinder AIM–9H for the Navy was funded in FY 1975; the Air Force will procure AIM–9Hs in FY 1976 as a one time procurement. Initial operational test and evaluation of the new Sidewinder AIM–9L is scheduled to be completed this summer, and we plan to begin procurement of this new missile in FY 1976. The $14 million requested for this system in the FY 1976 and Transition Budgets would provide for completion of development of the AIM–9L, initiation of a product improvement development program, procurement of 1,510 AIM–9Ls (800 for the Navy and Marine Corps and 710 for the Air Force) and procurement of 800 AIM–9Hs for the Air Force. The $69 million requested for authorization in FY 1977 would provide for continuation of the product improvement development program and the procurement of 1,750 AIM–9Ls—750 for the Navy and Marine Corps and 1,000 for the Air Force.

We are also requesting $6 million for the Navy and $4 million for the Air Force to continue the effort to determine the efficacy of developing a follow-on short-range air-to-air missile (SRAAM) that will fulfill the future requirements of both the Navy and Air Force, and to define the configuration of that missile. We are aware that missiles of this type will be needed in large quantities and that the unit cost must be kept down to a level consonant with buying them in large numbers.

The problems encountered in the development of the new SPARROW AIM–7F have now been resolved, and the first production quantity of this missile has been

procured with FY 1975 funds. The operational test firings conducted last year indicate that the AIM–7F has a significantly better performance and reliability than the earlier models of the SPARROW missile.

The $156 million requested in the FY 1976 and Transition Budgets would provide $13 million for the development of a new type of seeker for the AIM–7F and $143 million for the procurement of 980 missiles—360 for the Navy and Marine Corps and 620 for the Air Force. The $173 million requested for authorization in FY 1977 would provide $15 million to continue the development of the new seeker and $158 million for the procurement of 1,580 missiles—700 for the Navy and Marine Corps and 880 for the Air Force. The new seeker would be less costly than the current seeker and have a better discriminating capability against ground clutter as well as better ECM resistance. If successfuly developed, it would be incorporated into the AIM–7F missiles on the production line.

Defense Suppression Weapons and Equipment: In addition to the specialized electronic countermeasures and defense suppression aircraft discussed above, we intend to pursue the wide variety of defense suppression weapons and equipment that were described to the Committee last year. Funds are included in the FY 1976 and Transition Budgets, and in the FY 1977 authorization request, to finance these efforts.

Virtually all of the air-to-surface weapons carried by our tactical aircraft can be used to attack ground air defenses. Some of these weapons, for example the Maverick and Walleye, have a stand-off capability, i.e., the attack aircraft can fire these missiles while remaining outside the range of the more limited ground air defense systems. Other weapons, such as the modular glide bombs, can be launched at the target from outside the range of Sams.

Three tactical air weapons, Standard Arm, Shrike and Harm, are specifically designed for defense suppression. These antiradiation missiles home on the emitting radar signals. In addition to procuring more of the current Shrike missiles, the Air Force is now completing the development and testing of an improved version of Shrike.

One of the important new developments in the defense suppression area, as well as for tactical air strikes against fixed targets generally, is the Precision Emitter Location Strike System (PELSS). This system, if successfully developed, would give us the long sought capability to locate precisely enemy defense radars and quickly direct strikes against them.

Passive Airbase Defense: The provision of hardened shelters for all NATO fighter, attack and reconnaissance aircraft in Europe has been a major objective of U.S. defense policy for more than a decade. The need for such shelters was dramatically demontrated in the 1967 Middle East was where the Israelis, in a few hours, annihilated the unprotected Arab air forces and achieved absolute air superiority in the combat zones for the duration of the Six Day War. Subsequently, the Arabs built shelters for most of their aircraft. The Arab experience in the 1967 war was not lost on the Warsaw Pact nations. Since that time, the Warsaw Pact has built a large number of aircraft shelters. The NATO nations, including the United States, have moved more slowly, and we still have a long way to go to provide shelters for all of the fighter, attack and reconnaissance aircraft planned for deployment to Europe in the first few weeks of a mobilization.

Accordingly, we now propose to accelerate our program to provide the shelters needed for the USAF fighter, attack and reconnaissance aircraft we would deploy to Europe during that period.

As noted last year, at the urging of the U.S., the NATO Ministers approved in December 1973 the expansion of Saceur's protection program to include a high percentage of U.S. rapid reaction aircraft scheduled for deployment to Europe. Some 615 shelters were funded by the U.S. and NATO in FY 1975 and prior years. Of the remaining shelters, some are currently eligible for funding through the NATO Infrastructure account. An extension of NATO eligibility for Saceur Strategic Reserve aircraft is hoped for soon, and would provide more shelters through direct NATO funding. We are now negotiating with our NATO partners to expand the Infrastructure funding criteria to include shelters for the remaining USAF fighter, attack and reconnaissance aircraft earmarked for deployment to Europe in the first few weeks of a mobilization. Pending the completion of these negotiations, we plan to finance the shelters over a three year period, FY 1976–78.

Some $175 million is included in the FY 1976 Budget for 253 aircraft shelters, and $200 million is requested for authorization in FY 1977 for another incre-

ment of shelters. The remaining shelters would be funded in FY 1978. As I mentioned, we hope to recoup a large part of these outlays from the NATO Infrastructure account. These recoupments are reported to the Congress as they are received and are taken as credits against our future construction requirements.

Included in this program are other passive defense measures such as dispersal and camouflaging and the protection of POL storage areas, ammunition dumps, maintenance shops and similar facilities essential to the operation of our air forces in Europe. As a necessary complement to our program, we are continuing our efforts to encourage our NATO Allies to fund adequate shelters for all of their fighter, attack and reconnaissance aircraft planned for use in Europe.

E. MOBILITY FORCES

Mobility forces play a key role in our general purpose force structure. They provide the capability to resupply allies in a timely manner, to deploy forces quickly when and where needed, and to employ them flexibly once they reach their area of operations. These capabilities assist us in meeting our commitments and maintaining our national security with fewer forces deployed abroad. Our mobility forces include the strategic airlift forces of the Military Airlift Command (MAC) and of the Civil Reserve Air Fleet (CRAF), the sealift forces of the Military Sealift Command (MSC) and the U.S. Flag Merchant Fleet, the tactical air lift forces which have been recently transferred from the Tactical Air Command to MAC, and helicopter air logistics forces used for tactical logistics forces used for tactical logistics movements within a theater of operations. There are also some tactical airlift aircraft in the Navy and Marine Corps.

As noted earlier, the principal focus of our general purpose force planning is on the achievement of a stable conventional force balance in Europe. In our judgment, the in-place forces of NATO and the Warsaw Pact do not now give either side a clear margin of superiority. Should the Warsaw Pact choose to mobilize and reinforce their forces in central Europe, however, they would have two distinct advantages. First, we assume that they would move first, gaining time before we and our allies would clearly perceive the threat and react. Second, they would have a shorter and possibly more secure distance over which to move their reinforcements. These would consist primarily of Soviet divisions from the western military districts of the USSR. The principal source of NATO's reinforcements is U.S. forces based in the United States which must be deployed in some cases almost 5,000 miles across the Atlantic. Should the Warsaw Pact mobilize quickly and effectively, they could have a significant advantage in terms of force available during the first few weeks of a confrontation.

The capability of our mobility forces to rapidly reinforce is a key factor in the capability of NATO to conduct a successful conventional defense. Moreover, a clearly perceived capability on our part to deploy forces rapidly greatly strengthens the deterrent to aggression against ourselves and our allies in Europe and elsewhere.

1. Strategic airlift

Our military strategic airlift forces consist of four active squadrons of C–5As (70 UE aircraft) and 13 active squadrons of C–141s (234 UE aircraft). In addition to these active units, there are an equal number of C–5A and C–141 Reserve Associate Units (i.e., personnel without aircraft) collocated with the active units. When activated, these reserve units make possible a rapid increase in the rate of utilization of the active force aircraft. In peacetime, the reserve units contribute on a part-time basis to the operation and maintenance of the active force aircraft as part of their normal training.

In addition to these military assets, U.S. commercial airlines have committed 246 long-range aircraft to the Civil Reserve Air Fleet (CRAF). Of these, 156 are cargo or passenger/cargo convertible aircraft and 90 are passenger only aircraft. These aircraft would be available to assist in military airlift operations under conditions of mobilization or in a contingency serious enough to activate CRAF.

Strategic airlift plays a particularly important role in our commitment to the conventional defense of Europe. Our ability to deploy forces rapidly could do much to offset the Soviet Union's geographic advantage, particularly in the early weeks of a confrontation in Europe. Sealift also plays a crucial role and, over the

long term, would account for the bulk of materiel movements. However, only airlift insures the delivery of combat forces in the opening weeks of a deployment. In addition airlift has the advantage of providing a visible, growing buildup starting with the first few days. Our capability to deploy forces in the first few weeks by air may well be crucial to the success of a NATO defense and indeed, it may deter an attack in the first place.

In order to improve our ability to rapidly reinforce NATO, we proposed last year a number of programs which would provide a major increase in the capability of our strategic airlift forces. We continue to believe that these programs are essential and we are proposing them again this year, with some changes based on our further study of the problem and the concerns expressed by the Congress last year. The proposed programs include an increase in the wartime utilization rates of the MAC force of C–5s and C–141s, modification of the C–141 force, and Government financing of modifications to civilian wide-bodied passenger aircraft. These programs in combination with other operational changes we have made or plan to make—such as in-flight refueling of C–5s (we currently have over 77 air refueling qualified aircrews) and the limited employment of C–130s in a strategic airlift role during the early weeks of a major deployment—would make possible a doubling of our wartime airlift capability.

Our current strategic airlift force, based on a detailed analysis, has the capability to move substantial quantities of equipment to Europe during the first 30 days following mobilization. In addition, the existing airlift and sealift forces could deliver the needed Army support equipment for units already in Europe and the equipment and support units for additional fighter/attack squadrons.

The added airlift capability resulting from all the proposed improvement programs would greatly increase the total tonnage we could deliver by air during the first 30 days. The added airlift capability would enable us to deliver additional DEs with their equipment and combat-essential support units. If we chose to use the additional airlift capability primarily for division equipment, relying on our sealift capability to deliver the support equipment, we could move even more DEs to Europe by M+30. We estimate that M+40, sealift could have delivered large quantities of support equipment, ensuring adequate support for the combat forces. Sealift can move massive tonnages, but does not commence deliveries until after about two to three weeks following initial mobilization.

The total investment cost of the proposed airlift improvement programs would be about $1.5 billion and the additional annual operating cost, about $81 million. These amounts compare with an investment cost of about a half of a billion dollars for an additional armored division and an annual operating cost of about $200 million for that division. Viewed in this light, the proposed airlift improvements, giving us the capability to employ more divisions by M+30, represent a highly economical means of improving our capability to mount a stalwart conventional defense in Europe.

C–5 and C–141 Wartime Utilization Rates: First, we plan to increase the overall (active and reserve) crew ratios for the military airlift force of C–5s and C–141s from 3.25 crews per aircraft to 4.0 crews per aircraft. These changes would permit us to increase the sustained wartime utilization rate of these aircraft from eight hours per day to ten hours per day and the initial 45 day surge utilization rate from ten hours per day to 12.5 hours per day. Associated with these crew ratio increases are increases in manning for maintenance personnel initially from existing behind-the-line resources and increases in war reserve spare parts stock levels needed to support the higher utilization rates.

In response to the concerns expressed by the Congress, we now plan to achieve these higher crew ratios primarily by expanding the Reserve Associate Units to the maximum extent possible. We believe that by 1978 we can recruit and train adequate reserve personnel to achieve a 2.0 reserve crew ratio for the C–141 force and a 1.75 reserve crew ratio for the C–5 force. Accordingly, we plan to maintain the current 2.0 active crew ratio for the C–141 force and to increase the active crew ratio for the C–5 force from 2.0 to 2.25. The reserve crew ratio increases will be phased through FY 1978, and in the interim, to provide the required capability, we plan to make up crew shortfalls through an auxiliary aircrew concept which utilizes active duty personnel who have been formerly qualified C–5/C–141 aircrew members. These crew members, along with supporting maintenance personnel, are presently serving in positions considered less critical

during national emergencies and can be diverted to provide the additional resources. Also, as we gain experience with the auxiliary aircrew concept, and have the opportunity to observe its feasibility and cost effectiveness, we would then have the option of evaluating the extension of the concept.

This program would substantially increase our airlift capability during the first 30 days of a mobilization. The additional operating cost would be about $81 million per year for crews and maintenance manning when the program is fully implemented in FY 1978. As shown on the table beginning on the next page, a total of about $36 million is included in the FY 1976 Budget for the acquisition of the additional war reserve spare parts needed to support the higher wartime aircraft utilization rates. The additional operating costs would be $41 million in FY 1976, $12 million in the transition period and $63 million in FY 1977.

C–141 Modification: Last year the Congress approved prototype modification of the "stretched" version of the C–141. For most missions involved in the deployment of Army units, the C–141 is space, rather than weight, limited. Hence, by lengthening the fuselage we can increase the normal payload of this aircraft without significantly affecting its performance or operating cost. The difficulties encountered during the 1973 Middle East war convinced us that an in-flight refueling capability should also be added to enhance the flexibility and potential usefulness of these aircraft.

Accordingly, we propose to lengthen the fuselage by 280 inches, modify the wing fairings to improve aerodynamics, and install inflight refueling equipment. These changes would increase the usable payload of the C–141s by about 30 percent, which is equivalent to adding approximately 80 C–141s to the force. This action would significantly increase our airlift capability during the first 30 days following mobilization.

The cost to modify the entire force of 275 C–141s is now estimated at about $660 million. The increase from last year's estimate is due to the stretching out of the program and to inflation. The Congress appropriated $25 million in FY 1975 to begin the prototype modification. Another $16.5 million is included in the FY 1976 Budget to complete the modification and testing. The $74 million requested for authorization in FY 1977 would permit the procurement of kits to start modification of the force.

ACQUISITION COSTS OF MAJOR MOBILITY FORCES MODERNIZATION AND IMPROVEMENT PROGRAMS[1]

[In millions of dollars]

	Fiscal year—				
	1974 actual funding	1975 planned funding	1976 proposed funding	Transition period proposed funding[2]	Fiscal year 1977 proposed for authorization
Strategic airlift:					
Procurement of additional replenishment spares for C–5 and C–141 aircraft			36		
"Stretch" modification to C–141 aircraft to increase capacity		25	17		74
Modification of civilian wide-bodied passenger aircraft to a convertible (cargo-passenger) configuration			22	24	124
Planning and initial engineering of C–5 wing modification	[3] 8	3	22	10	38
Tactical/logistical helicopter airlift:					
Prototype development of advanced medium STOL transport (AMST)	25	56	85	11	45
Navy carrier-onboard delivery (COD) development/procurement	1	1	4		151
Initial engineering and test of army CH–47 helicopter modernization program		3	10	3	10
Development/procurement of Navy/Marine Corps CH–53E helicopter	29	47	30	2	124
Advance technology component (ATC/prototype) development of the Army heavy lift helicopter (HLH)	60	33	20	3	17

[1] Includes costs of R.D.T. & E. procurement of the system and initial spares, and directly related military construction.
[2] July 1 to Sept. 30, 1976.
[3] Funds originally provided for 3d fatigue article, now reprogramed to development of wing modification.

Wide-Bodied Passenger Aircraft Modifications: As requested by the Congress, we have conducted a detailed review of our airlift needs and again we find that the modification of existing wide-bodied civilian passenger aircraft, giving them a convertible passenger-cargo configuration, would be one of the most cost-effective ways to acquire the additional increment of wartime airlift capability needed to support our NATO strategy. Therefore, we are again proposing to modify, at Government expense, existing commercial wide-bodied passenger aircraft, and to include them in the CRAF program.

The modification of the Boeing 747 passenger aircraft to a cargo-convertible configuration would involve installation of a nose visor door and either strengthening of the upper cargo floor or installation of a cargo floor weight distributin system for use with the current passenger floor. With the strengthened upper cargo floor these aircraft would be capable of carrying nearly all cargos which can be carried by the C–141 and would have a payload of about 75 tons. With the weight distribution system for the passenger floor they could carry more than 50% of the equipment items which can be carrier by the C–141 and would have a payload of about 55 tons. The latter modification would cost less and would impose a lesser weight penalty on the aircraft in normal passenger operations. We anticipate that some airlines would prefer one version while others would prefer the other version. The cost of the modifications would be between $3 million and $7 million per aircraft, depending on which version of the modification was selected. These costs include compensation over the life of the aircraft (estimated at 10 years after modification) which we would have to pay to the airlines for revenue lost during conversion and for increased operating costs and revenue lost due to the added aircraft weight.

The long-range DC–10s could be modified with a side-loading cargo door and a strengthened upper cargo deck for about $4 million per aircraft. These DC–10s can carry a payload of about 50 tons. However, they are height limited and therefore can carry only about 70% of the equipment items which can be carried by the C–141; their range is also shorter than that of the 747.

There are now about 111 U.S.-carrier operated passenger 747s in service. Another 71 passenger and cargo 747s are operated by the airlines of our NATO Allies. In addition, U.S. airlines also operate about 77 DC–10s, but only about 24 are the long-range version. (The wide-bodied Lockheed 1011 is too short-range to be considered in this context.)

We are currently negotiating tentative agreements with the U.S. airlines to make their 747s and DC–10s available for modification and then to operate them as part of the Civil Reserve Air Fleet. 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–5 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.

A program to modify over 100 of these aircraft would significantly increase our capability in the first 30 days of mobilization. The cost to the Government for this program is estimated at about $6,800 million. The first increment of $22 million is included in the FY 1976 Budget, another $24 million is included in the Transition Budget, and $124 million is requested for authorization in FY 1977.

The Defense Department has relied for some time on the U.S. maritime industry to provide the bulk of our sealift forces in a time of national emergency. The Congress, in recognition of this fact, has authorized subsidies for the shipping industry to ensure the availability of these assets in emergencies. We believe that similar reliance can be placed on the civil sector for airlift support in emergencies, now that large numbers of wide-bodied, long-range aircraft suitable for use in military unit deployments are available. Reliance on the civil sector for our emergency lift needs permits us to achieve savings in procurement and, even more significant over the long term, savings in operating and maintenance costs.

C–5A Wing Modification: As discussed in last year's Report, we have known for some time that the service life of the C–5A would fall significantly short of the design goal of 30,000 hours. Last year we estimated the C–5 wings would have a service life of 17,000 to 20,000 hours. Events since then have convinced us that their service life will be closer to 9,500 to 13,000 hours and that the required wing modification must be more extensive than originally estimated. More important, at the rate the C–5 aircraft are accruing fatigue damage, the force will begin

to reach a damage accumulation point in 1979, at which time some of the aircraft would have to be grounded. Thus, action must be taken now to develop and test the necessary wing modifications.

With the concurrence of the Congress, we plan to redirect the efforts on the third C–5A fatigue test article to have it built in the modified configuration and reprogram $3 million to initiate design engineering and testing of the wing modification. The remaining $8 million required to finance the program through FY 1975 would be made available from previously approved test article funds. We estimate that the cost of modifying all of the C–5As will amount to about $900 million. We have included $22 million in FY 1976, and $10 million in the transition period and $38 million in the FY 1977 authorization request for this program. The C–5A plays such a key role in our airlift capability that we have no alternative but to take the necessary steps to ensure, once and for all, the long-term availability and reliability of these critical aircraft.

2. Sealift

Nine charter tankers for the Military Sealift Command 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 this fiscal year.

Last year it was planned to acquire two multi-mission ships, also through a build-and-charter arrangement. However, a lack of response from the shipbuilding industry, because of the limited number of ships contemplated, has caused this program to be deferred until a new approach can be devised.

Notwithstanding our current emphasis on strategic airlift, we will still need a substantial sealift capability to assist in the movement of unit equipment and to sustain and augment the forces initially deployed by airlift. Even in a NATO-Warsaw Pact conflict, some of the deploying forces would have to move by sea, as would the bulk of the resupply for all of the U.S. forces already deployed.

Since the capability of the DoD-controlled sealift is probably insufficient to support even a minor contingency in a timely fashion, 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 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 a significant number of 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, our NATO Allies have committed NATO flag ships to assist in U.S. deployments if needed. These are Allied ships which frequent U.S. east and gulf coast ports, and which are "earmarked" in peacetime to facilitate their early availability upon the declaration of NATO mobilization and the activation of the NATO Defense Shipping Executive Board which would control the NATO shipping pool during wartime.

With regard to minor contingencies not involving the declaration of a mobilization by the President or the Congress, the MSC under the Sealift Readiness Program has obtained commitments from the commercial shipping lines to make ships available in such a contingency, with at least half to be available in the first 30 days. One of the key difficulties inherent in this program is the risk that operators would lose some portion of their business on the regular trade routes to other U.S., as well as foreign, lines if they took their ships off those routes for any substantial period of time. During the Vietnam conflict, 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 130 ships presently in the NDRF are well past 30 years old.

It is apparent to us that we need 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. The Defense Department, together with the Maritime Administration, is working on a program to revitalize the NDRF. In addition, we are studying potential improvements in the Sealift Readiness Program, the NDRF and the MSC to provide greater assurance that we have the capacity to meet our sealift requirements in a timely manner in situations short of mobilization. One of these potential improvements could be the provision of a small group of relatively modern ships in a ready reserve status under MSC to enhance our quick reaction surge capability.

3. Tactical Airlift

Overall, our Air Force tactical airlift force will remain relatively constant, but we plan to increase reliance on the Reserve Forces. The active force will be reduced by two squadrons in FY 1976, from 17 (325 aircraft) to 15 (283 aircraft). The aircraft from these two squadrons will be used to modernize the Air Reserve Forces.

Also to cut overhead, we now propose to eliminate the small tactical airlift forces currently operated by the Navy and Marine Corps and reorganize the large airlift forces assigned to the Air Force to meet the needs of the Navy and Marine Corps. The general airlift portion (C–130, CT–39, C–9 and C–118) of the Navy fleet tactical support squadrons, both active and reserve, and the Marine tactical support airlift aircraft (C–117, C–8, CT–39 and C–9) would be phased out in FY 1977. The Carrier Onboard Delivery (COD) aircraft and the Marine KC–130 aerial tankers will be retained. Aircraft now assigned to the Navy and Marine Corps tactical airlift mission will be allocated to unique Navy and Marine Corps support missions or retired.

To increase the ability of the Air Force to respond to the added requirements, we have transferred the C–130 tactical airlift forces of the Tactical Air Command and the Unified Commands to the Military Airlift Command (MAC). MAC will also be the gaining command, upon mobilization, for the Air National Guard and Air Force Reserve airlift forces.

This reorganization will place all DoD strategic and tactical airlift assets under a single manager for airlift, thereby increasing our ability to exploit fully the inherent flexibility of airlift. The Navy and Marine Corps have provided estimates of their airlift requirements to the Air Force which is developing a plan to meet their needs. The plan will be reviewed by the Services and Joint Chiefs of Staff prior to its implementation in FY 1977, to ensure that adequate, responsive airlift is provided to all the Services and theater commanders.

It should be emphasized that it is not our intention to reduce the airlift support provided to the Navy and Marine Corps nor to eliminate their organic support aircraft. On the contrary, the airlift service provided to them should be equal or better. The objective of the reorganization is to utilize the Air Force airlift assets more effectively for the benefit of all of the Services, while at the same time realizing some economies through the elimination of redundant support forces. We anticipate a saving of more than $600 million in new aircraft procurement and operating costs over the next five years as a result of this consolidation.

AMST: While the C–130 has been an effective aircraft, it has limitations in meeting the current and future tactical airlift requirements. Thus, we believe that tactical airlift modernization will be needed, sometime in the early 1980s. The objective of the Advanced Medium STOL Transport (AMST) prototype program is to demonstrate new STOL technology and operational utility and provide an option to replace not only the C–130, but also the current STOL aircraft, the C–7 and C–123.

The two contractors involved in the AMST program, Boeing and McDonnell Douglas, are each building two prototypes and are using different powered lift concepts for achieving improved STOL performance. Because of their different technical approaches to powered lift, the fabrication and testing schedules of the two contractors differ. Testing of the McDonnell Douglas prototype will be completed in November, 1976, and the Boeing prototype in August, 1977.

Two of the principal objectives of the prototype program are to obtain data on costs and operational factors associated with short field performance, and to define engine and airframe characteristics which would substantially reduce maintenance support requirements. As a practical matter, until the flight test phase of the prototype program is completed, cost-effectiveness analyses must

be based on engineering data. For an engineering development/production decision, we think it would be prudent to withhold the decision until the results of the flight tests become available.

About $96 million has been included in the FY 1976 and Transition Budgets for the AMST program. The bulk of these funds would be devoted to final assembly and testing of the prototypes. For FY 1977, we are requesting an authorization of $22 million to complete the prototype phase. The total cost of the four prototypes is now estimated at $230 million.

Carrier onboard delivery (COD): As mentioned earlier, the Military Airlift Command will provide tactical airlift support between land bases for all Services. The Navy, however, will continue to operate the Carrier Onboard Delivery (COD) aircraft for the rapid delivery of high priority personnel, cargo and mail to the carriers at sea. Currently, the COD force consists of 12 C–2s and about 30 aging C–1s. By 1980 the C–1s will be 24 years old and will have to be retired, leaving only the 12 C–2s. That force would be too small to support the carrier forces during contingencies or mobilization operations. Therefore, replacement aircraft will be required.

We have been evaluating several alternatives for the COD mission for some time. As yet no firm decision has been made but none of the alternatives appears to provide an acceptable balance between budgetary restraints and operational requirements. Accordingly, we have included $4 million in the FY 1976 Budget for the Navy to examine other alternatives for the COD mission. The $160 million requested for authorization in FY 1977 is based on the assumption that a decision to procure a COD replacement will be made later this year.

4. Helicopter Air Logistic Forces

In addition to strategic and tactical airlift forces, the DoD maintains medium and heavy lift helicopter forces for air movement of troops, equipment and supplies within a theater of combat operations. This force includes the Army's CH–47 and CH–54 and the Marine Corps CH–53A/D helicopters.

CH–47 Modernization: In FY 1976 the Army will have 434 medium lift CH–47 helicopters of which 51% will be A and B models. In the early 1980s the CH–47 A/Bs will be about 15 years old and without some modernization will be reaching the end of their expected service life. Therefore, to maintain the needed vertical lift capability through the 1980s, the CH–47 A/Bs should be either replaced by a new helicopter or modernized. After examining the medium lift capability needed and cost involved, we chose the latter approach. The modernization program we plan to pursue will not only extend the service life of the CH–47 A/Bs, but will also provide needed improvements in payload, maintainability, safety and reliability. In order to continue this modernization program, which we started in FY 1975 for $3 million, we have included $13 million in the FY 1976 and Transition Budgets and $10 million in the FY 1977 authorization for engineering development and testing of the desired modifications to the CH–47 A/B.

CH–53E: To provide the Marine Corps and Navy with a shipboard compatible heavy lift helicopter, we plan to continue the development of the CH–53E. Phase I (advance development) is nearly complete and we expect to initiate Phase II (engineering development) in March. Phase II, which is scheduled for completion in November, 1976, will include development and testing of two production prototype aircraft. Some $30 million is included in the FY 1976 Budget to complete Phase II and to procure long lead time items for the first production aircraft. The $124 million requested for authorization in FY 1977 would provide for the procurement of the first 17 CH–53Es in addition to some long lead time procurement.

Heavy lift helicopter (HLH): The current Army helicopter used for heavy lift is the CH–54, which has a lift capacity of about 10 tons. The Army has been developing advance technology for a new helicopter, the HLH, which can lift about 22.5 tons. We had envisioned that this helicopter would be used by all the Services to satisfy heavy vertical lift requirements which cannot be satisfied by the current helicopter forces. After a detailed review of the HLH program, however, we have decided that its cost in relation to other higher priority needs would be too high. Accordingly, we propose to complete the advanced technology phase, including the flight test of all components on one prototype, to assess the applicability of HLH components to other helicopter programs (e.g., UTTAS and CH–47 modernization), provide the Government with improved technology at the

lowest cost, and advance industry expertise in heavy lift helicopter components. Upon completion of that phase, the HLH program would be terminated. The $23 million included in the FY 1976 and Transition Budgets and the $17 million requested for authorization in FY 1977 would complete this program.

IV. Other Major Programs

In addition to the force-related programs discussed above, there are a number of other major programs which account for a large part of the Defense Budget. They include Intelligence; Command, Control and Communications; Research and Development; Central Supply and Maintenance; Training, Medical and Other General Personnel Activities; Administration and Associated Activities; and Support of Other Nations. Inasmuch as many of the more important R&D projects have already been discussed in connection with the force-related programs, and many others will be covered by the Director of Defense Research and Engineering in his appearance before the Committees, there is no need to deal with the R&D program here.

A. INTELLIGENCE

The Defense Department intelligence and security programs consist of cryptologic and general intelligence activities. Because of the sensitivity of specific intelligence activities, however, only a general discussion can be provided here.

During the past five years, Defense intelligence manpower has been reduced substantially and further reductions are programmed over the next several years. These manpower reductions have been achieved for the most part by consolidating certain intelligence activities worldwide, modernizing operations to a maximum degree consistent with advances in research and development, and streamlining headquarters and staff support. As an example, we have introduced computer-assisted collection and processing devices and other automated data handling systems which are designed to relieve manpower-intensive efforts. To ensure continued mission effectiveness, manpower reductions will be accomplished by holding mission reduction to the minimum possible to lessen the operational impact on the intelligence consumer. Automated systems are being introduced in a time-phased manner during the manpower drawdown process.

We need to provide more timely intelligence support to our theater commanders, and the fulfillment of this need has become one of our primary goals. We have invested resources in centralized intelligence facilities and activities in recent years and we must ensure that the time-sensitive intelligence and warning information produced from these systems is made available promptly to the theater commanders. This intelligence information will enhance the commander's capability to make time-critical decision during combat or periods of increased tension. Funds are included in the FY 1976 Budget to provide increased support in this area.

Another major problem which should be resolved without further delay is the consolidation of major Defense Intelligence Agency analytical facilities which are currently dispersed in the Washington area. DIA is responsible for providing timely and accurate intelligence information to the Secretary of Defense and the Joint Chiefs of Staff, but has been conducting important analytical responsibilities under extremely poor working conditions and unsatisfactory communications linkages. Accordingly, we are requesting military construction funds in the FY 1976 Budget for a new building to bring together the analytical workforce, improve overall production management, and reduce the number of personnel required. Consolidation will enhance DIA's capability to provide sound and timely estimates, particularly during rapidly developing crisis situations.

Finally, analyst professionalism has become of critical importance for the success of the intelligence production effort. These circumstances require that we upgrade the quality of professional defense intelligence analysts and actions toward this end are underway. We have initiated a vigorous career development program to attract and retain professional military and civilian analysts. This will be a continuing program and one that is important to our future success.

B. COMMAND, CONTROL AND COMMUNICATIONS (C^3)

An adequate and secure system of communications is not only essential for the administration of the Defense establishment in peacetime, it is also vital to the command and control of our forces in wartime. Hence, this section deals primarily with the C^3 portions of the overall telecommunications program.

The United States Department of Defense must have a "central nerve system" to command and control its military forces wherever they may be deployed around the world. This system must be sufficiently flexible to adapt quickly to changes in national policy objectives, strategies, force deployments, technology, and threats. This process must encompass the key elements of the system, including procedures for the command and control of our forces, as well as the necessary supporting computer and communications systems.

C^3 must be integral to our force structure, must adapt to changing circumstances, and when stressed or under attack must degrade in a manner which ensures the survival of the most vital functions. The C^3 system must continuously convey information on the nature and scope of the threat, and the status and availability of U.S. and Allied forces, to command authorities in a form that facilitates their decision-making; pass action directives to those forces; and provide the National Command Authorities (NCA) information on the results of the directed actions.

The provision of information to the NCA is of particular importance to maintain control over any possible escalation of a conflict, a basic tenet of our nuclear policy. The national decision makers need timely, accurate feedback information on the battle situation, such as the effect of attacks and force status of both sides. Thus, emphasis is required on reliable links from the forces as well as to the forces for the transmission of command messages.

Force reductions as a result of SALT agreements and budget reductions dictate more efficient utilization of the remaining forces. Because efficient force utilization often is limited by existing C^3 capabilities, increased emphasis on improved C^3 is essential to maintain overall force effectiveness.

Our present C^3 resources have *not* been systematically designed to accommodate today's complex C^3 requirements. In general, they were introduced in response to specific changes in the threat or to take advantage of a particular technology. As a result the overall C^3 system is not as thoroughly integrated as it should be. Although there will always be a need for specialized sub-systems to serve certain unique functions, such as the command and control of our strategic forces in a nuclear war, our basic C^3 system should be planned within an overall system framework to serve all of the needs of the Defense establishment, ranging from a response to a crisis situation to all-out nuclear war.

In moving toward a more systematic approach to our C^3 needs, a number of corrective actions have been taken. Two important organizational actions taken were the establishment of the Worldwide Military Command and Control System (WWMCCS) Council and the creation within OSD of the Office of Director, Telecommunications and Command and Control Systems (DTACCS). In February 1974, a decision was made to develop a master plan, an "architecture", for a system based on the identification and satisfaction of our most urgent C^3 needs, to the extent technology and the reasonable application of Defense resources would permit. The efforts to identify these C^3 requirements and to develop the architectural options to satisfy them are now underway. In order to implement the option selected by the WWMCCS Council, we will designate an organization within DoD to engineer and manage the achievement of the C^3 system capabilities, and to do whatever additional architectural work which may be required.

The primary objective in designing our telecommunications system is to provide the capability for secure command and control of our forces in crisis situations and war contingencies. It must be borne in mind, however, that there will always be a requirement for day-to-day operational, logistic and administrative communications. The systems provided to satisfy these requirements are multi-user, general purpose systems for voice, written message and data traffic and they form the backbone grid of our communications network. To minimize the need for costly, duplicative systems for purely command and control purposes, these general purpose systems have been provided a capability to recognize messages of varying priority so that in times of crisis important command and control messages can be accorded precedence over more routine traffic.

A certain minimum telecommunications capability, however, must be able to survive a full-scale nuclear surprise attack. It would be too expensive to provide all of our general purpose systems with that degree of survivability. Therefore, the provision of some special purpose C^3 systems, such as those discussed in connection with the strategic forces, cannot be avoided. The collection of most survivable systems providing capability to transmit command information to our nuclear forces is known as the Minimum Essential Emergency Communications network (MEECN). Wherever feasible, however, the special purpose sys-

tems are designed to use appropriate segments of general purpose systems. Thus, the special purpose C^3 systems are essentially sub-sets of, or adjuncts to, the general purpose C^3 system. Inasmuch as the special purpose systems have already been discussed in the Strategic Forces section, the following discussion will deal primarily with the general purpose systems.

1. General Purpose Systems

The general purpose C^3 systems perform telecommunication and teleprocessing functions in both peacetime and wartime, and provide the backbone grid for the interconnection of fixed bases, aircraft in flight, and mobile tactical forces on land and sea. Although not hardened, they enjoy some degree of survivability because of the many alternate routes available between fixed facilities and mobile/transportable equipments. Some of the more significant general purpose systems and their critical requirements for improvement are discussed below.

Defense Communication System (DCS) : The DCS is a single worldwide complex comprised of communications facilities, personnel, and materiel within the Department of Defense down to but not including: (1) mobile and transportable facilities and tactical networks organic to field armies, fleets, air forces, and fleet marine forces; (2) post, camp, base, and station terminal facilities; and (3) those on-site communications facilities associated with, or integral to, weapon systems, e.g., Minuteman, Polaris, Safeguard. It includes the assets of the Defense Satellite Communications System (DSCS) except portions that are specifically designated as primarily tactical in nature. Also included are communications which interconnect the primary and alternate fixed or mobile command posts of the President, the Secretary of Defense, the Joint Chiefs of Staff, and the unified and specified commanders.

DCS transmission sub-systems include a variety of facilities and equipments which provide communication links via high frequency radio, microwave radio, tropospheric scatter, leased and Government-owned submarine cable, and satellites. DCS transmission facilities are located on five continents and provide millions of miles of communications. Only a few of these circuits, however, are capable of carrying high quality secure speech, and major sub-system upgrading is planned for both military and commercial equipments in order to expand that capability.

The DCS switching sub-system consists of the Automatic Voice Network (AUTOVON), the Automatic Secure Voice Network (AUTOSEVOCOM), and the Automatic Digital Network (AUTODIN). The Autovon is a worldwide direct-dialing non-secure telephone service provided by 69 automatic switches in the U.S. and Canada and 17 switches overseas. Three U.S. switches and one Canadian switch are to be eliminated by June 30, 1975.

Seventeen thousand subscribers are served by these switches, which are interconnected by nearly eight thousand circuits. Secure voice service, although limited in both capacity and quality, is provided to selected users via the Autosevocom worldwide secure voice network. Approximately 1,600 subscribers are currently served by the 126 Government-owned switches, most of which are the small, manual type. The Phase II Secure Voice Program will expand secure voice service and provide direct dialing to replace the present cumbersome manual switching.

Written message communication is provided by Autodin, a worldwide high-speed computer-controlled general purpose communication system. The system serves about 1,500 subscribers through 19 switches (9 leased in the U.S. and 10 Government-owned overseas) interconnected by 49 trunks. In contrast to the Autovon voice switching network, the Autodin message system is and has been 100% secure from its beginning.

Significant personnel and operating cost savings were achieved in 1972–73 by the integration of the Defense Special Security Communication System (DSSCS), which served the intelligence community, into Autodin. The DSSCS was a manual system and lacked the speed of service of the computerized Autodin system; moreover, it required duplicate circuits generally paralleling the Autodin trunks. The two networks were integrated, with better speed of service to DSSCS users and with no adverse impact on Autodin service.

While the current Autodin system has provided significant improvents in both speed and efficiency of service, the continued growth of Autodin traffic and the requirement for interactive query and response between remote subscriber terminals and computer data banks make it essential to expand the capability of this this type of service. Plans are being prepared to address this need.

Planned reductions in the Autovon, Autodin switched networks will provide more efficient net works at reduced costs, assisting the financing of other DCS operating network improvements.

Satellite Communications: Communication satellites offer unique capabilities for military command and control. Unlike fixed facilities, which require much time and effort to install, satellite systems permit the quick establishment of communications, using terminals that can be recovered and redeployed as conditions change. Small shipboard and airborne satellite terminals are now being developed and when produced will bring the advantages of reliable communication over long distances to mobile weapon platforms.

The flexibility with which satellites can solve complex military operations problems has been demonstrated by the initial operational Defense Communication Satellite System and the experimental Tactical Satellite Communication System (TACSATCOM). This experience has enabled us to identify a number of satellite requirements, including global command and control, transmissions of intelligence data, communications with nuclear forces, fleet communications, and communications for mobile ground forces. We plan to satisfy these requirements, to the extent feasible, with multi-user general purpose systems employing primarily two kinds of operational satellite systems.

The first of these systems, the Defense Satellite Communication System (DSCS) Phase II, will serve primarily fixed terminals requiring many circuits. The two Phase II satellites launched in 1973 are now being used operationally by 54 U.S. terminals deployed around the globe, and by the United Kingdom and other NATO Allies on a shared basis. Two more Phase II satellites will be launched during the current fiscal year and funds for the procurement of the first of the system's replenishment satellites are included in the FY 1976 Budget.

The second system, which is being developed under the Navy Fleet Satellite Communication System (FLTSATCOM) program, is intended to serve primarily the mobile terminals on ships and in ground units, that is, to provide interconnection between fleet units and between ground forces. This system is an operational follow-on to the TACSATCOM experiment. Some of the transportable terminals will be available in early 1975, but due to delays in the spacecraft development, initial satellite launches probably will not occur until early 1977. To fill this gap, the Navy has arranged for lease of a securable limited satellite relay capability from the Comsat Corporation to serve the growing terminal requirements until the FLTSATCOM spacecraft are launched.

Tactical Communications: The present tactical communication equipments of the Services are becoming increasingly inadequate to meet the more demanding command and control requirements. To deal with this problem on a joint basis, the Joint Tactical Communications Office (TRI–TAC) was established. Reporting directly to the Secretary of Defense, this organization has the responsibility for joint service tactical system architecture and for supervising the development of equipments to satisfy future requirements. The tactical communications system is to be specifically engineered for joint use in order to economically and effectively solve multi-service problems and prevent a proliferation of independent Service systems.

One of the principal new tactical equipments is the AN/TTC–39, a transportable modular switch that will interconnect various types of current and planned multi-media, multi-Service communications systems. The automatic switching of secure telephone calls and written message traffic will permit significant reductions in the number of telephone operators and message center personnel and provide end-to-end security for subscribers using the associated communication security equipment. It is our goal to design this secure switch to satisfy not only the tactical forces' needs but also the secure voice requirements of the overseas Defense Communication System.

Secure voice: A new generation of Communication Security (COMSEC) equipments has been made possible by recent advances in solid-state micro-circuit technology. These new equipments are miniaturized, reliable, easy to maintain, and offer some revolutionary security and operational capabilities, but they will require considerable investment. Consequently, we have programmed equipment acquisition over a period of years.

Comparable integral COMSEC equipment is being developed to operate in conjunction with the AN/TTC–39 TRI–TAC automatic switch to secure the telephone circuits used by tactical forces in the field. Like the radio COMSEC equipments, the secure telephone equipments will provide good quality voice reproduction.

New generation equipments will be required to implement service via the Phase II Secure Voice Network. A Narrow-Band Secure Voice Consortium of Government and industry experts in speech compression technology has been formed to work on this problem. Candidate equipments which have demonstrated the capability to provide good quality speech over present circuits are currently undergoing competitive testing to select an equipment for production and deployment.

2. Theater Command, Control and Communications

Command and control of our forces in Europe pose certain unique problems in that they must operate as part of an alliance force. While a certain minimum unilateral U.S. C^3 capability for such purposes as the control of forces not committed to NATO in wartime and the control of nuclear weapons in both peacetime and wartime is essential, we want to utilize, to the maximum extent feasible, the existing and planned NATO C^3 capabilities in Europe. It is essential, however, that this minimum unilateraly C^3 system be in place, efficient, and exercised regularly in order to guarantee the successful introduction of forces earmarked for Europe but based elsewhere in time of crisis, as well as provide for the command and control of forces already there.

We are undertaking several initiatives in Europe to integrate further NATO's C^3 capabilities and to minimize duplicative national systems. The partial interconnection of NATO and U.S. general purpose systems, U.S. participation in a communications improvement program in the Central European Region, and the possible use of U.S. general purpose C^3 systems by NATO are some examples of these initiatives. Given the nature of multi-national negotiations and industrial competition existing within the NATO community, these programs cannot be accomplished as expeditiously as unilateral programs, but they will be pursued vigorously.

The Army is now leading a joint effort to examine the overall C^3 posture in Europe and to recommend options for C^3 improvement, particularly for command and control of theater nuclear forces. The final report, which is due in April, 1975, will specifically identify the funding requirements for these improvements. In order to provide greater visibility for these funds, a new program element, "RDT&E and procurement resources designed for improvement of nuclear-related command, control and communications in Europe", was established last year.

Army initiatives already underway to improve the C^3 of theater nuclear forces involve the development and fielding of several ultra-high-frequency single channel satellite ground terminals. Initially employing the Gap Filler UHF space segment, and ultimately the AFSATCOM space segment, these terminals are planned to provide a satellite communications capability to assist in the improvement of this C^3 problem in Europe.

In the Pacific, where limited forces must be applied with maximum effectiveness in the vast expanses of the Pacific and Indian Oceans, an efficient C^3 system is extremely important. Joint action is now in progress within CINCPAC, similar in nature to that underway for Europe, to identify specific requirements. Inasmuch as the geographic character of the Pacific command is vastly different from that of Europe, certain unique requirements may be identified, but they, as well as European requirements, will be considered within the overall C^3 framework and will be molded into an integrated system.

C. CENTRAL SUPPLY AND MAINTENANCE

Approximately 30% of the total Defense resources are devoted to logistics functions of one sort or another—repair of weapon systems, equipments and their components; warehousing and distribution; equipment modification, etc. These activities are conducted at virtually all levels of the Defense establishment, from the operating units up through the central depots and shipyards, and to some extent including private industry. Of the total resources consumed by this great aggregate of logistics activities, about 40% are included in this major program, i.e., the resources for depot maintenance (other maintenance of ships) and the operation of the central supply, procurement, warehousing, and distribution systems. Ship repair and overhaul, and all maintenance and supply activities performed by units organic to the operating forces, or by units directly supporting the operating forces, are not included in this 40% but are accounted for in the fore-related major programs.

Our supply and distribution operations consume a relatively small proportion of our logistics funds, compared with the really critical maintenance and modifications area. This discussion, therefore, is focused on the maintenance area, including ship overhaul and repair which for programming purposes is considered a part of the Navy General Purpose Forces Program.

Nearly 12% of the Defense budget is spent directly or indirectly on the maintenance of equipment. Another 5% is devoted to modernizing and otherwise upgrading the capability and reliability of equipment. The combat capability of the weapon systems employed by our forces, especially those which are technologically complex, is directly dependent upon the quality of their maintenance. Moreover, for an aircraft to be capable of performing its combat mission, all of its subsystems (e.g., radars, fire control computers, communications, electronic countermeasures systems) must work reliably. Most routine maintenance of these subsystems is done by replacing "piece parts" or exchangeable components, Hence, component repair is an essential part of the total maintenance effort. Indeed, repair of exchangeable components costs between one-fourth and one-sixth as much as purchasing new components. While depot maintenance is fundamental to the structural integrity and long-term reliability of primary equipments, an adequate stock of operational spare components is essential to organizational and intermediate level maintenance, the levels responsible for the operational availability and full-systems capability of weapons and equipment on a day-to-day basis.

By and large, the material readiness of our forces is not satisfactory, notwithstanding the valiant efforts of the military services. Inflation, shortages of skilled labor, aging major items of equipment, higher priorities, all have taken their toll. So, once again, we must make a concerted effort:

To improve the often unsatisfactory mission-ready and full-systems capability rates which we are now experiencing;

To ensure that the Defense Department spends no more than is necessary to provide the material maintenance and operational activity levels required to ensure acceptable combat readiness.

More specifically, the Services have been directed to reexamine their equipment maintenance policies and bring them into conformance with the reliability-centered maintenance concepts first developed and employed in the space program and by the commercial airlines for their wide-bodied jet transports. These concepts involve the monitoring of equipment failure patterns and the elimination of all maintenance actions which do not improve or restore the reliability of the equipment. Through the application of such methods, commerical airline maintenance costs per flight hour have declined by as much as 30% while flight safety has improved. Although the need to be prepared for wartime operations may not always permit the armed services to achieve such large savings, significant benefits have already been realized in selected submarine and aircraft maintenance programs where these concepts have been applied.

Further, the Services have been directed to review once again their central logistic support structures to be sure that they are scaled appropriately to the changes which have taken place in the size and composition of our combat forces. This is a problem which requires a continuing effort. We cannot afford to maintain facilities that have become excess to our needs due to changes in our forces.

Finally, additional funds have been included in our budget requests to reduce the unfunded repair backlog of reparable components which fail and have to be replaced in day-to-day operations. The current value of unserviceable but reparable spare components required for approved force acquisition objectives now exceeds $2 billion. These items, plus the majority of those which will fail during the current and budget years should be repaired by the end of FY 1976. The lack of serviceable components has significantly reduced mission readiness and full-systems capability. It is not unusual to find aircraft maintenance personnel in some operational units devoting as much as 20–25% of their time cannibalizing parts from one aircraft to use on another. Both the Air Force and the Navy have taken steps to improve the management of operational spare components in an effort to reduce such cannibalization. Any permanent improvement in this area, however, will require a major reduction in the existing backlogs of failed components awaiting repair.

Inasmuch as aircraft and ships account for the greatest part of DoD's total maintenance workload and costs, they warrant a more detailed discussion.

1. Aircraft maintenance

The Defense Department, as recent GAO reports on readiness have made clear, has not been able to support at satisfactory levels the full-systems readiness of its aircraft and, hence, their readiness for combat. We believe that the systematic application of reliability-centered maintenance concepts will help greatly to solve this problem, with no degradation in safety, and no increase in cost.

The Air Force has applied some of these concepts to depot maintenance through its Maintenance Requirements Review Board, and as a result has increased the average interval between airframe overhauls by nearly 50% while also reducing the scope of work by about one-third. Similarly, the Army has been able to reduce UH–1 airframe depot maintenance requirements by about 25% during FY 1975. The Navy applied these principles on an experimental basis to the organizational maintenance of a P–3 ASW squadron; based on a six month evaluation, the scheduled maintenance man-hours were reduced by 40% and the scheduled maintenance down time by 70%, while full-systems capability increased markedly. The experiment was so successful that the program has now been extended to all P–3 aircraft.

It should be emphasized, however, that such basic changes in maintenance policy and planning cannot be accomplished quickly; they must be based on time-consuming reliability engineering analyses. All three Military Departments have projects underway to extend further the application of reliability-centered maintenance concepts on all levels. Our goal is to apply these concepts universally throughout the Defense Department by the end of FY 1978.

As they are extended, funds should be freed for reducing the backlog of aircraft depot maintenance and accomplishing needed equipment modernization.

2. Ship maintenance

Surface ships are already in such generally poor material condition and have operated under such tight financial and manpower constraints for so many years, that even with the increased funding which we are programming, the backlog of badly needed maintenance will remain well above desirable levels through FY 1980. This problem has been aggravated by the abnormal rate of inflation and as a result, this backlog of deferred maintenance has been increasing each year from 17 ships in FY 1971 to 74 ships in FY 1975, even with a sharply reduced number of ships in the force. This situation is depicted in the following table:

	Fiscal year—				
	1974	1975	1976	Transition period	1977[1]
Number of ships overdue for overhaul at end-fiscal year	49	74	59	59	60
Number of ships entering overhaul in fiscal year	[2] 105	[2] 105	107	26	97
Value of workload in backlog of ships overdue for overhaul at end-fiscal year (constant fiscal year 1975, millions of dollars)	724	1,037	954	966	905
Value of workload on ships entering overhaul during fiscal year (constant fiscal year 1975, millions of dollars)	[2] 1,763	[2] 1,593	1,740	555	1,852

[1] Fiscal year 1977 is a projection as of Jan. 15, 1975, which is subject to change during continuing development of fiscal year 1977 budget.
[2] Includes repair and modernization in conjunction with SCN-funded conversions.

But even these figures do not portray the full extent of the ship maintenance backlog. A majority of recent overhauls have had to forego for lack of resources substantial shipyard repair work which sound engineering judgment indicated needed to be done. In some cases, because of resource limitations depot repairs during overhaul have been limited solely to the work needed to permit the ship to return to sea. In other cases, ship alterations have been limited to those necessary to meet such new legal requirements as pollution abatement, plus a minimum of capability improvements.

Because of the unique safety standards required in nuclear-powered ships and in submarine operations, as well as the high priority given to the SSBNs, the submarine force, with 20% of the ships, has received approximately 50% of the ship repair budget. Submarines also have had far better engineered and integrated maintenance planning than other ships. As a result of this more nearly

adequate level of resources being applied to our submarines, they are generally in good condition. We must now focus on increasing the resources and management talent applied to surface ship maintenance toward the levels now provided the submarine fleet.

The Navy has been working for two and a half years to develop and test a reliability-centered maintenance plan for the 31 POSEIDON submarines which are expected to remain in the fleet for a decade or more. Although certain critical assumptions have yet to be fully tested, this plan is now being implemented. It is expected to extend the overhaul cycle to at least nine years, compared with five years at the present time. Similarly, the overhaul cycle for the more recent classes of attack submarines is being extended to seven years.

In spite of these improvements, an average of two submarines will be operating under significant restrictions during the next two years because of deferred shipyard entry. And, notwithstanding the dramatic increase in reactor core life, many of our nuclear attack submarines will have to continue to operate under various forms of "slow orders" in non-tactical situations to conserve the core until they can be brought into a shipyard for refueling.

In recognition of these severe problems, we are requesting for ship depot maintenance the maximum amount that we believe can be wisely spent for that purpose during FY 1976 and the transition period. The amounts requested would have been even greater if not for the labor supply constraints which limit the Navy's ability to place ship overhaul and modernization work, as noted earlier in connection with the Navy shipbuilding program. The commercial shipyards, especially those large and sophisticated enough to be able to work on Navy ships, have about all the business they can handle with their current work forces. They have been unable to hire enough skilled employees to accept all of the Government and commercial contracts now being offered to them. The Naval shipyards also have been unable to hire the numbers of skilled workers (especially welders and pipefitters) they need. Thus, naval shipyards can expand only as fast as they can hire and train the requisite skilled labor. We, therefore, propose to increase naval shipyard employment by about 4,000 men per year during the next two years. This deliberate and practical rate of expansion would permit us to correct many of our current ship maintenance problems and to develop the capacity needed to accomplish the large number of nuclear refuelings expected in the early 1980s.

D. TRAINING, MEDICAL AND OTHER GENERAL PERSONNEL ACTIVITIES

Included in this major program are the Defense Department's centrally managed military personnel activities which, collectively, account for about $21 billion of the budget authorized requested for FY 1976. The distribution of these funds by activity is shown in the table below:

	Fiscal year—			
	1974	1975	1976	Transition
Training	6.2	6.5	6.5	1.6
Medical programs	2.5	2.7	3.1	.7
Recruiting and examining	.4	.4	.5	.1
Defense family housing	1.1	1.2	1.3	.3
Individuals and permanent change of station (PCS) moves	2.5	2.6	2.7	.7
Other personnel support programs	.4	.4	.4	.4
Retired pay	5.1	6.1	6.9	1.8
Total	18.2	19.9	21.4	5.3
Total, less retired pay	13.1	13.8	14.5	3.5

1. Retired Pay

Retired pay for military personnel is an anomaly in the Defense Budget. It represents payments for past services and does not contribute to our current or future defense posture. For this reason, we prefer to exclude retired pay from other Defense costs, although it should be acknowledged that the liability accrued each year for military retired pay is a legitimate charge against current Defense expenditures. On an accrual basis, the military retired pay liability would amount to $4 billion in FY 1976.

2. Training

The Department of Defense, unlike the civilian sector, cannot hire skilled military personnel such as tank turret mechanics, fighter pilots or battalion commanders from the civilian labor pool. Consequently, personnel to fill most military positions must be brought into the Service at the lowest enlisted and officer grade levels; many are subsequently trained and upgraded to higher skill levels during the course of their careers in the Service. In this sense, Defense is essentially a closed personnel system with few lateral entries at the higher skill or training levels. It is not surprising, therefore, that the training of military personnel is a multi-billion dollar activity in the Defense establishment.

a. Enlisted Recruit Training.—Over the past decade, we have had to replace, on the average, about 25% of our projected annual strength because of losses to civilian life. This figure was higher in the buildup years of Vietnam and lower in periods of strength decline. Over the next few years, we anticipate a replacement rate of about 20%, a rate that compares most favorably with turnover experienced in industry—about one-third lower, in fact—as pointed out in last year's Military Manpower Requirements Report.

The production of basic soldiers, sailors, airmen, and marines—skills which are unique to the military professions—requires a massive training establishment to equip each new entrant with the skills he will need upon initial assignment to a unit. This training introduces the recruit to life in a military organization and includes physical training, non-specialized military skills, basic combat techniques, social conduct, and discipline.

All new entrants (accessions) undergo a period of recruit training lasting from 6 to 13 weeks. Thus, number of entrants, not the size of the force structure itself, determines the size of the recruit training load.

b. Officer Acquisition.—Other acquisition training has no counterpart in the enlisted ranks in that it is generally pre-commissioning training geared to provide the officer personnel required to perform future Service missions. The determination of the officer requirement is computed on the basis of projected future needs versus projected inventory levels. Total enrollment must also consider the requirement for officer staffing of the reserve components. In FY 1976, some 24,000 officers will enter active duty—about 2,700 from the Service academies, 7,900 from ROTC and the balance from other sources such as OCS, Enlisted Commissioning Programs, etc.

c. Skill Training.—Both officers and enlisted personnel require skill training both when they first enter the Service (at the completion of recruit training for enlisted and after officer acquisition training for officers) and later on during their careers.

Enlisted initial skill training: Upon completion of recruit training, most military personnel are afforded job-peculiar training relating to their first assignment. In FY 1975, for example, less than 5% of the personnel completing recruit training went directly to a unit; the other 95% went on to Advanced Training Centers or one of the technical service schools. This follow-on training varies from about 5 weeks to almost a year in length, depending on the complexity of the subject. It should be noted in this connection that the law requires each recruit to receive at least 16 weeks of training before deployment in a foreign country. In general, the average recruit spends about five months of his initial tour in achieving his initial skill and travel to his first assignment.

To improve the quality of training, the Army, the largest trainer of new personnel, is undertaking a new training concept called One Station Training. This is a system of initial entry training management for enlisted personnel which minimizes the turbulence during training of the new enlistee and economizes on the structure of the training base. These goals are achieved by conducting all stages of initial entry training for most enlistees at a single installation and by presenting most courses of instruction at only one installation. The program envisions designation of an individual's initial entry training program immediately upon his enlistment at the Armed Forces Entrance and Examining Station and will result in a predetermined flow for the individual through training, usually at a single installation, to his first unit. One Station Training supports the professional home concept for each career field, so that most career soldiers will attend professional development courses at the same post, and often in the same training facility where they received their initial entry training. The professional home concept offers training in a totally integrated atmosphere which includes initial entry, skill progression training, professional development courses and combat and training development activities at what shall become known as the professional home of a specific branch.

Many foreign countries do not provide a large, centralized training establishment as we do. Their units are not so fully ready as we require ours to be; their divisions are largely filled with teachers and learners. From time to time, we have considered giving the operating forces a larger share of the training burden. It is not at all clear, however, that they can absorb this additional burden without a deleterious effect on their combat readiness.

Enlisted advanced skill training: As the basic soldier progresses in grade and experience and requires a higher degree of specialization in a technical or functional sub-category, he will again return to skill training at a more advanced level. Unlike the open system of private industry which attempts to hire for vacancies at each progressive level, the Services project skill needs and provide appropriate advanced training in anticipation of the loss. This provides continuity and enhances the readiness of our deployed force.

Officer initial skill training: Upon entry to active duty most new officers undergo initial skill training designed to provide a transition from the general military subjects received prior to commissioning to subjects related to their specific skill group. For example, field artillery officers of the Army will be schooled in the detailed functions of firing battery operations at Fort Sill, Oklahoma, prior to their initial unit assignment. Marine lieutenants will receive schooling which will enable them to function knowledgeably as a platoon leader or junior staff officer in the Corps.

Officer advanced skill training: Officers with several years of practical experience also need additional training to assume more advanced responsibilities in their fields. For example, the Army conducts 16 branch-oriented career courses of about 7 months duration which are designed to prepare the student for command at the battery, company, and troop level; or staff duties at the brigade or division level.

d. Professional Development.—Our highest quality enlisted personnel who progress through junior leadership positions and demonstrate qualities as potential non-commissioned officers are sent to local non-commissioned officer (NCO) academies prior to promotion and assignment to positions of greater responsibility. Formal school systems for the strengthening and improvement of these leaders exist in most of the Services, culminating in the Sergeant Major's Academy in the Army, and the senior and staff NCO academies of the Air Force and Marine Corps. These schools represent the highest category of enlisted professional development training.

The educational systems employed by the Services to prepare the officer corps for future staff, command, management and executive needs have frequently been cited by government commissions and private researchers as well-conceived models of what such programs should be. These programs include progressive training in Service schools, selective attendance at staff and senior service colleges, temperate use of post-graduate education at civilian universities, Service-run graduate schools and modest exchange programs with industry, other federal agencies, and allied nations. Beginning in FY 1976, we plan to reduce the fully-funded officer graduate education program to align it with the reducing officer strength. More specifically, we plan to reduce fully-funded graduate education loads in FY 1976 by 28% from FY 1973 levels.

e. Undergraduate Flight Training.—Undergraduate flight training is the most expensive form of training, per student graduated, that is offered by the military services, but compared with the cost of aircraft, it is a relatively modest investment. Nevertheless, because of its high cost, flight training requirements are kept under constant scrutiny. We want to be sure that no more aviators are trained than are absolutely necessary to man our forces and support our national security objectives. In computing these training requirements we take into account all relevant factors including aircraft inventories, projected aviator assets, aircraft manning policies, and projected losses to the trained inventory. Undergraduate flight training outputs are displayed in the following table:

[In thousands]

	Fiscal year—				
	1964	1968	1974	1975	1976
Aviators/pilots	4.6	11.1	4.4	4.1	3.8
Navigators/flight officers	1.0	1.4	1.9	1.9	1.5

3. Medical Programs

There are three fundamental reasons for Defense medical programs: (1) to provide a nucleus around which to build our wartime medical force; (2) to maintain a healthy peacetime active military force; (3) to offer a fringe benefit, consistent with modern American employment practices, through delivery of health care to dependents and retirees. To these ends the DoD now spends almost $3.6 billion a year and operates 204 hospitals worldwide, and nearly 400 dispensaries and field medical units. The following table describes the major categories within which these costs fall:

[TOA in millions of dollars]

	Fiscal year—			
	1974	1975	1976	Transition
Hospitals and medical centers	2.00	2.18	2.55	0.54
Operations	1.84	1.96	2.07	.52
Investments	.16	.22	.48	.02
Champus	.48	.49	.54	.13
Total	2.48	2.67	3.09	.67

Of the 9.5 million people eligible for medical care in military facilities, only 2.1 million are active duty military personnel. The rest are dependents of active duty personnel, retirees and dependents of retirees and survivors of deceased military personnel.

The Department of Defense is required to provide care in military facilities only to active duty personnel. Dependents, retirees and others are treated on a space available basis. Their treatment represents a fringe benefit analogous to the health care provided civilian employees through private health plans such as Blue Cros. These beneficiaries represent 78% of the total population, but accounted for only 58% of the 909 thousand hospital admissions and 54% of the 50 million outpatient visits last year. The remainder of dependent and retiree care was provided through the Civilian Health and Medical Program of the Uniformed Services (Champus), a program under which dependents and retirees may be treated by civilian providers who bill DoD for a portion of the care. Because of a reduction in the number of military health care professionals on active duty, there has been an increase in the use of Champus; this, along with a rising unit cost of treatment and a dramatic escalation in the size of the retiree population, has helped cause the total Champus cost to increase sharply from $339 million in FY 1971 to $460 million in FY 1974. There is no reason to believe these costs will level out in the next few years, but we are making every effort to keep them in line. To this end, we have consolidated the control and accounting of Champus at the DoD level.

It is important to understand that Champus costs are a tradeoff for reduced funding of military medical facilities. We are obligated by law to treat dependents and retirees either in military facilities or to pay for a large share of their care through Champus. If care is shifted from one source to the other, program costs for in-house care might change more or less than Champus costs. We are now taking a hard look at this tradeoff to determine the most efficient mix. We are also examining and testing other new initiatives such as contracting with Health Maintenance Organizations to provide medical care for military personnel at certain installations.

In the meantime, we are examining the possibilities of basing the size of military in-house medical operations and facilities primarily on the medical needs of our actve duty forces, including the nucleus required for wartime contingency missions rather than on active duty personnel plus dependents and retirees, except in remote locations or where it can be shown that dependents and retirees can be treated less expensively in-house. At the same time we are continuing to modernize existing hospitals. Many of our present facilities are old, inefficient, and unattractive. Not only do they require higher physician staffing levels than modern hospitals, they also fail to offer physicians and other health professionals the modern, well-equipped physical plant needed to attract and retain them in sufficient numbers to achieve our threefold medical mission.

4. Recruiting and Advertising

Recruiting and advertising expenditures have increased greatly since the end of conscription, supporting a 75% increase in recruiting personnel and the extensive use of paid advertising to attract the required quality and quantity of military accessions.

Recruiting and advertising costs

Fiscal year:	*TOA in millions*
1968	$120
1970	139
1974	410
1975	441
1976	463
1977	115

After major increases through FY 1973, these costs have now stabilized at approximately $500 million. In the next few years, we will begin to reap the benefits of the longer enlistment tours and, therefore, reduce accession requirements obtainable with volunteer accessions. Consequently, we do not envision further increases in recruiting and advertising budgets. At the same time, it should be recognized that the number of accessions is not the sole determinant of recruiting budgets. As accession requirements decline, other factors will contribute to increased pressure on recruiting budgets, including salary increases and inflation, as well as efforts to obtain accessions of high quality and representing a cross-section of the American population.

5. Family Housing

The Defense Family Housing program in FY 1976 will require approximately $1.3 billion. About $.26 billion will go for construction, $.95 billion for operation and maintenance, and the balance for debt payment. Most of the O&M and debt payment costs have been recovered by the Government from the quarters allowance forfeited by occupants of Defense housing, but because of rapidly increasing operating costs (e.g., fuel) the net cost to the Government in the future is likely to be greater than in the past. The trend in housing costs in recent years is shown below.

[TOA in billions of dollars]

	Fiscal year—			
	1974	1975	1976	Transition
Construction	0.39	0.31	0.26	----------
O. & M	.68	.79	.95	0.27
Debt payment	.06	.06	.05	.01
Homeowner's assistance	.01	.02	.01	----------
Total	1.14	1.18	1.27	.28

About one-third of DoD's 1.1 million married military personnel live in 380,000 family housing units while the remaining two-thirds live in the civilian communty. Of the total housing inventory, about 70% is in the Conus, 10% is in Alaska, Hawaii and possessions, and 20% is in foreign countries. Of Conus housing, about 60% is located within 30 miles of cities of at least 250,000 population. We now have decided to reduce the level of family housing construction in the United States, particularly near these urban areas, and to devote more resources to improving our existing housing. Our 1976 new construction program would provide about 3,500 units compared to the more than 10,000 units requested in each of the three previous years.

While military families forfeit only their quarters allowance when they occupy public quarters, families living in the civilian community frequently spend considerably more than their quarters allowances for shelter. Because of these inequities, the upcoming Quadrennial Review of Military Compensation will examine the compensation and subsidy aspects of family housing. Suggestions by the House Appropriations Committee to thoroughly review a variable station allowance within Conus will recieve our careful attention.

6. Individuals and permanent change of station (PCS) moves

Permanent Change of Station (PCS) moves, and the pay and allowances associated with transient military manpower, are the unavoidable result of a "closed" military manpower system, i.e., one where trained labor cannot be hired from local markets or overseas deployments. DoD efforts to reduce the number of PCS moves through better personnel planning and management are partially offset in FY 1976 by force structure and stationing changes resulting from PL 93-365, which requires the conversion of 18,000 military "non-combat" jobs in Europe to "combat" jobs by the end of FY 1976, and by the increase in the number of active Army divisions. Furthermore, the effect of inflation has totally overshadowed any potential savings from reduced move requirements. Thus, notwithstanding a 10% reduction in PCS moves as compared with FY 1974, the total cost of PCS moves in FY 1976 is expected to increase about $369 million, as shown in the table below.

[TOA in millions of dollars]

	Fiscal year—			
	1974	1975	1976	Transition
Transients	1,086	1,059	973	237
PCS moves	1,279	1,448	1,648	477
Patients and prisoners	107	97	84	21
Total	2,472	2,604	2,705	735

a. Losses and Loss Replacement.—About 605,000 active duty military personnel are projected to retire, not reenlist, request release from military service, or be dropped from personnel rolls for other reasons during FY 1976. Most of these people are entitled to return to their hometowns with their families and belongings at Government expense. Excluding the projected decrease of about 30,000 in total military manpower planned for FY 1976, these personnel must be replaced in order to sustain unit manning. The process of numerically replacing losses requires DoD to recruit civilians, move them to centralized training sites to acquire a skill, and then move them to a unit where these skills are utilized.

b. Overseas Deployments.—During FY 1976, about 540,000 military personnel will be forward deployed (i.e., assigned ashore or on ships homeported overseas) outside of CONUS. These people are assigned for periods of from one to three years, depending on the desirability of the location. Accounting for about one-third of the moves, they are the most costly in terms of PCS costs and transient requirements. This is the result of the move distances involved, and the tendency to take the maximum leave allowed enroute.

c. Skill Imbalances/Career Progression.—As noted earlier, about 605,000 persons will leave active duty during FY 1976. This will create a chain reaction of job vacancies which cannot be completely satisfied by the preceding move categories. Similarly, the conversion of Fort Ord, California, for example, from a training center to a troop post will require the reassignment of personnel. Furthermore, job opportunities for promotions do not always exist at one's current station. In a "closed" manpower system all of these situations result in some movement of personnel. These moves will account for about 14% of the total in FY 1976.

7. Other Personnel Support Programs

The largest program in this category is the Overseas Dependents Education Program, about $215 million in FY 1976. The overall size of this program is driven by the number of military personnel assigned overseas in areas where dependent travel is authorized. This program was brought under OSD management in fiscal year 1975 to enhance the overall quality of education provided and to effect operational efficiencies.

Other programs included in this category are disciplinary barracks, correctional training facilities, returned deserter processing activities, centrally funded welfare and morale activities, Junior ROTC, and the Armed Forces Information Program.

E. ADMINISTRATION AND ASSOCIATED ACTIVITIES

There are certain administrative and related elements in the DoD budget which cannot be allocated logically to any specific major program, such as Strategic or General Purpose Forces. These elements are, for the most part, support oriented and not readily identifiable with any particular mission. For convenience, therefore, they have been grouped in this "catch-all" program. Included here are a number of activities that deserve some special mention—Departmental Headquarters. Naval Petroleum Reserves, Claims and Contingencies.

1. OSD, JCS Departmental Headquarters

Departmental Headquarters, by definition, include the Offices of the Army, Navy, and Air Force Secretaries; the Army Chief of Staff; the Army General and Special Staffs; Chief of Naval Operations: Navy Judge Advocate General; Department of the Navy Staff Offices; and USAF and Marine Corps Headquarters. These headquarters, together with the OSD and the JCS organizations, had a total of 16,919 personnel (9,266 civilian and 7,653 military) assigned to them at the end of FY 1974. In consonance with our effort to cut support personnel, we plan to reduce that number to 15,786 (8,639 civilian and 7,147 military) by end FY 1976.

2. Naval Petroleum Reserves

The Navy for many years has been responsible for the care and maintenance of the Naval Petroleum Reserves. Prior to the 1973 oil crisis, the cost of this activity amounted to approximately $5 million per year. In November, 1973, the Armed Services Investigating Subcommittee of the House Armed Services Committee recommended that "immediate action should be taken . . . to bring NPRs #1 and #4 to a suitable condition of readiness so that they can be held in a standby condition capable of meeting our national defense requirements in times of national emergency." In FY 1974, therefore, the Congress decided to move forward with the development of these Reserves and appropriated $59 million for that purpose.

There are a total of four Naval Petroleum Reserves, two in California (Elk Hills and Buena Vista), one in Wyoming (Teapot Dome) and one in Alaska (North Slope). Of the four, only Buena Vista (NPR #2) is currently in production at nearly full capacity in order to avoid loss of Government oil through drainage. Six commercial oil companies now hold 17 leases accounting for about 60% of the total acreage in this Reserve, and produce about 5,800 barrels of oil per day. In FY 1975, $20,000 was appropriated to the Navy for the administration of these leases, and the same amount is requested for FY 1976.

No commercial production is currently allowed from the other three Reserves, NPRs #1, #3 and #4. NPR #1, at Elk Hills, has a proven reserve of more than one billion barrels of oil, of which about 3,400 barrels per day is produced solely for maintenance and to offset adjacent commercial production and thus prevent drainage losses. Currently, the Elk Hills Reserve is aproxiatemly 50% developed, with over 1,000 wells already completed and ready for production. The total cost of this program, which includes the drilling of approximately 900 additional wells, is estimated at $447 million. When completely developed, Elk Hills may be able to produce 400,000 barrels of oil per day. We are requesting $64.3 million in FY 1976 for development and continued exploration of the Elk Hills Reserve.

NPR #3, at Teapot Dome, is the smallest of the four Reserves; it has a proven reserve of 43 million barrels. Only 410 barrels per day are being produced, again, solely for offset to prevent drainage and for test and maintenance. To complete exploration of NPR #3, we are requesting $700,000 for FY 1976. Full development to maximum capacity of 12,000 barrels per day will require about $70 million.

By far the largest and potentially most valuable of the Reserves is NPR #4, on the North Slope of Alaska. While its *proven* reserves are as yet unimpressive, NPR #4 is estimated to contain up to 33 billion barrels of oil. Because this location is largely unexplored and undeveloped, realization of the Reserve's full potential will require many years of work and a very large investment. Should large reserves be discovered, development costs will include the construction of a

pipeline to, and an ocean terminal on, the southern coast of Alaska, as well as the drilling of wells. If the anticipated reserves are found, production from NPR #4 could reach 1 million barrels of oil per day in the early 1980s and perhaps 3 million per day by 1985. To proceed with the exploration of NPR #4, we are requesting $44 million for FY 1976. The total funding being requested for exploration, development and administration of all four Naval Petroleum Reserves is $119 million for FY 1976.

In furtherance of the President's program to increase the domestic supply of petroleum and to reduce the nation's vulnerability to interruption of foreign sources, legislation has been proposed which would also authorize production from the Naval Petroleum Reserves. It would also authorize the establishment of a National Strategic Petroleum Reserve of up to 1.3 billion barrels of both unrefined and refined petroleum products to be stored at such locations as we would provide for rapid deliverability to meet emergency, civil and military needs. Of the 1.3 billion barrels, 300 million barrels would be reserved for military requirements. This Strategic Reserve would be available for allocation in a future emergency if the President found that the existing supply was inadequate to meet national security needs.

3. Defense Contingencies

There are two contingency accounts included under this funding, Defense Contingencies and funds in Military Construction, Defense Agencies, to fund the military construction contingency authority. These accounts provide funds for programs of an urgent and frequently confidential nature which are deemed vital to the national security of the United States. Due to their spontaneous nature, budgeting and funding through "normal", i.e., regular appropriation/authorization channels, is virtually impossible. These accounts meet the Department's occasional need for flexibility and responsiveness. I would like to emphasize, however that the use of these funds can be authorized only by the Secretary of Defense or the Deputy Secretary of Defense; expenditures are carefully controlled and each request receives our closest scrutiny. If at any time funds for a particular project can be obtained from other sources, every effort is made to do so and the use of contingency funds is not authorized.

With regard to the Defense Contingency account, upon determination that a particular project cannot be deferred for regular programming and receipt of the written approval of a specific contingency project, the necessary funds are obligated for use. Each project is allocated a ceiling which cannot be exceeded for that project; in the event that a portion of the funds for Defense Contingencies remain unobligated beyond the fiscal year in which the funds were appropriated, the unobliagted balance is returned to the U.S. Treasury. A complete accounting for the use of these funds is provided to the interested Congressional Committees each year. Moreover, this fund is now subject to audit the same as any other Defense Appropriation.

Throughout most of the 1960s, between $10 and $15 million a year was appropriated for this account. In the past five fiscal years, however, only $5 million per year has been appropriated for this program. For FY 1976, we are again requesting $5 million, and $1.25 million is requested for the transition period.

The military construction contingency authority provides for the use of funds for unprogrammed and unanticipated military construction essential to the national security, the implementation of which could not be delayed without a detrimental effect on the best interests of the United States. Immediately after approval is given for any emergency military construction project, the Chairmen of the House and Senate Committees on Armed Services and Appropriations are notified and fully apprised of the project details.

This military construction authority was largely used during the peak of hostilities in South Vietnam and the level of fund obligations has since decreased somewhat. The FY 1975 program is $30 million, including $5.3 million carried over from prior years. We are requesting a program of $30 million for FY 1976, including $10 million carried over from prior years, and an authorization of $30 million for FY 1977.

4. Claims

The claims appropriation provides for the payment of all noncontractual claims against the Department of Defense, including the Military Departments. There are four basic categories of these claims, each with a specific allocation

of funds from the total Claims appropriation—personnel claims, tort claims, admiralty claims and other miscellaneous claims.

The personnel claims category is the largest of the four and accounts for about two-thirds of all claims settled under this appropriation. These include claims by both military and civilian personnel for recovery of private property lost or damaged by the Department of Defense; compensation for physical injury or loss of life due to action at the fault of the U.S. Government; repayment of funds erroneously collected from military or civilian personnel; and payments of claims arising from the correction of military or naval records.

Tort claims accounted for most of the remaining funds in this appropriation. Payments in this category include (1) cases arising under the Federal Tort Claims Act, (2) foreign claims, (3) claims due to non-combat activities, (4) compromise settlements by the Judge Advocate General and (5) tort claims against the Services outside the scope of employment.

The third and fourth categories, admiralty and other miscellaneous claims, account for only about 1% of the total claims. Admiralty claims arise from marine accidents and incidents involving U.S. military vessels or property; other miscellaneous claims provide for the settlement of claims for embezzlement, theft, or negligence on the part of Department of Defense personnel.

We are requesting a total $71.6 million for Claims in FY 1976 and $15.5 million in the transition period.

F. SUPPORT TO OTHER NATIONS

Grouped under this heading are several distinct activities associated with our support to other nations—the Security Assistance Program (including both grant military assistance (MAP) and foreign military sales (FMS)), the Defense Assistance to Vietnam (DAV), Military Assistance Advisory Groups (MAAGs), NATO Infrastructure, and International Military Headquarters.

War Reserve Stocks for Allies (WRSA), formerly in this major program, has been shifted to a more appropriate program—General Purpose Forces. None of this material, and I want to emphasize this plant, may be transferred to any country without an authorization and appropriation by the Congress. The purpose of the program was to ensure that U.S. war reserve stocks would be sufficient to support the forces of certain of our allies should they become involved in combat. We cannot afford, nor is it necessary, to provide each of these allies with individual war reserve stocks.

Because of the keen Congressional interest in all foreign aid programs and the recent sharp increase in foreign military sales, I believe it would be useful to discuss the objectives and contents of this program is some detail. The common denominator of these six activities is the fundamental objective of strengthening the shared security interests of our friends and allies. We decided more than a quarter of a century ago to seek our security in concert with other nations because we believed that we would be stronger together than we would be alone. Also, our security assistance programs help foster favorable attitudes toward the U.S. and its policies. Moreover, the interdependence between ourselves and our allies involves not only defense but also economic interests. We depend on the rest of the world for many raw materials and for markets for our exports to pay for those materials, and this dependence is steadily increasing. Thus, we have an ever growing stake in a stable world order, and the costs of our collective defense efforts should be weighed against the contributions they make to the attainment of that stability.

We would prefer, of course, that all of our friends and allies provide for their own defense needs; unfortunately, very few of them are able to do so. Hence, the practical problem that confronts us is how best to provide the support that is needed. Some of our friends and allies have the financial but not the industrial capability to provide for their own defense. To these nations, we sell military material on a cash sales basis. But even here, each proposed sale is carefully reviewed in terms of its potential contribution to our domestic, foreign policy and mutual security interests.

Other nations have the economic capacity to purchase the military materiel they need, but lack the cash reserves. To those nations, we sell military materiel on a credit basis, and we apply the same criteria to these sales as we do to the cash sales.

Some of our friends and allies lack even the economic capacity to purchase the miltiary items they legitimately need. For these countries, we provide defense articles and services on a grant aid basis.

Our aim for the long term is not to continue providing this grant assistance indefinitely; rather, it is to shift these MAP recipients from dependency to self-sufficiency as soon as possible. Accordingly, every effort is made to reduce the country-by-country levels of grant aid, consistent with the recipient's ability to make effective use of foreign military sales credits. Ideally, our assistance will enable these countries eventually to pay cash for their defense materiel.

In all cases, development of the individual country programs is predicated upon the understanding that the recipient countries will devote a fair share of their own resources to their defense. Progress toward this end is also progress toward reducing both the degree of U.S. involvement overseas and the likelihood of direct U.S. participation in local conflicts.

The success already achieved in this area is not always recognized. In the last decade, 17 countries have made the transition from MAP to FMS (except for very modest amounts for training only). Included in this group are Greece, Brazil, Argentina, Pakistan, Peru, Taiwan and Spain. Other countries, such as Turkey and Korea, are making substantial progress in that direction.

1. Military Assistance Program (MAP)

The $820 million requested for MAP materiel and training in FY 1976 (excluding the $250 million required for the liquidation of contract authority authorized in FY 1974 for Cambodia), plus the $122 million in the transition period would provide aid to some 46 countries, but 27 of these countries would receive training only. Of the remaining 19 countres, just 7—Turkey, Camboda, Indonesia, Korea, Laos, Thailand and the Philippines—would account for a large percentage of the MAP funds requested in the FY 1976 and Transition Budgets. The justifications for these programs will be presented separately to the interested Congressional Committees.

2. Defense Assistance to Vietnam (DAV)

The Military Assistance Program for South Vietnam, while technically a grant aid program, is currently funded in a separate account, Defense Assistance to Vietnam (DAV), in the regular Defense Department military functions budget. This arrangement will be continued through FY 1976, at which time it will be funded under the MAP. We are requesting for Vietnam $1,293 million in FY 1976, $355 million in the transition period and an authorization of $1,000 million in FY 1977. As in the case of MAP, the justification for these amounts will be presented separately.

3. Foreign Military Sales (FMS)

For foreign military sales credit, we are requesting budget authority of $560 million in FY 1976, $30 million in the transition period, plus an authorization of $604 million in FY 1977. The FY 1976 amount ($508.7 in direct financing and $51.3 million obligated for guaranties) would support a total credit program of $1,021.5 million for 30 countries. The transition amount ($27.2 million in direct financing and $2.8 million obligated for guaranties) would support a $55.5 million credit program to three countries. Again, the details of this program will be presented separately.

In addition to these credit transactions, we expect to sell for cash in FY 1976 under the provisions of the Foreign Military Sales Act (FMSA), several billion dollars of military equipment and supplies, i.e., goods and services purchased through the U.S. Department of Defense.

Prior to FY 1972, cash sales averaged about $1 billion per year. In FY 1972, the volume rose to $2.7 billion, mostly as a result of an increase in sales to Germany and Saudi Arabia. In FY 1973, the volume rose to $3.6 billion, of which $2.1 billion was to Iran. In FY 1974, cash sales reached $6.6 billion, of which $3.8 billion was to Iran and $600 million was to Saudi Arabia.

Admittedly, this increase in cash sales is rather startling. It should be borne in mind, however, that we are dealing with sovereign nations whose perceptions of their defense needs may not coincide with our own. They have the choice of buying from the United States, from certain other Western countries, or from communist countries. For many reasons, we would prefer that they purchase their military materiel from us, provided that the sale is consistent with our foreign policy objectives. Indeed, before we make a commitment to a foreign country, which must be consistent with foreign aid legislation, the President must make

a determination that such a country is eligible to purchase U.S. military items, and the country must agree: (1) not to transfer that equipment to a third country without prior U.S. Government consent, (2) to use the equipment only for the purposes furnished, and (3) to maintain security of the materiel. Further, no decision to sell military materiel is made before careful consideration is given to the requirements of our own forces, the military needs of the recipient country, and the anticipated contribution to peace and stability such a sale would make.

The Department of Defense is proposing this year the establishment of an Inventory Replenishment Fund for foreign military sales. This fund, in the amount of $300,000,000, would enable the Department of Defense to procure certain critical items of equipment in anticipation of foreign military sales of such equipment from existing inventory. This would enable us to meet the demands of foreign military customers on an expedited basis without adverse impact on our own forces.

Where credit is involved, the law requires that we charge interest normally at a rate which is the cost of money to the United States Government. Circumstances may require an exception to this policy and occasionally a lower interest rate is permitted. Section 23, FMSA, stipulates, however, that repayment to the U.S. Government be completed within a period not to exceed ten years after delivery; this provision is not subject to Presidential waiver. It is worth noting that of a total of over $16 *billion* in FMS credit since FY 1950, all but $4.9 *million* has been repaid on schedule. In general, delinquent payments result from misunderstandings regarding the terms of sale or content of the billing rather than any intention of the purchasing country to default.

The final sales category is Department of Defense guaranties of commercial credit. In this instance the purchasing country obtains not only the military equipment but also credit directly from commercial sources; the U.S. Government, through the Department of Defense, guarantees repayment of the loan.

Section 24 of the FMSA also permits the President to guarantee loans to any country eligible for FMS, provided that 10% of the principal amount of the loan is set aside as a reserve using funds authorized and appropriated for this purpose under the FMSA. Fees of one-fourth of 1 percent are charged for such guaranties. As in the case of Foreign Military Sales Credit, our record of guaranties is excellent; no country has ever defaulted on commercial credit obligations which were covered by a guaranty.

4. MAAGs

Our Military Assistance Advisory Groups (MAAGs) have contributed significantly to the attainment of U.S. security assistance objectives. They not only enhance the value of U.S. equipment but also promote standardization of equipment, doctrine, and training. The value of the MAAGs also extends into the enhancement of personal U.S. officer and host officer relationships which extends U.S. influence and encourages military cooperation. While MAAG personnel can be considered in the support category, their advisory work with our allies makes a direct contribution to host military combat readiness and thus reduces the likelihood of U.S. military involvement.

MAAGs have historically been funded partially from the military function accounts and partially from MAP and will continue to be so funded until June 30, 1976. But apart from the dollar costs, the military personnel assigned to MAAGs add to the number in the support personnel category. As part of our effort to improve the combat/support ratio, we are making a concerted effort to reduce the number of military personnel assigned to MAAGs, as well as personnel in general.

In FY 1968, the MAAG authorized strength level was 4,447 (including 3,172 U.S. military personnel); as of June 30, 1974, that number had dropped to 2,304 U.S. spaces (including 2,077 U.S. military personnel). Our goal is to reduce that number by about 400.

Because of the rapid expansion of foreign military sales in the past few years, principally to Iran, Technical Assistance Field Teams (TAFTS), were created to provide the necessary technical training in the use of U.S. equipment. While the U.S. Government is fully reimbursed by the purchasing country for the costs of TAFTs, nonetheless these personnel must be included under the manpower ceiling. There are now about 729 U.S. military personnel programmed for these Teams (663 in Iran and 66 in Saudi Arabia) and the demand is increasing. Accordingly, we are urging the Governments of Iran and Saudi Arabia to hire U.S. civilian technicians to the greatest extent possible.

5. NATO Infrastructure

Since 1951, the NATO Infrastructure program has provided the basis for equitable distribution of a large percentage of the military construction costs associated with NATO. This distribution is achieved through a cost-sharing formula, with each member nation contributing its agreed share of the cost of a joint NATO construction program.

Since the inception of this program, the US share of the NATO Infrastructure has been reduced from 43.72% to an effective share of about 20% in the latest Slice Group. Recent annual Infrastructure programs have provided, on the average, over $5 worth of facilities for U.S. forces for every $3 of U.S. contributions to single and joint user projects. We have every reason to expect this favorable ratio to continue.

For the new (Slices XXVI–XXX) five-year (1975–79) Infrastructure program, our Allies have agreed to include under the normal Infrastructure program a special category of projects in support of U.S. forces, which would otherwise be funded from appropriated U.S. funds. This special project category, totaling $90 million over a five-year period, will provide military facilities which (a) have a clearly identifiable NATO interest, and (b) are of special interest to the U.S.

Any assessment of the dollar cost to the United States of contributing to the Infrastructure program must not only consider the direct benefit derived from the percentage of U.S. national user projects but also the indirect benefits gained through U.S. industry participation in the Infrastructure projects. We have made substantial progress in maximizing this indirect benefit. During negotiations on the NATO Integrated Communications System (NICS) project, for example, accord was reached among the NATO members to implement a production-sharing agreement which would guarantee that a minimum of 38% of the project production would go to U.S. contractors with the possibility of another 20% of the project being let to U.S. contractors.

Overall, the NATO Infrastructure program has been a distinct success. It has provided us and our NATO Allies with a network of modern airfields, vital air defense warning installations, an efficient system of POL distribution and storage, and the common communications facilities which are fundamental to the operation of the NATO command structure. The cost to the U.S. is $80 million in FY 1976. Another $20 million is included in the Transition Budget, and $90 million is requested for authorization in FY 1977.

6. International Military Headquarters (IMH)

The United States, in concert with its allies, contributes to the cost of maintaining certain international military headquarters. These contributions are funded in the O&M accounts in the Defense Budget. In FY 1975 the U.S. contribution amounted to $105 million; for FY 1976 we are requesting $111 million and for the transition period, $28 million.

The U.S. contribution to international military headquarters not only involves dollars, it also involves manpower. In FY 1974 there were about 5,733 U.S. personnel assigned to these headquarters, including 5,413 military. In consonance with our efforts to cut support personnel, we are reducing that number to 5,495 (including 5,331 military) by end FY 1976.

V. Manpower

The Department of Defense recognizes that its human resources—military and civilian, active and reserve—are both its most precious and its most costly asset. Making effective use of these resources, while simultaneously doing the very best that we can for our people and assuring that we adequately man our planned forces on an all-volunteer basis, represent significant challenges to which we are giving priority attention.

The first of these challenges has been assuring that we meet our force requirements with volunteers. The Department has now completed its second year of operation without the draft. The last of the draftees left the Services in November, 1974, and we now have a true all-volunteer force. While it is still too early to make a final judgment, we are reasonably confident that we can maintain our planned peacetime force levels on an all-volunteer basis. Recruiting has been successful to date, and the quality of the volunteers has remained high.

We are not complacent, however. The task of recruiting one young man out of every three who are qualified and available for military service still represents a formidable challenge, one which will require our sustained best efforts. And

the success of the all-volunteer force over the long term will depend largely upon the full support of the Congress and the American people.

A second challenge is improving the use we make of our human resources so as to achieve a greater defense capability with existing manpower. Beginning in FY 1974, the Department undertook a series of reviews designed to uncover ways to increase military readiness and reduce costs through overhead and support reductions; through greater reliance on the Reserve forces; through better focused, more flexible use of compensation; and through improved manpower and personnel management. The initiatives which resulted from these reviews have already improved markedly the readiness of our Army divisions, have released resources to improve Air Force tactical airpower and strategic airlift capability, and have served to streamline our forces in major ways. Here again, our achievements represent the beginning of a process of improvement. We have more to do.

Finally, we are doing our best to improve living conditions for our Service personnel. Our efforts are framed by the realization that budget trimming and program streamlining often are perceived by our people as a reduction in benefits or support. Therefore, it is our intention to place even greater emphasis on the personal approach to manpower management.

The programs we have instituted to meet our manpower challenges are described in detail below. While it is our desire to take the initiative in improving the Defense establishment, we will continue to seek the support and counsel of the Congress as we proceed.

A. DEFENSE MANPOWER REQUIREMENTS

Manpower requirements result essentially from the force levels described earlier in this Report; the force levels themselves are derived from our national security objectives. This process, as well as our detailed manpower requirements, is discussed in my annual Defense Manpower Requirements Report to the Congress. Summarized on Table 3 in the Appendix are the military (active and reserve) and civilian direct-hire end strengths proposed for end FY 1976, the transition period, and FY 1977.

As shown in the following chart, U.S. military active duty strength is now at the lowest level since before the Korean war.

ACTIVE DUTY MILITARY PERSONNEL

[End of fiscal years in thousands]

Fiscal year	Total DOD	Army	Navy	Marine Corps	Air Force
1950 (pre-Korea)	1,460	593	382	74	411
1952 (peak Korea)	3,636	1,596	824	232	983
1964 (pre-Vietnam)	2,685	972	667	190	856
1968 (peak Vietnam)	3,548	1,570	765	307	905
1973 (actual)	2,252	801	564	196	691
1976 (plan)	2,100	785	529	196	590

Note: Totals may not add due to rounding.

The reduction from 3,547,000 at end FY 1968 to 2,100,000 at end FY 1976 reflects the disengagement of U.S. forces from the Vietnam war and other strategic and general purpose force reductions as well as our intensive efforts to improve the utilization of our active duty military and civilian personnel.

B. MANPOWER UTILIZATION

The economic conditions in our country, the tight constraints on the Defense Budget, and the related reduction in the size of our forces has caused us to scrutinize with particular care the way in which we are using our manpower resources. Beginning in FY 1974, the Department undertook a series of reviews designed to uncover ways to increase military readiness and reduce costs through better management. The following is a listing of some of the more significant initiatives which have resulted to date and some which we propose for the future. Still others are under study.

1. Headquarters Review

In October, 1973, as one step in our efforts to improve efficiency in the Department of Defense, I initiated a comprehensive review of all DoD headquarters including the worldwide military command structure. The objectives of this review were to improve the effectiveness of headquarters, to reduce their number, size, layering and duplication and to convert the resulting fiscal and manpower savings into combat forces. Using the results of this study, we established a goal to reduce headquarters manpower by 14,400 by the end of FY 1975 based on the FY 1974 column of the President's FY 1974 Budget. Subsequently, enough progress was made to enable us to revise that goal upward. The following table shows the revised goals for FY 1975 and FY 1976.

CUMULATIVE REDUCTIONS (MILITARY AND CIVILIAN)

	End fiscal year 1975	End fiscal year 1976
Joint activities and commands	1,400	1,400
Defense agencies	5,200	6,800
Military departments	14,200	14,800
Total	20,800	23,000

2. Conversion of Support Positions to Combat

Headquarters and support reductions will make more resources available to combat forces. For example, such reductions will enable us to field sixteen active Army divisions, three more than at end FY 1973, with no increase in Army manpower. Similarly, during FY 1974, the Air Force used headquarters space savings to retain three C–130 squadrons in the active forces. As new weapon systems are introduced, it will be able to add another three tactical fighter wings without an increase in Air Force personnel. The proposed elimination of two major air commands, two numbered air forces, together with extensive support reduction initiatives in other areas, will free over 30,000 Air Force personnel for use in increasing combat effectiveness. In Europe, we will convert 18,000 support troops to combat missions by end FY 1976 in accordance with PL 93–365 (the Nunn Amendment), thus strengthening our conventional force posture in NATO. Pacific headquarters eliminations will provide approximately 2,000 spaces for conversion to combat strength.

The 216 DoD base closure or realignment actions initiated since my Report last year will eventually result in the elimination, or transfer to other activities, of more than 37,000 positions at the affected sites. As a part of this series of actions, the Air Force will eliminate 400 administrative and support aircraft, and will centralize the responsibility for all but a few of the remaining support aircraft under the Military Airlift Command. In addition, the Air Force is consolidating its strategic and tactical airlift assets under the Military Airlift Command. All of these actions liberate resources for further strengthening of our combat forces.

3. Greater Reliance on Guard and Reserve

We are relying more on our Reserve and National Guard forces to get more combat strength for the Defense dollar. The Reserve Components now account for nearly 30% of our forces and 50% of the trained manpower available for national security emergencies. Specific examples by Service include:

a. Army.—Guard and Reserve forces now constitute about 50% of Army combat forces, and closer integration of active and reserve forces is underway. Present planning calls for the Guard to provide a brigade for each of three active divisions as the Army builds toward sixteen active divisions. These brigades will train regularly with the active divisions and become an organic part of them upon mobilization. There are five other brigades and 13 separate battalions currently linked to active Army divisions. Altogether, these roundout units will represent 25% of the combat power of the non-deployed active divisions.

b. Navy.—The Navy has organized its Reserve force, emphasing hardware-oriented units. Carrier air wings are being tailored to the multi-purpose carrier

program to improve training and mobilization. Initiatives are underway to expand Reserve missions, to decrease the average age of Reserve ships, to increase materiel, readiness, and in general link the Navy Reserve directly to combat missions which are consistent with our national security strategy. In the process of making these changes, we have been able to reduce Navy Reserve paid drill strength to 92,000 personnel, thus freeing funds for more productive purposes.

c. Air Force.—This year 56% of Air Force tactical airlift aircraft are assigned to the Guard and Reserve; by FY 1976 about 40% of our tactical reconnaissance force will be assigned to the Guard. We are also transferring 128 KC–135 jet tanker aircraft from the active Air Force to the Guard and Reserve over the next four years, thus placing the Guard and Reserve squarely in the strategic offensive mission for the first time. The Air Force has also adopted a program under which a reserve associate squadron is collocated with each of the seventeen strategic airlift squadrons. Personnel in these squadrons fly and maintain the same aircraft used by the active squadrons and, when mobilized, provide for significantly increased aircraft use and airlift capability.

d. Marine Corps.—The Reserve division, wing, and supporting elements are structured so as to be an effective complement to active Marine forces. As such, these Reserve forces are included as an integral part of all contingency planning and can provide additional capabilities required by the strategy but not programmed in the active forces.

4. Total Force Study

The OSD Total Force Study is just being concluded. This study of the Guard and Reserve considers the availability, force mix, limitations and potential of the Reserve Components. The broad goals of the study group were to identify functions and missions which could be shifted from active to reserve forces; reserve functions that could be converted to more useful functions; and places where modifications to the reserves are warranted to improve readiness and capability upon mobilization. Alternative force levels, active/reserve force mixes, and a host of subsidiary recommendations of the study group are now being analyzed. Economies in operations and increased effectiveness and efficiency are anticipated as study group recommendations are incorporated in the Five Year Defense Program.

During the Appropriations Committee hearings for FY 1975, a decision was made to suspend all overseas training travel for Guard and Reserve personnel pending a review of the matter.

As a part of our Total Force policy, we have, during the past few years, been taking measures to improve the mobilization readiness of our Guard and Reserve units. This has entailed their participation in JCS-directed exercises, actual training in areas of scheduled deployment, and specialized environmental training in established active force training centers.

With the reduction in the number of active support force personnel in Europe, more dependence will be placed on Reserve components to provide direct combat arms and maintenance support in the event of a contingency. The termination of Reserve Component overseas training would reduce the overall effectiveness of these units in future operations, both in Europe and the Pacific. This training is, in fact, strongly supported by senior Army commanders in both Europe and the Pacific.

It is highly recommended that judicious movement of Guard and Reserve personnel be permitted between the 48 contiguous states, Puerto Rico, Alaska, Hawaii, the Virgin Islands, Guam and the Canal Zone. Participation in joint exercises and environmental training at specific deployment locations should also be authorized.

We have proposed legislation to authorize the President to call up 50,000 members of the Selected Reserve for not more than 90 days under conditions short of a national emergency. This authority would lend important credibility to the Total Force concept.

5. Reduction in U.S. Military Strength Overseas

At end FY 1968, U.S. military strength ashore and afloat deployed outside the U.S. and its territories and possessions was 1,200,000. By end FY 1973 this had been reduced to 542,000, largely as a result of our reductions in Southeast Asia. By end FY 1975, deployed strength will be 490,000, a reduction of 52,000 (10%) from FY 1973. Further cuts are scheduled during FY 1976.

6. Reduced Military Personnel Turnover

The successful transition to the peacetime volunteer force has effected a reduction in personnel turnover and has resulted in several added benefits: training costs of $370 million will be avoided in FY 1976; billet assignments will have greater continuity, thus enhancing force readiness; individual personnel will have a greater depth of experience and training because they will remain in the force longer. For example, in the Army's combat arms, the average length of the initial term of service has increased 41% since FY 1971, adding nearly a full year to the time on the job after initial training. The Army will constrain two-year enlistments for new recruits to 10% in FY 1976, 5% in FY 1977 and zero in FY 1978 and thereafter, thus reducing recruiting requirements beginning in FY 1978. The training personnel spaces saved will be used to help man the three new divisions being created by the Army.

7. Civilian Personnel

We are simultaneously eliminating civilian positions wherever possible and converting military positions to civilian jobs when feasible. Total direct hire strength was 998,000 at end FY 1973, and is tentatively planned to be about 985,000 at the end FY 1976, a net reduction of 13,000. However, the FY 1976 total includes 39,000 civilian jobs resulting from the civilianization of 48,000 military positions. Without this civilianization program, civilian personnel strength would decrease by 52,000 (5%) over the three-year period.

We are placing particular emphasis on our comprehensive program for stability of civilian employment, which is designed both to ease the adverse impact on individual employees of civilian reductions and other work force fluctuations and to reduce the turbulence normally associated with reductions in force. This program has provided placement opportunities for about 80% of the employees who register for placement assistance, and was extended to overseas areas in January, 1975. We are also taking a number of measures designed to improve the management of non-appropriated fund activities, improve labor-management relations, and reform federal wage setting practices.

8. Officer Programs

Officer Strength.—During the three-year period FY 1974–76 we expect active duty military strength to drop about 7%. We are reducing officer strength by an even greater proportion to shrink overhead and improve the enlisted-to-officer ratio:

	End fiscal year—		Percentage change
	1973	1976	
Officer strength (thousands))	321	282	−12
Ratio: Enlisted-to-officer	6	6.5	+8

Senor Officer Grade Structure.—We are also emphasizing reductions in our senior officer grade structure:

	End fiscal year—		Percentage reduction
	1973	1976	
Generals/admirals	1,291	1,185	8
Colonels/navy captains	16,200	14,900	8
Lieutenant colonels/commanders	36,500	32,800	10

Officer Education.—We are working to improve officer education programs, particularly those in the scientific and technical fields, with an eye toward providing shorter programs for greater numbers of officers. The increasingly expensive nature of fully-funded programs makes it more imperative than ever that they be managed carefully to ensure maximum effectiveness. A high-level committee, chaired by the Deputy Secretary of Defense, is reviewing the cost and utility of these programs, including the Service academies, graduate education at Service and civilian schools, and the War Colleges. The committee expects to publish its report by the end of this fiscal year, although some initial decisions should be reached in the spring. In the meantime, costs are being reduced

wherever possible. For example, we are reducing the number of officers receiving fully-funded graduate education from an actual 4,852 in FY 1973, to a projected 3,279 in FY 1976, for a total reduction of 28%.

C. THE ALL-VOLUNTEER FORCE

1. Active Forces

The armed forces succeeded in 1974 in achieving their active duty strength goals. At the end of the calendar year, DoD military strength was 90% of the planned total. The Army's success in recruiting and retaining personnel permitted the release of the remaining inductees in November, 1974, about six weeks earlier than their scheduled release.

MILITARY STRENGTHS

[In thousands]

	June 30, 1974 (actual)	Dec. 31, 1974 (actual)	June 30, 1975 (fiscal year 1976 budget)
Army	783	772	785
Navy	546	549	536
Marine Corps	189	192	196
Air Force	644	625	612
DOD	2,161	2,138	2,129

The December, 1974, end-strength position, viewed in conjunction with current recruiting and retention trends, provides a reasonable expectation that we will meet our overall strength requirements in FY 1975. With the stabilization of Service manning requirements, the currently available recruiting and retention incentives should permit the Services to reduce but not eliminate existing shortages in certain hard-to-fill skill areas during FY 1975.

(*a*) *Enlisted Accessions and Reenlistments.*—Fiscal Year 1975 is an especially demanding year for achieving new volunteers because we must not only overcome normal attrition but also replace the shorter-term draftees and draft-motivated enlistees who complete their terms of service. A total of 461,000 accessions are required in FY 1975. As we look ahead, however, we anticipate a smaller requirement for new accessions in future years. This will not make our recruiting task appreciably easier; we still must recruit one qualified Service-age male out of every three available. Despite the magnitude of this challenge, we expect to meet it. Concern over the projected decline in the male population expected in the mid-1980s as a result of the decline in birthrates during the past several years led to a study of the needs for and availability of volunteers for the Services for the next 10–15 years. Basic findings indicated that the all-volunteer force can be maintained throughout the period. The ratio of enlisted accessions to the 18 year old male population throughout the 1976–1990 time frame exceeds the FY 1975 proportion in only three years, 1986–1988, and in these three years the difference is negligible.

Recruiting during calendar year 1974 was excellent, as shown in the following table.

SERVICE RECRUITING RESULTS FOR CALENDAR YEAR 1974

[In thousands]

	Army	Navy	Marine Corps	Air Force	DOD	(Prior service)
Recruiting objective	217.5	109.6	66	75.6	468.7	(29.9)
Actual accessions (NPS and PS)	218.9	113.8	56.9	76.2	465.7	(33.9)
Percent achieved	100.6	103.8	86.2	100.7	99.4	(113.4)

Reenlistment results were also encouraging. Each of the four military services increased their first-term reenlistments in FY 1974, and while there were some skills in which the number of new entries into the career force was not sufficient, currently available incentive programs and increased retention from the true volunteer first-term force are expected to alleviate this situation.

The reenlistment bonus is proving to be a major incentive for reenlistments in critical skills, although shortages still exist. The Armed Forces Enlisted Per-

sonnel Bonus Revision Act, which allows the flexible, selective payment of a reenlistment bonus, is demonstrating its value. If we can continue to improve our retention of already trained people we will have a more effective and less costly force, and this is precisely the purpose of the Selective Reenlistment Bonus.

(*b*) *Quality Standards.*—The quality of the volunteer force has remained high. Whether measured by mental ability or high school graduation status, the quality of the force is higher than for the nation at large.

Congressional concern about possible lowering of quality standards led in 1973 to the establishment of a ceiling on the proportion of low mental ability entrants and non-high school graduates the Services would be allowed to recruit. As a result of the difficulties encountered by the Marine Corps in recruiting sufficient high school graduates, the Congressional limitation was amended to provide that the ceiling on non-high school graduates could be breached if the supply of graduates were not sufficient to meet strength requirements. Although the limitation applied to FY 1974 only, none of the Services, except the Marine Corps, has found it necessary to breach the ceiling and the Corps is within one percentage point of the previous Congressional limitation. Of the FY 1974 accessions, those with high school diplomas or the equivalent accounted for 66% of the new accessions. The proportion of high school graduates in the active force (officer and enlisted combined) remains high—about 85%.

The Services have found that a high school diploma is a valid indication of potential motivation and disciplined performance. This is evidenced by a Basic Military Training attrition rate that is twice as high for non-high school graduates as for high school graduates. Therefore, the Services prefer to enlist high school graduates whenever possible. Still, four out of five non-graduates prove to be effective service members and we continue to recruit them.

Similarly, with regard to mental ability, less than 10% of the enlisted accessions in the first half of FY 1975 were Mental Category IV (below average) personnel. This percentage was lower than that of both FY 1964, the last pre-Vietnam year, and FY 1974. All the Services are within the previous Congressional limitation relating to mental ability.

(*c*) *Geographic Distribution of Enlistees.*—Geographically, the number of new accessions from each state for FY 1974 tended to be proportional to the youth population in that state. Regionally, there was a slightly greater representation from the South and the West than from the North and, more particularly, the Northeast. The 57 largest metropolitan areas provided a slightly lower share of new enlistees than their proportion of the population—46% versus 50%.

(*d*) *Racial Climate and Equal Opportunity.*—The all-volunteer force has proved increasingly attractive to minority groups. Blacks, as the largest minority in our population and in the armed services, accounted for 14% of the total enlisted force at end 1973. At the end of 1974, their proportion of the total strength stood at 16%. Among the individual Services, Black participation in the enlisted ranks varies widely from a low of 9% in the Navy, to 22% in the Army. The unemployment rate for minorities throughout the economy continues to measure twice that of the labor pool as a whole. It is, therefore, not surprising to find among minorities a proportionately greater interest in having the armed services as an employer.

This greater interest and need of minorities calls for a careful appraisal of the current racial climate and the implementation of positive action to insure that the national policy, attitudes and actions of the military leadership, and the perceptions of both minority and majority Service members contribute to that sense of unified purpose and combat readiness essential to the maintenance of national security.

Minority officer participation remains a challenge to the officer procurement programs of the Services. In particular, Black officer participation as a proportion of total active duty officer strength at the end of FY 1974 was 2.8%. For the Services, this participation varied from a low of 1.3% in the Navy to a high of 4.5% in the Army. While the proportion of Black officers is low in comparison with the general population and the enlisted force, it is very close to the proportion of Blacks in similar civilian positions. The competition for capable Blacks at the management and officer level has become very great as the country as a whole has emphasized equal opportunity.

The overall racial climate in the Services is more stable now than it has been in recent years. Racial incidents appear to be on a steadily declining trend. Operational and training missions continue without disruption. At the same time, commanders generally hold the view that the racial climate is "under control", not that total harmony has been achieved.

The Department of Defense, as the nation's largest employer of minorities and as an organization totally dedicated to achieving the objectives of our Human Goals Program, must lead the way in the coming year in attaining full participation by all eligible citizens.

(*e*) *Women in the Services.*— Women are playing increasingly important roles in the all-volunteer force. With the exception of certain combat or combat-related skills, all career areas are now open to women. After a flurry of news items on the first women pilots, military police, parachute riggers, and so forth, the once-novel concept of women as fully participating members of the armed services is becoming increasingly commonplace.

In terms of the total strength of the armed forces, the percentage of women has risen from 1.6% in FY 1971 to 3.5% in FY 1974, with a projected strength of 4.6% by the end of FY 1975. We project the overall numerical strength of women to increase from 74,715 at the end of FY 1974 to 97,000 in FY 1975, to 109,200 at the end of FY 1976.

(*f*) *Drug and Alcohol Abuse Control.*— The problem of drug abuse in the armed forces no longer approaches the crisis level evidenced by the high incidence rate recorded in 1971 and early 1972. Military treatment and rehabilitation of drug abusers continue to be based on a highly disciplined, well organized program. This program uses a humane approach, with treatment aimed at tailoring the rehabilitation program to the individual drug abuser. Service programs continue to emphasize rehabilitation efforts at local installations with the Navy and Air Force also using centralized treatment facilities for more seriously involved drug abusers.

Based on a decision of the Court of Military Appeals in the case of the *United States* v. *Ruiz*, the DoD Urinalysis Test Program for Drug Abuse was suspended on 18 July 1974. After consideration of the legal, manpower and health implications of the Court decision, the Urinalysis Test Program was reinstituted on 7 January 1975 within the constraints of the *Ruiz* decision which prohibits an other than honorable discharge if the discharge is based on evidence obtained through involuntary urinalysis.

Continuing past policy, the Services refer to the Veterans Administration those personnel who need additional treatment at the time of their separation from the Service as well as those who need long-term treatment for their drug abuse problems.

During the past year, the alcohol problem in the Department of Defense has been brought into sharper focus. We have made significant progress in developing a more positive attitude toward identification and treatment of the alcohol abuser, renewing our emphasis on the DoD Drug and Alcohol Abuse Education program. As the disease concept of alcoholism is replacing the punitive concept, increasing numbers of persons are volunteering for, or are being referred to, the program, an indication that the program is gaining credibility. The treatment and rehabilitation program assures sufficient care for everyone who is in need of help. Both inpatient and outpatient care are available.

2. Reserve Forces

Selected Reserve strength as of October 31, 1974, was 905,359. Additionally, there were 13,257 unpaid non-prior-service enlistees awaiting training. The aggregate figure of 918,616 compares to a figure of 916,693 as of December 31, 1973.

AVERAGE STRENGTHS

[In thousands]

	Oct. 31, 1974			Fiscal year 1976 President's budget
	Plan [1]	Actual [2]	Percent	
ARNG	400	400	100	400
USAR	225	234	104	212
USNR	112	111	99	92
USMCR	37	33	89	32
ANG	95	95	100	95
USAFR	51	46	90	53
DOD	920	919	100	885

[1] Fiscal year 1975 appropriation average.
[2] Includes 13,257 NPS enlistees awaiting training.

(a) *Enlisted Accessions and Reenlistments.*—The recruiting successes experienced in FY 1974 continued into FY 1975, with total accessions for the first quarter FY 1975 being 120% of the program, mainly due to the continuing large number of prior-service individuals joining the Selected Reserve. Although non-prior-service enlistments have shown an upward trend, they still fall short of programmed acquisitions.

SELECTED RESERVE RECRUITING RESULTS FOR 1ST QUARTER FISCAL YEAR 1975

	ARNG	USAR	USNR	USMCR	ANG	USAFR	Total DOD
Nonprior service:							
Program	8,085	4,800	841	670	1,560	989	16,945
Actual	5,738	3,467	841	1,730	722	378	12,876
Net over/short	−2,347	−1,333	0	+1,060	−838	−611	−4,069
Prior service:							
Program	13,250	9,700	5,665	1,479	1,930	1,752	33,776
Actual	13,009	9,283	6,687	1,297	2,610	5,087	37,973
Net over/short	−241	−417	+1,022	−182	+680	+3,335	+4,197
Total accessions:							
Program	21,335	14,500	6,506	2,149	3,490	2,741	50,721
Actual	18,747	12,750	7,528	3,027	3,332	5,465	50,849
Net over/short	−2,588	−1,750	+1,022	+878	+158	+2,724	+444

Improved reenlistment rates have also contributed greatly to maintenance of Selected Reserve strength. Efforts to improve reenlistment rates for first-term eligibles were especially productive in FY 1974 and the momentum has been maintained. Increased emphasis on retention of present unit personnel is emphasized as a means of reducing training costs and increasing readiness levels. First-term reenlistees are defined as those who reenlist on or before the expiration of their six-year military service obligation. Career enlistees are defined as those who reenlist or extend after completion of their six-year military service obligation.

REENLISTMENT RATES FOR THE SELECTED RESERVE

[In percent]

	Fiscal year—		
	1972	1973	1974
1st term	12	16	23
Career	83	75	81

Effective Reserve Component recruiting organizations have been built since the end of the draft. Innovative programs and hard work have enabled most of the Reserve Components to maintain required strength levels. Nevertheless, there is a difficult task ahead. There are approximately 444,730 individuals whose enlistments in the Selected Reserve expire during FY 1975 and FY 1976—over 211,000 in the Army National Guard alone. Many of these individuals will be reenlisting. Of the 444,730, approximately 165,000 are career personnel and our retention rate of these individuals is about 80%. In addition, we can reasonably expect to retain about 20% of the 279,730 first-term enlistees. Recruiting replacements for the large number of individuals who choose not to reenlist in the Selected Reserve, however, represents a formidable task and recruiting will necessarily remain one of the most important missions of the Reserve Components. New incentives may be required to assure enlistments in sufficient quantity and quality.

(b) *Quality Standards.*—The overall quality of Reserve Component enlisted personnel remains high—education and mental levels exceed that of the active force—but the recent trend toward enlistment of persons in lower mental categories and with lesser educational attainment is a matter of concern and is being closely monitored. Recruiting is being monitored by mental category and by educational attainment through the Reserve Components Common Personnel Data System. As anticipated, the end of the draft has resulted in fewer numbers of persons in Mental Categories I and II seeking to join the Reserve Components. A similar decline in enlistment of college graduates and persons with some col-

lege background is also evident. Viewed in absolute numbers, since FY 1970 there has been a significant fall-off in Mental Categories I, II and III enlistments and a slight increase in Category IV enlistments. Further, over 50% of the enlistees lacked a high school education, although it should be understood that many of these non-high school graduates are expected to complete high school, since enlistment in the Guard or Reserve does not necessarily terminate their civilian education. Indeed, intensified recruiting of students within six months of graduation from high school contributes to the increase in the number of non-high school graduates enlisting in the Reserve Components.

(c) *Female and Black Accessions.*—Recruiting of women and minority groups has received special emphasis and these efforts have been particularly successful. Further gains in female and minority group participation are predicted as equal opportunity programs continue to be stressed. Opportunities for women have been greatly expanded by permitting enlistment for service in numerous fields previously closed to females. The goal in minority group recruiting is to achieve participation in each unit that reflects the character of the population in the recruiting area of the unit.

FEMALE AND BLACK NONPRIOR-SERVICE ACCESSIONS IN THE SELECTED RESERVE

	Fiscal year—			
	1971	1972	1973	1974
Female accessions	356	481	1,352	5,479
Percent of total nonprior-service gains	(0.4)	(0.6)	(2.6)	(11.8)
Black accessions	1,798	4,042	7,847	11,905
Percent of total nonprior-service gains	(1.8)	(4.8)	(14.9)	(25.6)

In terms of DoD Selected Reserve totals, women have increased from .4% participation, as of 30 June 1971, to 1.4%, as of 30 June 1974. Total Black participation increased from 1.7% to 5.6% during the same time frame.

D. PERSONNEL POLICIES

The Department of Defense is undertaking a number of initiatives to improve its personnel management.

1. Officer Personnel Management

After several years of study, the Department of Defense has proposed comprehensive legislation which would modernize the rules governing the management of the officer corps of the active military services. A companion proposal is being prepared for the reserve forces.

The current Officer Personnel Act governing the appointment, promotion, separation, and retirement of commissioned officers was enacted in 1947. It does not provide consistent career opportunities among the Services and contains many inequities and unwarranted differences in the treatment of personnel.

The proposed law would provide promotion systems which are uniform among the Services, new flexibility for selective retention and grade structure control not available today, and would eliminate unwarranted differences in treatment. It would overhaul or eliminate 328 sections of the existing law, and codify the remaining provisions into a cohesive and far more effective personnel management system. The companion bill for reserve officers would make their career patterns similar to that of regular officers by revising laws pertaining to appointment, promotion, separation, and retirement; and it would provide greater selectivity in retention. The active and reserve proposals together would enhance the integration of active and reserve forces in time of mobilization.

2. Enlisted Programs

We are developing better, less costly alternatives for meeting enlisted personnel requirements. Historically, enlisted programs have been short-range in nature, responding for the most part to annual mission changes and budget constraints. This has often proved costly in the long run, both economically and in terms of personnel dissatisfaction and reduced retention. We are now developing five-year enlisted personnel plans for each Service, scheduled for completion during 1975. The proportion of the enlisted force serving in the top six enlisted grades is planned to be reduced from 64.7% authorized at end FY 1973 to 61.4% in the outyears, a reduction of 5%.

3. Military Compensation

(*a*) *Quadrennial Review.*—The Department of Defense embarked upon its Quadrennial Review of Military Compensation in January 1975. The last review, conducted in 1971, analyzed selected areas of the compensation program and led to a number of initiatives directed toward achievement of a volunteer force. It has been nearly eight years, however, since a comprehensive review of military compensation was conducted by the DoD, during which time significant changes have taken place in the pay structure. Therefore, in the forthcoming review we will undertake a detailed analysis of all forms of direct and indirect military compensation. This analysis will examine the adequacy and interrelationships of the several aspects of direct and indirect military compensation. This major study will be conducted by the Office of the Secretary of Defense with full participation by the military departments. We will draw on all knowledgeable sources, both internal and external, for information, suggestions, and guidance.

(*b*) *Retirement Modernization.*—Culminating several years of study, the DoD has proposed comprehensive legislation to modernize the retirement program for active duty personnel. In the past decade, the cost of military retirement has increased 400%. This increase has been driven by cost-of-living adjustment designed to protect the purchasing power of the military retiree; by the dramatically increasing number of retirees on the rolls; and by the substantial increases in active duty pay, from which retirement pay is derived.

There are several defects in the current retirement concept which need to be corrected:

It fails to recognize the significant increase in military income during the active duty period brought about by the new policy of pay comparability.

It fails to vest retirement benefits before twenty years of service. A member who serves for less than twenty years is not entitled to retired pay.

The retirement annuity is based on the pay received on the actual date of retirement. Thus individuals who can select their retirement date can significantly increase their retired pay by waiting for a pay raise or longevity increase. A basic inequity associated with this approach is that individuals who are not able to select their retirement dates (e.g., mandatory or disability retirees) do not have the same sort of option.

Annuities available to members with over twenty-five years of service are not competitive.

The DoD proposal would correct these defects and ultimately decrease the cost of the military retirement program. Save-pay features would protect the rights of those already on active duty. Even with the adjustments being proposed, the revised program would still be one of the most generous programs in general use.

In keeping with the total force policy, DoD has also proposed legislation that would modernize the reserve retirement system. Elements of the reserve retirement proposal that guardsmen and reservists should find particularly attractive are: (1) an option to receive actuarially reduced retired pay as early as age 50 and (2) survivor benefits payable to dependents of a reservist who dies before age 60 and who is otherwise qualified for retirement.

(*c*) *Special Pay Programs.*—The DoD has a wide variety of special pay programs originally designed to attract and retain capable personnel, and to provide incentives for channeling qualified persons into the more arduous occupations. These programs are expensive and many are outdated, inefficient, and misdirected. We have made administrative changes where we had the authority to do so, and proposed new legislation where necessary. The major results are as follows:

Enlistment Bonus.—The expanded enlistment bonus, enacted by the Congress (PL 93–277), was implemented on June 1, 1974. Under the previous law, the enlistment bonus was restricted to individuals enlisting only in specified combat jobs in the Army and Marine Corps, and required only a three-year enlistment. The new law allows the bonus to be used by all Services for any critical skill suffering from inadequate accessions and requires a minimum four-year enlistment. This additional year of service will reduce replacement training costs, thereby offsetting a portion of the cost of the bonus, and will improve readiness through reduced turnover. The planned level of FY 1976 expenditures of $75 million for the bonus should provide an annual training cost offset in the out years of approximately $32 million.

Selective Reenlistment Bonus.—As mentioned previously, the Congress has also authorized an improved Reenlistment Bonus program. The old law allowed two bonuses: a regular Reenlistment Bonus and a Variable Reenlistment Bonus. The Regular Reenlistment Bonus had to be paid to all reenlistees, without regard to the need for their specialty. As a result, about 25% of these payments were made in skill areas where sufficient retention could be achieved without a bonus. And while the Variable Reenlistment Bonus was paid only in shortage skills, it could be paid for the first reenlistment only. It thus failed to help us at the second reenlistment point. The Selective Reenlistment Bonus replaces both of the old bonuses and provides the flexibility to offer a substantial retention incentive at any problem reenlistment point within a member's first ten years of service. The amount paid depends on the severity of the retention problem in a particular skill and the amount of additional obligated service to which the member agrees. Members who reenlist in skills where no significant shortages exist receive no bonus. Thus, the new law is not only more effective but it results in substantial outyear savings as the Regular Reenlistment Bonus is phased out:

Cost implications of the New selective reenlistment bonus

Fiscal year:	*Budgetary changes (millions)*
1976	+$2.1
1977	−6.8
1978	−13.2
1979	−77.4
Total	−95.3

Medical Bonus.—In an attempt to increase the recruitment and retention of medical officers in an all-volunteer environment, DoD requested and Congress approved a program of variable incentive pay for medical officers. Under this program, obligated officers are paid bonuses of $9,000 per year and non-obligated officers are paid from $11,000 to $13,500, depending on the length of their contract and number of years of service. In FY 1976, 4,660 officers are under contract at a cost of approximately $55 million. We believe that the medical bonus program, combined with other initiatives in the health area, such as the Health Professions Scholarship Program, will be of substantial assistance in alleviating the shortage of medical officers on active duty.

Proficiency Pay.—Early in FY 1975, Superior Performance Pay was terminated, and a decision was reached to reduce Shortage Specialty Pay by 75%. These decisions were designed to deemphasize proficiency pay in favor of the more effective Selective Reenlistment Bonus. As a result, a savings of $78.3 million will accrue in FY 1976.

Flight Pay.—The Congress enacted a modified version of the DoD-sponsored Flight Pay bill, which became the Aviation Career Incentive Act of 1974 (PL 93–294), effective June, 1974. This Act, which is far more effective than the previous law, concentrates the greatest incentives in the retention-critical, flight-intensive years of an aviator's career and prohibits flight pay for commissioned officers after the 25th year of service. In addition, the Act provides for systematic performance standards which replace the much criticized "excusal" policy of the past. When transition to the new program is completed, a reduction of the flight pay budget will occur:

Cost implications of the new flight pay program

Fiscal year:	*Budgetary changes (millions)*
1976	+$11.0
1977	−6.3
1978	−10.8
Total	−6.1

(*d*) *Military Pay Adjustment System.*—The method of allocating military pay raises among the elements of Regular Military Compensation was modified this past September by PL 93–419. The new law, sponsored by DoD, retains the matching increase principle, relating military pay increases to those of federal

civilian employees. However, instead of placing the entire raise into basic pay, it applies the percentage increase equally to basic pay, basic allowance for quarters, and basic allowance for subsistence, thus bringing the allowances more in line with the expenses they are designed to defray. It also eliminates annual adjustments to enlisted subsistence allowance rates which in the past took place outside of the framework of the matching increase process. The estimated cost savings are as follows: *

Cost savings of the new method of allocating military pay increases among the various elements of military compensation

Fiscal year:	*Millions*
1976	—$366
1977	—609
1978	—882
1979	—1,187
Total	—3,044

* Assumes a 5% pay increase in FY 1976 and 5.5% thereafter.

4. Military Leave Policy

A comprehensive military leave policy was established in June, 1974. It is designed to maximize use of leave, minimize loss of leave, and reduce lump-sum terminal leave payments for unused accrued leave. Full implementation of this policy could generate annual savings on the order of $60 million by the end of FY 1976. The DoD is also developing a legislative proposal to limit repetitive terminal leave payments to enlisted personnel so as to make them approximately equivalent to the entitlements of the officer corps.

5. Presidential Clemency Program

From the point of view of the Department of Defense, the President's program for the return of Vietnam era draft evaders and military deserters has proceeded in an encouraging manner. To date, the military services have processed over 3,300 of 13,000 eligible absentees. These individuals can now go about reentering the mainstream of American society without fear of prosecution or punishment for their absence. The Department of Defense has made every effort to implement the President's program in keeping with the spirit of reconciliation, justice, and mercy in which it was conceived.

VI. Organization and Management

Our organization and management efforts during the past year have been concentrated in five major areas:

Reduction in the number and size of management headquarters, including improvements in the Unified Command Plan.

Achievement of efficiencies and economies in the support structure.

Improvements in the management of the weapon systems acquisition process.

Better utilization and conservation of energy resources.

Planning for the industrial mobilization base.

In addition, we are continuing to expand the Defense Department's participation in the Government-wide Management by Objectives program. The Department's program now includes some 60 different actions grouped under eight broad departmental objectives. Judging from the experience gained during FY 1974, Management by Objectives is most effective when used as a supplement to the Planning, Programming and Budgeting System (PPBS) within the Department. The strength of the program lies in its ability to focus quickly top management attention on a select list of key objectives, and in the communication of these objectives to working levels of management.

A. Changes in the Unified Command Plan

In conjunction with our efforts to achieve significant headquarters efficiencies through reductions in personnel, or the consolidation or elimination of specific headquarters, which were discussed in some detail in the preceding section of this Report, the Department of Defense is also giving serious consideration to a major reorganization of the unified and specified combatant commands. While

no final decision as to its implementation has yet been reached, this Unified Command Plan would improve management and command effectiveness through clarification of lines of authority and contribute to the creation of a peacetime posture which is compatible with the requirements for rapid transition from peace to war or other contingencies.

B. ACHIEVEMENT OF EFFICIENCIES AND ECONOMIES IN THE SUPPORT STRUCTURE

In addition to all of the specific actions discussed earlier, we are undertaking a number of other Defense Department-wide actions to increase the efficiency of the support structure.

1. BASE REALIGNMENTS

The major purposes of the DoD base realignment program are to decrease costs and to maintain a proper balance between military requirements and facilities available to support those requirements. In last year's Defense Report I indicated that the base realignment program would be conducted in two phases. The first phase consisted of a reduction or realignment of bases both here and abroad as the result of internal military department management improvements. The planning for this phase is essentially completed; 216 DoD base closure or alignment actions, which will eventually produce savings of about $548 million per year, have been announced.

The second phase of the base alignment program is inherently more difficult to accomplish; it involves a concerted effort to maximize the cross, or joint, Service utilization of bases and facilities, i.e., the sharing of certain logistics facilities that lend themselves to common usage. Four task groups, working under the direction of the Deputy Secretary of Defense, have been established to determine the most efficient base and support structure for strategic and tactical aircraft, troop and pilot training, depot level maintenance, and inventory control points. We hope that this second, albeit more difficult, phase will result in further savings, but it would be premature to make such a judgment at this time.

In addition to the studies being conducted under the second phase of the base realignment program, we are continuing our evaluation of real property facility requirements in order to ensure the most efficient use of our diminishing resources and to permit the strengthening of our combat forces. Special attention is being given to reducing overhead and support activities and eliminating headquarters activities which perform duplicate functions.

2. Standardization of Management Systems

As stated last year, a task force under the direction of the Assistant Secretary of Defense (Comptroller) has been established to standardize defense management systems where such standardization would reduce costs, without sacrifice of essential support to management. Forty candidates for standardization have been identified for immediate action, and an additional 40 for later action. Cost savings or cost avoidances resulting from the standardization projects are difficult to forecast, but the potential for savings through the more effective use of personnel with hard-to-find talents and the simplification of audit and management review is considerable.

3. Reduction of Reports, Forms and Directives

Another Management by Objectives action in support of our general objective to achieve economies within the Department is the effort to reduce drastically the number of reports, forms and directives. The continuous growth of data, information and reporting requirements has resulted not only in an increasingly burdensome requirement on DoD components, but also on our contractors. Our goal is to reduce the number of reports required by an average of 12%. Progress, thus far, has been excellent; 390 reports have been reduced or eliminated, at an estimated savings of $27 million.

4. Productivity Program

As part of the Management by Objectives program, the Department is placing increased emphasis on the productivity of its civilian and military workforce. Responsibility for this effort has been consolidated under the Assistant Secretary of Defense for Installations and Logistics. The Department plans to measure

labor productivity in all major support functions such as medical, procurement, transportation, supply, maintenance, training, accounting and finance, printing and base services. We plan to have 50% of the civilian workforce under labor productivity measurement by the end of FY 1975.

Actions are being taken to enhance productivity through improved methods, techniques and procedures; more effective planning and control of workloads and resources; and by capital investments in fast payback opportunities as discussed in last year's Report. We are attempting to eliminate constraints on funding limitations and financing restrictions to provide greater opportunities for fast-payback projects. Actions have been initiated to allow industrially-funded activities to procure productivity enhancing investment-type items (currently limited to $1,000 per project) regardless of cost, when the cost of acquisition can be recovered in two years or less. Our goal is to increase labor productivity in the measured areas by 1.7% in FY 1975.

C. MANAGEMENT OF THE WEAPON SYSTEM ACQUISITION PROCESS

Management of the weapon system acquisition process requires a fine balance between freedom for the program managers and the Services to manage their programs and the need for review and assessment by OSD. This balance among the three levels of management is continually under review within the Department.

1. Defense Systems Acquisition Review Council (DSARC)

The DSARC, composed of the senior planning and acquisition managers in the Office of the Secretary of Defense, is the principal advisory group to the Secretary and Deputy Secretary of Defense. Each major weapon system receives detailed scrutiny by the DSARC at a minimum of three major decision points during the acquisition process: (1) prior to entering into Advanced Development, (2) prior to entering into Full-Scale Engineering Development, and (3) prior to proceeding with Production and Deployment. Although the issues addressed at DSARC reviews are determined by the extent to which the planned effort is completed, each milestone review addresses:

The military need for the system in view of current and potential military threats.

Possible alternatives to program continuation.

The validity of the results of testing and the acceptability of the planned testing program.

The extent of planned technical and economic competition.

Schedule, performance, and cost thresholds.

The overall readiness of the system to proceed into the next program phase.

A key element of each DSARC review is the OSD Cost Analysis Improvement Group (CAIG) assessment of the program manager and Service cost estimates. The CAIG provides an independent check on the reasonableness of cost estimates and the criteria used in their development. The CAIG has made significant progress toward its primary goal of improving DoD cost estimating and analysis: cost estimates are no longer simple advocacy expressions; and vigorous reviews of costs are now carried out both within each Service and within OSD. This review process results in any conflicting views of both acquisition and operating cost being made visible at highest policy levels prior to program acquisition decisions.

2. Service Reviews

While the reviews conducted by the DSARC are comprehensive, they constitute only a small fraction of the management effort supporting a major acquisition. The Services have individually adopted review practices which parallel those of the DSARC and are at least as extensive in their coverage. These reviews bring together high level program management personnel, functional specialists, and top civilian and military planning and acquisition managers for intra-Service discussion and resolution of issues surrounding each major acquisition. At the procuring command level, quarterly reviews of individual program performance address detailed technical and contractural agenda. Program cost estimates receive special management attention.

Each Service has created a special cost analysis staff which is organizationally independent from program management activities and which is responsible for providing an independent assessment of the reasonability of existing cost esti-

mates. The results of these independent cost analyses are a major subject of discussion at each organizational level prior to the major milestone reviews. Special Service reviews are also held on reliability, maintainability and contract specifications.

3. Program Manager

The program manager remains the most important element in the entire weapons acquisition process. In recognition of his importance, we have taken a number of steps to assure the existence of a cadre of these high quality personnel. To this end, we have established a policy of decentralizing acquisition management to the maximum extent possible, placing increased emphasis on specialized high quality training, and providing attractive promotion and career incentives.

4. Efficiencies and Economies in Weapon System Acquisition

Planning horizons for weapon system acquisitions have been extended from five years to fifteen years. This allows us to better forecast performance, production schedule and cost factors and the relationship between them. Cost is now equal in priority to performance and schedule. All major weapon systems are assigned unit production cost targets before the decision is made to go to full-scale development, unless the weapon system is specifically exempted by the Secretary of Defense. We are preparing mission area summaries to facilitate selection of the most cost effective technology solution to threats in mission areas. As an example, aircraft and missiles compete with tanks in the area of tank defense.

Our efforts to improve the visibility of support costs have been concentrated toward support costs of aircraft systems. Our principal near term goal is to establish common costing terminology and data collection methodology which will allow us to obtain better estimates for life cycle costs of future systems.

Several initiatives are now underway in reliability and maintainability, key drivers of support costs. We are initiating a system whereby contractors assume additional responsibility for the field reliability of their equipment by their providing a warranty for that equipment. Reliability and maintainability minimum thresholds are specified in the Development Concept Papers; progress in these two areas is being given greater emphasis by DoD Test and Evaluation personnel in their assessments for DSARC.

The long lead time required for systems development makes it difficult to assess the impact of these and other actions toward reducing costs. However, recent analysis of Selected Acquisition Reports indicates that we have decreased the rate of growth in the costs of our new weapons system as measured in dollars of constant purchasing power.

5. Management Information Systems

Knowledge of the technical, schedule, and cost aspects of major acquisitions by managers in DoD is essential in order to conceive and implement realistic and balanced overall plans. We recognize the requirement for better evaluation of the costs and status of weapons acquisitions and are making every effort to report to the Congress and the public more extensive and accurate financial information. In this regard there are three developments of interest. First, we have improved the quality of weapons cost data by ensuring the high quality of basic cost data produced by contractors involved in defense production and by standardizing the information collected. Second, we are developing more effective estimating methods for full-life cycle costs of major weapon systems. Third, we have initiated a more detailed breakdown of the cost information provided to the Congress in the Selected Acquisition Reports.

Extensive efforts during the past year were made by the Services to validate the quality of contractor management systems through application of Cost/Schedule Control Systems Criteria (C/SCSC). To date, over 80 contractors involved in major acquisition programs have received validation. Complementing this effort is the implementation of Contractor Cost Data Reoprting (CCDR) including a special overhead monitoring program for selected large procurements. CCDR is a critical part of our efforts to improve the quality of both initial cost estimates and of the estimated costs to completion of ongoing programs. CCDR is essential for accumulating actual defense contractor direct and indirect costs, and using these actual costs for projecting estimates to complete our current programs and projecting the costs on new programs.

Important revisions in both the format and coverage of the quarterly Selected Acquisition Reports have been made after extensive negotiations with Congressional and GAO users of this information. Though our efforts have not resulted in unanimous agreement on the quality of the final product, we have established a better mechanism for explaining the impact of inflation on program costs. We are, on a continuing basis, examining SAR user suggestions for improvements to the system.

6. Commission on Government Procurement Recommendations

The Department of Defense is actively participating, through membership in an interagency advisory group established by the Office of Management and Budget, in the development of Executive Branch positions on the 149 recommendations of the Commission on Government Procurement. We support fully the work of this group and have provided experienced personnel to the many individual task groups created to develop proposed position papers and implementation plans on each of the Commission's recommendations.

As of 6 December 1974, the status of the 149 recommendations was as follows:

Accepted—implementation completed	20
Accepted—Implementation pending	33
Rejected	7
Referred to OMB with recommended positions	31
Deferred to the OFPP	6
In process by GSA staff	23
Official agency/private sector views pending	19
Interagency task group reports pending	10
Total	149

As individual recommendations are accepted by the Executive Branch and implementation documents are promulgated by OMB or GSA, we immediately initiate implementation actions within the Department of Defense. This is done on a priority basis and usually consists of revisions to the Armed Services Procurement Regulations or the issuance of written directives.

Benefits are already being realized from some of the implemented recommendations. For example, one such recommendation called for an increase in the definition of a small purchase from a maximum of $2,500 to a maximum of $10,000. Immediately upon enactment of the necessary legislation (Public Law 93–356), we issued implementing instructions to the various military purchasing activities. The use of the simplified small purchase procedures up to $10,000 will result in a considerable saving in manpower and operating costs.

One of the most important areas of the Commission's report deals with the acquisition of major systems. There are twelve recommendations in this area dealing with such subjects as needs and goals for new acquisition programs, exploring alternate systems, maintaining competition, limiting premature system commitments, withholding production approval until reconfirmation of the need and successful testing, and delegating decision authority to the operating agency components except for key milestone decisions to be made by the agency head. We support all of the recommendations with minor modifications and we are now working with other interested agencies on the development of an Executive Branch position on them. These recommendations generally reflect existing Department of Defense policies and procedures; thus we do not foresee any significant difficulties in implementing them within the Department of Defense.

D. ENERGY MANAGEMENT AND CONSERVATION

During fiscal year 1974, military petroleum consumption averaged about 571,000 barrels per day, the lowest level since fiscal year 1955. This rate of consumption represented 3.4% of the U.S. total, down from 4.3% in the previous year. While FY 1974 fuel consumption was constrained to an unprecedented degree by the Middle East embargo and other factors, we plan to hold FY 1975–76 consumption to about that level—because of price and budgetary constraints.

As stated in last year's Defense Report, a Defense Energy Task Group (DETG) was established in September, 1973, to conduct a comprehensive study of DoD energy-related problems and to recommend measures for strengthening management of DoD energy resources. A plan has now been developed which will allow us to maintain momentum in moving toward greater efficiency in the management

and consumption of energy in future years. This plan, Management of Defense Energy Resources—Phase II, dated 22 July 1974, includes recommendations for conservation through motivation, investment in energy saving projects which can be amortized in a relatively short period of time, and additional R&D for the more efficient utilization of energy.

The Defense Energy Information System (DEIS–I), which provides worldwide energy information on a near real time basis for all aspects of petroleum energy used by DoD, has now been expanded. DEIS–II now provides information on other forms of energy used in support of installations. This system, which has the flexibility to support ever changing needs of DoD managers, permits easy and quick access to up-to-date reliable data on inventories of the various petroleum products in stock, weekly and monthly consumption, as well as actual receipts from DoD and contract sources. The DEIS systems also include information on distribution (e.g., petroleum products in transit).

DoD does not intend to undertake R&D projects in areas where civilian agencies or industry have the lead and required expertise, but it will encourage such work as a potential beneficiary. A good example is our experimentation with the liquified coal product developed by the Department of Interior. Similarly, DoD is prepared to provide family housing units as test platforms for solar heating and cooling demonstration projects. Defense R&D programs will be concentrated in those areas promising the most direct payoff in improved specific fuel consumption, such as in aircraft and ship operations; and in developing conservation techniques for use in Defense installations.

We are requesting $131.2 million in FY 1976 and an authorization of $213.9 million in FY 1977 for energy conservation investment projects. These military construction funds would initiate viable energy savings programs in most of our military bases in CONUS and, through reduced operating costs, would be amortized in one to five years. In addition we are including an additional $11.4 million in the regular FY 1976 military construction program for alteration of two major central heating plants to give them a capability to use either oil or coal. Funds were previously authorized and appropriated for a single fuel capability. Alteration of these plants will assist in meeting the President's self-sufficiency goal.

E. PLANNING FOR THE INDUSTRIAL MOBILIZATION BASE

A viable industrial base is a major element of our national strength and deterrent posture, and maintaining the capacity of that industrial base to respond to potential wartime demands continues to be a major consideration in our defense planning. In some specific areas, however, we have experienced a gradual erosion of the defense industrial base. Material scarcities, increases in production lead times, and the cost burden to comply with safety, health and environmental protection requirements are symptoms of this erosion. In addition, private industry is less willing to accept the complexities of doing business with the Defense Department as the proportion of defense spending in the economy decreases.

The Assistant Secretary of Defense (Installations and Logistics) has been directed to take a new look at our planning for industrial preparedness. We are seeking to implement further incentives to encourage industry to cooperate with the Industrial Preparedness program under a peacetime environment, as well as under the declaration of a national emergency.

1. Materials Scarcity and Production Lead Times

The general scarcity of a wide spectrum of materials, particularly in the past year, has seriously affected our procurement of weapons systems and logistics support. For example, the shortage and high cost of petroleum resulted in shortages of industrial chemicals and as ethylene oxide, toluene and benzene. The lack of these fuel stocks, in turn, caused cutbacks in production of synthetic fibers and textiles and severely restricted the production of plastics such as neoprene and polyvinyl chloride. Moreover, virtually all metals were in short supply, causing a significant escalation of production lead times and other production shortages. As a result, the list of supplies identified as long lead time procurement items has grown rapidly and now includes: forgings, extrusions, electronic subsystems, aircraft wheels and brakes, and many other commodities.

2. Impact from Application of Environmental and Safety Regulations

Because of recently imposed environmental and health protection requirements, it has been necessary to shut down certain facilities, some of which are essential to DoD's operational needs. Other facilities are in danger of being closed because

compliance with the more stringent environmental protection requirements is often not feasible in view of the age and condition of the facilities and the prohibitive cost of rehabilitation.

For example, the production of a liquid missile fuel known as Unsymmetrical Dimethyl Hydrazine (UDMH) has come to a halt except for a limited production capability at a recently-established facility at Indian Head Naval Ordnance Station in Maryland. Newly applied standards require a total redesign of the production process and the Government, as the sole customer, will have to pay the bill. In the past, this fuel cost the Government 45¢ per pound; estimates of the next buy of UDMH range between $5 and $7.50 per pound.

Within the last three years, approximately 1,000 foundries have closed, and another 350 are expected to close in the near future when existing variances expire. While the overall output of this industry has increased in recent years, it still falls short of demands, and the lead time for large steel castings, for example, has more than doubled in the last two years, from 20 to 52 weeks. Consequently, as noted in the discussion of the M60 tank program, the Defense Department has had to finance an expansion of casting facilities for that portion.

The forging industry, similarly, is faced with severe restrictions on noise pollution from their impact forging equipment. Some of the standards that have been proposed, if fully implemented, would cause closure of major segments of this industry. Lead times for forgings have also more than doubled in the last two years, from 20 to 46 weeks.

3. Corrective Actions

As long as this country and the world continues to experience critical shortages in various basic metals and raw commodities, instability within industry will continue. The Department of Defense, for its part, is doing everything possible to reduce requirements; forego nonessentials; adjust contract delivery schedules to more manageable terms; and employ new procurement practices to reflect the current situation.

Action must also be taken to ease the impact of inflation on some suppliers, particularly small businesses. Production contracts written with options to place follow-on orders at a fixed price sometimes have a damaging effect on the contractor because he has no control over the cost of materials. Accordingly, we have adopted the practice of writing shorter term contracts, and expanding the use of price escalation clauses.

The DoD also is aggressively applying remedies provided under the Defense Materials Systems (Defense Production Act) to resolve production bottlenecks. This involves identification of specific material shortage areas, reallocating a specific plant's production and rescheduling its delivery commitments, and providing special priorities assistance. In the latter regard, the number of assistance requests processed by DoD to the Department of Commerce on behalf of industry has tripled in the past year. Additionally, increased use of government furnished materials and the use of materials available from the national stockpile have been stressed whenever possible.

4. Industrial Preparedness Program

The general policy of the DoD is to rely primarily on private industry for goods and services needed by the Defense establishment. The capacity and capability of private industry to respond to military requirements in a national emergency dictates the amount of public funds which must be expended to procure and maintain government industrial plants, equipment and war reserve material to make up the deficiencies. For example, the DoD maintains about $17.9 billion in industrial plants and production equipment to provide the mobilization production capacity that private industry neither has nor is willing to provide with its own capital. This government segment of the industrial base consists of 149 plants and repair facilities (excluding R&D laboratories) of which 85 are contractor-operated and 64 Government-operated. It also includes about: (1) 96,000 items of active industrial plant equipment (IPE) currently in the hands of contractors; (2) 37,000 items of IPE currently idle but being held in the form of plant equipment packages for use by specifically planned producers in event of an emergency; (3) 24,000 items of IPE being held in a general reserve for redistribution as required in support of current or future programs; (4) 8,500 items of IPE which are currently on loan to non-profit vocational training schools and educational institutions.

Over the past several years, we have made concentrated effort to bring our industrial preparedness planning into consistency with the realities of today's world and the types of potential wartime contingencies that are plausible enough to justify such planning. Industrial preparedness planning and investment in a modernized, responsive production base cannot contribute to support of our forces in the first few months of a conflict. Therefore, this facet of Defense planning focuses on critical potential contingencies that, if they occur at all, would probably be protracted.

Virtually all of this planning and production base investment concentrates on production capacity for critical combat consumables (such as munitions, spare parts, medical supplies) and combat equipment and vehicles of complexity and unit cost up to that of items such as tanks. We do not invest any significant funds in production facilities for ships and aircraft for the sole purpose of providing a *wartime* production base. This is because our studies have shown that a great deal of money must be spent in peacetime to provide even small improvements in production acceleration well over a year after the start of a conflict. For this reason, the economics of peacetime procurement dominate our peacetime decisions on investments in ship and aircraft production facilities.

Other measures being taken to overcome weaknesses in the industrial mobilization base include: (1) the use of negotiation authority under the Armed Services Procurement Regulations where necessary to keep facilities available for industrial mobilization; (2) modernization of plants and equipment where required to reduce maintenance costs and increase productivity and/or safety; (3) economic analyses to determine the most cost-effective mix of production base capability and war reserve stocks; and (4) incentives to industry to encourage continued participation in the maintenance of a viable industrial base.

5. Munitions Production

Since we are largely dependent on in-house facilities for munitions production, we have had to undertake a major program to upgrade these facilities. For example, we are nearing completion of the installation of a continuous nitration process at our TNT plants to replace the batch process that dates back to World War I. This continuous process is far more cost-effective. Automation of the loading and packaging of munitions is another facet of the modernization program. The ability of these automated facilities to expand production quickly reduces the amount of munitions that must be stored pending the availability of new production. The munition production modernization program is scheduled over several years and will cost, when completed, in excess of $6 billion.

6. Manufacturing Technology

Another action that we have taken to assist in the maintenance of a viable production base in this country is the DoD Manufacturing Technology Program. This program is designed to develop improved manufacturing techniques and to provide for timely, reliable and economical production of Defense material. The program is production-oriented and is designed to smooth the transition of R&D advances into economical production.

Although the primary objective of the DoD Manufacturing Technology Program is to resolve defense production problems, the results of the DoD projects are shared with industry. These actions have significantly contributed to the modernization of the domestic production base and have assisted in the national drive to increase U.S. productivity.

In cooperation with industry we are exploring various approaches to promote greater use of computers and computer technology in the manufacturing process. We believe that computer-aided manufacturing offers many highly significant opportunities for cost reductions in systems acquisition and we plan to pursue these opportunities aggressively within the limitations of funding availability.

Appendix A

DEFENSE BUDGET TRENDS

In appraising the FY 1976 Defense Budget, it is essential to take into account the effects of inflation from FY 1975 to FY 1976, and—even more important—to consider the impact of unforeseen inflation and other developments over the past year which have seriously eroded our FY 1975 base. Table 1 provides a framework for these comparisons. This table shows total and baseline TOA in current and constant prices for the years FY 1973–76. The FY 1975 Budget included a forecast

for FY 1976. Last year's Defense Report included a breakout of baseline and other elements of the budget. To provide a meaningful comparison, we have expressed all these figures in constant FY 1976 prices as well as in current prices.

In current prices, TOA for the FY 1973–75 period is below the levels of a year ago. The $.3 billion drop for FY 1973 reflects cutbacks in programs for that year, either by direct congressional action or with congressional approval. The $2.1 billion falloff for FY 1974 reflects, largely, congressional cutbacks in the FY 1974 readiness supplemental requests. The FY 1975 estimate of $89 billion includes all supplementals now pending. Even on that basis, our estimates are $3.6 billion below those of a year ago. Our current estimate for FY 1976 is $6.7 billion higher than last year's forecast.

The trend in constant prices, shown in the lower portion of the table, is radically different. Last year, we projected an essentially level total program from FY 1973 to FY 1976, in terms of real buying power. And, as least year's Defense Report showed, we had projected an increase of about 1½% per year in buying power for the baseline force. As table 1 shows, we have not realized these expectations. Our baseline buying power has sagged badly, in part owing to congressional cutbacks but much more so owing to unforeseen inflation. Our FY 1975 baseline program—$87.9 billion, in FY 1976 prices—is $10.2 billion below the level we had projected a year ago. There is, indeed, a real baseline increase of $4.5 billion from that depressed level to our FY 1976 request. But even with that increase, our FY 1976 baseline program is $6.8 billion lower than our projections of a year ago. With that FY 1976 program—lower, by some 7%, than our projections of last year—we shall have to meet our current military needs and fill, as well as we can, the gaps in our readiness which appeared as a result of the shortfalls in FY 1974 and FY 1975.

TABLE I.—DEFENSE BUDGET COMPARISONS

[TOA billions of dollars]

	Fiscal years—			
	1973	1974	1975	1976
CURRENT PRICES				
Total, February 1974 (fiscal year 1975 budget)	80.5	87.1	92.6	98.0
Total, February 1975 (fiscal year 1976 budget)	80.2	85.0	89.0	104.7
Baseline, February 1974	69.8	77.0	83.4	88.5
Baseline, February 1975	69.6	75.9	81.0	92.4
CONSTANT (FISCAL YEAR 1976 PRICES)				
Total, February 1974	109.7	109.3	108.8	109.3
Total, February 1975	109.4	104.4	96.5	104.7
Baseline, February 1974	94.4	96.5	98.1	99.2
Baseline, February 1975	94.1	92.6	87.9	92.4

Appendix B

Inflationary Impact and Real Program Changes

Unforeseen Inflation

After an extended period of double-digit inflation, it is difficult to recreate the economic climate and expectations of the fall of 1973, when our FY 1975 Budget estimates and original FY 1976 forecasts were prepared. That was, in economic terms, a very long time ago. It is necessary to refer back to that period, however, because a large part of our FY 1975 Budget was presented in prices calculated as of the fall of 1973. Even in those areas where we are permitted under budgetary guidelines to anticipate inflation, we made our own projections in terms of the economic expectations operative in the fall of 1973. The consensus of the economic forecasters, at that time, was that inflation would be in the range of 4% to 5% per year.

Table 1 shows the results. It depicts the inflation rates we have experienced from FY 1973 to FY 1975, and our current expectation from FY 1975 to FY 1976, and compounds these to a 3-year total. This is compared to our 3-year expectation of a year ago. In the payroll area, the increases are very close to what we had expected a year ago. As to purchases from industry, however, inflation has been more than double what we expected—55.5% versus 22.5% in terms of outlay impact, and 50.1% versus 22.9% for TOA. Overall, considering pay and

purchases together, we had forecast inflation of some 23% from FY 1973 to FY 1976, and are now facing 37%. The Table also shows that our inflation rates are well in line with general economic measures.

This unforeseen inflation is the primary reason that our FY 1975 buying power has been so weakened. It is also the reason that our current FY 1976 program—in spite of a sharp increase in dollar levels—is far below the real-term levels we had projected a year ago.

Baseline and Other Program Trends

In last year's Defense Report, we presented data on total and baseline force trends in current and constant prices. For this purpose, we set aside the military assistance program (primarily to exclude the effects of the large FY 1974 item for Israel), Southeast Asia costs, and military retired pay. Table 2 shows the same data for this budget, with one further necessary adjustment—the prior-year shipbuilding item. The FY 1976 request includes $2,269 million to cover unforeseen inflation affecting prior-year shipbuilding programs. This amount does not provide any additional ships for FY 1976, but is necessary to cover the costs of ships already approved for FY 1975 and prior years. A comparability adjustment is necessary, as shown in the table.

TABLE 1

ANNUAL INFLATION RATES

	CONSUMER PRICE INDEX	WHOLESALE PRICE INDEX*	GNP DEFLATOR	INFLATION ON DEFENSE BUDGET OUTLAYS	INFLATION ON DEFENSE BUDGET TOA
FY 1973 TO FY 1974	9.0%	16.1%	8.1%	9.4%	11.9%
FY 1974 TO FY 1975	11.9%	18.3%	11.3%	14.4%	13.3%
FY 1975 TO FY 1976	9.5%	4.7%	9.0%	9.9%	8.4%
COMPOUND TOTAL, FY 1973-76	33.5%	43.8%	31.2%	37.7%	36.3%
DEFENSE FORECAST, FEBRUARY 1974				23.0%	23.3%

*Based on unofficial forecast after January 1975

TABLE 2

TOTAL AND BASELINE PROGRAM TRENDS

($ MILLIONS, CONSTANT FY 1976 PRICES)

TOA	FY 1973	FY 1974	FY 1975	FY 1976	CHANGE, FY 1975-1976
Total Obligational Authority	$109,377	$104,410	$96,468	$104,684	$+8,216
Prior-Year Shipbuilding Programs[a/]	+91	+634	+909	-2,269	
Comparable TOA	109,468	105,044	97,377	102,415	+5,038
Non-Baseline Items:					
Military Retired Pay	5,787	6,174	6,573	6,936	
Military Assistance:					
Southeast Asia Costs	–	–	1,166	1,293	
Other MAP	1,614	4,482	1,449	1,408	
Mil. Functions Southeast Asia Costs	7,938	1,772	306	124	
Production Support, Fgn. Mil. Sales	–	–	–	300	
Total, Non-Baseline Items	15,339	12,428	9,494	10,061	+ 567
Baseline TOA, Constant Prices	94,130	92,617	87,883	92,354	+4,471

[a/] $635 million applies to FY 1972 and prior programs

Last year we projected a sharp drop in real terms for nonbaseline items from FY 1973 to the following years. This drop has in fact occurred, as the table shows.

We had projected an increase in real TOA for the baseline force, however. In terms of constant FY 1976 prices, that program would have risen from $94.4 billion in FY 1973 to $99.2 billion in FY 1976. Instead, as the table shows, a very sharp drop materialized from FY 1973 to FY 1975. In terms of real buying power, our FY 1975 program is $10.2 billion below the levels projected last year. The baseline program rises $4.5 billion from FY 1975 to FY 1976. Even with that increase, our FY 1976 program is $6.8 billion below the levels planned a year ago.

Table 3 covers the same material in terms of current prices—that is, without adjustment for inflation.

TABLE 3.—TOTAL AND BASELINE PROGRAM TRENDS

[Millions of dollars, current prices]

TOA	Fiscal year— 1973	1974	1975	1976
Total obligational authority	$80,225	$84,992	$88,993	$104,684
Prioryear shipbuilding programs	+91	+635	+909	−2,269
Comparable TOA	80,316	85,627	89,902	102,415
Nonbaseline items:				
Military retired pay	4,392	5,137	6,276	6,936
Military assistance:				
Southeast Asia costs			1,000	1,293
Other MAP	1,129	3,314	1,331	1,408
Military functions Southeast Asia costs	5,171	1,290	281	124
Production support, foreign military sales				300
Total, Nonbaseline items	10,692	9,741	8,888	10,061
Baseline TOA, current prices	69,624	75,886	81,014	92,354
February 1974 projection	69,769	77,047	83,373	88,542

Appendix C

BUDGETARY TREATMENT OF INFLATION IN FY 1975 AND PRIOR YEARS

The extraordinary inflation of the past year has had a severe impact on DoD's procurement of Congressionally approved weapon systems. The inflation rates in the most basic materials used by defense industries have been rising at unanticipated and virtually unprecedented rates. This inflation is unavoidable, for the figures shown below are the wholesale price increases for these materials throughout the economy. Fortunately, the cost of labor has not been rising exceptionally fast, as shown below.

Material and labor price increases (most recent 12 mos. available)

	Percent
Steel	41
Aluminum	43
Copper wire	33
Aircraft industry labor earnings	5
Shipbuilding labor earnings	6

However, DoD does not purchase directly either the material or the labor shown above, so the goods actually bought reflect a combination of these input cost increases. One measure which does reflect the impact of this cost inflation on the output of heavy industries, such as defense industries, is the wholesale price index for producer finished goods. As seen in the table below, the inflation rate resulting from these material and labor cost increases has quadrupled in the past year.

Price increases producer finished goods

	Percent change
1973–74	23
1972–73	5
1971–72	3

Price increases of this order of magnitude have driven procurement costs for the FY 1975 and prior year programs significantly above their original estimates. This proposed budget therefore includes the higher price levels in costing the proposed defense program.

The combination of underestimates of inflation and budgetary procedures has led to serious underfunding of DoD programs approved by the Congress in FY 1975 and prior years. For example, in the case of those major weapon systems which had a provision for price escalation in the FY 1975 Budget, those estimates were consistent with the then-current economic projections. As we are all aware, those projections grossly underestimated inflation, and thus DoD funding did not fully cover the Congressionally approved program. For other accounts, primarily operation and maintenance and minor procurement, budgetary procedures required that we estimate the budget using the prices in effect 9 to 21 months prior to spending in the budget year. When inflation is two to three percent, this situation can be accommodated by minor adjustments. However, with the rampant inflation of the past two years, these budgetary rules have led to serious underestimates of the cost of operating our forces at approved levels.

These underestimates of the impact of inflation have resulted in underfunding of about $7 billion for defense spending in FY 1975. In addition, money appropriated in FY 1975 and prior years for spending in FY 1976 and beyond is short of the inflation-swelled cost which must be met. The prior year shortfalls have caused cuts in operations and readiness, deferrals of needed maintenance, lengthened lead times, and reduced procurements. These problems have been described in greater detail in previous sections of this Report. The FY 1976 Budget request by no means seeks to recover this entire prior year underfunding. However, we have an obligation to seek adequate funds to meet the full costs of the programs proposed in this budget.

Real Program Value

In an earlier section, we provided one broad breakdown of the Defense Budget in terms of baseline and other forces—a breakdown used in last year's Defense Report. Another measure that is highly significant is real program value, or RPV.

RPV is a measure used by the Department of Defense to identify the segment of DoD budgets that contributes directly to U.S. and Allied peacetime military capability. RPV represents the 90% of the current Defense Budget that maintains and modernizes the forces which comprise the military posture of the U.S. It is not a direct measure of military security because that depends not only on U.S. forces but also the threats they face. It is also not a measure of military strength at a given point in time because that varies as a function of the specific allocation of RPV resources between investment in future capability and present force operating levels. Specifically, RPV includes the pay of U.S. active and reserve military personnel, pay of DoD civilians, purchases of equipment and services, military construction, research and development, and some share of support to other nations.

The remaining 10% of the current Defense Budget (in constant FY 1975 prices) consists of programs that have international or social objectives other than maintaining or modernizing U.S. and Allied peacetime military capability. The largest single item excluded from RPV is the DoD pension payments to retired military personnel. These payments are included in DoD's budget even though payments are for past services and are unrelated to the size or composition of current U.S. forces (U.S. government payments to retired DoD civilians are not included in DoD's budget). DoD pension payments to retired military are now above $6 billion a year (in FY 1975 prices) and will grow to about $8 billion (in FY 1975 prices) by 1980. In addition to the pension payments, the DoD provides medical care to retired military and their dependents. This program, also excluded from RPV, has grown from less than $100 million in the early 1960s to about $1 billion a year. These retired medical costs include a share of the cost of U.S. military medical facilities which are used by military retirees and an estimate of direct payments through the Civilian Health and Medical Program for the Uniformed Services to retirees.

RPV, as defined within the Defense Budget, provides a reasonably realistic measure of U.S. defense resources devoted to current and future U.S. military capability. There are, however, three exceptions.

First, the DoD has been required to institutionalize some costs that were not previously part of the DoD Budget. To examples are postal charges and rent of

General Services Administration-managed buildings that DoD uses. While these costs are properly a cost of Defense, their addition to the DoD Budget distorts comparisons of past RPV with current RPV. Such additions give the incorrect impression of more real resources—men, equipment, and other assets—for defense when in fact they merely represent a change in the manner in which the federal budget accounts for certain cost items.

Second, the DoD has been required to add to the costs of defense by initiating and paying for programs that comply with non-defense related legislation. Examples are the implementation of environmental laws and the Occupational Safety and Health Act. In the past, damage to the environmental and injuries to workers in defense industries, which these laws attempt to prevent, were social costs of maintaining a defense establishment. As a result of a public policy decision, in the future these costs will be paid for out of the Defense Budget. Although DoD supports these laws, no additional defense capability is gained by spending money on these programs.

Finally, defense budgets have been increased to accommodate programs that are partially defense oriented but in the main are of general national interest. Examples are the projected development of the U.S. Naval Petroleum Reserve and the DoD's share of the space shuttle programs. While it is almost impossible to determine what portion of these joint products is properly allocated to defense, it is important in making historical RPV comparisons to note that some share of these resources is making a zero contribution to military capability.

Projected costs of the programs described above are included in the table below. The RPV figure does not include significant amounts of these items prior to 1970 and, therefore, comparison of trends after 1970 must take into account the fact that these additional "RPV" dollars buy *no* real increase in military capability.

GROWTH IN DOD RPV FROM PUBLIC POLICY DECISIONS

[Amount in DoD Budget in millions of dollars]

	Actual fiscal year 1970	Projected fiscal year 1980
Petroleum reserves	(1)	$1,800
Environmental programs		260
"TITLE VIII" nuclear Navy		200
"Rent" on GSA buildings		150
Postage charges on DoD franked mail		130
All-volunteer force "nonpay" items		80
Occupational Safety and Health Act		40
Total		2,660

[1] Less than $10,000,000.

Consistent with defining RPV as those DoD resources devoted directly to maintaining our military posture, military aid to our Allies who are at peace is included in RPV. These resources may contribute as much, and in some cases more, to deterring the threat as an equal investment in U.S. forces. However, foreign aid funds in the DoD Budget for Allies who are at war are excluded. In FY 1975, RPV excluded $700 million for South Vietnam and $200 million for Cambodia mainly for ammunition and materiel being consumed in combat. Since these expenditures do not contribute to the steady-state military capability of the U.S. and our Allies, they are excluded from RPV.

RPV, *in FY 1975 dollars*, has been gradually declining from a pre-Vietnam war level of $95 billion to about $82 billion in FY 1974. It fell below $80 billion in FY 1975 as a result of roughly $5 billion in Congressional reductions to the President's FY 1975 Budget submission. The trends are shown in Chart I. The chart also shows how the retired military pay and medical care components have been growing, as discussed previously.

Chart I

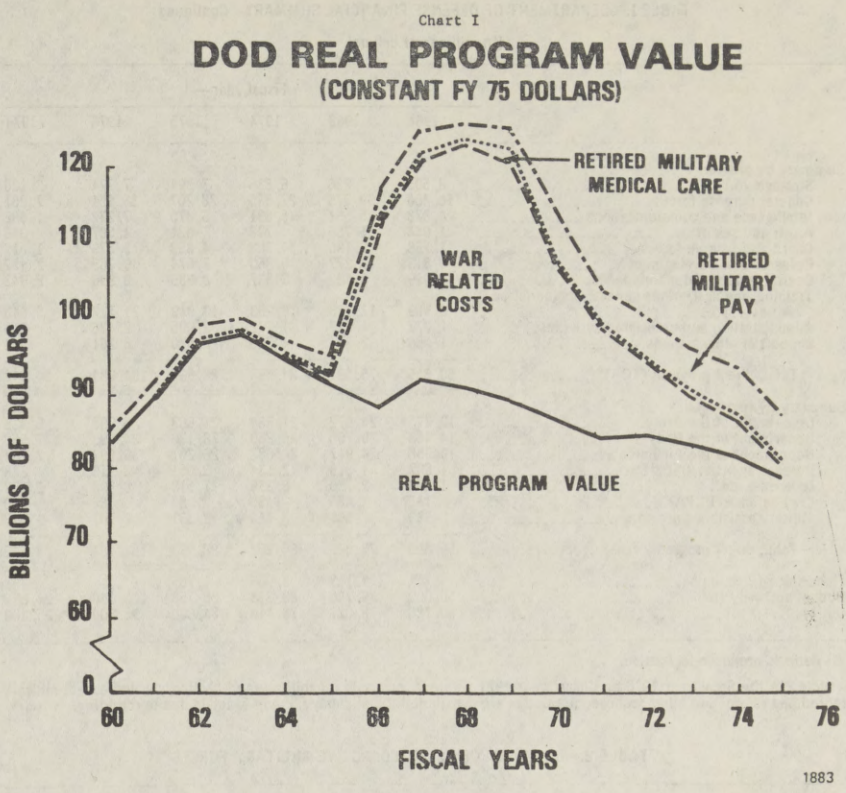


TABLE 1.—DEPARTMENT OF DEFENSE FINANCIAL SUMMARY

[In millions of dollars]

	Fiscal year—					
	1964	1968	1974	1975	1976	197T
Summary by budget title:						
Military personnel	12,983	19,939	24,104	[1] 24,975	25,913	6,731
Retired pay	1,211	2,093	5,137	6,276	6,936	1,870
Operation and maintenance	11,693	20,908	23,862	[1] 26,259	29,846	7,861
Procurement	15,036	22,550	17,467	17,356	24,720	4,578
Research, development, test, and evaluation	7,053	7,264	8,195	8,616	10,294	2,704
Special foreign currency program			3	3	3	
Military construction	977	1,555	1,695	1,914	2,901	76
Family housing and homeowners assistance program	602	614	1,136	1,176	1,282	290
Civil defense	111	86	80	87	88	20
Military assistance program	989	588	3,314	2,331	2,701	513
Total, direct program (TOA)	50,655	75,597	84,992	88,993	104,684	24,642

See footnote at end of table.

TABLE 1.—DEPARTMENT OF DEFENSE FINANCIAL SUMMARY—Continued

[In millions of dollars]

	Fiscal year—					
	1964	1968	1974	1975	1976	197T
Summary by program:						
Strategic forces	8,505	7,236	6,835	7,394	7,721	2,100
General purpose forces	16,406	30,375	27,535	28,207	35,851	7,251
Intelligence and communications	4,378	5,551	5,891	6,375	7,272	1,692
Airlift and sealift	1,044	1,756	778	921	1,597	348
Guard and reserve forces	1,768	2,196	4,308	4,853	5,579	1,517
Research and development	4,813	4,277	6,850	7,674	9,365	2,457
Central supply and maintenance	4,639	8,422	8,537	8,985	9,896	2,642
Training, medical, other general personnel activities	6,959	12,183	18,203	19,919	21,717	5,445
Administration and associated activities	1,077	1,237	1,772	2,095	2,426	616
Support of other nations	1,066	2,364	4,283	2,570	3,261	574
Total, direct program (TOA)	50,655	75,597	84,992	88,993	104,684	24,642
Summary by component:						
Department of the Army	12,275	24,972	21,584	21,663	25,098	6,328
Department of the Navy	14,458	20,765	26,860	28,136	34,093	7,590
Department of the Air Force	19,958	24,917	24,682	26,201	30,593	7,167
Defense agencies/OSD/JCS	1,007	1,519	2,134	3,061	3,513	848
Defense-wide	1,857	2,750	6,339	7,513	8,598	2,177
Civil defense (DCPA)	111	86	80	87	88	20
Military assistance program	989	588	3,314	2,331	2,701	513
Total, direct program (TOA)	50,655	75,597	84,992	88,993	104,684	24,642
Financing adjustments	14	1,143	3,906	1,765		
Budget authority (NOA)	50,669	76,740	88,898	90,758	106,340	24,859
Outlays	50,786	78,027	78,445	84,800	92,800	25,400

[1] Reflects proposed legislation.

Note: In the fiscal year 1976 and fiscal year 197T columns, amounts for military and civilian pay increases, military retired pay reform and other proposed legislation are distributed. Details may not add to totals due to rounding.

TABLE 2.—SUMMARY OF SELECTED ACTIVE MILITARY FORCES

	Actual			Estimated	
	June 30, 1964	June 30, 1968	June 30, 1974	June 30, 1975	June 30, 1976
Strategic Forces:					
Intercontinental ballistic missiles:					
Minuteman	600	1,000	1,000	1,000	1,000
Titan II	108	54	54	54	54
Polaris-Poseidon missiles	336	656	656	656	656
Strategic bomber squadrons	78	40	28	27	26
Manned fighter interceptor squadrons	40	26	7	6	6
General Purpose Forces:					
Land Forces:					
Army Divisions	16	19	13	14	16
Marine Corps Divisions	3	4	3	3	3
Tactical Air Forces:					
Air Force Fighter/Attack Squadrons	85	103	75	69	68
Navy Attack Fighter/Attack Squadrons	85	80	70	70	65
Marine Corps Fighter/Attack Squadrons	28	27	26	25	25
Naval Forces:					
Attack and ASW carriers	24	23	14	15	13
Nuclear attack submarines	19	33	61	64	68
Other warships	368	387	187	189	185
Amphibious assault ships	133	157	65	64	63
Airlift and Sealift Forces:					
Strategic Airlift Squadrons:					
C–5A	0	0	4	4	4
C–141	0	14	13	13	13
Troopships, cargo ships, and tankers	101	130	37	40	43

TABLE 3.—ACTIVE DUTY MILITARY PERSONNEL, RESERVE COMPONENT MILITARY PERSONNEL, AND CIVILIAN PERSONNEL STRENGTH

[End of fiscal years in thousands]

	1964	1968	1974	1975	1976	Sept. 30, 1976	1977
Active duty military:							
Army	972	1,570	783	785	785	793	793
Navy	667	765	546	536	529	536	546
Marine Corps	190	307	189	196	196	196	198
Air Force	856	905	644	612	590	590	590
Total	2,685	3,547	2,161	2,129	2,100	2,115	2,127
Reserve components (in paid status):							
Army National Guard	382	389	403	400	400	400	400
Army Reserve	346	312	235	212	212	212	212
Naval Reserve	132	131	115	113	92	92	92
Marine Corps Reserve	48	48	31	32	33	33	36
Air National Guard	73	75	94	96	95	95	94
Air Force Reserve	67	46	46	52	53	54	55
Total	1,048	1,001	925	905	885	886	890
Direct hire civilian:							
Army [1]	360	462	342	337	334	338	337
Navy	332	419	324	318	322	323	328
Air Force [1]	305	331	274	266	256	258	256
Defense agencies	38	75	75	74	73	73	73
Total [1]	1,035	1,287	1,014	994	985	991	994

[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.

COMMITTEE PROCEDURE

The CHAIRMAN. Mr. Secretary, I think this is a very fine statement that you put together. It may prove to be a historical one, and I think you improved it by the reading of it.

You read it in an hour and 32 minutes, if I calculate right, and it gave the members of the committee a chance to concentrate on it and understand it better. I will understand your answers now better, no doubt. I do commend it to myself first and all the other members, too. We will advise our colleagues who could not be here, to pursue it, too.

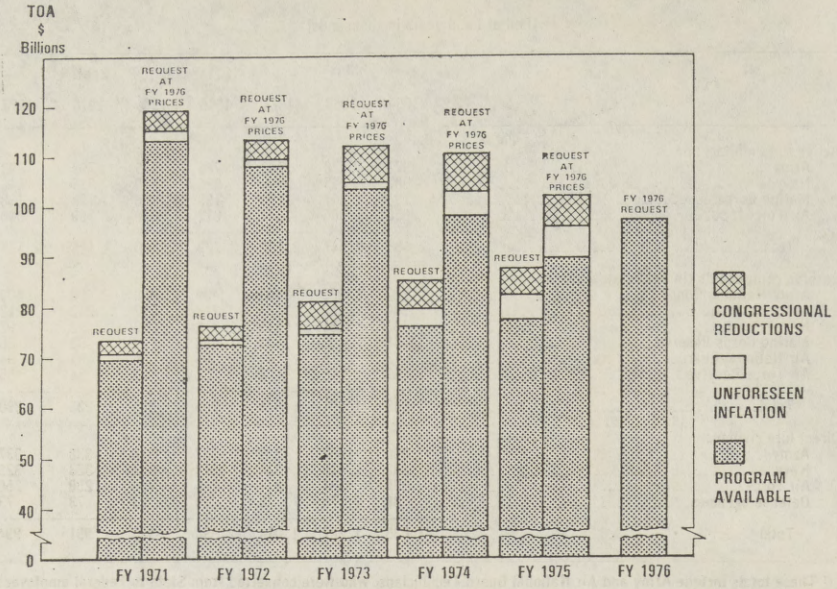
We have General Brown, and my idea would be that we use that time in asking the Secretary questions, at least on anything you see fit, and then when we reconvene, we can go to General Brown and let him either read his statement or summarize it. Then we can ask questions after you have given a summary, to the both of you.

I want to ask you about this chart you showed. It was very good indeed, and I hope it appears in the printed record.

Secretary SCHLESINGER. Yes, sir.

[The information follows:]

FACTORS ERODING THE DEFENSE PROGRAM



RATE OF INFLATION

On this matter of figuring inflation, it does not seem to me like it has been realistic the last year or two to hold it down. You said 3 percent?

Secretary SCHLESINGER. Yes, sir, it was held to 3.5 percent.

The CHAIRMAN. Could you not and the Department of Defense and your predecessors figure better than that, or was that imposed on you by the Budget Bureau? I think you ought to tell us just what you know about that, because it lends to the strength of the figures that you bring in this year.

Secretary SCHLESINGER. In 1970, Mr. Chairman, when I was at the Bureau of the Budget, I then approved a level of 3.5 percent for procurement outlays for the Department of Defense, a decision for which I appreciate the principle, but I resent retrospectively the niggardliness. At that time, we recognized that procurement expenditures dealt with the distant future as opposed to current year outlays for which no inflation estimate was to be allowed.

I think that this procedure worked adequately under those circumstances. However, in the last 18 months, Mr. Chairman, this country has suffered from inflation which is as great as any since the post-World War II period. An allowance of 3.5 percent, limited only to procurement, of course, has been inadequate. I had the pleasure of discussing this point with my successors at the Office of Management and Budget, and they happily saw the sense of making an appropriate adjustment.

In the budget that lies before you, Mr. Chairman, we believe we are sufficiently protected against inflation in all accounts with the exception of the "Operations and maintenance" account, which does not contain an allowance for inflation.

The CHAIRMAN. No, "Operations and maintenance" includes salary and food costs, furnishings and so forth?

Secretary SCHLESINGER. In that area, legislation which the Congress has passed requires annual salary increases for both civilian and military personnel on the basis of comparable pay in the private sector.

The CHAIRMAN. All right, back to the main question.

You say here that fiscal 1976, in your opinion, subject to this exception, that we can rely on these figures as being reasonably sound insofar as inflation rates are concerned?

Secretary SCHLESINGER. With the one exception of the "Operation and maintenance" account, yes, sir.

The CHAIRMAN. The message came out with 11.3 estimate of this week for inflation for this budget, but is that more or less, or equal, to what you were allowed to use? I do not want to bog down in a lot of figures.

Secretary SCHLESINGER. For this year, Mr. Chairman, we are using an inflation rate of 9.9 percent for outlays and 8.4 percent for obligational authority. That is less than the figure that you mentioned, Mr. Chairman.

The reason that it is less, of course, is that the President has requested the Congress to limit increases in pay to 5 percent on a CPI basis, and that limitation on increases in pay holds inflation below the level that you mentioned. The actual inflation rate used would, of course, depend on the congressional decision in that area.

The CHAIRMAN. So you think it is 1.4 percent, then, difference? That is what it figures to, according to my quick subtracting here. Is approximately that much as brought about due to this difference here in what you call the caps on salaries and other amounts, is that right?

Secretary SCHLESINGER. Yes, sir.

The CHAIRMAN. We know you cannot be accurate about these estimates. No one can. But you have most realistic freedom, then, as to the increases due to inflation that you have had here before, much more, is it not?

Secretary SCHLESINGER. Much greater freedom, Mr. Chairman.

The CHAIRMAN. What was your rate last year for 1975?

Secretary SCHLESINGER. We were using the 3.5-percent rate for procurement.

The CHAIRMAN. And it turned out to be 12.2 percent?

Secretary SCHLESINGER. Something in that ball park, Mr. Chairman.

MANPOWER REDUCTIONS

The CHAIRMAN. You have helped us here with that. We can develop that further if anyone wants to, of course.

On the manpower levels, you have taken a reduction there according to your own calculations of 30,000 in military manpower. How do you explain that? Where did you make these reductions and why?

Secretary SCHLESINGER. We made a 21,500-man reduction in the Air Force, a 7,400-man reduction in the Navy, and as you know, a 9,400-man reduction in direct-hire civilian employees across the board.

Twenty-one percent of the total Air Force reduction has been obtained by the gradual pruning of officer personnel through riffing. May I say, Mr. Chairman, we should be taking these reductions more

generally, if this committee will help us get the necessary adjustments to our officer legislation, a legislation that would permit us to reduce senior officers.

The CHAIRMAN. All right, you have pinpointed it, and you can file a supplemental answer on that, if you will, because it goes to the heart of the matter.

Secretary SCHLESINGER. Yes, sir.

[The information follows:]

ACTIVE DUTY END STRENGTH CHANGES (FY 75–76)

The reduction in military strength between FY 75 and FY 76 is distributed primarily between the Air Force and Navy.

The Air Force was reduced 21,500 as a result of the following actions:

Transfer of RF–4 and KC–135 aircraft to the Reserve Forces.

Changes in the ground alert rate for B–52, KC–135 and FB–111.

Reductions in EC–121 and C–130 Forces.

Reductions in weather, communications and rescue activities.

Substantial reductions in headquarters resources and other support reduction initiatives.

Navy reductions of 7,400 are the result of fewer ships and aircraft in the force during FY 76, a reduction in Construction Battalion Centers, and fewer sailors undergoing Individual Training.

The CHAIRMAN. You are proposing a reduction of 9,000 civil service personnel. Are those actually filled slots, or are they paper slots that you have not filled?

Secretary SCHLESINGER. They are filled slots, Mr. Chairman, and I might observe that we had discussed with this committee before the problem that we had on ship overhaul. As a result, we have attempted to put much more civil service manpower into our shipyards so that the reduction outside of the shipyards has been much larger than the 9,400 personnel that you see. That is a net 9,400.

The CHAIRMAN. I remember last year you asked for 30,000 additional civil service personnel, and we wound up by approving much less than that.

Secretary SCHLESINGER. A 40,000 cut, Mr. Chairman.

The CHAIRMAN. And you are asking for a reduction this year of 9,000 in addition. Somebody has been to work on this matter it looks like, to me.

Secretary SCHLESINGER. Yes, sir.

STRATEGIC AIRLIFT

The CHAIRMAN. That brings in this matter of your strategic airlift. Last year the total amount we gave was in the neighborhood of $900 million, according to my memo here, and we went into that rather thoroughly.

This year you are asking for $1.6 billion. Could you give us a one or two sentence explanation of that increase now and supplement it later, because I have one more question?

Secretary SCHLESINGER. The increase of about $700 million results from internal shifts in funding for the airlift program, and from our proposed airlift improvements program. The higher crew ratios and increased spare-parts inventories associated with being able to use the C–141, C–5 fleet in excess of 12 hours a day, rather than the lower

ratios, is what accounts for about $41 million. In addition, there is $156 million for C–5/C–141 spare parts just to bring us up to the level of our previous programs.

I believe that these matters were gone into very thoroughly with Senator Nunn last year, who investigated the ratio of reserves to active duty forces in relation to the crew ratios for total airlift capability.

In addition to that, Mr. Chairman, we continue to press for a stretch of the C–141, and we are planning, as you know, for modifications of commercial aircraft that would permit them to be used to carry outsized cargo in the event of a national emergency. We have budgeted $22 million in fiscal year 1976 to start that program. I will provide additional information for the record.

The CHAIRMAN. You will be asked that. You can supplement the answer, if you wish.

[The information follows:]

INTERNAL SHIFTS IN FUNDING THE STRATEGIC AIRLIFT PROGRAM

Over sixty percent, or some $435 million, of the increase in the strategic airlift program is the result of internal realignments of the various airlift forces within the Defense Department and does not represent any increase in Defense costs. Included in this category are the transfer of the C–130 force from the Tactical Air Command to the Military Airlift Command and the consolidation of Air Force administrative support aircraft under the Military Airlift Command. Also included in this category are shifts in the accounting for funding of those airlift flying hours needed for crew training but not productively used in transporting peacetime cargoes or passengers. In effect the increases are the result of transferring funding to the airlift program from the other programs under which they had previously been funded.

The CHAIRMAN. Senator Thurmond?

Senator THURMOND. Thank you very much, Mr. Chairman.

Mr. Secretary, I would like to join the chairman in complimenting you on this report. I remember several years ago when Mr. McNamara came up here with a folder about six or eight times that thick.

Secretary SCHLESINGER. I have more material, Senator Thurmond.

Senator THURMOND. It takes more work to prepare a short speech than a long one. I listened to it very eagerly, and I compliment you on it.

REDUCTION OF FORCE IN KOREA

Regarding Korea; what do you see as the political ramifications of reducing the U.S. Army 2d Division to one brigade force, and what do you see as the military ramifications?

Secretary SCHLESINGER. The political ramifications, Senator Thurmond, would be serious. The United States, in that area of the world, can contribute primarily a political presence that is balancing. It is an area in which the lines of forces of several major powers, the Soviet Union, China, Japan and the United States come together and it is regarded as a welcome stabilizing force by not only the Koreans but by the Japanese and the Chinese as well.

That is a substantial change from the reasons for initially posting that force in the 1950's and 1960's. At that time, the force was based in South Korea as a hedge against a PRC reenforced North Korean attack against the South. That, of course, is always possible in the event of a change of political attitudes on the part of the PRC. But at

the present time the Chinese welcome the force there, which raises the point that they do not regard this force as a threat.

For the reasons indicated, therefore, the main contribution of that force now, in a military sense, is as an element of deterrence to the North Koreans. As I mentioned earlier, the client states of the Soviet Union and the PRC frequently display a degree of exuberance that may not be desired by the Soviet Union or the People's Republic of China, and in a military sense the main rule is to add to the deterrents against North Korean unruliness.

Senator THURMOND. Am I correct in assuming, from what you said, that you feel conflict is more likely between North and South Korea if the United States presence is reduced?

Secretary SCHLESINGER. Yes, sir.

Senator THURMOND. And you feel that conflict is probably inevitable if we withdraw completely?

Secretary SCHLESINGER. I would prefer to say, Senator Thurmond, that the likelihood would increase substantially. The longer the time horizon, of course, the closer to inevitability one gets.

ROK FORCES MODERNIZATION

Senator THURMOND. Mr. Secretary, are you satisfied with the rate which the Republic of Korea Armed Forces modernization plan is proceeding?

Secretary SCHLESINGER. Senator Thurmond, as you know, the rate has been slower than was anticipated when the agreement was reached several years ago between the United States and Korea. I believe it was 1971 that the initial year of the modernization program was started. That was associated with the removal of the Second Stationed Division in Korea. As a result of curtailments of military assistance program funds, the pace of modernization has been far slower than was anticipated at that time. I think that that is regrettable.

U.S. FORCES IN THAILAND

Senator THURMOND. Mr. Secretary, after Christmas Senator Scott and I took a trip to Northeast and Southeast Asia. We started in Japan and the Philippines, covering nine countries. We talked with the heads of the nations. We talked with our military people there. We talked with local military there, ambassadors, and it was a most helpful trip.

I just wondered, regarding Thailand, what is your assessment of how much longer it would be desirable for the United States to keep forces stationed there? Some of the people, not only of that country but some of the other countries around there, are saying the Air Force should be moved in Thailand.

Secretary SCHLESINGER. Senator Thurmond, we would plan to reduce substantially our forces in Thailand. We had been reducing them, but the situation in Southeast Asia does not favor additional force withdrawals at this time. One of our future goals, which we need to discuss with the Thai Government, is to drawdown to a level of approximately 10,000 personnel.

PACIFIC UNIFIED COMMAND

Senator THURMOND. I do not know whether you want to comment on this or not, but I understand your unified command plan is under review and that revisions are a possibility, and in this regard—and do not answer this if you prefer not to—do you believe we should continue to have only one unified command for the Pacific area, or do you believe there may be merit in having two unified commands, one for the Northeast Pacific and one for the Southwest Pacific?

Secretary SCHLESINGER. I think that after careful scrutiny of that problem, Senator Thurmond, the decision has been made that the single unified command for the Pacific is the way to remain and the way to continue to go rather than to split the command.

ADDITIONAL FUNDS FOR SOUTH VIETNAM

Senator THURMOND. My time is so limited. I want to move on to South Vietnam. For the record, I think I know your position. I have heard you express with the White House.

The administration has requested $300 million for South Vietnam and $222 million for Cambodia in a supplemental. This is not before the Armed Services Committee, because the President has already authorized a billion dollars and only $700 million was appropriated by the Appropriation Committee and the Congress, and the amount to Cambodia would be before the Foreign Relations Committee.

Have you taken a trip over that way lately?

Secretary SCHLESINGER. No, sir.

Senator THURMOND. You are, of course, in constant touch with our authorities there?

Secretary SCHLESINGER. Yes.

Senator THURMOND. Would you state for the record here the situation as it has come to you and what justification there is for these funds?

Secretary SCHLESINGER. If I might, Senator Thurmond, I will review for you briefly the obligational authority and the congressional ceiling.

We have been declining rapidly in terms of aid to South Vietnam, even in leaving aside the cost of the U.S. forces, and, once again, these are in current rather than constant dollars. In fiscal year 1973, for example, our military assistance was $2.7 billion to South Vietnam. The following year it was cut to $1.126 billion. However, in those years we had the opportunity to use prior year funding.

The point I should make is that in fiscal year 1975 the Congress cut in half our $1.45-billion appropriation request and better than half from the Presidential request for a $1.6-billion obligation ceiling. The $700 million provided by the Congress is some 25 percent of the fiscal year 1973 level.

In addition, Congress precluded our using any prior year funds, and at the same time required us to pay for all packaging, crating, handling, and transportation costs from that decreased funding level. Further, the Congress required us to pay for the costs of administering the Defense Attaché Office (DAO) in South Vietnam.

As a result, the assistance to South Vietnam is no more than one-fourth the level that it was in fiscal year 1973, and it is about 60 percent of the level that it was in fiscal year 1974. All of this has had a substantial effect on the performance of the South Vietnamese forces which were creditably handling themselves after the ceasefire agreement. Now, because of ammunition rationing, they are back in a defensive posture. With the arrival of heavy equipment from North Vietnam and North Vietnamese soldiers using that equipment, the RF's and the PF's, the Provincial Forces, are no longer a match in protecting the local hamlets or villages. The RVN is in a defensive posture.

As a net result of the ammunition rationing in the last year, there has been a substantial weakening of the pacification of the countryside. There has been a weakening of the hold of the Saigon Government on elements of that countryside. The morale of the RVN, though it remains high, is deteriorating. If we continue supporting South Vietnam at the levels that we are being held to thus far in 1975 the country will grow weaker and weaker and weaker.

The CHAIRMAN. Gentlemen, excuse me. I am sorry, but the time is up.

The Chair recognizes Senator Symington when we reconvene at 2:30.

Thank you very much.

[Whereupon, at 12:32 p.m., the committee adjourned to reconvene at 2:30 p.m. of the same day.]

MILITARY PROCUREMENT FISCAL YEAR 1976

WEDNESDAY, FEBRUARY 5, 1975

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, D.C.

The committee met, pursuant to notice, at 2:30 p.m., in room 1114, Everett M. Dirksen Senate Office Building, Hon. John C. Stennis (chairman).

Present: Senators Stennis, Symington, McIntyre, Byrd, Jr., of Virginia, Nunn, Culver, Hart, Thurmond, Scott of Virginia, and Bartlett.

Also present: T. Edward Braswell, Jr., chief counsel and staff director; John T. Ticer, chief clerk; W. Clark McFadden II, counsel; Hyman Fine, Don L. Lynch, John A. Goldsmith, George H. Foster, Jr., Edward B. Kenney, Charles J. Conneely, Charles Cromwell, Nancy J. Bearg, Robert Q. Old, and James C. Smith, professional staff members; Robert Ujakovich, research assistant; and Christine E. Cowart, clerical assistant.

The CHAIRMAN. Our committee will please come to order.

We said we would take up General Brown's statement when we got back. Is there any objection to releasing that statement?

We will release it to the press.

We had a general understanding that when we did return that Senator Symington would be recognized and General Brown would be called on.

You have your statement now. Do you want to put it in the record and summarize it?

Is there objection to proceeding in that manner?

The chair hears none.

You may do so, General. Following the presentation of your statement we will return to the questioning. The questioning can apply to either one of you gentlemen. I think that is helpful to all of us.

STATEMENT OF GEN. GEORGE J. BROWN, CHAIRMAN OF THE JOINT CHIEFS OF STAFF

General BROWN. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I welcome this opportunity to discuss the military posture of the United States and to analyze with you the challenges which may confront our Nation over the coming 5 or 6 years to which our budget actions will provide the means for response. Since we no longer possess that predominance of strategic power, which, for over a quarter of a century, has protected

the peace of the free world and the security of the United States, this task takes on added dimensions of complexity and continues to be of undiminished importance.

I would like to share with you two key judgments that I have made as a result of preparation of this report.

First, the strategic balance today remains in dynamic equilibrium, with the Soviet numerical edge by some indicators offset by the United States qualitative advantage. The U.S.S.R., however, has embarked upon a massive program of major strategic force improvements and deployments, which, if not constrained by the negotiating process or balanced by major U.S. arms initiatives, will result in serious superiority over the United States in the years ahead.

Second, across the spectrum of warfare from strategic exchange to the lowest intensity of conflict, our military forces, together with those of our allies, possess today the capabilities to meet any foreseeable provocation with precision, discrimination, and restraint appropriate to the circumstances. We currently retain, but must seek to improve, the ability to employ a range of options, preferably conventional, in any confrontation when such is necessary to preserve interests indispensable to our Nation.

Our present strength is not so sufficient that we can be complacent. Our important interests can be threatened in the years ahead unless positive steps continue to be taken to improve the quality of our forces.

There is mounting evidence that the Soviet Union is pressing forward vigorously with massive programs for near-term deployments involving every facet of offensive strategic power. At the same time, it is improving appreciably, at a more gradual rate, capabilities for strategic defense and pursuing with firm determination development of advanced technology appropriate to the entire strategic equation.

The United States alone cannot provide the forces necessary to counter every military threat to our interests. We have only limited exclusive interests notwithstanding our need to have access to free markets and nonpoliticized supplies of raw materials, including oil. Our major responsibilities likewise must be shared. Increased cooperation and participation by our allies, including the provision of base rights and facilities, depend to a large measure upon our ability to demonstrate as well as assert our determination and capability to honor our assurances of support. Security assistance plays a major role in the effort by contributing to the maintenance of stability in Northeast Asia, Southeast Asia, and the Middle East; encouraging our friends and allies to become self-reliant, thus decreasing the probability of direct U.S. military involvement; and ensuring continued U.S. access to key bases and facilities.

In the long run, the only security we can reasonably hope to obtain flows from the deterrence global collective security provides.

I would like to conclude with two brief observations.

The incentives for arms control as a means for fulfilling national interests have been growing in both the Soviet Union and the United States over the last 5 or 6 years. Their scope is broad; their impact, manifest. Soviet purpose is not necessarily always benign. A U.S. strategic force, stable in shape and limited in size, is, of necessity, in the Soviet Union's best interests. Each step we take in this direction, therefore, must be carefully examined to insure an equal U.S. interest is

served. The political systems of our society insure open compliance with such agreements. We, of course, must take risks for peace, but these risks must be prudent. Arms control is a means, not an objective. The objective is peace.

The armed forces of the United States are capable today of fulfilling their constitutional obligation to provide for the common defense. They will perform as the Nation directs them and with tools the Nation provides. These tools must continue to be equal to the task.

Mr. Chairman, I look forward to presenting the details of this assessment in executive session and ask that my unclassified statement be inserted at this point in the proceedings.

Thank you, sir.

[General Brown's statement follows:]

Mr. Chairman and members of the committee, I welcome this opportunity to discuss the military posture of the United States and to analyze with you the challenges which may confront our Nation over the coming 5 or 6 years to which our budget actions now provide the means for response. Since we no longer possess that predominance of strategic power, which, for over a quarter of a century, has protected the peace of the free world and the security of the United States, this task takes on added dimensions of complexity and continues to be of undiminished importance.

In November of last year at Vladivostok, President Ford and General Secretary Brezhnev established a framework for a future Strategic Arms Limitation Agreement. This framework is a significant milestone toward improving relations between the US and the USSR, reducing the risk of war, and enhancing the chances of world peace. The framework not only limits the parties to an equal aggregate level of 2400 strategic vehicles, 1320 of which may be MIRVed, but also removes from the already complex bilateral negotiations the thorny multilateral issues of Forward Based Systems and Soviet claims to compensation for allied strategic systems. Long and difficult negotiations with the USSR face us, both in structuring the agreement and in further steps toward reducing the burden of continuing strategic armament investments which the framework envisions. The success or failure of these negotiations depends in large measure on our ability to demonstrate our determination to maintain military capability—second to none—across the total spectrum of foreseeable challenge. The USSR recognizes that efforts to obtain unilateral advantage are inconsistent with the objectives of reciprocity, mutual accommodation, and mutual benefit to which our nations are pledged. I doubt, however, that they would reject such an advantage if we, by default, offered it to them.

This, my first Posture Statement, is designed to measure the balance between the capabilities of the United States Armed Forces and the armed forces of our potential adversaries, today and as projected into mid-1980. It is offered subject to the following caveats:

First, neither the size nor quality of a nation's arms provides a complete yardstick of its military power. Fond as we are of totaling up divisions, missiles, aircraft, and ships, this is not the full story. There is, to begin with, the obvious and basic fact that no weapon or system is more effective than the man who bears it or the crew which serves it. More important, however, is the will of the people to make the sacrifices necessary to remain strong and free which ultimately determines the security of a democratic nation. The actions of this Committee and the Congress as a whole are the measures of this indispensable element of national will and responsibility.

Second, the criteria used for this statement are generally the same as those employed by my predecessors—US force data are extrapolated from the currently projected Five-Year Defense Program. The USSR and PRC data are based upon my analysis of the latest intelligence estimates and projections. There is a degree of uncertainty in any intelligence appraisal. The uncertainty is increased as the estimate moves from current capabilities to future ones, from quantative to qualitative judgments, and from observable operational matters to concealed research and development.

Third, I share with my predecessors the belief that it would be foolhardy to base the security of the United States on our ability to detect, observe, and

interpret the intentions of those who do not necessarily wish this Nation and its people well. "Intentions" are subject to obfuscation and instantaneous change; counter-capabilities require years to develop and maintain. More often than not, political military intentions are, in fact, dependent upon perceptions of future opportunity which, in turn, may be created by a military posture based on misconceived, benign intentions. We may never know what impact the reduction of our troop levels and the statements of our senior leaders may have had upon the North Korean decision to invade South Korea. I would suggest that these factors played a substantial role in the decision to employ North Korea's existing capability. If we measure our strength only against the intentions of our would-be adversaries, we subject our future to their intentions as well. This is a risk I do not feel privileged to take, since I believe the American people demand that we be capable of remaining free and strong without regard to the intentions of others. Therefore, this statement attempts to measure real capability, not perceived intentions.

Fourth and finally, you should be aware that there remains in all comparisons of one nation's military posture with that of another a measure of personal judgment. I have made every effort to produce a strictly objective appraisal. Overestimating the relative strength of a potential adversary may be detrimental to our national security, but not as detrimental as underestimating it. Overestimation undermines the confidence and resolve of our people and our allies in time of crisis, and could itself encourage military challenge to our interests in the world. On the other hand, underestimation of our opponent's strength leads to complacency and a deteriorating will and resolve to pursue the vigorous research and development, force improvement, and equipment modernization programs necessary to our security. I believe there is a consensus among my colleagues of the Joint Chiefs of Staff on the fundamental aspects of these comparisons, although some may differ in specific details.

Prior to presenting the first set of charts dealing with strategic forces, I would like to share with you 2 key judgments that I have made as a result of marshalling the evidence; synthesizing the data; and analyzing the comparative, but asymmetrical, forces that preparation of this report required:

First, the strategic balance today remains in dynamic equilibrium with the Soviet numerical edge by some indicators offset by the United States' qualitative advantage. The USSR, however, has embarked upon a massive program of major strategic force improvements and deployments which, if not constrained by the negotiating process or balanced by major US arms initiatives, will result in serious superiority over the United States in the years ahead.

Second, across the spectrum of warfare from strategic exchange to the lowest intensity of conflict, our military forces, together with those of our allies, possess today the capabilities to meet any foreseeable provocation with precision, discrimination, and restraint appropriate to the circumstance. We currently retain but must seek to improve the ability to employ a range of options, preferably conventional, in any confrontation when such is necessary to preserve interests indispensable to our Nation.

Our present strength is not so sufficient that we can be complacent. Our important interests can be threatened in the years ahead unless positive steps continue to be taken to improve the quality of our forces. In a very real sense, we have today an unequaled opportunity, by improving the war-fighting capabilities of our conventional force, to increase substantially our ability to deter aggression and, at the same time, raise the threshold of nuclear conflict. The achievement of these objectives, however, will require not only the capability of meeting and defeating direct challenges to our interests and those of our friends and allies on land, on the sea, and in the air, but also a manifestation of a clear and evident resolve to do so. Should we fail to take those steps and to display this resolve, others may be encouraged to abandon reason and risk the peace of the world.

Strategic Forces

Over the years, the Secretary of Defense and my predecessors have noted that the relative US strategic power had peaked and was on the decline; that we were approaching parity; and finally, that the balance was in dynamic equilibrium. The static measures of relative military strength today remain in rough equilibrium. But in a technological era marked by giant strides in both science and engineering, we must approach the future with firmness and caution—firmness in our resolve to stabilize the static balance and caution in minimizing the chance of technological surprise.

There is mounting evidence that the Soviet Union is pressing forward vigorously with massive programs for near-term deployments involving every facet of offensive strategic power. At the same time, it is improving appreciably, at a more gradual rate, capabilities for strategic defense and pursuing with firm determination development of advanced technology appropriate to the entire strategic equation.

The Soviet Union's focus is not simply on maintaining the current advantage in terms of megatonnage and throwweight, but it applies as well to accuracy, flexibility, survivability, and MIRVing intercontinental missiles.

At the SS–9 complexes, work is underway which will permit the deployment of the heavier, more accurate, and more lethal SS–18. SS–11 silos have been or are in the process of being prepared for the SS–17 and the SS–19. Both are MIRVed, more accurate, have increased throwweight, and are more survivable than the SS–11s they are designed to replace. The SS–X–16 is judged to have appreciably greater throwweight and accuracy than the SS–13 it apparently will replace. It has many indications of being deployable as a mobile system as well. The SS–7 and the SS–8 appear destined for replacement under the terms of the Interim Agreement by modern, probably improved, SLBMs, perhaps with multiple warheads displaying greater accuracy, although their throwweight and yield are somewhat reduced. These SLBMs will be deployed, not on the modern Delta submarine alone, but upon a modified "super" Delta carrying many more missiles than the 12-tube standard Delta. Hardened ICBM launch control facilities have been constructed and the program continues. A new airborne command post is probably operational. The multipurpose Backfire bomber is entering the operational force. Research and development continues. On the defensive side, the Soviet Union continues to improve the capability of current forces. It is deploying improved equipment such as the MIG–25 interceptor, a product-improved SA–5, and new warning facilities. Research continues on new ABMs. Each of these systems and the US program will now be examined in some detail.

U.S.-U.S.S.R. ICBM FORCES

Placing the ICBM balance in proper perspective requires a brief conceptual consideration of the legal constraints upon ICBMs flowing from the Interim Agreement on Strategic Offensive Arms which, under the Vladivostok framework, will remain in force until October 1977 when the new agreement incorporating relevant provisions will come into effect.

The Interim Agreement prevents the construction of new ICBM fixed, land-based launchers after 26 May 1972, and limited the conversion of the then existing silos to modernization and replacement which would not increase the existing dimensions of land-based ICBM silo launchers more than 10 to 15 percent. The Agreement also prohibits converting any of the ICBM launchers deployed prior to 1964 (e.g., SS–7, SS–8, and Titan II) or launchers for "light" ICBMs (e.g., SS–11 and Minuteman) into launchers for "heavy" ICBMs deployed after 1964 (e.g., SS–9). The Soviet negotiators refused to agree to a common definition of a "heavy" missile. The United States, however, inserted into the record its understanding that any ICBM having a volume significantly greater than the largest "light" ICBM then operational, i.e., the SS–11, would be considered a "heavy." Other than silo size and the mix of light and heavy missile launchers, there was no limitation on qualitative factors or research, development, or testing.

COMPARISON OF US AND USSR ICBMs

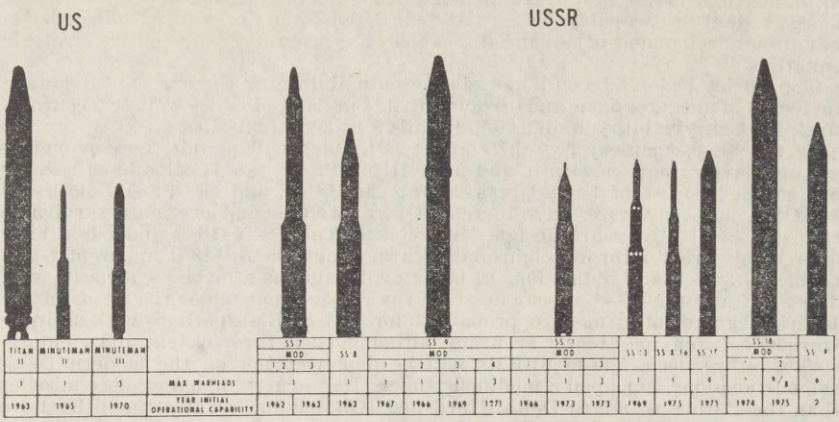


CHART NO 1

Chart 1 presents scale drawings and individual characteristics of the US and USSR ICBMs currently deployed or undergoing flight tests.

SS–7 and SS–8

The SS–7s and 8s are both pre-1964 "heavies." Launchers for the 190 SS–7s are deployed at hard and soft sites. The 19 SS–8s likewise are deployed at both hard and soft sites.

You will recall that the Protocol to the Interim Agreement permits the conversion to SLBMs of ICBMs deployed prior to 1964. It is our belief that all 209 SS–7 and SS–8 launchers will eventually be phased out for this purpose. It should be noted, however, that in June 1974, in the Standing Consultative Commission (SCC) established by the SAL undertakings, the US and USSR agreed to notification requirements and deactivation procedures which are to be implemented as replacements are undertaken. No such notification as yet has been given nor has there been compliance with the extensive dismantling/destruction requirements. We have every reason to believe that the USSR will comply when the time for compliance arrives.

SS–9

The SS–9 is a very large liquid-fueled missile with a combination of accuracy and yield giving it a significant capability to destroy silos, command and control facilities, and other hard targets. There are 4 variants of this missile. All have single warheads except the MRV MOD 4, which has 3. The MOD 3 remains an enigma. It has been tested in both a depressed trajectory and in a fractional orbital (FOBs) mode. There has been no known test of this system since August of 1971, and we entertain considerable uncertainty as to its precise capabilities and the extent of its deployment. Nonetheless, we do not believe it has been deployed to any of the regular SS–9 operational complexes.

MOD 4 flight tests resumed in 1973. None were detected in 1974. There is no known reason for the 1973 resumption of testing, but the absence of any test in 1974 suggests either that the 1973 effort achieved some research and development objectives or that the testing supported a new program which, for other reasons, was discontinued.

There were originally 288 SS–9s deployed. Some of these silos already have been converted to launchers for more advanced missiles and other silos are now undergoing conversion.

SS–11

The two-stage SS–11, operational since 1966, remains the most extensively deployed Soviet ICBM. It has been subjected to extensive troop testing, including over 100 launches from operational silos. There are 3 versions of this liquid-

propelled weapon, none of which employ a sufficient combination of accuracy and yield to constitute an effective threat to either Minuteman or any other hard target.

Lack of identifiable operational testing led us to believe that the MOD 2 program had been terminated. Recent firings suggest crew training, and indicate that deployment possibly may have been initiated. Like the MOD 1, this is a single warhead weapon, but it also has been tested with penetration aids designed to assist the penetration of an anti-ballistic missile (ABM) system. The MOD 3 has 3 MVR warheads. We believe that MOD 3s already have been deployed in the silos under construction at the time the Interim Agreement was signed. The remainder of the force is composed of MOD 1s.

SS–13

The last of the previously displayed Soviet missiles shown on Chart 2 is the SS–13. This missile has been operational since 1969 and utilizes a solid propellant. Sixty of these missiles currently are deployed. It is estimated that it will be replaced by the SS–X–16, a weapon much more accurate than the current system.

SS–X–16

The SS–X–16 utilizes a solid propellant. Apparently there had been some difficulty with this missile. It is believed now that the difficulties have been overcome. In December, 2 SS–X–16s were launched to the Pacific test range—4200 nm.

The SS–X–16, with much greater throwweight than the SS–13 and an advanced navigation guidance system, has a postboost vehicle traditionally associated with dispensing MIRVs, but to date has been tested only with a single warhead. It is expected to replace the SS–13. The single warhead version probably may be operational this year. A MIRV version also may be deployed, but not until at least a year after testing begins. The anticipated SAL undertakings may constrain the MIRVing of this missile.

There is, however, a more serious question associated with the SS–X–16. Circumstantial evidence continues to indicate that this weapon is being developed as a land-based mobile system. Its deployment is probably dependent on the outcome of the more comprehensive agreement under negotiation as well as successful development. Senior officers of the Soviet Strategic Rocket Force have spoken constantly of their mobile and invulnerable force; however, throughout the negotiations leading to the Interim Agreement, the Soviet Union rejected US efforts to ban deployment of land-mobile strategic offensive systems. Since we were unable to achieve any constraint on such systems, the United States delegation stated unilaterally that we "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."

It is against this background that the evidence of development and/or deployment should be examined.

Soviet strategic policy is shaped by a maze of complex considerations. There are many competing factors which will determine whether a mobile system will be deployed. Those favoring deployment include: increased survivability; projection of an image of Soviet strength; a hedge against lapse of the Interim Agreement; institutional momentum and sunk costs; and a bargaining chip in future negotiations. The Vladivostok framework will permit the deployment of ground-mobile ICBMs, but they will be included in the 2400 launcher cap. Reliability, accuracy, and availability are reduced considerably by the problems inherent in mobility, while operating costs, including maintenance, security, and positive control, are substantially higher than those associated with fixed deployment.

SS–17

This is a liquid propellant ICBM. The system employs a sabot "cold" launch technique with main engine ignition outside of the silo.

We believe that the missile dispenses 4 MIRV warheads from a post-boost vehicle. It is estimated that the missile will become operational in 1975.

SS–18

The SS–18 is a large liquid propellant "cold" launch ICBM comparable in volume to the SS–9. We have identified 2 variants of this missile. The over 5500 NM MOD 1 system employs a sophisticated version of the traditional Soviet "fly-the-wire" control system with an on-board digital computer. This missile,

with much greater destructive power of TITAN and improved accuracy, is capable of destroying any known fixed target. This variant is now operational, while the MOD 2 test program is proceeding at a somewhat slower pace. The MIRVed version has dispensed at least 6 RVs and is believed capable of deploying as many as 8 warheads to a range of 5500 nm. This missile could be operational in 1975.

SS–19

The SS–19 is a "hot" launched liquid propellant missile, which was first tested in April 1973. Its throwweight is 3 to 4 times that of the SS–11, and it is much larger in volume. Its guidance system combines navigation with a refinement of traditional Soviet "fly-the-wire" guidance technique. An on-board computer determines deviation from the pre-programmed course and directs correction to that course or plots a new course to the target depending on the attendant circumstances. It is believed that this missile is capable of delivering, at a range of 5000 nm 6 MIRVed warheads. The SS–19 now may be starting to be deployed in operational silos.

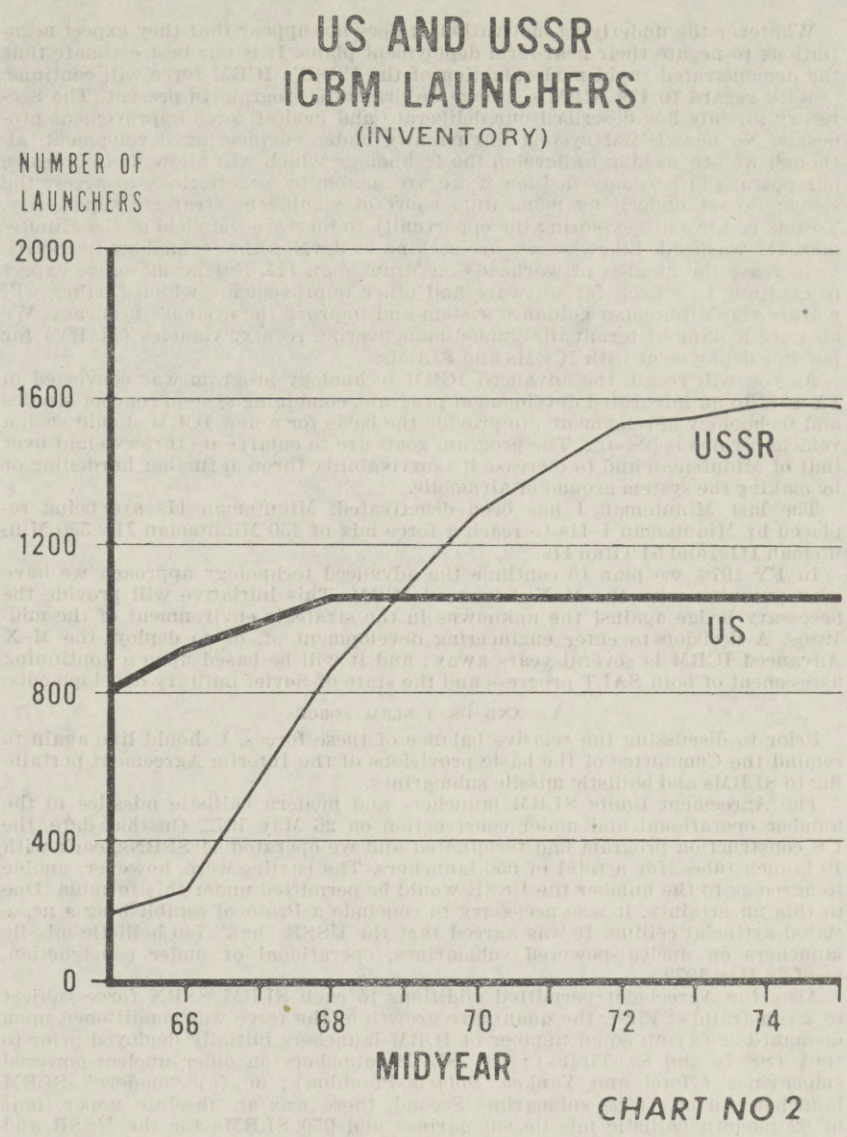
It was reported last year that there was some question as to whether both the SS–17 and the SS–19 were to be deployed; that it appeared the "17" was the most advanced vehicle; and that neither would be operational prior to 1975. It now appears that we again underestimated the scope and the intensity of the Soviet program.

Follow-on Systems

There are indications from diverse sources which, in combination, lead to the conclusion that the USSR is not completely satisfied despite the significant improvements in force effectiveness displayed by the 4 new systems. It appears that their R&D effort has momentum which will continue.

Launcher Inventory

Projected on Chart 2 are our latest estimates of US-USSR ICBM forces through mid-1975.



In this connection, it is essential that a very fundamental premise be understood. This chart and all those that follow are based upon the assumption that the relevant numerical limitations imposed by the Interim Agreement will remain in effect through October 1977 and that the 2400 and 1320 Vladivostok numbers will be implemented.

This chart and the quantitative ones that follow were developed in order to facilitate measuring the strategic balance. There is a considerable amount of professional judgment involved in both the measurement and the selection of criteria to be measured. I would urge in your consideration of the evidence that weight be given to each element, but that no single element be considered in isolation from the other qualitative and quantitative measures of the balance.

We estimate that the USSR at mid-1975 will have 1591 ICBM launchers.

Whatever the underlying motivation, it does not appear that they expect negotiations to negate their near-term deployment plans. It is our best estimate that the demonstrated rapid modernization of the USSR's ICBM force will continue.

With regard to US ICBM's, I have no dramatic program to present. The Secretary already has described our deliberate and modest force improvement proposals. No new ICBM system is currently under engineering development, although we are seeking to develop the technology which will allow us to improve our posture in a timely fashion if we are unable by negotiations to arrest the strong Soviet underlying momentum short of significant strategic superiority. To this end, we are exploring the opportunity to increase the yield of the Minuteman III warhead. Likewise, we are seeking to develop the technology necessary to increase the number of warheads on Minuteman III. Furthermore, we expect to continue to search for software and other improvements which further will mature the Minuteman guidance system and improve the system's accuracy. We also are looking at terminally guided maneuvering reentry vehicles (MaRV) for possible deployment with ICBMs and SLBMs.

As you will recall, the advanced ICBM technology program was converted in FY 1974 to an integrated development program, combining system concept studies and technology developments, to provide the basis for a new ICBM should such a vehicle become necessary. The program goals are to enlarge its throwweight over that of Minuteman and to increase its survivability through further hardening or by making the system ground or airmobile.

The last Minuteman I has been deactivated. Minuteman IIs are being replaced by Minuteman I–IIs to reach a force mix of 450 Minuteman IIs, 550 Minuteman IIIs, and 54 Titan IIs.

In FY 1976, we plan to continue the advanced technology approach we have been pursuing with the M–X Advanced ICBM. This initiative will provide the necessary hedge against the unknowns in the strategic environment of the mid-1980s. A decision to enter engineering development of, or to deploy, the M–X Advanced ICBM is several years away; and it will be based upon a continuing assessment of both SALT progress and the state of Soviet military developments.

US AND USSR SLBM FORCES

Prior to discussing the relative balance of these forces, I should like again to remind the Committee of the basic provisions of the Interim Agreement pertaining to SLBMs and ballistic missile submarines.

The Agreement limits SLBM launchers and modern ballistic missiles to the number operational and under construction on 26 May 1972. On that date, the US construction program had terminated and we operated 41 SSBNs, each with 16 launch tubes, for a total of 656 launchers. The parties were, however, unable to agree as to the number the USSR would be permitted under this formula. Due to this uncertainty, it was necessary to conclude a Protocol establishing a negotiated artificial ceiling. It was agreed that the USSR "had" 740 ballistic missile launchers on nuclear-powered submarines, operational or under construction, as of 26 May 1972.

Also, the Agreement permitted additions to each SLBM/SSBN force subject to 2 constraints: First, the quantitive growth of the force was conditioned upon dismantling (a) an equal number of ICBM launchers initially deployed prior to 1964 (SS–7s and 8s, Titans); (b) SLBM launchers on older nuclear-powered submarines (Hotel and Yankee, Polaris/Poseidon); or (c) "modern" SLBM launchers on any type submarine. Second, there was an absolute upper limit of 62 modern ballistic missile submarines and 950 SLBMs for the USSR and corresponding numbers of 44 and 710 for the United States. Under the Vladivostok understanding, these numbers remain valid only through October 1977, when they will be subsumed within the 2400 total strategic vehicle and 1320 MIRV limitation and will no longer operate as submarine/SLBM limits.

Chart 3 provides a comparison of US and USSR SLBMs. Even though the Trident C–4 is still not operational, I have included it because of its continued importance to the future of the strategic balance.

SS–N–5

The SS–N–5 first entered the Soviet force in 1963. It has a relatively short range (700 nm). Nonetheless, because of the warhead size, it is an effective weapon against soft targets such as centers of mass population. There are currently 24 SAL accountable operational launchers for these missiles; however, we expect that they all will be deleted from the inventory as a result of the continuing modernization momentum.

SS–N–6

The SS–N–6 first entered the Soviet naval inventory in 1968, and at present, is the most widely deployed Soviet submarine-launched weapons system. As indicated, it has 3 separate operational variants and we estimate that they are relatively interchangeable. All are liquid-fueled. The MOD 1 is a single warhead weapon with a range of 1300 nm. It is expected that the SS–N–6 system will be phased out as the modernization momentum continues.

In October 1972, flight testing began on a modified version of the SS–N–6. This system, the MOD 2, reached an IOC in 1974. The most significant modification was in the propulsion system, resulting in a 300 nm increase in range to 1600 nm. We believe that the SS–N–6 is now capable of reaching any target in the United States from the 100 fathom curve off the coasts of the United States. This missile also is expected to be withdrawn in favor of more effective systems.

The SS–N–6 MOD 3 represents a further development in Soviet missile technology. This 1600 nm weapon carries MRVs and probably reached IOC in 1974. These warheads are not independently targeted. The combination of yield and accuracy for all versions of the SS–N–6 limits its effectiveness to soft targets.

We believe that the current level of 544 launchers for this missle, some of which are MRVs, will remain in the Soviet inventory until a new SS–N–6 sized missile begins to enter the inventory.

SS–N–8

The SS–N–8 has a much greater volume than the SS–N–6 and reached IOC in 1973. It is a liquid-propelled missile capable of delivering a single warhead to a range of 4200 nm. This weapon remains unique in two particulars. It exceeds, by at least 1600 nm, the range of any other SLBM currently deployed by either the USSR or the United States.

US SLBMs

The older, single warhead POLARIS A–2 missile now has been phased out of our deployed inventory completely. Only the POLARIS A–3 (3 MRVs) and the MIRVed POSEIDON C–3 missiles are currently at sea. Both are two-stage, solid-propellant, inertially-guided missiles.

As you are aware, the TRIDENT C–4 missile has been designed with range characteristics which will permit basing in the United States without sacrifice of alert rate and which will permit an operating area increase of at least 4 times that which we currently enjoy. We are, however, asking to continue a small parallel advanced development effort to provide an option for the early 1980s for major accuracy improvement as well as the advanced development of an evading reentry vehicle (MaRV) as a hedge against Soviet actions to upgrade their SAMs to ABM capability.

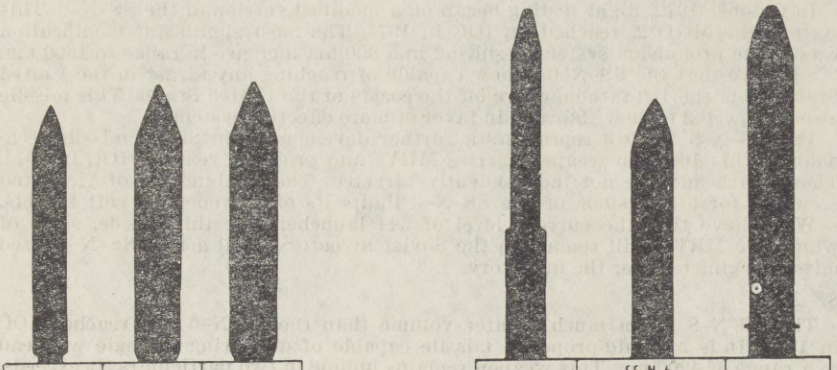
The IOC of the new missile is planned for last 1977 and will coincide with the completion of the first TRIDENT submarine. It is on schedule. As you will recall, it is virtually interchangeable with the POSEIDON C–3 and will be backfitted into 10 such submarines beginning in 1979.

Turning now to the launch platforms for these missiles, Chart 4 displays the 4 operational Soviet sublaunched ballistic missile platforms and the US POLARIS/POSEIDON submarine.

COMPARISON OF US AND USSR SLBMs

US

USSR



POLARIS A-3	POSEIDON C-3	TRIDENT C-4		SS-N-5	SS-N-6 MOD 1	SS-N-6 MOD 2	SS-N-6 MOD 3	SS-N-8
3 (MRV)	14 (MIRV)	(MIRV)	WARHEADS	1	1	1	2 3 (MRV)	
1964	1971	1979	YEAR INITIAL OPERATIONAL CAPABILITY	1963	1968	1974	1974	1973

CHART NO 3

OPERATIONAL BALLISTIC MISSILE SUBMARINES

		YEAR OPERATIONAL	PROPULSION		MISSILE
USSR					
D CLASS	450 FT	1973	NUCLEAR	12	SS-N-8
Y CLASS	425 FT	1968	NUCLEAR	16	SS-N-6
H CLASS	380 FT	1960	NUCLEAR	3	SS-N-5
G CLASS	320 FT	1960	DIESEL	3	SS-N-4/5
US					
POLARIS	382 AND 410 FT	1960	NUCLEAR	16	A-3
POSEIDON	425 FT	1971	NUCLEAR	16	C-3

CHART NO 4

USSR SUBMARINES

GOLF

The GOLF is a diesel-powered submarine and represents the first Soviet submarine class to have been built from the keel up to launch ballistic missiles. The lead ship was completed in 1958 and became operational in 1960. The 20 operational GOLF submarines are not counted in the SAL limits. The class is included here only in the interest of completeness.

HOTEL

Nine HOTEL-class submarines originally were built. This submarine is a nuclear-powered vessel capable of firing 3 SS–N–5 missiles. We believe 8 such units are now operational.

YANKEE

This 428-ft. class is similar in concept, size, and layout to the United States' LAFAYETTE-class SSBN with which most of you are familiar. Missile tubes sized for the SS–N–6 are arranged in 2 rows of 8. The lead ship reached IOC in 1968.

There is reason to believe that production of the YANKEE has terminated. These 34 units, with their 544 launch tubes, are expected to constitute the bulk of the Soviet force for some years to come.

DELTA

The latest Soviet SSBN to be deployed is the 450-ft. DELTA, which began patrol in mid-1974 This submarine has 12 launch tubes capable of handling the SS–N–8.

Lengthened DELTA-Class Submarines

The Soviet Union has announced that they intend to build to the full extent of the Interim Agreement limits.

We believe that they will build a force close to the 62 modern submarines and the 950 SLBMs allowed. In order to do so, at a reasonable cost, a larger launch vehicle for the SS–N–8 is required. Further, there is evidence that the USSR soon will launch the first of a lengthened version of the DELTA—a "super" DELTA. This added length will permit the installation of more launch tubes than the standard DELTA.

US SSBNs

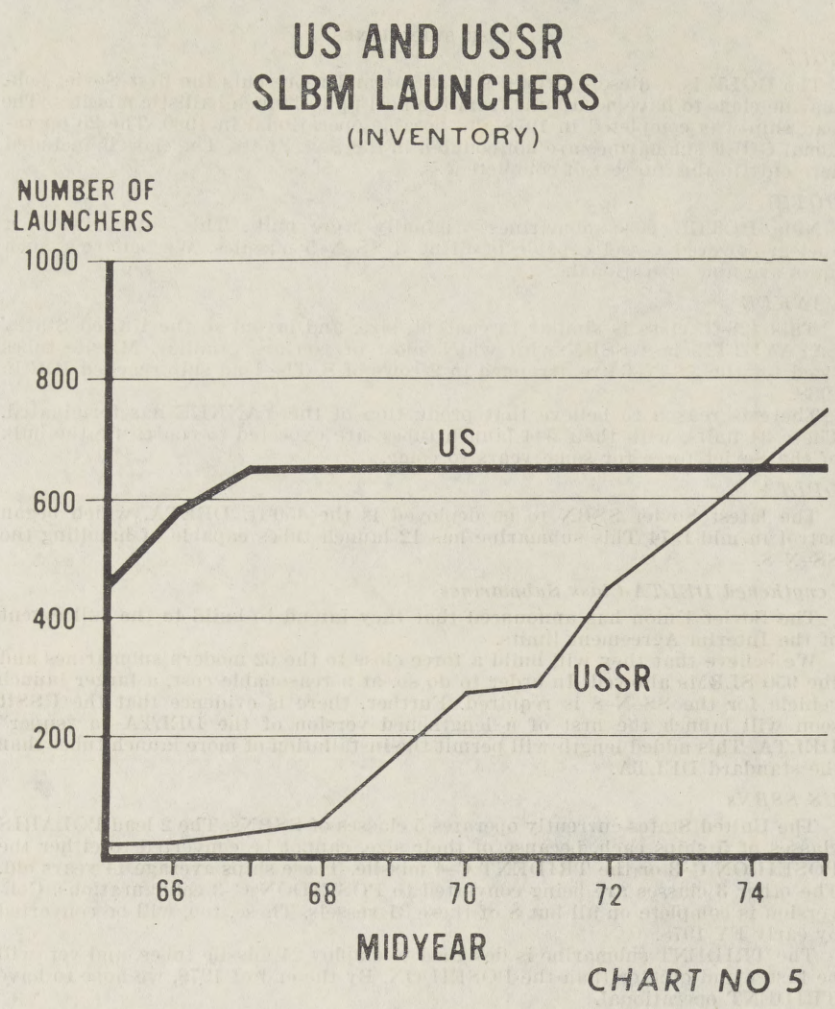
The United States currently operates 5 classes of SSBNs. The 2 lead POLARIS classes of 5 ships each, because of their size, cannot be converted to either the POSEIDON C–3 or the TRIDENT C–4 missile. These ships average 14 years old. The other 3 classes are being converted to POSEIDON C–3 configurations. Conversion is complete on all but 8 of these 31 vessels. These, too, will be converted by early FY 1978.

The TRIDENT submarine is designed to employ 24 missile tubes, and yet, will be faster and quieter than the POSEIDON. By the end of 1978, we hope to have TRIDENT operational.

Prior to summarizing the quantitative SLBM balance and estimating the future forces, it is important to note one further qualitative factor bearing on the relative effectiveness of the forces. The readiness of a force, particularly the SLBM force, is related clearly to the capability to maintain the material condition of individual submarines at an acceptable level by regular and timely overhaul. The average period for overhauling a US nuclear submarine is much less than in the USSR.

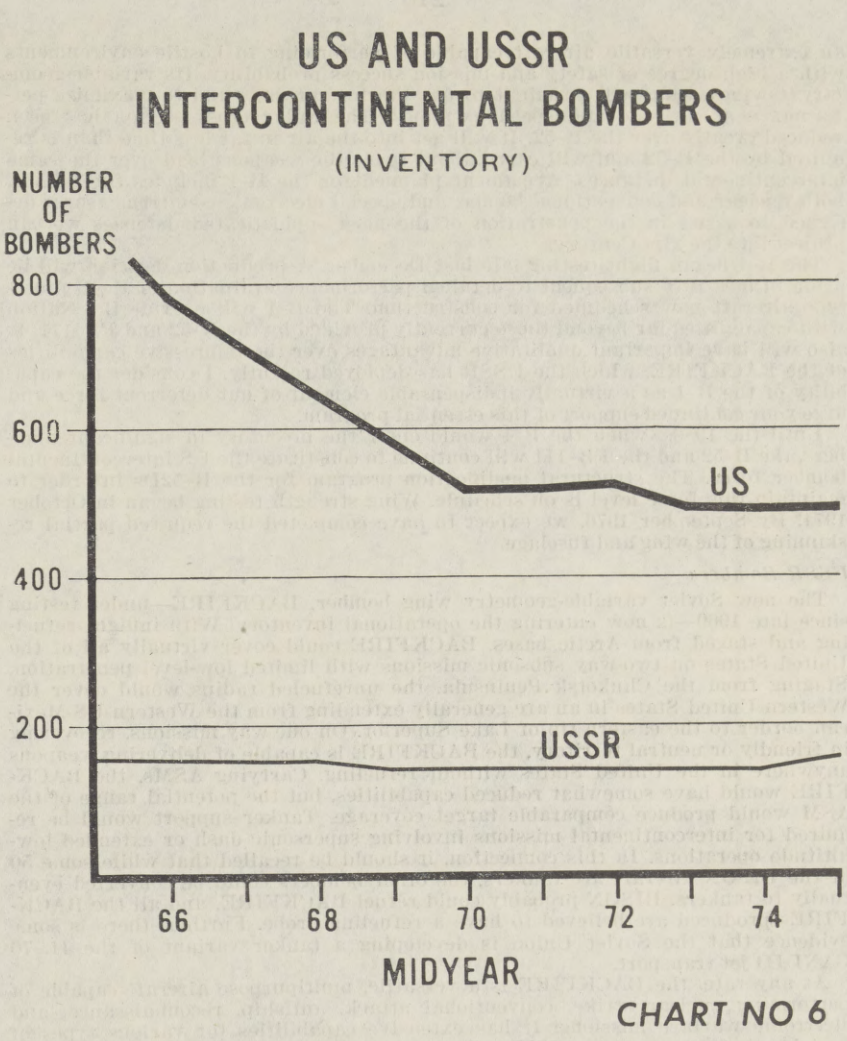
The current projections of US and USSR SLBM launchers operational or on sea trials are sown on Chart 5. SLBMs on sea trials are included because of the structure of the Interim Agreement—the dismantlement of older systems must be initiated when sea trials begin for any new SLBMs.

We estimate that by mid-1975, the Soviet Union will have a total of 700 missile launchers on 52 nuclear-powered submarines. The US force will be composed of 656 missiles on 41 SSBNs.



US AND USSR STRATEGIC BOMBER FORCES

Chart 6 shows US and USSR Strategic Bomber Forces projected through mid-1975.



US Bombers

More than a decade ago, we identified the requirement to modernize the manned bomber portion of our strategic deterrent forces. The B–1 has been designed as

an extremely versatile aircraft capable of performing in hostile environments with a high degree of safety and mission success probability. Its variable-geometry (swing) wing will permit it to use shorter runways and to maximize performance at altitude and speed extremes. The radar cross section has been reduced greatly over the B–52. It will get into the air in far less time than is required by the B–52 and will carry about twice the weapons load over the same intercontinental distances. Armament planned for the B–1 includes the SRAM, both nuclear and conventional bombs, and special electronic countermeasures designed to assist in the penetration of the most sophisticated defenses we can project into the 21st Century.

The B–1 began flight testing late last December. A production decision will be made in late 1976 subsequent to detailed performance evaluation of the 3 prototype aircraft now scheduled for construction. The B–1 will provide the Nation with capabilities far beyond those currently provided by the B–52 and FB–111. It also will have important qualitative advantages over the impressive capabilities of the BACKFIRE, which the USSR has deployed recently. I consider the capability of the B–1 as a virtually indispensable element of our deterrent force and urge your continued support of this essential program.

Until the 1980s, when the B–1 would enter the inventory in significant numbers, the B–52 and the FB–111 will continue to constitute the US intercontinental bomber force. The structural modification program for the B–52Ds in order to maintain this force level is on schedule. Wing strength testing began in October 1974. By September 1976, we expect to have completed the required partial reskinning of the wing and fuselage.

USSR Bombers

The new Soviet variable-geometry wing bomber, BACKFIRE—under testing since late 1969—is now entering the operational inventory. With inflight refueling and staged from Arctic bases, BACKFIRE could cover virtually all of the United States on two-way subsonic missions with limited low-level penetration. Staging from the Chukotsk Peninsula, the unrefueled radius would cover the Western United States in an arc generally extending from the Western US-Mexican border to the eastern tip of Lake Superior. On one-way missions, recovering in friendly or neutral territory, the BACKFIRE is capable of delivering weapons anywhere in the United States without refueling. Carrying ASMs, the BACKFIRE would have somewhat reduced capabilities, but the potential range of the ASM would produce comparable target coverage. Tanker support would be required for intercontinental missions involving supersonic dash or extended low-altitude operations. In this connection, it should be recalled that while some 50 of the BISON aircraft are tankers, the other bombers could be converted eventually to tankers. BISON probably could refuel BACKFIRE, and all the BACKFIREs produced are believed to have a refueling probe. Further, there is some evidence that the Soviet Union is developing a tanker variant of the IL–76 CANDID jet transport.

At any rate, the BACKFIRE is a versatile, multipurpose aircraft capable of performing nuclear strike, conventional attack, antiship, reconnaissance, and electronic warfare missions. It has extensive capabilities for various types of peripheral missions against NATO Europe and the PRC. Unrefueled, it probably is best suited for that role. Its intercontinental capabilities cannot be prudently ignored, particularly in the face of thinning US air defenses.

This chart reflects only long-range bombers. Intermediate-range bombers are omitted from the force displayed here, notwithstanding the fact that some of

them have a potential intercontinental strike capability if Arctic staging and one-way flight profiles are used. We do not know precisely how the Soviet planner intends to utilize the BACKFIRE weapons system. Evidence derived from basing, operational activities, and training patterns ultimately will answer this question. This is an excellent example of why I believe we must deal realistically with demonstrated capabilities, not perceived intentions. The Soviet general staff could change the BACKFIRE mission in a matter of hours, if not minutes; but preparing a defense against such an increased threat could require years.

Our ability to detect Soviet aircraft at the developmental stage prior to the rollout of a new prototype is limited. Continued development of BACKFIRE indicates a continuing interest in the bomber as a strategic weapons system.

The BACKFIRE, an improved version thereof, or a new bomber with increased range and payload probably would satisfy new bomber requirements through the 1980s. We have no evidence of such a new system. The design of any new Soviet bomber would be tailored to the Soviet Union's perception of its requirements. If the USSR decides to develop a new long-range bomber, we would expect to become aware of its existence a number of years prior to its IOC.

USSR Air-to-Surface Missiles

In the event of a strategic attack against the United States, we believe the USSR would employ stockpiled nuclear bombs with a wide range of yields. In addition, the BEAR B and C carry the large AS–3, KANGAROO, air-to-surface guided missile. We believe that an air-to-surface missile is being developed for the BACKFIRE.

US Air-to-Surface Weapons

On the US side, a new bomb is now in engineering development. A mixed air-launched cruise missile/SRAM force will complicate Soviet defensive planning, extend bomber range, and provide increased coverage for lower priority undefended targets. Furthermore, the decisions to equip B–52s with HARPOON antiship missiles will add to the ability of strategic aircraft to support interdependently the sea surveillance mission.

US AND USSR STRATEGIC OFFENSIVE BALANCE

I will now summarize quantitatively the strategic offensive balance between the forces of the United States and those of the USSR. Quantitative measures are, however, only one segment of the equation; and caution is required in order to avoid over-reliance on any single factor or combination of such factors in making the judgments necessary to a full understanding of the relative power of the United States and our ability to deter attack by the USSR. Alert rate, command, control, communications, attack warning, survivability, systems reliability, range, penetration capability, and accuracy are among the many factors not subject to reasonable quantification which play a very significant role in assessing balance. I have noted in the preceding analysis some of these factors and will address others in subsequent parts of this discussion. I have retained the four general measures—delivery vehicles, megatons, warheads, and throwweight/payload—which have become traditional in this presentation. Only those weapons readily available for employment are displayed.

Chart 7 reflects the fact that the USSR has surpassed us in the number of delivery vehicles.

US AND USSR OPERATIONAL STRATEGIC OFFENSIVE DELIVERY VEHICLES

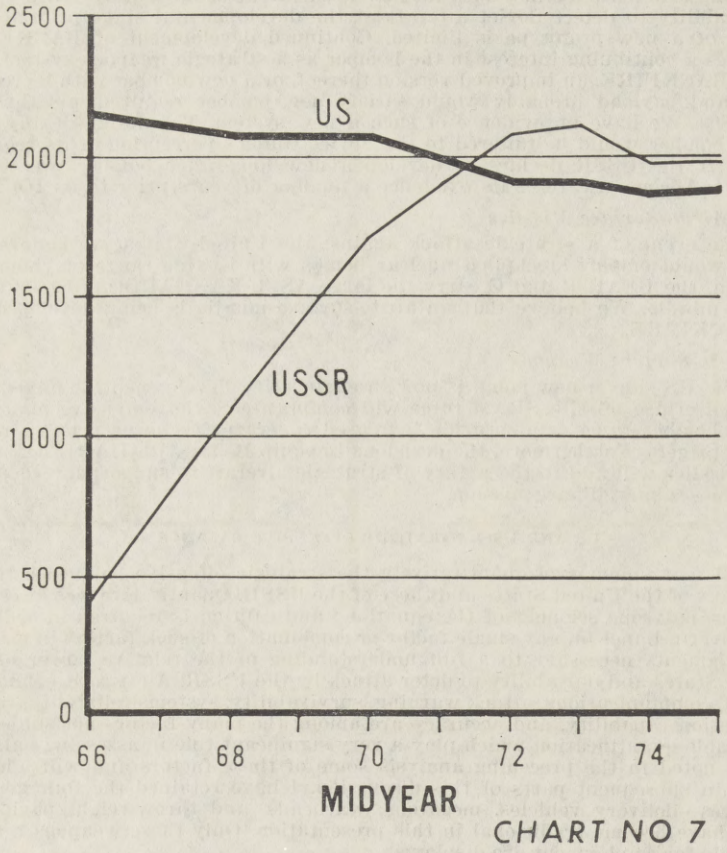


CHART NO 7

4000 radars located at early warning and ground control intercept (EW/GCI) radar sites, over 2600 fighter interceptors, and about 12,000 strategic surface-to-air missiles (SAMs) on launchers.

Chart 8 displays the numerical imbalance in the current force structure. However, it must be remembered that many of the currently deployed Soviet air defense systems were designed originally to counter the medium-to-high altitude bomber and stand-off-missile threats represented by the B–70 and the evolving technology of the late 1950s and early 1960s. The force, nonetheless, displays significant capabilities.

US AND USSR STRATEGIC DEFENSIVE FORCES

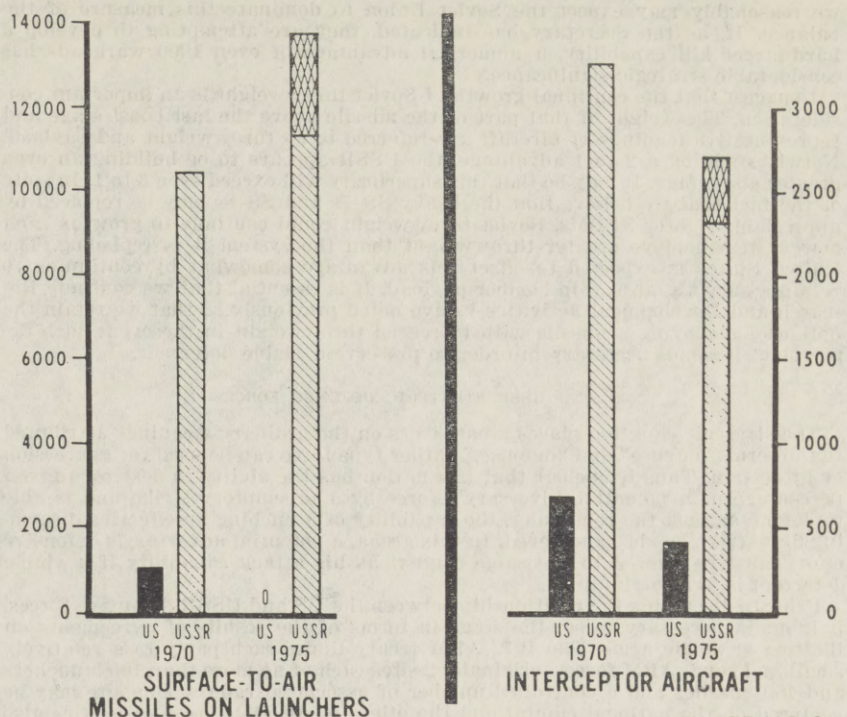


CHART NO 8

The principal significance of this small lead is in historical perspective. Less than a decade ago, the United States enjoyed a 5 to 1 lead. Balanced bomber construction, the restraints on new construction imposed by the Interim Agreement, and the reduced availability resulting from the intensive silo modernization program now underway in the USSR should ensure that the Soviet lead is not widened substantially over the period of this report.

Strategic offensive megatonnage is a very gross measure of the balance. The greater the Soviet effort to modernize and to MIRV, the more rapidly its total megatonnage will fall. This is also the explanation for the rapid reduction in total US megatonnage from 1970 to date.

The number of strategic warheads and bombs is a very significant measure of the balance. Mr. Brezhnev has been quoted as stating "Warheads—not launchers—kill." This fact adds a degree of importance to the relative number of warheads. Last year, it was believed that even if the Soviet Union pursued a program of rapid modernization, our substantial lead could be "diminished but not eliminated." It is now clear that this judgment understated both the breadth and intensity of the Soviet effort to surpass the United States in this measure of the strategic balance.

If the Soviet Union continues its present rapid modernization effort, the substantial US advantage will be lost by mid-1979, Unless we initiate new programs or restrain this massive Soviet growth by the ongoing arms control negotiations, we reasonably may expect the Soviet Union to dominate this measure of the balance. If, as the Secretary has indicated, they are attempting to develop a hard-target kill capability, a numerical advantage of even 1000 warheads has considerable strategic significance.

I suggest that the continual growth of Soviet throwweight is an important consideration. The weight of that part of the missile above the last boost stage and representative loadings of aircraft are referred to as throwweight and payload. Notwithstanding a 2 to 1 advantage, the USSR appears to be building an even greater advantage. It may be that this superiority will exceed even 3 to 1. In spite of the fact that we believe that the heavy SS–7s and SS–8s may be replaced by appreciably lighter SLBMs, Soviet throwweight could continue to grow as each new system deploys greater throwweight than the system it is replacing. The United States is expected to offset this advantage somewhat by continuing to retain a substantial lead in bomber payload. It is essential that we continue Research and Development activities I have noted previously so that we retain the option of deploying a missile with increased throwweight in the event such deployment becomes necessary in order to preserve a viable deterrent.

US AND USSR STRATEGIC DEFENSE FORCES

The strategic equation places great stress on the ordinary meanings attributed to the terms "offense" and "defense." Either type force can be used for aggression or protection. Thus it is clear that if a nation has the ability to destroy a given percentage of a potential adversary's force by a preemptory strike and is able to defend against the remainder, the capability of launching an effective disarming first strike has been achieved. In this arena, a potential adversary's defensive effort must be viewed in the same context as his attack capability if a viable deterrent is to be maintained.

Prior to discussing the relationship between the US and USSR defensive forces, it is again necessary to set the stage in terms of the results of agreements on limiting strategic arms. The 1972 ABM treaty limits each party to a relatively small and equal ABM force—originally 2 sites each of no more than 100 launchers and 100 missiles and a controlled number of associated radars. One site may be centered on the national capital and the other, on ICBM silos. The parties also undertook not to develop, test, or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based. On 3 July 1974, we signed, in Moscow, a protocol to the ABM treaty which, upon ratification, will further limit the USSR and the United States to only 1 such ABM site. Each party, after properly notifying the other, will have the right to dismantle or destroy its current site and to deploy ABMs otherwise permitted in the alternate area. This site exchange may take place during the first year of successive five-year intervals beginning in October 1977, but this option may be exercised only once.

ABM

The Moscow ABM system consists of battle management radars, engagement radars, and GALOSH missile launchers. As you will recall, 8 complexes were originally under construction, but only 4 with 64 missile launchers have been completed. Each operational complex consists of 2 large target-tracking radars, 4 smaller or interceptor guidance and tracking radars, and 16 missile launchers.

This system, which we have designated ABM–1B, includes target acquisition and tracking radars such as DOG HOUSE, CHEHKHOV, and HEN HOUSE. It provides little defense against a large-scale or penetration aided attack. It would, however, provide a credible defense of Moscow and a large portion of Soviet ICBM silos against a small, accidental, or unauthorized attack.

The US Army has completed the SAFEGUARD test program which began at Kwajalein Island in 1970. By April, we expect to reach IOC at the Grand Forks site. The scheduled Equipment Readiness Date of 1 October 1974 was met and, by October 1975, we expect to have a full operational capability with SPARTAN long-range and short-range SPRINT missile interceptors, a Perimeter Acquisition Radar for acquisition at long-range, a Missile Site Radar for accurate tracking and interceptor guidance, and Ballistic Missile Defense Center to net the system with the CONAD Combat Operations Center.

We thus will be able, within the capabilities afforded by SPARTAN and

SPRINT missile interceptors, to provide a terminal defense of a portion of the Grand Forks MINUTEMAN field and a limited area defense against accidental/unauthorized launches in the Colorado/Dakotas region covered by the SPARTAN footprint. After all subsystems are interfaced and brought to full operational condition, we will be able to validate the total spectrum of the subsystem design, including compatibility with the national command and control structure.

The USSR is pursuing vigorously the development of advanced technology applicable to its ABM force.

I do not believe that the USSR has deployed its extensive SAM network to provide ABM defense, nor do I believe that it is currenty suitable for that role. I remain convinced that we would be able to detect any program designed to upgrade SAMs to an effective ABM capability, but we must be alert to that possibility.

During the latter part of this decade, the Soviet Union may deploy follow-on systems around Moscow to the level permitted by the ABM treaty.

The Site Defense program is the US effort to maintain an equivalent capability. It provides a hedge to deploy a credible ABM defense for MINUTEMAN to counter the Soviet capability to threaten MINUTEMAN survivability in the 1980s, if follow-on negotiations do not otherwise insure the survivability of a sufficient strategic retaliatory force. We are emphasizing the development of improved subsystems and components, rather than "prototype demonstration," in accordance with guidance of the Congress. In the Advanced Technology Program, we are pursuing a vigorous research effort embracing technology applicable to all components and functions of ballistic missile defense, which must be understood to maintain our technological lead. The objectives of the effort are to provide an advanced technology foundation for future systems, to avoid technological surprise and to assist in the design and evaluation of US strategic offensive systems.

Air-Defense

The Soviet Union's strategic air defense is by far the most extensive and expensive in the world. It operates over 4000 radars located at early warning and ground control intercept (EW/GCI) radar sites, over 2600 fighter interceptors, and about 12,000 strategic surface-to-air missiles (SAMs) on launchers.

Interceptors

The right side of the chart compares US and USSR home defense interceptors projected through mid–1975. The Soviet deployment levels have continued their steady decline (about 100 aircraft per year) which began in 1964, but the overall capability of the force continues to mount. Older, largely gun-armed interceptors, such as FRESCO (MIG–17) and FARMER (MIG–19), are being replaced by more sophisticated, all-weather interceptors, such as the FOXBAT (MIG–25) and FLAGON E (SU–15). The FLAGON E entered operational service just over a year ago. It employs a new and more powerful propulsion system, which increases both speed and range, and improved avionics in addition to advanced air-to-air missiles. It appears that the MIG–23 (FLOGGER), a single-engine variable-geometry wing fighter, armed with 4 air-to-air missiles and an internal gun, also is being prepared for an air defense role.

We expect the Soviet Union to deploy in the 1977–1980 timeframe a new interceptor. In the interim, the USSR is expected to continue widening the capabilities of the interceptor force by emphasizing the modification of existing aircraft rather than introducing entirely new systems. The fundamental constraint on Soviet interceptors' effectiveness against low-altitude bombers is that they have not demonstrated the capability of developing a radar capable of detecting and tracking from high altitude a bomber at low altitude against a background of signals reflecting from the ground.

The mid–1975 US operational interceptor force will be composed of 116 F–101s, 56 F–102s, and 233 F–106s. All these interceptors entered the inventory in the 1950s. This force will, however, be 65 percent Air National Guard. By mid–1980, the force will be reduced to 122 active and 90 Air National Guard F–106s. General purpose augmentation aircraft stationed in the United States, of course, will be available to assist in the air defense mission prior to their deployment to overseas locations.

Shown on the left side of Chart 8 are US and USSR home defense SAM forces. The US strategic SAM force was totally deactivated in 1974. There was a slight increase in the Soviet number in 1974.

Soviet Strategic SAM Force

This force is composed of four systems. The SA–1 (GUILD) is a liquid-propelled missile first deployed in 1954. We estimate that the mid-1975 level of sites will decrease gradually as Soviet modernization increases.

The SA–2 (GUIDELINE) is the command guided high-altitude missile which the North Vietnamese employed with a reasonable degree of effectiveness during LINEBACKER II. This system, which was first introduced in 1958, like virtually all Soviet strategic SAM systems, has been modernized during its lifetime with new versions increasing its range and improving its performance at low altitudes. Some of the guidance systems have been modified with optics, thus providing improved ECCM and low-altitude capabilities. We estimate that the SA–2 force will continue its decline.

The SA–3 (GOA) is a road-transportable, solid-propelled medium- and low-altitude command guided missile employed in both the point defense and barrier role. This system, first introduced in early 1961, is capable of intercepting attacking aircraft at low altitudes within a limited range of the launch site. We estimate that the mid–1975 level of sites will increase.

The latest Soviet strategic SAM system is the SA–5 (GAMMON), which was initially operational in 1967. It provides point defense for certain vital areas of strategic importance.

Although not a strategic system, the highly mobile SA–6, employed with notable effectivness in the recent Middle East hostilities, has impressive capabilities, particularly in dealing with low-altitude attacks.

Despite the size of the Soviet air defense force and the projected improvements, there exists major weakness in low-altitude defense against penetrating bombers and in defense against the US short-range attack missile (SRAM). This will require the USSR to attempt to attack and destroy the SRAM carriers as early as possible. Early detection is indispensable to this effort.

The MOSS aircraft noted in this statement over the past several years still provide the USSR with its limited airborne controlled intercept (ACI) capability. The aircraft has worked in overwater exercises, but is unequal to the more challenging overland task. If the USSR intends to improve its air defense, a new airborne warning and control aircraft system, a better radar network for GCI, and better airborne radars probably will be required. There is as yet no evidence that the Soviet Union is developing an airborne warning and control system (AWACS) capable of detecting and tracking aircraft at low altitudes over land.

Last year, you will recall, the Secretary of Defense announced a decision to readjust the primary air defense mission to encompass surveillance; peacetime control of US airspace; and warning of a bomber, missile, or space attack. This decision was forced by tight budget constraints and the fact that without effective ABM defense, air defenses are of limited value against potential aggressors armed with strategic missiles.

I would be less than candid if I were to leave you with the impression that there were no risks in this phased-down program. By mid-1976, our limited interceptor force will average about 18 years of age. The majority of the general purpose fighters are committed to other contingency plans and may not be available for air defense. We will be without terminal defense of high-value urban/industrial areas against either a bomber or cruise missile attack. It is, therefore, essential that the Congress provide funds to preserve the option of deploying on a timely basis a new intercetpor (e.g., F–15 or F–14), a new SAM system (e.g., SAM–D), and AWACS for strategic defense should some significant change in the strategic structure become necessary in the future. These programs now are being provided for the general purpose forces, and they deserve consideration in the context of both that mission and the defense of the United States in time of crisis. They will make it possible to provide a pool of strategic and general purpose tri-Service assets from which resources could be drawn to provide air defense for threatened areas overseas as well as in the United States.

PRC STRATEGIC FORCES

The dramatically increasing prominence of the Peoples Republic of China (PRC) in foreign policy calculations is only partially reflected in her military program. There is a steady, almost painstaking quality about this relatively small, but carefully conceived, strategic program. A modest, but credible, nuclear retaliatory capability against the USSR has been achieved, and this undoubtedly

has influenced the decision to move ahead slowly, but deliberately, with the task of increasing the effectiveness of PRC nuclear forces. Emphasis is clearly on programs with long-range implications such as the construction of 2 of the world's most modern shipyards at Hu-lu-tao and Kuang-chi; impressive new facilities for producing large quantities of nuclear materials; solid propellant missiles; and R&D initiatives addressing advanced airframes and sophisticated engines. The temptation to yield to programs which would provide a more immediate strategic posture and perception of growing strength apparently has been resisted.

MRBM Force

This force is composed of a single-stage, liquid propellant, transportable system developed from Soviet models. The estimated range is about 600 nm. It can reach targets in the Eastern USSR, peripheral nations, and some US bases in the Far East. It is an obsolescent and cumbersome missile system with slow reaction time.

IRBM

This single-stage, liquid propellant ballistic missile presently is deployed at permanent sites. Its range is about 1500 nm. During the past year, deployment of this system continued at a measured deliberate rate.

Limited Range ICBM

We now estimate that a limited range system could become operational during 1975. The program, however, continues to be a major enigma in the PRC's strategic weapons effort. When it reaches IOC, the PRC will have a limited capability to cover targets in the European USSR—possibly including Moscow. The PRC may consider the creation of such a capability sufficient justification for deploying only a few of these largely untested missiles. The reasons behind this decision, of course, are unknown, but could include political, budgetary, and strategic factors.

ICBM

This is a large ICBM in the same class as the US TITAN and the Soviet SS–9. It could have a range of about 7000 nm.

Full flight testing of this missile will require launches to a broad ocean impact area, probably in the Pacific, but possibly into the Indian Ocean. Analysis of such launches will provide much more data about characteristics of the system then we now have.

The PRC has made a substantial investment over the past 15 years in research, developmental testing, and production facilities for both liquid and solid propellant missile systems. All current operational Chinese ballistic missile systems use liquid propellants.

The PRC's continuing interest in facilities capable of developing and producing solid propellant rocket motors of various sizes up through intercontinental missiles has considerable significance for the future.

SLBM Systems

Although we continue to have difficulty in forecasting the rate of progress of the PRC SLBM program, we remain convinced that the PRC is determined to develop a submarine-launched ballistic missile and a modern nuclear-powered ballistic missile submarine. It is estimated that the first-generation Chinese SLBM will be a solid propellant system comparable in size to the early US POLARIS missiles.

Bomber Force TU–6 (BADGER)

PRC productions of the TU–16 jet intermediate-range bomber began in 1968, but apparently ceased after some 60 of this Soviet-designed bomber were built. It is too early to determine whether production will resume. The TU–16 was first observed in the Soviet Union in 1953 and has a combat radius of 1650 nm.

IL–28 (BEAGLE)

The IL–28 twin-jet short-range bomber is an old (1950) and vulnerable bomber, but the PRC military planners still appear to consider it an important weapons system. More than 400 IL–28s are now operational. The PRC may plan to equip some of these aircraft for a nuclear attack role. There are about 100 airfields in the PRC from which IL–28s could operate. Staging from those airfields closest to the border would permit strategic operations against substantial por-

tions of the contiguous Soviet Union, all of South Korea, parts of South Vietnam, and some of India. The limited range of the aircraft suggests that it also might be used in a theater support role within the PRC.

Strategic Defense

There continues to be no indication of any PRC effort to deploy an ABM system. The PRC's air defense system remains subject to major weaknesses, including the severe shortage of all-weather interceptors, a limited number of SAM sites, and an outmoded air defense operating system.

The over 3500 operational home defense interceptor force consists of MIG–17s, MIG–19s, and MIG–21s. The PRC has produced a number of MIG–21s, but for reasons which are not yet fully clear to us, production was suspended, and only a small number of PRC-produced MIG–21s are operational with the PRC Air Force. The balance of the operational FISHBEDs were Soviet-provided some years ago. The Chinese are now developing a new all-weather interceptor of Chinese design. The PRC has a number of years of R&D effort invested in this aircraft. We had expected production of the MIG–19 to terminate, but we now believe it will continue until the new interceptor is introduced. A Chinese variant of the Soviet SA–2 missile remains the basic PRC operational SAM system. The PRC operates a relatively thin, well organized defense, short of the massive system deployed by the USSR. The PRC has deployed a massive array of antiaircraft artillery pieces to defend key military and industrial facilities in addition to major population centers. Our experience in Vietnam and our observation of the Middle East lead us to give this capability more consideration than we may have 10 years ago. It may be concluded that, for the near term at least, the PRC will rely on size, dispersal of industrial facilities, and a modest air defense program to be its basic active defense against air attack.

Summary

The Chinese now have a capability for nuclear strikes by missiles and bombers all around the periphery of the PRC, at distances up to 1650 nm. Their capacity to produce fissionable materials is expanding. The Chinese have no present capability to attack the Continental United States directly and are unlikely to obtain one for at least several years.

OVERALL STRATEGIC BALANCE

The PRC force is small and relatively insignificant when compared to the intercontinental forces of the United States and the USSR, and we do not believe the PRC will initiate a nuclear attack. Nevertheless, when one contemplates the impact of the 2 nuclear weapons thus far employed in conflict, and recognizes the simple fact that the PRC's capability is at least several orders of magnitude greater, a different appreciation suggests itself. This capability cannot be ignored by those charged with the defense of our Nation.

The relative strategic balance between the United States and the USSR remains in an unstable equilibrium. Decisions already made in the Soviet Union and programs already in progress display massive momentum toward significant force increase and modernization. Only the pace and size of this effort remain uncertain. Apparently unconcerned about the economic burden of such spending, the Soviet leadership, in the face of detente or maybe to ensure it, continue to maximize their strategic power. To meet these challenges, we must continue to pursue diligently those programs designed to improve the ICBM force and ensure MINUTEMAN survivability; maintain and improve the SSBN force, while protecting it at sea from a technological breakthrough; and significantly improve the manned bomber element of the TRIAD. We may be required to develop alternate basing modes for our land-based ICBMs in the event the USSR does develop and deploy that combination of accuracy and yield which would threaten the

survivability of MINUTEMAN as currently deployed. We also must provide an option to increase the number of RVs and the throwweight of our present systems in the event such action becomes necessary to preserve the perception of equilibrium which, in the long run, may be as important as equilibrium itself and is essential for stability. In the meantime, we must continue a broad-based search for the technology necessary to insure the viability of our deterrent in the years ahead. These modest programs, requested by the President and described in more detail by the Secretary, will stabilize the balance within the framework of the Vladivostok understandings. These things we must do or we, at worst, will jeopardize our survival as a nation or, at best, forfeit the assurance that we will maintain that strength which has permitted 3 Presidents to say we "never fear to negotiate or negotiate out of fear."

GENERAL PURPOSE FORCES

The post-World War II years were initially characterized by a US nuclear monopoly. Even subsequent to the development by the USSR of fission and fusion weapons, a vast and unchallenged US superiority made viable a strategic doctrine of "massive retaliation." These circumstances and the harsh rhetoric of "containment" were not sufficient to roll back Soviet expansionism nor free the captive nations of Eastern Europe. They were, however, sufficient to restrain further Soviet territorial expansion. Overwhelming US strategic power was capable—in the words of General Taylor—of preventing the "great war" but was unable to maintain the "little peace." The bluff and bluster of the 1962 Cuban Missile Crisis have been replaced in 1975 by massive Soviet strategic strength. Even "the larger peace" is now beyond the protection of strategic nuclear forces alone. Versatile general purpose forces, combat-capable and rapidly deployable, are essential if we and our allies are to prevent encroachment upon our important worldwide interests. The causes of war have been reduced, but they have not been eliminated. The world still scrambles for scarce resources. Political and social unrest describe a number of the developing nations of the world, and mature nations are not totally exempt. The adventurous and the ambitious have not abandoned the hope of opportunity. Just as we try to make strategic war unthinkable by developing and maintaining a stable strategic situation, we strive to make lesser levels of conflict unwinnable for our adversaries.

Our general purpose forces support and protect our military, diplomatic, and economic interests; demonstrate our resolve to honor worldwide commitments; and permit us assurance that we can deter conflict and, by the controlled application of power, meet any attack if deterrence fails.

The details of specific US programs designed to ensure our continuing general purpose capabilities will be discussed with you by each Service Chief appearing with his Service Secretary in support of Departmental funding requests. My purpose is to present a comparison of the principal elements of the general purpose forces of the United States, the Soviet Union, and the Peoples Republic of China. This comparison will consist of an overview, including significant initiatives, a discussion of readiness, a description of the force balance, and a brief analysis of 4 regional perspectives.

Overview

A numerical comparison of the sizes of the Armed Forces of the USSR, PRC, and the United States shown on Chart 9 results in a distorted picture of capabilities, but is required in order to proceed to a more refined analysis. These are the forces that would be available with varying degrees of effectiveness and timeliness in the initial stages of a major conflict. All three nations could generate much larger force levels over time.

ARMED FORCES PERSONNEL
(MILLIONS)

	US	USSR	PRC
ACTIVE	2.1	4.2	3.0+
RESERVE	1.9*	5.7	.1
ARMED MILITIA AND OTHER AUXILIARY UNITS	–	–	8.0
TOTAL	4.0	9.9	11.1

* INCLUDES ARMY NATIONAL GUARD AND AIR NATIONAL GUARD

CHART NO 9

You will note that the active duty strength of the Soviet Union's Armed Forces is still assessed at about 4.2 million men and women. A new analysis of the number of personnel assigned to the command and general support portions of the Soviet Armed Forces is underway. These are individuals assigned to supply, research, and training elements as well as ministerial and service staffs who may not now be accounted for. In this connection, it should be noted that while basic trainees compose about 5 percent of the US Armed Forces, Soviet personnel in this category are trained prior to induction and are not included in the calculation. The Soviet Armed Forces include about 2 million conscripts or 85 percent of those annually available to the draft. The average Soviet conscript serves 2 years in the active force and then is transferred to the reserve, where he serves until age 50. The Soviet reserve force includes 5.7 million men who have served at last 12 months with the active forces in the last 5 years. The total ground force reserve alone is composed of 20 million men, over half of which have had 12 or more months of active service.

The Soviet Union apparently continues to view her neighbors, with very few exceptions, as either vassal or adversary, and sizes her armed forces accordingly. Our forces, on the other hand, reflect that we are unthreatened by hostile neighbors and are not encumbered by the disposition to dominate anyone. We seek to maintain austere but capable Reserve Components to provide the added combat and support capabilities required to achieve national objectives not available within the active force. Our Reserve Components include about 900,000 individuals in selected units plus others who are individually available for immediate service.

The capability of these forces to serve as effective complements to the active forces will be enhanced appreciably if the authority that the Secretary has requested to call selected and limited numbers of reservists to active service prior to the declaration of a national emergency is enacted by the Congress. Even this modest increase of deterrent force, which could be accomplished by a limited call as the Secretary proposes, could, in itself, preclude the maturing of a pending crisis into a national emergency.

Chart 10 shows the principal US and USSR initiatives designed to improve general purpose force capabilities. I include this chart for two purposes: first, to assist you in understanding the scope and intensity of the Soviet program, and second, to illustrate our limited ability to detect planned improvements for Soviet general purpose forces at an early stage in their development.

Only 2 of the US initiatives have reached the deployment stage, whereas all but 3 of the Soviet systems are being deployed. It appears that the USSR has

embarked on a vigorous development and modernization program designed to increase significantly the military capabilities of its general purpose forces, even though apparently at a level somewhat below its massive strategic effort. Each of these initiatives will be dealt with in somewhat greater detail later. A generalized evaluation of the initiatives in the 3 combat mediums does, however, appear appropriate.

SIGNIFICANT US & USSR INITIATIVES GENERAL PURPOSE FORCES SYSTEMS

US		USSR
	GROUND FORCES	
ARMY "BIG FIVE": AAH & UTTAS		• M-1970 MEDIUM TANK
XM-1 TANK & MICV		• NEW FIGHTING VEHICLE (BMD)
SAM-D		• SP ARTILLERY (122mm 152mm)
DRAGON & TOW ANTITANK WEAPONS		• TACTICAL SAMS (SA-8)
		• HIND A HELO
	NAVAL FORCES	
688 CLASS ATTACK SUB		KIEV CLASS CARRIER
LHA AMPHIB ASSAULT SHIP		• KARA CLASS CRUISER
PATROL FRIGATE (HARPOON EQUIPPED)		• KRIVAK CLASS DESTROYER
		• AMGA CLASS MISSILE SUPPORT SHIP
		ROPUCHA CLASS LST
	TACTICAL AIR FORCES	
A-10 CLOSE AIR SUPPORT A C		• SU-19 (FENCER A) VGW FIGHTER BOMBER
F-15 (EAGLE) FIGHTER		• MIG-23 (FLOGGER) FIGHTER
EF-111A		• SU-17/20 (FITTER C) FIGHTER BOMBER
F-14 (TOMCAT) FIGHTER		V/STOL FIGHTER
ACF (F16)		
NACF		
AWACS		

* CURRENTLY BEING DEPLOYED; STILL IN PRODUCTION

CHART NO 10

The Soviet ground force initiatives may have more significance collectively than they do individually, since they may reflect Soviet doctrinal change as well as modernization. The USSR appears to be improving its ground forces in 3 phases or cycles. It now produces the T–55, the T–62, and the M–1970 medium tank. This represents the first phase—develop and deploy a strong tank force. The M–1970 continues the improvement cycle of that phase. The second phase involves deployment of armed troop-carrying fighting vehicles to enable the infantry to move with the tank forces. These vehicles, first the BMP and now the BMD, are designed to operate in close proximity to main battle tanks. They have significant armament and antitank capability and incorporate CBR protection. Consequently, their role differs from that of the conventional armored personnel carrier which essentially provides the infantryman a ride to work.

The appearance of self-propelled artillery on the chart probably signals the third phase—equipping artillery to keep pace with highly mobile tank and motorized rifle units. Further evidence of this development is presented by the self-contained SA–8 and SA–9 systems, which join the fully-tracked SA–6 in providing highly mobile, responsive air defense to the armored column on the move. All the artillery of our mechanized and armored divisions is self-propelled as is that deployed by the majority of our NATO allies. This emphasis on conventional artillery as distinguished from missiles, may represent a Soviet doctrinal conclusion that conventional war need not escalate to a strategic nuclear exchange now that the strategic balance is in dynamic equilibrium.

The HIND A helicopter now entering the force carry 57 mm rocket pods and antitank missiles or alternatively, 8 to 16 troops. The extensive armament payload gives it formidable ground attack capability against tanks, trucks, or troops in addition to enhanced mobility. These are not revolutionary developments, but over time, they will substantially increase the effectiveness of Soviet ground forces.

The initiatives associated with Soviet naval forces reflect slow stable growth much below capacity. Nonetheless, the first of the 2 KIEV-class carriers now under construction (formerly designated the KURIL-class) is expected to join the fleet in 1976 with a variable aircraft complement of mixed helicopters and V/STOL aircraft. This development, together with the capabilities represented by the AMGA-class support ship, the BORIS CHILIKEN-class replenishment oiler, and the ROPUCHA-class LST, indicates a continuing effort to improve worldwide operations. The recently introduced cruiser and destroyer represent a further continuation of the substantial naval modernization program which has been reported here over the last several years. These are powerful, modern ships capable of significantly interfering with our projection of military power across the ocean and expanding the global reach of a Soviet Navy.

The SU–19 (FENCER A) is the first modern Soviet fighter aircraft designed specifically to engage ground targets. The MIG–23 (FLOGGER), in addition to the interceptor role previously mentioned, has impressive interdiction and close air support capability. The SU–17 (FITTER C) is an extensively modified version of an aircraft first observed at an airshow near Moscow in 1967. The export version of this aircraft is designated the SU–20 and was seen in the recent Middle East war. Both mount 2 30 mm internal guns in addition to 8 weapons pylons and are ideally suited for ground attack. Each of these aircraft represent, to some extent, the recently demonstrated Soviet penchant for extensive subassembly modification rather than completely new design aircraft. These newer generation aircraft have produced dramatic improvements in the combat capabilities of all Soviet tactical aviation.

READINESS—US AND USSR GENERAL PURPOSE FORCES

Deterrence is the mission of the Armed Forces of the United States. Ready forces with their necessary support, projecting a clear capability to successfully prosecute conflict, are essential to this task. Although all our forces need not be maintained at the highest state of readiness, a suitable portion must be prepared to engage in localized subtheater conflict with little or no warning. The remainder of the active and reserve force must be maintained in a sufficiently high state of readiness to permit response to major theater-level conflict within the pre-attack warning period we reasonably can expect our intelligence systems to provide.

The readiness status of Army forces has, over the past year, significantly improved. It was General Abrams' goal to raise the combat readiness of the Army to an acceptable level. The Army responded with enthusiasm and the the result is a tribute to him.

Tactical air squadrons have, in spite of turbulence, responded to increased emphasis on combat capability and maintained a reasonably high standard of readiness.

The general purpose Navy, again this year, reflects an adverse readiness trend caused by insufficient special skills and manning, deferred preventive maintenance, and the high tempo of operations. A Navy effort to stem that trend was supplemented by a decision to further reduce force levels. This effort should produce favorable results in the not too distant future.

The materiel readiness of our forces remains below desired levels. Our materiel deficiencies are the cumulative result of many years of constrained funding for materiel requirements, especially during our protracted active involvement in Southeast Asia, with its associated attrition of equipment, drawdown of stockpiles, and the tempo of operations which militated against proper equipment maintenance.

Materiel readiness properly should have improved in the period since our direct involvement in Southeast Asia ended. However, in spite of the efforts of the Military Departments, materiel readiness remains a major problem due to austere funding, the energy crisis, and unprogrammed materiel demands for support of allies.

Two factors that may have serious impact on our future readiness require your urgent attention. First is the impact of inflation. The Operation and Maintenance portion of the Defense Budget does not require authorization, and more importantly, is not developed with an escalator which will adjust automatically for price increases. The prevailing—not the projected—price determines the funds requested and appropriated for such items as maintenance; spare parts; fuel; training; exercises; operation of the supply system; the worldwide command, control, and communications complex; and medical services. These funds cover the necessary day-to-day costs of the military establishment and, to a large etxent, determine the ability of our forces to react quickly, deploy effectively, and maintain a reasonable state of readiness. I must report that we have gone as far as we can go in deferring maintenance, canceling exercises, reducing supply levels and abandoning minor construction without major impact on our readiness. I need not remind you of the tremendous increase in prices, especially the price of fuel so important to the maintenance of a reasonable state of readiness.

Second is the All-Volunteer Force. The President and the Congress directed that we develop and maintain an All-Volunteer Force. I'm sure you share with me pride in the way the Armed Forces have met that challenge. Nonetheless, problems remain. We need your continued assistance in attracting for a full career skilled and dedicated men and women who provide the technical expertise and leadership that a modern and ready armed force requires. We will be increasingly unable to do this if the constant barrage of criticism continues. Those who make the still required sacrifices of peacetime service and stand ready to make the even greater sacrifices inherent in battlefield protection of this Nation require an occasional word of praise and appreciation. I do not ask the legitimate criticism be stifled nor abuses covered up. They must be exposed to be corrected. However, we will not attract to the Service anyone but pretentious second-raters if the real value of a Service career must be ferreted out of an image of inept second-class citizens. Our military tradition requires that even unjustified and unsubstantiated attacks remain unanswered publicly by uniformed personnel. Your judgment and fairness publicly expressed, together with the voices of the Secretary of Defense and his civilian associates, are the only real protection the Armed Forces have against those who constantly belittle a Service career.

US, USSR, AND PRC GENERAL PURPOSE FORCES/WEAPONS SYSTEMS

Ground Forces

The Soviet Army, on the basis of our current information, is estimated to deploy 166 divisions in various states of readiness.

The Joint Chiefs of Staff have been concerned, for several years, over the risks inherent in NATO's marginal ability to meet a Warsaw Pact attack. Substantial qualitative and quantitative improvements in Warsaw Pact forces have increased appreciably the "no room for error" risk which was associated with the 13 1/3-division US Army. NATO forces have remained relatively stable as the size, mobility, firepower, and flexibility of the Warsaw Pact continued to increase significantly. In the past, we counted on the superior quality of Western weapons, equipment, and technology to offset the decided advantage the Warsaw Pact enjoyed in quantity. That time is now past. The hard fact is that the Warsaw Pact has achieved near qualitative parity with the West in general purpose weapons and equipment. The strength, speed of mobilization, mobility, and sustaining power of the Warsaw Pact, in our estimation, have increased significantly.

In order to meet this challenge, we plan to raise the active Army division force to 16 divisions by the end of 1976, while retaining an end strength of 785,000 men and women. This will increase appreciably the US strategic posture, raise the Soviet perception of US capability, raise the nuclear threshold, and generally decrease the risk to a more acceptable level. This enhancement of visible deterrent power is being accomplished by converting headquarters and support spaces into combat spaces. The Army's effort to examine every space outside the combat division is truly impressive. Drastic cuts in headquarters support and administrative elements have been made in order to make these 16 active divisions possible.

The new divisions, consisting initially of 2 brigades plus the division base, will be stationed at Fort Ord, Fort Hunter Stewart, and Fort Polk. The third brigade of the divisions at Fort Ord and Fort Hunter Stewart will be drawn from the Reserve Component in accordance with the Affiliation Program. This program provides for the assignment of reserve brigades and separate maneuver battalions to round out parent active Army divisions. They should receive the same priority for equipment and other support as the active division. In time of war, the Reserve Component unit would be deployed and fight as an organic part of the division. The division at Fort Polk will consist of only 2 active Army brigades until FY 1977 when a third active brigade is scheduled to be added.

We also plan to deploy 2 brigades—1 each from the Second Armored and Fourth Mechanized Division—to Europe. The combat elements of these brigades will be reconstituted in the United States and the brigades stationed in Europe will rotate combat battalions on a 179-day cycle. In addition to enabling the Army to respond to the Supreme Allied Commander Europe's long quest for more early combat power in a NATO/Warsaw Pact engagement, the additional combat power and flexibility would clearly signal to the Soviet Union that the United States will sustain and improve the force to protect US vital interests. The increase of US combat forces in Europe will assure our allies that even under inflationary pressures, we intend to honor our commitment. I urge your full and complete support for this bold new program.

Chart 11 provides a comparison of US, USSR, and PRC inventories of selected major ground force weapons and equipment.

GROUND FORCES
MAJOR WEAPONS AND EQUIPMENT
(JAN 1975)

	USSR	US	PRC
MED TANKS	40,000	9,000	8-9,000
APC & FIGHTING VEH.	30-40,000	22,000	3-4,000
ARTILLERY	15-20,000	6,000	15-16,000
HEAVY MORTARS	5-10,000	3,000	5-6,000
HELICOPTERS	2,000	9,000	500-1,000

CHART NO 11

Estimates of Soviet and PRC ground force weapons inventories are based to a large exent on our evaluation of their force requirements, division structure, and tables of organization and equipment (TOE). Therefore, accurate comparisons are difficult. The usual problems of definition and classification provide an additional factor of difficulty to this analysis. It should, however, be noted that in most major categories, the USSR and the PRC inventories are growing, while over the past year, there has been a decrease in most US levels.

The United States has never attempted to match the USSR in either quantities of ground force personnel or materiel, relying instead on technology. There are strong indications that the technological gap between the United States and the USSR is being closed. US technology is still, by and large, superior, but the new Soviet trend to add sophistication to its already massive quantitative superiority makes it imperative that we continue to modernize our ground force equipment and to pursue those potentially rewarding new areas of technology which may, in the future, become useful.

The Soviet tank force consists of approximately 40,000 medium tanks plus other medium tanks in storage and heavy tanks.

The newer Soviet tank is the M–1970. Improvements over the T–62 are evident in mobility and armor protection. Series production of the M–1970 continues. T–62s also are being produced. This significant increase in Soviet armor is not to be taken lightly.

The PRC is continuing to produce the Type 59 tank—a copy of the Soviet T–54A. We estimate that the great majority of these tanks are being used to bring existing units to full or even a slightly expanded TOE strength and to replace older model tanks and assault guns.

Although approximately equal to the PRC inventory, the US medium tank inventory is less than one-quarter of our estimate of the USSR inventory.

Our main battle tank, the M–60, is comparable to the Soviet T–62, but in terms of ballistic protection, firepower, and agility, there are certain specific deficiencies with regard to the future threat; that is, full deployment of the M–1970 by the Soviet Union. The M–60 series now constitutes over half of the US inventory and delivery to the Marine Corps was initiated in September 1974. Over the next 3 years, the M–60 series should replace all of the old M–48s in both active and reserve Marine Corps units. The M–60 series will be in the inventory until at least 1990. Therefore, the Army has undertaken a modest program of product improvement designed to increase reliability, durability, firepower, and mobility. The product-improved tank completed developmental testing on 21 October 1974 and incorporates a new track, a laser range-finder, passive night vision, and an improved stabilized gun system.

For the 1980s, the Army is developing a completely new main battle tank, the XM–1, designed to provide a significant improvement in the Army's offensive ground combat capability by improving ballistic protection, cross-country agility, and firepower. This tank is now 19 months into a 34-month competitive validation program. FY 1976 will be a most significant year for the XM–1 tank program. The contractors will complete tentative protoypes and submit them for Army test and evaluation beginning in February 1976. It is hoped that the winner of this competition will be awarded a full-scale engineering development contract for the continuation of the program. Limited production is programmed to begin in late 1979 if unforeseen difficulties do not develop and a production decision is made.

The newer Soviet fighting vehicles are the airborne combat vehicle—the BMD—and the armored infantry combat vehicle—the PMP. These vehicles are entering the Soviet inventory in increasing numbers and will make significant contributions to the Soviet fighting capability. The BMP is a tank killer—a capability not built into our armored personnel carriers.

Although continuing its gradual expansion, the PRC inventory of indigenously designed and produced APCs and fighting vehicles remains small when compared to that of the US/USSR. However, in view of the PRC's ground force structure, known tactical doctrine and, particularly, apparent perceptions of potential ground force employment, such a small figure is not surprising.

To counter the proliferation of Warsaw Pact lightly armored vehicles and personnel carriers, particularly the Soviet BMP, the U.S. Army has designed the Mechanized Infantry Combat Vehicle (MICV). It will provide increased mobility, protection, and firepower to the mechanized infantryman while he operates as a member of the U.S. combined arms team. Notwithstanding some recently discovered technical difficulties, which appear to be largely resolved, we anticipate that this vehicle, when it enters the force, will constitute a decided improvement in our mobile combat capability.

Both the USSR and the PRC, with their much larger ground forces, have more than twice the number of artillery pieces and heavy mortars as the US. The PRC apparently is pursuing a program of standardization of artillery pieces, having adopted a basic "family' 'of towed pieces.

New US ammunition developments underway are designed to close the range gap between the US artillery and USSR and PRC pieces. Plans for the laser-guided, cannon-launched projcetile are proceeding toward the "fly-off" directed by the Committee of Conference on last year's Authorization Bill.

The new Soviet self-propelled (SP) artillery systems now being fielded mark a change in the long-standing Soviet reliance on towed field artillery. These weapons designated 122 mm SP Gun M–1974 and 152 mm SP Gun M–1973, mark the culmination of development programs that began in the early 1960s.

Both the US and USSR ground forces face an air threat in the 1980s consisting of large quantities of versatile, well equipped aircraft, which will be fast, maneuverable, possess electronic devices to neutralize defense systems, and

deliver ordnance with extreme accuracy. In order to meet this threat, the Soviet Union deployed the tracked SA–6 surface-to-air missile with which most of you are familiar and the new self-contained SA–8 and SA–9 surface-to-air systems. These new SAM systems provide an excellent defense against air threats at all altitudes. The recent Middle East War made it clear that a land army can be given the capability to defend itself against air attack by employment of sophisticated, mobile, integrated surface-to-air missile systems. I believe it is of particular importance that we move ahead with a more mobile, capable, and responsive family of battlefield air defense weapons.

The Nike Hercules and basic Hawk surface-to-air systems reflect 15- to 20-year technology. They are relatively costly to operate and maintain. Basic Hawk is presently being replaced by the Improved Hawk system. Both systems, Improved Hawk and Nike Hercules, are programmed to be replaced during the 1980s by SAM–D, currently in the system demonstration phase of development. The SAM–D has the capability to engage up to 8 targets simultaneously with each fire section and to maintain its effectiveness in the face of enemy countermeasures with less maintenance and operating personnel than the present systems. The track-via-missile (TVM) guidance principle began testing this year. Full-scale development will not be initiated until the completion of these "proof-of-principle" flights. The SAM–D and other air defense initiatives are being designed to keep pace with maneuver units and to effectively counter air attacks in a heavy ECM environment.

To complement SAM–D in the forward battle area, a new Shorad (short range air defense) SAM program is in the development cycle to provide an all-weather, day/night, low-altitude capability. The new shorad will replace Chapparal. The man-portable SAM system, Stinger, is being developed to replace Redeye and will engage both incoming and outgoing aircraft with advanced IRCM. A new lofaad (low altitude forward area air defense) gun is under consideration to replace the Vulcan Air Defense Gun. Lofaad will be a radar-aimed medium caliber air defense gun system mounted on a track vehicle. Like SAM–D, all of these battlefield air defense systems I have discussed will be capable of keeping pace with Army maneuver units in the field.

I have been unable to find a simple quantitative measure with which to compare the US, USSR and PRC inventories in antitank weapons. I, therefore, have omitted from this chart any reference to them. The Soviet Union deploys Snapper, Sagger, and Swatter antitank missiles. They are generally ground/vehicle mounted, but have been mounted on Soviet helicopters.

Our Army is continuing to improve its antitank capability, particularly in view of the numerical superiority of Soviet armor in Central Europe. TOW is a tube-launched, optically-tracked, wire-guided, antitank missile, the principal missions of which is the destruction of enemy tanks, armored vehicles, and field fortifications. It has an effective range of 3000 meters and replaces the 106 mm recoilless rifle in the infantry battalion. Dragon is a man-portable, antitank weapon system utilizing a command to line-of-sight guided missile, which is capable of defeating the heaviest known armored vehicle. The Dragon weapon will be organic to and will provide medium-range (60 to 1000 meters) antitank/assault fire for all infantry companies. It will replace the 90 mm. recoilless rifle.

The PRC has a large inventory of crew-served weapons, particularly a native-designed 82 mm recoilless gun—and thousands of RPG–2/7 weapons. The most recent Middle East conflict demonstrated the deadly effectiveness of these weapons, particularly in the hands of dedicated soldiers.

Although basic development is complete for both the TOW and the Dragon, we continue to develop additional capabilities for the weapons systems. Of particular importance is the development of a thermal-imaging, night sight for both systems, which will provide them with a 24-hour operational capability. The final item on Chart 19 is helicopters. In addition to the numerical advantage, we believe ours are superior in design to those the USSR currently employs.

I have already mentioned the Hind A. There also has been a significant buildup in the MI–8/HIP transport helicopter.

These are dramatic improvements in the Soviet helicopter force, both quantitative and qualitative. In order to maintain our current technological superiority in the helicopter arena, we are continuing development of both the AAH—the Advanced Attack Helicopter—and the UTTAS—the Utility Tactical Transport Aircraft System. The AAH will be an integrated helicopter weapons system which will provide a day/night/adverse weather antitank capability not presently existing. The AAH will enhance significantly our overall antitank capability,

thereby providing a means of countering the growing armor threat of the Warsaw Pact nations. This helicopter will have a crew of 2 and be armed with the TOW antitank missile system and a 30 mm cannon. It will be armored against the 12.7 mm projectile and will include other features to enhance survivability in the mid-intensity battlefield.

Until the AAH is available, the Army will field the AH–1S to provide additional antiarmor capability. The AH–1S is the standard AH–1G (Cobra), with an improved engine, transmission, and drive train, together with the TOW subsystem. The UTTAS will be the Army's first squadcarrying assault-lift helicopter and will replace the UH–1 in the assault helicopter, air cavalry, and aeromedical evacuation units. Goals include improved reliability, maintainability, survivability, and performance.

Naval Forces

The United States cannot pursue the role of a great or responsible nation without concern for our maritime interests. Our alliances are within an interoceanic community, and our national security objectives are rooted in the fact that the Atlantic and Pacific separate us from Europe and Asia. Thus, US security demands that we possess the capability of controlling crucial sea lines of communication to our friends and allies; of projecting US power ashore when this is needed in support of US indispensable interests; and of providing a ready, meaningful, and controllable US presence anywhere on the seas as national policy dictates. Thus, our Naval forces have an essential part of our assets for deterrence across a broad spectrum of possible conflict.

The Soviet Union initiated major post-World War II shipbuilding several years before the United States. Its fleet had about 220 major sea-going warships with a total displacement of roughly 400,000 tons in 1946. Major seagoing warships are defined here as including carriers, major surface combatants (cruisers, frigates, destroyers, and ocean escorts of 1000 tons or greater displacement), general purpose submarines, amphibious lift ships, and major fleet support and underway replenishment ships. Coastal and inshore vesels and craft—to which the Soviet Union traditionally has given great emphasis—are excluded. Most of these ships were poorly equipped and inadequate for open ocean operations. In contrast, the US fleet comprised about 300 major sea-going warships totalling roughly 18 million displacement tons. The Soviet Union carried out several major combatant ship construction programs during the early 1950s, increasing its fleet size to include about 700 major sea-going warships by the late 1950s, in addition to about 2000 coastal patrol and mine warefare vessels. This force was relatively younger than the US fleet at the same time; for example, the Soviet major surface combatant force of some 240 vessels at mid-CY 1957 had an average age of roughly 7 years.

The US Navy active fleet was greatly reduced in size following the end of World War II. Only 375 major sea-going warships remained active at the end of FY 1950, just before the outbreak of the Korean War. Virtually no new construction was begun until the early 1950s. Major force additions from new construction did not commence until the mid- to late-1950s. By 1960, the average age of the 325 US major surface combatants (carriers, cruisers, frigates, destroyers, and ocean escorts) was roughly 16 years, compared with 7 years for the USSR major surface combatant force.

The US Navy began to take delivery of a significant number of new construction warships during the early 1960s. Major new construction programs have continued into the 1970s, helping to curtail further increases in the average age of most major warship categories. At the same time, the increased size and complexity of new design warships have led to much greater unit procurement costs, making one-for-one replacement of World War II-construction ships impossible. Further, decisions made during 1970–72 led to the early retirement of a significant number of older warships earlier than previously planned in order to make additional funds available for new construction programs. The Navy is scheduled to drop 27 ships from the active fleet in FY 1976, including 2 carriers, 3 destroyers, and 1 submarine. Our projected US Navy active fleet level for FY 1976 is 496 ships, the lowest number since 1939.

Soviet naval shipbuilding programs of the 1960s and early 1970s have had a different emphasis from those of the 1950s. Recent new ship designs are individually more capable, but more costly, units. New additions are replacing aging ships on a less than one-for-one basis. USSR's general purpose submarine force

levels are falling significantly as older diesel-powered submarines of the mid-1950s are inactivated. Its surface combatant force levels have been roughly level for many years and probably will begin to decline soon if current production rates continue into the late-1970s. The average age of its surface combatant force has increased slightly and will increase further later in the decade unless a major increase in shipbuilding or a concomitant increase in scrapping takes place.

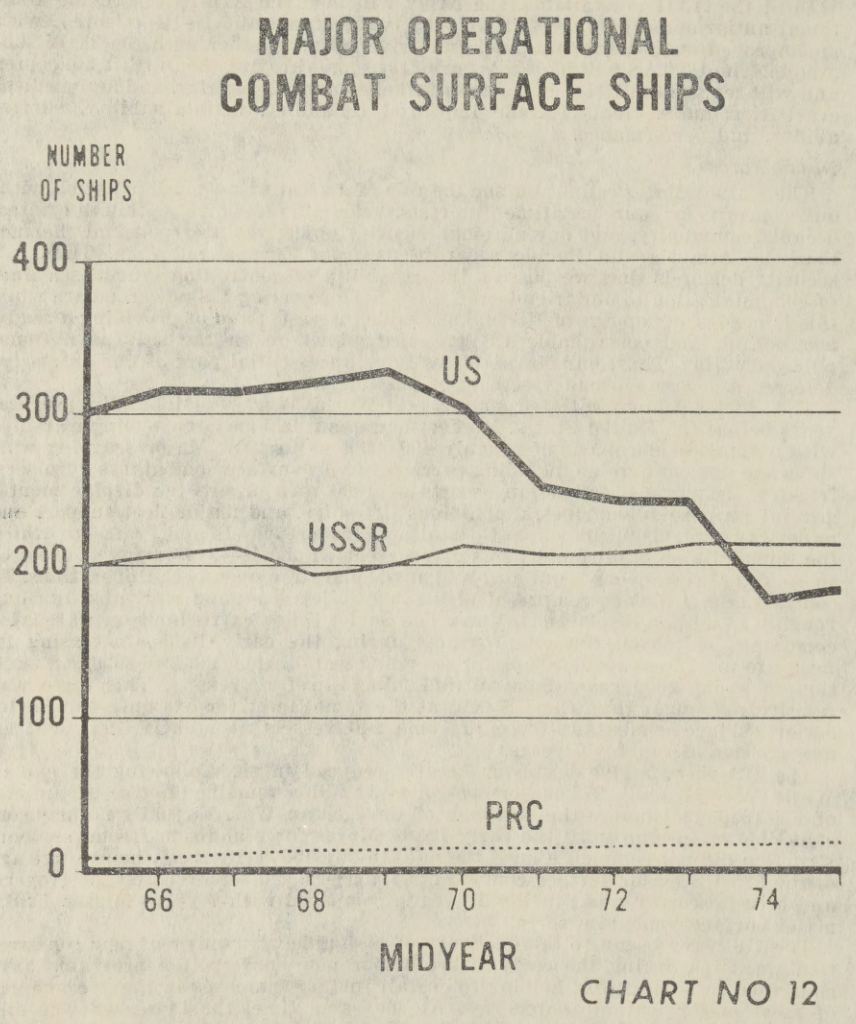


Chart 12 illustrates past trends in the number of US, USSR, and PRC major operational combat surface ships.

Soviet Forces

The mid-1975 composition of this portion of the Soviet forces is expected to consist of 2 guided missile helicopter ships, 19 missile cruisers, 12 gun cruisers, 45 missile destroyers, 36 gun destroyers, and 106 escorts, for a total of 220 ships. However, with the continuing addition of heavier and more complex ships, the force's capabilities will continue to rise.

The extensive Soviet naval modernization program is introducing a number of new classes of combat surface ships. At the same time, more capable modern weapons systems are being installed on older classes of ships.

Fitting-out continues on the new Soviet *Kiev*-class aircraft carrier. This is the largest combatant ever constructed in the Soviet Union. It is about 900 ft. long and will displace approximately 35,000 tons when fully equipped. Although *Kiev* should be capable of carrying up to 25 V/STOL aircraft or up to 36 helicopters, we expect a mix of about 35 new V/STOL aircraft and Hormone helicopters as the most probable aviation complement. This new ship will have surface-to-air missiles and possible surface-to-surface missiles, in addition to several antisubmarine systems. *Kiev* should be operational in the Soviet fleet during 1976. A second aircraft carrier of the *Kiev* class has been under construction for over a year and could join the fleet by 1978.

As expected, a third *Kara*-class guided missile light cruiser became operational during this past year. We expect more in the Soviet fleet. *Kara* is very heavily armed with 3 separate missile systems. This 9000-ton ship carries an ASW missile and possibly an antiship surface-to-surface missile system in addition to 2 surface-to-air missile systems.

Significant numbers of the obsolescent Soviet gun destroyers and escorts continue to be modernized to extend their effective lives. However, the Soviet Union will have to replace its older destroyers; and it still appears that the *Krivak*- or follow-on class is the best option for replacement. The Soviet Union has drawn together its experience gained since 1960 in fitting various missile systems into destroyers and cruisers. *Krivak*'s armament includes antiship, antiair, and possibly an ASW missile system.

The Soviet naval growth is slow and below capacity, but steady. While the priority for general purpose naval construction is not the highest, the USSR is building continuously. The *Boris Chilikin*-class underway replenishment ships in the 16,000-ton class are being constructed.

Peoples Republic of China

As shown by Chart 12, the PRC inventory of major surface combat ships, although small, is growing slowly. The current force is a mixture of Soviet-designed destroyers and destroyer escorts over 20 years old and a number of Chinese-designed, missile-equipped ships built during the past 10 years. More surface combatants of Chinese design are being constructed.

The Chinese-designed *Luta*-class destroyer, displacing 3700 tons and equipped with missiles, joined the PRC fleet in 1971. *Luta* carries 6 Styx-type missiles, antisubmarine weapons, and antiaircraft guns. This is the largest class combatant in the PRC fleet. Currently, the Chinese have 4 *Luta*-class DDGs; more are fitting out and under construction.

We expect slow growth of major surface combatants to continue. Thus, by mid-1980, the PRC is expected to have only a relatively small number of major combat surface ships. The new *Kiangtung*-class destroyer program continues.

As the PRC acquires new open ocean capabilities, it also is expanding rapidly its guided missile boat force. These fast boats are armed with the Chinese version of the highly effective Soviet-designed Styx surface-to-surface cruise missile. The burgeoning missile boat force significantly enhances the posture of vital coastal areas and increases the mobility of main surface force units.

United States

As shown on Chart 12, the decline in the number of US major combatant surface ships is programmed for reversal.

The multimission aircraft carrier still forms the heart of the most capable naval task groups for both sea control and projection of power ashore. We are actively seeking ways in which to make use of other types of platforms to perform these missions as the number of carriers is reduced.

A priority concept to design and construct a new, nuclear-powered strike cruiser, the CSGN, is under intense study as a method of meeting this goal. Carrying the Aegis missile system for countering aircraft and missiles, a long-range surface-to-surface missile derived from the strategic SLCM, and the Harpoon for shorter ranges, and several VTOL aircraft, the CSGN will be able to assert sea control independently in all but the severest threat areas. CSGN's will combine with carriers operating in mutual support to carry out missions in the high threat areas.

The Navy remains firmly committed to the high-low mix, and continues to program adequate numbers of less expensive, specialized ships such as the Patrol Frigates and Patrol Hydrofoils which, when operating together in mutual support, can carry out missions under conditions of less severe opposition.

The Harpoon missile is to be the primary surface-to-surface weapon, not only for the patrol frigate, but also for launch in an encapsulated form from the torpedo tubes of attack submarines. It also will be adapted to launch from shore-based aircraft, both Navy P–3 ASW, and Air Force B–52 bombers. This very effective cruise missile weighs about 1400 lbs in the surface-launch configuration (1100 lbs for the air-launched version) and is capable of delivering a 500-lb conventional warhead to about 60 nm.

It is of standard size and is compatible with existing launchers for Terrier, Tartar, and Asroc. The Harpoon's flight tests continue to demonstrate considerable success. During environmental development phase firings completed as of 14 January 1975, almost all shots resulted in direct hits against a variety of surface targets from both surface and air platforms. It is expected to be operational, in both surface-to-surface and air-to-surface delivery modes in late FY 1976.

The projections for US, USSR, and PRC cruise missile and attack submarines through mid-1975 are displayed on Chart 13.

CRUISE MISSILE AND ATTACK SUBMARINES

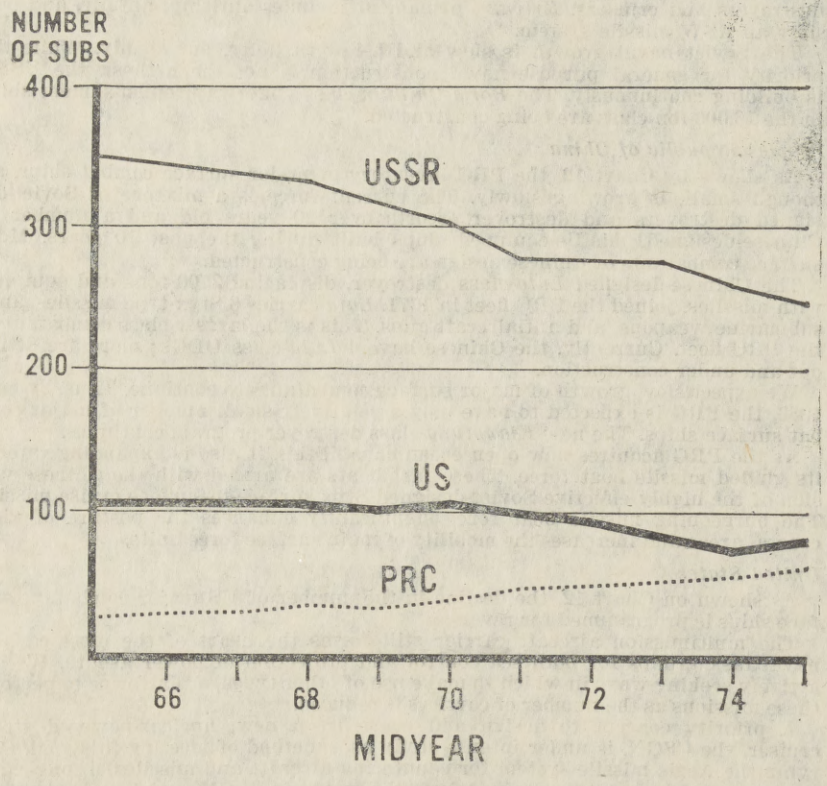


CHART NO 13

In the foreseeable future, the USSR will continue to have the world's largest submarine force and is expected to continue replacing older diesel submarines with newer, more effective submarines.

The Soviet nuclear-powered *Charlie*-class submarine, which has the unique capability of launching antiship cruise missiles while submerged, has been operational for 7 years.

Although the total number of nuclear-powered Soviet submarines continues to rise, over one-half are still diesel-powered. The new diesel-powered *Tango*-class attack submarine is operational.

The PRC submarine force, except for a single *Han*-class submarine, continues to operate the Soviet-designed and Chinese-built *Whiskey*- and *Romeo*-classes of medium-range units. These submarines, well designed and compatible with the PRC's coastal shelf defensive role, constitute the main body of the PRC forces.

In the next several years, we expect the PRC to acquire a substantial number of attack submarines, some of which may be nuclear-powered. The remainder of the PRC submarine force will be distinctly inferior to the long-range nuclear-powered attack submarines operated by both the USSR and the United States. The capabilities of the nuclear-powered attack submarines projected to enter the inventory are not as yet subject to definitive evaluation.

The US attack submarine force, after long decline, will start to rise with the introduction of the first 688-class submarine in 1976. Congress has approved, to date, the acquisition of 26 of this nuclear-powered class, and we are programming a construction rate of 5 every 2 years through 1980. The 688-class is superior to most Soviet submarines due to greater quietness and more efficient sonars.

Research and development is well underway for the first US submarine-launched antiship missile, an encapsulated version of the Harpoon. This 60 nm range missile will be deployed aboard submarines of the 594-/637-/688-classes. These classes are expected to have Harpoon capability as early as FY 1978. A long-range (1400 nm) strategic Sea Launched Cruise Missile (SLCM) is being developed for SSN platforms. The SLCM also will have a shorter range tactical variant for antiship application.

Soviet Naval Aviation (SNA), a significant arm of USSR naval forces, is equipped with a variety of aircraft capable of performing diverse missions. The primary threat of SNA to US naval forces rests in some 350 ASM-equipped Badgers and Blinders, which have an antiship strike role. The introduction of the new supersonic Backfire ASM bomber into SNA is expected in 1975, thus substantially expanding the antistrike role of SNA in range and capability. Currently, the SNA strike aircraft are supported by intermediate and long-range reconnaissance aircraft and Badger tankers. SNA also has an ASW role performed by long-range Bear Fs, intermediate-range Mays, short-range Mails, and Hound/Hormone helicopters.

To counter the sea denial capability of SNA bombers, the US Navy relies on the interceptors of its carriers and missile systems of surface combatants. In certain geographical areas, the land-based interceptors of the United States and its allies are available to inflict attrition on bomber raids before they reach naval task groups at sea.

The new F–14A Tomcat is now replacing the F–4 Phantom as our first-line fleet air defense interceptor. The F–14 has the speed and endurance, the sensor, and weapons system to deal with the Backfire threat to naval task groups.

The Afgis surface-to-air missile system complements the F–14 in neutralizing the sea denial efforts of Soviet Naval Aviation. The Afgis system is built around the advanced phased-array SPY–1 radar, and a sophisticated fire control computer. Afgis can, in a jamming environment, detect, track, and intercept hostile missiles at rates far higher than present systems. It also has the reaction speed to intercept sub-launched cruise missiles "popping up" from short ranges.

Our evaluation of the relative capabilities of the US and Soviet general purpose naval forces, I believe, always must be set within the framework of strategic requirements and force objectives. These requirements and objectives determine the structure of the respective forces. On the one hand, the United States is greatly dependent on sea lines of communication, in peace and war, both for the transport of essential raw materials and for the support of our overseas interests and alliances. This dependence requires assured access and use of the world's sea lanes.

The US Navy, for its part, is charged in wartime with 2 tasks: first, securing adequate control of the sea lines of communication to reinforce and resupply our overseas deployed forces and our allies; second, projecting naval power directly ashore by sea-based aircraft and amphibious forces. The Soviet Navy, on the other hand, has the mission of sea denial. Successful sea denial both protects the Soviet homeland from attack by sea and severs the sea lines of communication of the major Western alliances.

Sea denial is inherently less expensive than sea control because of the covert nature of submarines and the concentration of firepower possible with long-range land-based bombers. It takes more naval resources to assert sea control successfully and to project sea-based power ashore than it does to deny that control and thwart projection. Sea control and projection require surface ships; sea denial requires the sinking of surface ships. It is in the light of these considerations, fundamental to naval warfare, that we evaluate the relative strength of the two navies.

In crisis confrontations, the missile-firing combatants of the Soviet Navy are useful platforms. Because they pose the threat of a preemptive initial strike, they can offset the effect of the US Naval task groups which have been routinely dispatched to crisis areas as signs of American intentions to influence the outcome.

Once major war has commenced, however, Soviet surface ships do not constitute a sea denial threat to US forces of the severity of the submarine and air threats. In order to reach open water, the Soviet surface combatants must pass through geographical choke points where they are vulnerable to US and allied land-based aircraft or barriers of mines and submarines. Once in open water, the missile-armed Soviet surface combatants must contend with carrier strike aircraft well before they can reach the launch points for their surface-to-surface missiles.

The respective roles, sea control and sea denial, are reflected in the naval force structures and ship designs of the United States and the USSR. The new, heavily armed surface combatant forces and increasingly sophisticated submarines present a growing Soviet threat to our control of the sea lines of communication and an increasing capability to obstruct the projection of our military power, especially in areas of high Soviet interest.

Moreover, the changing Soviet force structure reflects an increased interest in the USSR's capability to project power from the sea. The *Kiev*-class carrier will add a new capability for sea-based tactical air support of surface combatants. The newly constructed underway replenishment ships will allow more sustained freedom of movement by Soviet naval forces in distant areas. Those who view the Soviet Navy in the traditional context of coastal defense allow history to subvert current reality. This projection of Soviet power is limited in capability against significant opposition. Nevertheless, it is real and slowly growing.

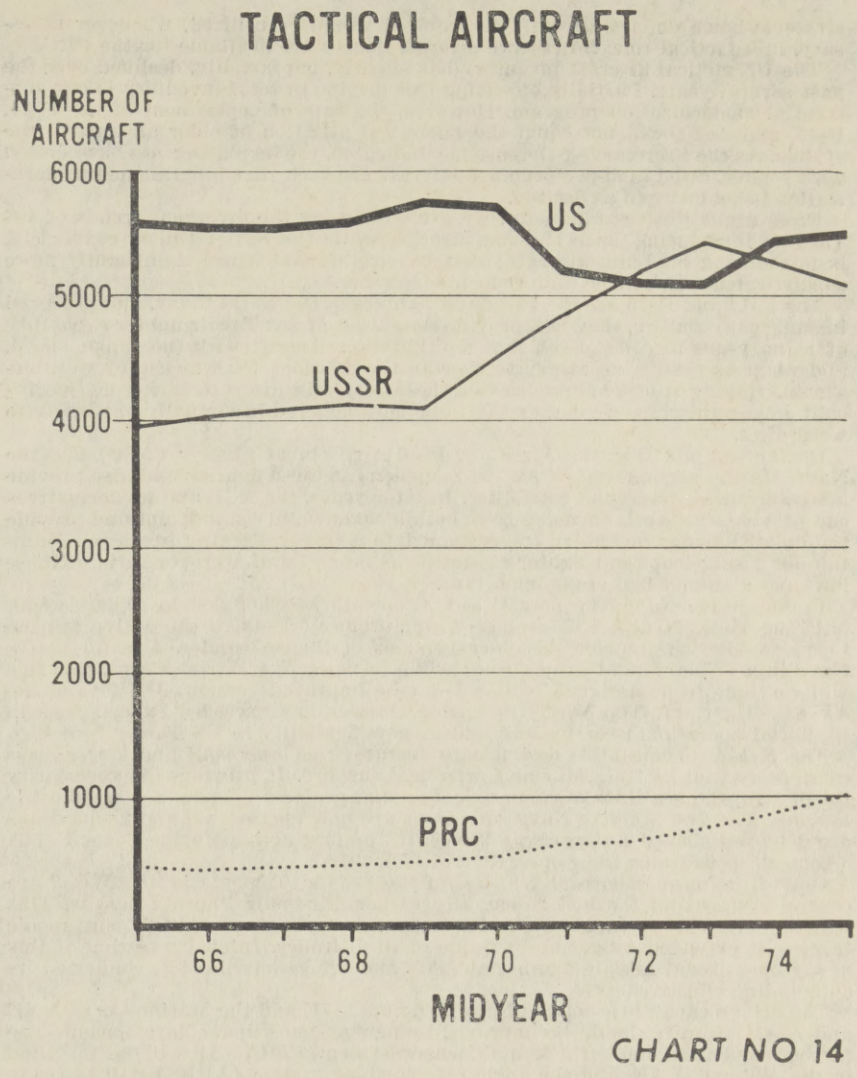
In my judgment, the US Navy is superior to the Soviet Navy, at this time. We are superior in our capability to project sea-based power, and the quality of our attack submarine force is superior to that of the Soviet Union. Our current capability to control the essential sea lanes versus that of the Soviet Navy to deny us their use is, however, far more difficult to assess with reasonable assurance. I believe, nonetheless, that we could prevail in the most likely situations. My concern rests with the momentum of the Soviet Union's expanding naval capabilities. There is no question but that the capabilities of Soviet naval forces are growing. This is of real concern as we look to the future. The United States must move forward aggressively in modernizing and rebuilding its naval force levels if we are to preserve our margin of superiority.

Tactical Air Forces

The tactical air portion of the US general purpose forces program embraces a broad and diverse mix of capabilities and weapons systems, structured to respond to the widest range of military contingencies. Briefly, the mission of these forces is to conduct air operations to destroy or neutralize enemy forces, which include countering air, ground, and naval threats. While the emphasis of tactical air force structure is on the fighter/attack force, there are other tactical air elements that perform essential support roles, such as reconnaissance surveillance, electronic warfare, command/control/communications, aerial refueling, tactical airlift, and special operations.

The organization concepts and structures of Air Force, Navy, and Marine Corps tactical air forces as a total force recognize the need for balanced forces within each of the Services and the complementary roles of the respective Service forces. This is supplemented by the contribution of allied tactical air forces. However, the contribution of the allies must be assessed in terms of country and regional orders of battle, employment concepts, doctrine, projections of allied warfighting capability, and political considerations.

Shown on Chart 14 are the US, USSR, and PRC tactical aircraft inventories, including fighter, attack, intermediate-range bomber, and reconnaissance aircraft.



The high projection reflects the Soviet Union's capability to assign the new Backfire bomber to a theater as well as intercontinental strategic mission. 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 900 in 1975) and those assigned to and discussed previously under Continental Air Defense (about 500 in 1975).

The Soviet figures similarly exclude tactical-type aircraft used for training (about 3000 in 1975) and fighter aircraft assigned to the PVO Strany (Air Defense of the Nation) forces (about 2500 in 1975). However, 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 1975). The PRC figures, therefore, include only the tactical aircraft (attack 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. It is believed that as many of these

strategic home defense aircraft as required would be utilized, whenever necessary, in a tactical role. No reserve aircraft figures are available for the PRC.

The US tactical aircraft inventory has slightly, but steadily, declined over the past several years. Partially offsetting this decline in total inventory is our substantial modernization program. However, the rate of deployment of the F–14, F–15, and A–10, will not equal the numerical attrition of older aircraft in the system. 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.

From a qualitative standpoint, we are witnessing the divergent trends of US Tacair's introducing some low-mix aircraft while the Soviet Union, conversely, is introducing high-mix aircraft; that is, aircraft which are significantly more sophisticated and capable than their predecessors.

The F–14 and F–15 are the two finest fighters in the world today, and procured in sufficient numbers, they will provide the thrust of our Tacair fighter capability of many years to come. Each is a multimission aircraft with the range, speed, and weapons system necessary to execute the missions for which they were designed. Having sufficient numbers of these high-mix aircraft, however, is critically important since we can expect to be outnumbered in virtually any scenario we project.

On the low-mix side, the Air Force F–16 Air Combat Fighter (ACF) and the Navy/Marine version, the NCAF, will supplement these fighters and also provide a significant air-to-ground capability. In later years, the ACF and its derivatives can provide substantial benefits from both a commonality standpoint and provide the dollar savings necessary to accommodate a larger Tacair force level. Maintaining a sufficient total fighter capability is crucial and a proper ratio of these low- and high-mix fighters is important.

In the active Navy, the new F–14A (Tomcat) is scheduled to replace about half the F–4s. It also will replace 4 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 AV–8A (Harrier). The V/STOL-capable Harrier has exceeded expectations in its initial operational service and adds a new flexibility to US Tacair forces.

The F–14A (Tomcat) is designed to operate from *Forrestal* and larger class carriers as well as from Marine Corps fields ashore. It provides air superiority for our air and sea lines of communication and projects US power across hostile beaches. The first 4 active Navy squadrons are now operational and 2 squadrons are deployed aboard *Enterprise* (CVN–65). The first active Marine Corps F–14A (Tomcat) squadron will be operational in FY 1976.

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 extended ranges and at almost all altitudes. Intensive testing of this newly operational missile against aircraft and cruise missiles has confirmed its outstanding effectiveness.

The attack capabilities of the Navy A–6 and A–7E and the Marine Corps A–6E and 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 A–7E, and the angle rate bombing system (ARBS) will be retrofitted into the A–4M.

In the US Air Force, the major changes in the tactical aircraft programmed inventory will result from the introduction of the A–10 close air support aircraft, the F–15 (Eagle) air superiority fighter, and the F–16 air combat fighter.

The A–10 is programmed to phase into the active force beginning in CY 1976. A full production decision for the A–10 aircraft will not be made until October 1975.

The close air support mission dictated design criteria for the A–10. The Short Take-Off and Landing (STOL) capability of the A–10 will permit it to use short battlefield area airstrips. Its large fuel capacity will provide its long staying power over the battlefield to deliver sustained, effective firepower. In addition to its internal 30 mm Gatling gun, the A–10 has 11 external pylons to carry a large mixed ordnance payload, including antitank ordnance such as Maverick, Rockeye, and laser-guided weapons. 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 will allow it to be serviced and operated from bases with limited facilities close to the forward edge of the battle area. From these forward locations, it will be immediately responsive to the needs of the combat soldier.

The F–15 (Eagle), a most capable air superiority fighter, has been flying since July 1972; and its performance has either met or exceeded all expectations. The first operational aircraft were delivered to Tactical Air Command as scheduled in November 1974. The extensive flight test program, to include the operational test and evaluation, will continue through FY 1976.

The Air Force will deploy F–15s to bases in Europe and the Far East, as well as in the United States. Their integration into the tactical forces will provide a counter to the continuing numbers of modern sophisticated Soviet aircraft.

The F–15 was designed primarily to provide an air-to-air combat capability superior to that of enemy aircraft projected for the 1980s. The high thrust-to-weight ratio and low wing-loading of the F–15 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 computational and display systems required for various manual and semi-automatic ground attack missions. Therefore, the F–15 has an excellent visual ground attack capability once air superiority in the battle environment is achieved.

In order to maintain the effectiveness of these tactical aircraft in today's SAM environment, it is imperative that they be equipped with and supported by modern electronic warfare (EW) systems. Our aircraft must have EW equipment that is capable of countering hostile weapons systems that operate in a wide range of frequency bands and modes. Our Service EW programs are designed to obtain these results.

The Air Combat Fighter Program, or ACF, which was initiated last year, evolved from the very successful Lightweight Fighter (LWF) Prototype Program. The F–16 possesses exceptional maneuvering and handling characteristics; uses limited avionics subsystems for navigation, communications, and fire control associated with guns and IR-type missiles; and demonstrates advanced technology. Prototype flight test results, cost analyses, and projections of operational capability indicate that a lightweight fighter offers a means of accomplishing the needed modernization and expansion of our Tactical Air Forces.

The new ACF will decrease the numerical deficiencies in the fighter force, replace a portion of the older force, and will enable the Air Force to continue its modernization of the total force by freeing some F–4s for transfer to the Air Reserve Forces. While this new fighter will be designed principally for air-to-air combat to complement the F–15, it also will have a potent air-to-ground weapons delivery capability. Because of the similarity of our requirements and those of our NATO allies, the ACF is under active consideration by Belgium, Denmark, Holland, and Norway as a replacement for their aging F–104s and F–100s. The Air Combat Fighter should prove to be a major step in reversing the trend of rising weapons systems procurement costs.

A combined force, consisting of F–15s and F–16s, is an example of what we mean by the term, "high-low mix." By moving toward a force structure composed of both types of air superiority aircraft, we will be able to maintain a larger force for equivalent budget expenditures, and therefore, will be capable of countering more effectively the expected threat in the 1980s. This larger mixed force also will reduce the quantitative advantage of the Warsaw Pact countries without placing our forces at an unacceptable qualitative disadvantge. For these reasons, a transition program has been established to accomplish steps toward full-scale development of the F–16; and the Air Force will be requesting funds to continue full engineering development of the ACF early this year.

We can realize full effectiveness from our tactical air forces by providing adequate means to employ them in an environment characterized by high target densities composed of aircraft of many different types, missions, and performance capabilities. Current land-based surveillance and control systems deployed to provide this support have certain fundamental limitations. They are fixed and vulnerable to enemy attack. In addition to being located on the ground, they have a limited capability for detection of low-altitude aircraft over enemy territory. These systems also are vulnerable to electronic countermeasures, which severely limit their effectiveness in an intense and sophisticated conflict environment.

The Airborne Warning and Control System (AWACS) was designed specifically to overcome these deficiencies. AWACS will be a highly mobile and flexible national military resource designed to provide unprecedented all-altitude surveillance and data exchange for air defense and tactical forces across a wide range of possible conflicts. It will be a rapidly deployable and survivable warning and control system, integrated with ground-based systems where they exist, or providing effective control where such systems do not exist, or are degraded or destroyed by hostile action. It is a system which is essential for continued quality improvement of our response options in view of declining force levels.

Experience has emphasized the importance of effective electronic warfare systems operating in the modern SAM environment. For example, the Group of Soviet Forces Germany has between 50 and 75 battalions of SA–2s, 3s, and 4s, as well as several regiments of SA–6s. Hostile environments such as these must be neutralized if air superiority is to be achieved.

Not only do our forces face a formidable threat from increasing numbers of sophisticated Soviet SAMS, but they must also contend with modern, highly capable fighter aircraft.

The Soviet Union apparently is continuing a determined effort to erase the long-held advantage in the ground attack role held by U.S. tactical air forces. The U.S.S.R. traditionally has emphasized air defense in its tactical air forces and has gained thereby a clear quantitative advantage and some qualitative advantages in this role.

Increased Soviet emphasis on tactical aircraft has required a reevaluation of our earlier inventory projections for the next 5 years. We now estimate that, in the next few years, most of the older fighters (Mig-17s and Mig-19s) and short-range bombers (II–28s) will be phased out of the forces.

In considering the overall changes in the various roles of Soviet tactical aviation, the slight numerical increase may be misleading if considered alone because there was a significant qualitative improvement, in that some of the older Mig-21s (Fishbeds) have been replaced by late models and Mig-23 (Floggers). Mig-23s (Floggers) are also replacing Mig-17s (Frescos) and Mig-19s (Farmers). There was a significant increase in the number of floggers. The increase in Mig-25s (Foxbats) represents a significant change when considered in respect to deployment and the capabilities of the aircraft.

Soviet tactical aviation has 16 tactical air armies—1 in each of 12 military districts in the USSR and 4 with the Groups of Soviet Forces in East Germany, Czechoslovakia, Poland, and Hungary. The primary emphasis is against Central NATO, with Southern NATO and the Far East accounting for the bulk of the remainder. The major qualitative change has been in the area opposite NATO, where most of the newer aircraft have been deployed.

The newer aircraft are better able to conduct air-to-ground operations. Airborne electronic countermeasure capabilities are being upgraded. More weapons can be carried, and new weapons, including tactical air-to-surface missiles, are being developed. The most significant addition was the Mig-23 (flogger). A new variant (Flogger C) was observed in East Germany. Unlike other Floggers, this is a tandem seat model. It is probably a trainer; however, like any other Soviet trainer, it is combat-capable. Five pylons have been observed on the Flogger C. The Mig-21 (Fishbed) force has also been upgraded.

Now operational, the SU–19 (Fencer), a new fighter-bomber, has been deployed. Previously referred to as the Sukhoy advanced variable-geometry wing (VGW) fighter-bomber, Fencer has now reached operational status. It carries a variety of guided and unguided air-to-ground weapons and appears to be the first Soviet fighter specifically designed for ground attack.

The rapidly rising importance of electronic warfare has not been ignored by military planners in the U.S.S.R. Five years ago, there was only limited use of active electronic countermeasures (ECM) by Soviet tactical air forces—primarily utilizing the IL–28 (Beagle). In 1970, the first operational ECM escort aircraft, Yak–28 (Brewer E), was deployed. This was followed by the AN–12 (Cub C).

The PRC tactical aircraft inventory continues slowly, but steadily, to increase slightly to a total of over 800.

A hiatus is occurring in the development of new Soviet fighters. For reasons unknown, a new prototype fighter has not been observed since 1970. During the last 20 years, there have been other periods in which new fighter prototypes have not appeared, but the pauses were of shorter duration. These periods can

be attributed to a variety of reasons. New prototypes appeared in 1970; namely, the SU–19 (Fencer), a VGW fighter-bomber, and a naval associated V/STOL fighter. The Fencer and V/STOL fighters are being developed for operational deployment. Although no prototypes of new fighter aircraft have appeared since 1970 and the rate of prototypes entering flight test is expected to continue to decline, significant qualitative improvements to weapons, avionics, and propulsion have been identified.

Our Military Forces must be prepared to operate in a variety of combat situations against a variety of threats and targets if they are to be able to deter aggression against an equally broad spectrum of U.S. interests. Critical, if not essential, to this capability is high accuracy of delivered fire. Precision-guided weapons, which raise the single shot kill probability and reduce the scope and duration of the combat exposure of the delivery vehicle, produce a significant advantage. This is one of the clear lessons of our direct experience in SEA and our observation of the 1973 Middle East War. Such weapons appreciably increase our capability to apply force directly to a selected military target rather than to the surrounding area. In addition, such weapons produce target kills at a unit cost lower than unguided weapons primarily as a result of the reduced attrition of the delivery vehicles.

The Navy and the Air Force employ a family of weapons in this category and are seeking to develop others. Guidance systems include passive and semi-active radar homing, radio command, T.V., electro-optical contrast edge trackers, imaging infrared seekers, and laser spot seekers which detect laser energy from a target being illuminated by a laser designator, thus giving the United States systems capable of being targeted in all-weather and ECM environments. The weapons carry warheads suitable to mission requirements.

Although our information is incomplete, we believe that we currently enjoy a considerable edge over the Soviet Union in the military application of this technology.

Our edge in this technology is a major part of the margin of US superiority and we must ensure that we are capable of holding it over time. The continuation of development programs in this field is essential if we are to provide the American soldier the air support he requires to survive on a battlefield where he is likely to be numerically outnumbered.

I believe US tactical air forces will continue to be superior in both the counter-air and ground-attack roles by mid-1980, providing we actively pursue the modernization programs already underway, particularly the F–14A (Tomcat), the F–15 (Eagle), the F–16, the Navy NCAF, the AWACS, and the precision-guided weapons noted above.

Theater Nuclear Forces

A visible, responsive, and versatile theater nuclear capability is indispensable to successful deterrence and defense. Tactical nuclear weapons complement and extend the capabilities of general purpose forces. Theater tactical nuclear forces, however, cannot substitute for conventional forces, and the converse is equally true. Each one of these force elements—conventional, strategic, and tactical nuclear—has unique capabilities. All are complementary and mutually supportive.

Should it appear that aggression cannot be contained and the situation restored by direct conventional defense, the doctrine of flexible response provides for a carefully controlled, deliberate raising of the scope and intensity of combat to a level where the costs and risks of continuation become disproportionate to the aggressor's objectives. Within this context, theater nuclear weapons could be employed to induce the enemy to limit the scope of his aggression, to yield allied territory, to avoid an extended war of attrition, or to make the political decision to restore peace short of all-out destruction. Thus, theater nuclear weapons for deterrence and defense make a major contribution to options which ensure that the United States will never be faced with capitulation or strategic nuclear war as the only alternative. To deal with an almost unlimited range of possible hostile actions, the United States must maintain a broad range of selected responses.

Theater nuclear weapons offer inherent advantages in the process of deterrence and control of escalation. First, their limited range and yield pose no 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, such as atomic demolitions and SAMs, are primarily defensive in nature, and thus, are not as destabilizing as other type nuclear weapons may be. 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 a most difficult targeting problem.

Tactical nuclear weapons provide the capabilities for a range of employment options for defending US and allied interests while seeking to control escalation. An adversary cannot be certain as to how the United States may react and must recognize that we have the option of responding through a wide spectrum of military power previously withheld. Two classes of capability are of special importance: First, militarily effective employment in the immediate battle area, and second, a range of limited attacks against fixed theater-wide targets. These missions require a mix of immediately responsive warheads and delivery vehicles. The systems must provide range and yield flexibility and an all-weather capability if they are to be, in fact, immediately response.

The concept of deterrence, in the final analysis, is as dependent upon the perceptions a potential adversary may have of our will and determination to employ our capability—if necessary—as it is upon the capability itself. A theory of controlled and limited escalation is inherent in the American ethic and lends great credence to the possibility of employment of this capability. Lack of the capability to resort to a limited response could tempt an aggressor to use nuclear weapons in a limited way in a crisis. Our ability to employ a controlled response, therefore, makes deterrence more effective and initial use less likely.

The conventional balance in Europe in such that in the event Warsaw Pact forces are able to mass secretly and to apply armored pressure to any given point in the defense line, NATO ability to defend with conventional forces would be greatly weakened. The ability to employ nuclear weapons selectively under all-weather conditions against armored thrusts greatly contributes to theater deterrence and is an intermediate option between conventional warfare and general nuclear war. These theater nuclear weapons, with their delivery systems, provide a quick response to counter difficult-to-acquire, fleeting, regenerative battlefield targets. The destruction of these targets could be 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 ensuring that those forces are capable of controlled, discreet responses, we are seeking ways to provide some reasonable degree of assurance that the limited scope and size of the response is clearly perceivable by the enemy. Additionally, we are making every effort to ensure that our theater nuclear forces and their support are structured to provide a high level of security against surprise attacks, terrorists, and unauthorized use.

The Soviets currently possess a significant tactical nuclear capability, but it will be some time before the developing PRC nuclear capability will influence significantly military operations in Asia.

The number of Soviet SS–4 and SS–5 launchers remained essentially unchanged over the last year. It is believed that the total number of MR/IRBMs on operational launchers will be about 600 by mid-1975. Allowing for refires and spares, we estimate the inventory totals over 1000 MR/IRBMs—all of which are assumed to have nuclear warheads available.

The US inventory does not contain any ballistic missiles in the MR/IRBM class. The deployment of the PRC MR/IRBMs was discussed earlier because we believe this deployment is more consistent with a strategic offensive role from a PRC perspective.

The US inventory includes a variety of nuclear-armed artillery rounds, atomic demolition munitions, and surface-to-air weapons with nuclear warheads.

The Soviet Union has deployed a large number of nuclear-capable tactical missiles and rockets—primarily the short-range (85–160 nm) tactical ballistic missiles, Scuds, and surface-to-surface unguided free rocket over ground, Frogs.

Our Pershing, Sergeant, and Lance tactical surface-to-surface missile systems are armed only with nuclear warheads. A conventional warhead has been developed and type-classified for Lance, and the Army is requesting funds to procure a limited number for use with annual service practice missiles. The US Honest John rocket system has both a nuclear and high explosive capability. Sergeant and Honest John continue to be phased out of the US inventory, but Honest John will be retained by certain Reserve Components and allied forces for a longer period. Most of the Soviet tactical aircraft are capable of nuclear weapons delivery. Similarly, most of the aircraft assigned to US tactical air units are capable of delivering either nuclear or conventional weapons.

The primary PRC nuclear weapons delivery aircraft is the TU–16 (Badger) when deployed in a strategic role. Also available as nuclear weapons carriers are the IL–28s (Beagles). In addition, the Chinese-designed F–9 ground support fighter may have a nuclear weapon delivery capability.

Turning now to naval forces, we still do not expect the PRC to have any naval nuclear weapons deployed by mid-1975. As for the USSR, although there are many uncertainties as to the number of such weapons in its inventory, their existence is clearly established.

As I have noted, the United States is doing development work on the Harpoon antiship missile, but the earliest we could deploy such a weapon with a nuclear warhead is late FY 1979.

It remains difficult to draw precise conclusions as to the relative balance between the United States and the USSR in theater nuclear weapons because of the uncertainties inherent in estimating and evaluating Soviet weapon inventories. Nevertheless, I continue to believe the United States is equal or superior to the USSR in overall capability and remains superior in nuclear weapons technology. While the PRC's effort to become a regional nuclear power has been successful, they remain far behind the US and the USSR.

Nuclear warfare, whether strategic or tactical, is undesirable; but that is not the issue. As the debate as to utility of theater nuclear weapons continues, ultimate need for such weapons should not be confused with desirability. Our current inventory is becoming obsolete; the issue is not whether we want to use such weapons, but how we replace the deterrent capability that these weapons provide. A failure to replace the capability clearly risks the peace. There is nothing immutable about the size of our stockpile or the precise nature of our deployments; but that, too, is not the issue. The issue is how best to deter war. These weapons play an important role in that endeavor.

In many situations, a favorable military balance depends on the qualitative advantages our weapons possess. Today's technology in warheads and delivery systems can provide an improved tactical nuclear stockpile with greater accuracy and modern security devices. Exploitation of this technology on the part of the Services, working in close concert with the AEC, would provide major improvements in response time, flexibility in employment, lower collateral damage, and enhanced security.

The warhead for Lance, which has been deployed to Europe, replacing Honest John and Sergeant in all US units, remains the only new theater nuclear warhead or bomb now in production. We also have Congressional approval to build additional B–61 bombs this year with improved security features. This modern bomb provides our airmen with a versatile weapon compatible with improved aircraft design. Technological advances must continue in this area so that the United States is not deprived of a viable option between conventional warfare and the orgy of destruction associated with strategic nuclear warfare.

Chemical and Biological Agents

The past year has been both active and productive. On 16 December 1974, the Senate gave its advice and consent to the ratification of the Convention on the Prohibition of Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and Their Destruction (BW Convention) and to the 1925 Geneva Protocol. In the BW Convention the parties undertake not to develop, produce, stockpile, acquire, or retain biological agents or toxins of types or in quantities that have no justification for peaceful uses, as well as weapons, equipment, and means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

In late 1969, after a review of our chemical and biological warfare policies, the United States renounced the use "of any form" of bacteriological or biological weapons that either kill or incapacitate. At that time, steps were taken to dispose of our existing stocks of bacteriological agents. The United States no longer possesses any such agents or the munitions for deploying them. With the ratification of this convention, the United States formally joined in an international cooperative effort to reduce the possibility of these weapons ever being used by any nation. The Joint Chiefs of Staff do not believe that the capability of waging biological warfare is essential to our deterrent posture. I believe that the ratification of this treaty will have no deleterious impact on our national security and could enhance it.

The Geneva Protocol of 1925, in effect, prohibits the "first use" of chemical and biological agents in war and is not a "non-use" treaty. The United States

has now joined the other militarily important countries of the world by becoming a party to this agreement. The President has renounced, as a matter of national policy, first use of herbicides in war except use for control of vegetation within US bases and installations and around their immediate defensive perimeters. He has also renounced first use in war of riot control agents except in defensive military modes to save lives. The Joint Chiefs of Staff fully participated in the interagency process leading to the President's decision and they support it.

There is a strange and sinister aura surrounding biological weapons; and although allegations of their use are many, no government and no responsible government official has ever admitted waging offensive biological warfare. However, history is replete from ancient times with examples of chemical warfare. The earliest recorded use of chemicals in military operations was in 428 BC, when the Spartans burned wood saturated with pitch and sulphur under the walls of Plataea. Since World War I, toxic chemicals have been used only against forces unable to defend against them or to retaliate in kind. It is also interesting to note that since World War I each known use of chemicals has been by a signatory to the 1925 Geneva Protocol. Therefore, we seek to maintain a chemical capability, not to violate the Protocol, but to insure compliance.

During World War II, President Roosevelt threatened the leaders of the Third Reich with immediate devastation in the event they resorted to chemical warfare. At that time, the Germans possessed massive stocks of chemical weapons, including nerve agents not found in any allied arsenal. Most historians attribute the failure to employ such weapons to a fear of overwhelming retaliation by the allies. Whatever the deterrent, "gas" was not used in World War II, although the capability was widespread among the combatants. Significant tactical advantage accrues to the user of chemical weapons because of the encumbrances of protective equipment on the defender if the user is not so encumbered. Retaliation or a capability to retaliate in kind precludes ceding any such advantage to any enemy. Should the United States be attacked on significant scale with chemicals, and lacked the ability to retaliate with chemicals to redress the situation, it could force an unwanted or premature US/Allied-initiated nuclear attack in order to prevent total defeat and a military disaster.

The USSR currently has an unsurpassed capability to conduct chemical warfare. Highly toxic chemical agents and dissemination means have been developed and standardized. There is considerable firm intelligence to support the assessment that the USSR could initiate and sustain large-scale chemical warfare either alone or with conventional or nuclear weapons. It is not possible with any reasonable degree of assurance to predict or estimate the size of the USSR's CW agent stockpile. Other evidence, however, reflects a requirement for a sizeable stockpile both in bulk agent and filled munitions. The USSR's stockpile is probably more than adequate to meet its minimum requirements. The Soviet Union would have no problem producing ample supplies in the event of war. At the present time, there are many major installations believed to be associated with the testing, production, or storage of toxic agents, munitions, and protective equipment. Neither production nor storage facilities are believed to be limiting factors. The USSR has a variety of CW agents and munitions to satisfy most operational requirements.

A review of USSR delivery systems for CW agents shows a well developed capability to employ a wide variety of effective munitions for ground, sea, or air delivery of toxic chemical agents throughout the theater. Soviet chemical personnel are distributed throughout the ground forces.

Soviet forces are considered to be the best trained and equipped in the world for operations in a toxic environment. Extensive training in CBR protective equipment is a requirement for Soviet ground, sea, and air forces and is an integral part of major military maneuvers and exercises. Soviet Armed Forces possess large quantities of a wide range of effective protective and decontamination equipment for use in a toxic environment, and new equipment which will further upgrade their operational ability continues to appear. Equipment and training for chemical, biological, and radiological protection are provided. The training and protection of forces for operation in a toxic environment allows first-use of chemical weapons by the Soviet Union with an acceptable assurance that it could defend against retaliation with chemical weapons.

Our policy is to retain a chemical warfare capability designed to deter the use of these weapons against us or our allies, and should deterrence fail, to permit us a reasonable degree of retaliation with chemical weapons. US Forces

must be equipped adequately with a credible capability to deter an adversary from initiating chemical warfare, and should deterrence fail, to place the enemy under a similar severe operational constraint in order to preclude the attacker from gaining a significant tactical advantage.

A complete and viable deterrent posture includes both a defensive and offensive aspect. Definitive programs for the procurement of required quantities of standardized defensive materials have been established. By FY 1981, provided that these programs are approved, we will have the means for equipping all US forces with required defensive equipment. Research and development programs are being pursued to provide additional critical defensive equipment. Modernization of the chemical weapons stockpile is needed if the United States is to maintain a limited, but credible, capability in this area.

The primary aims of modernization are: (1) provide a stockpile in an amount consistent with requirements; (2) allow for rapid deployment of munitions from storage to theater locations; and (3) provide greater employment flexibility through more variations in delivery configurations.

Modernization of the chemical warfare deterrent/retaliatory stockpile can be accomplished by either upgrading the present stockpile within the limits of agents already available or by converting the stockpile to binary munitions. Binaries offer a feasible, economic, safe, and more desirable alternative. Modernization by developing binaries would provide the following advantages:

Limited potential hazards to areas surrounding storage sites.

Greater deployment flexibility because of the elimination of degradation of agent purity since components remain stable in storage.

Elimination of costly disposal programs when munitions become obsolete and reduced cost in government production plant facilities.

This year's budget contains a modest request to provide the long lead time equipment and facility requirements for a binary production facility.

The Navy has included a budget request for the development of a binary bomb which also will be used by the Air Force. I urge your support for these modest modernization programs to ensure that the United States will maintain a minimum, but adequate, CW retaliatory deterrent capability.

REGIONAL PERSPECTIVE

In this section, I will address our worldwide interests and the global challenges to those interests on a regional basis. The world, as divided here, is arbitrary and somewhat overly structured. It is necessary, however, in order to present the data in an understandable way. As the previous discussion has shown, the major military challenge to the security interests in the United States is the rapidly developing military capabilities of the Soviet Union. Despite its ongoing advances, the USSR currently possesses only a limited capability to project substantial general purpose military power beyond the Eurasian Continent.

The major external constraints on the application of Soviet power are the continued strength of the United States, the vitality and cohesiveness of our Alliance structure, and the continued ideological and territorial confrontation between the PRC and the Soviet Union. The United States alone cannot provide the forces necessary to counter every military threat to our interests. We have only limited exclusive interests notwithstanding our need to have access to free markets and non-politicized supplies of raw materials, including oil. Our major responsibilities likewise must be shared. Increased cooperation and participation by our allies, including the provision of base rights and facilities, depend to a large measure upon our ability to demonstrate as well as assert our determination and capability to honor our assurances of support. Security Assistance plays a major role in the effort by contributing to the maintenance of stability in Northeast Asia, Southeast Asia, and the Middle East; encouraging our friends and allies to become self-reliant, thus decreasing the probability of direct US military involvement; and ensuring continued US access to key bases and facilities.

In the long run, the only security we can reasonably hope to obtain flows from the deterrence global collective security provides.

EUROPE

Background

Western Europe's strategic importance to US national security interests is second only to that of the territorial United States itself in strategic importance.

US forces are located in Western Europe to contribute to an effective deterrent against the threat to US interests represented by the conventional forces of the Warsaw Pact in Central Europe.

The best place to begin the defense of the United States is as far forward as possible. Our European Command acts as a viable force protecting US national interests, and through the NATO Alliance, supports the mission of deterrence against all forms of aggression. However, should aggression occur in Europe nonetheless, then the mission of our forces will be to: conduct an initial conventional defense as far forward as possible; preserve or restore the integrity and security of the NATO area; conduct deliberate escalation of the conflict if aggression cannot be contained; and provide an appropriate nuclear response if the aggression is in the form of a major nuclear attack.

The Threat

In recent years, the Soviet Union and the Warsaw Pact have substantially improved their forces in Central Europe. Over the next 5 years, we believe they will continue to improve their military posture to be able to negotiate from a position of visible strength. The USSR, while developing a whole new family of strategic missiles, is cooperating with its East European allies to increase qualitatively the strength of the Warsaw Pact general purpose forces. Currently there is a force of some 58 divisions capable of attacking Central Europe. Given one month to mobilize, this force could be increased to 80–90 divisions. Since 1971, we have seen the capability of these forces improve through advances in mobility, weaponry/firepower, improved logistical support, more effective command and control, and increased numbers.

As I have previously noted, a continuous upgrading of Soviet/Warsaw Pact aviation forces has been underway in recent years. The emphasis has been and continues to be on the ability of those forces to fight a conventional war in Europe.

Within the Pact, the naval threat is posed primarily by an emerging Soviet Navy more capable every day of conducting extensive combat operations worldwide, as well as supporting peacetime political objectives. It is clear that the Soviet Union deliberately and resolutely is striving to develop a powerful Navy. The home base of most of this force and its prime operating areas lie within the US European Command area of responsibility from which it can seek to perform its mission of interdiction of NATO's lines of supply and reinforcement.

NATO and Warsaw Pact Comparison

Improvements in US and NATO forces during the past several years have increased capabilities considerably, with particular emphasis on conventional warfare. The thrust is to avoid being forced into nuclear war as the only alternative to unacceptable losses in a conventional battle. Strengthening conventional capability will raise the nuclear threshold, but this requires a tailored force with capabilities adequate to both initial and sustained combat. Toward this end, in the last 2 years, headquarters and support manpower spaces numbering 17,000 have been reduced—98 percent of which are being added to combat units. An additional 18,000 "support" spaces will be eliminated beginning this year and added to combat strength in the theater. The ratio of combat to support ground force manpower has been altered from 58/42 percent in 1968 to a current 62/38; and by the end of FY 1977, it should be 73/27. As I have noted, we plan to deploy 2 additional brigades to Europe. This increase in initial combat power at the expense of sustaining capability can be accomplished only with some risk, but it is a calculated risk based upon the threat. In an effort to reduce the risk flowing from a shortfall in essential support elements, we have been working with our NATO allies to ensure adequate support. Overdependence on others, however, is not desirable. We must be careful not to upset the balance through reduction of support forces without obtaining firm assurance that their missions will be accomplished by other resources. To do so would result in a certain degradation of our ability to conduct a conventional defense which, in turn, would cause a lowering of the nuclear threshold.

Overall, NATO has the forces and equipment for a successful defense, particularly in view of the improvements in the Alliance's conventional capabilities now being implemented. In all 3 NATO regions, national ground forces amount to 1.78 million, while Warsaw Pact forces amount to 1.62 million in the East European Pact countries and the 3 Western USSR military districts abutting NATO territory. Pact forces, however, have increased by over 120,000 since late 1971, while

NATO forces have remained relatively static. Pact increases appear to be related to upgrading of weapons systems, as noted above.

NATO tanks, while outnumbered by a factor of 2½ to 1 or 3 to 1, are, in general, superior to those of the Warsaw Pact, particularly in first-shot kill probability. Pact artillery, however, outnumbers that of NATO by a factor of 2 to 1 and the larger caliber weapons have greater range. With respect to available tactical aircraft, at the beginning of hostilities, Pact outnumbers NATO by a factor of about 2 to 1; but in general, NATO aircraft have greater range and payload capability, with crews that have better night and all-weather training. NATO's ground air defense provides an effective high- and medium-altitude air defense capability. In addition to conventional strength, NATO maintains an ability to carry out tactical nuclear operations in conjunction with the strategy of flexible response. Security measures for protection of weapons have been improved over the past year, and new devices and weapon designs have reduced the likelihood of unauthorized detonations. Our ability to conduct selective tactical nuclear operations would be enhanced by an improved and more survivable command and control communications system.

Overall, the asymmetries in NATO and Warsaw Pact tactical nuclear weapons and employment concepts enhance the NATO deterrent by complicating enemy judgments of possible allied responses. In either a conventional or nuclear conflict, however, a significant advantage to the Warsaw Pact rests in the initiative. The Pact ability to select the time, places, and nature of the attack requires great flexibility in defense by NATO forces. Currently, NATO possesses considerable flexibility in responding.

A broad spectrum look at NATO and Warsaw Pact capabilities reveals that NATO currently has a firm basis for successfully implementing the flexible response strategy, is aware of those areas needing upgrading, and is studying programs to ensure the adequacy of the defense. Improvements are required in the critical areas of force modernization, war reserve stocks, and resupply arrangements. Accordingly, NATO's air-ground team is capable of conducting an initial defense in Western Europe.

Military Balance by NATO Region

In the Northern Region, USSR M-Day forces opposite Northern Norway outnumber those of Cincnorth; but geography and climate aid in the defense, and NATO can augment with troops and tactical fighters. NATO can control access to and egress from the Baltic through coverage by land-based air and mining, but Pact forces may be able to control the Eastern Baltic, employing air and naval forces to protect the flank of Pact forces along the Littoral.

In the Central Region, Warsaw Pact M-Day ground forces significantly outnumber NATO-assigned and earmarked forces. Counting all the forces of the NATO Central Region nations, together with the in-place forces of Canada, the United Kingdom, and the United States, Pact superiority is reduced. Pact tactical fighters in the Central Region outnumber those of NATO by a factor of almost 2 to 1, but numbers of fighters with an attack role are almost equal on both sides.

Comparisons of NATO and Warsaw Pact capabilities in the Southern Region are complicated. NATO M-Day ground forces outnumber those of the Pact in the South almost 2 to 1.

Special Problems

Of note is Section 302 of the 1975 Military Procurement Authorization Act, which has had an immediate effect because it requires, *inter alia*, that US military non-combat strength in Europe be reduced by 18,000 men by 30 June 1976. At least 6000 of that number must be removed from Europe by 30 June 1975. On the other hand, the law allows the Secretary of Defense to increase the combat strength in Europe by amounts equal to the reduction in support forces. Specific proposals for implementing this requirement are being examined now. The bulk of the reduction must come from US Army Europe units. The law has a narrow definition of combat units. As defined in the statute, the combat component of the Army only includes the Infantry, Cavalry, Artillery, Armor, Combat Engineers, Special Forces, Attack Helicopter Units, Air Defense, and Missile Combat Units of battalion or smaller size.

Omitted from this definition are many military personnel whose duties require that they close with the enemy and apply fire to him, with all the hazard that this entails. This portion of the law dictates that combat increases made to offset "support" reductions must be made in front line battalion-sized or smaller units. Problem areas associated with the implementing of this law are: (1) stationing; (2) local training areas; (3) hiring of civilians; and (4) costs.

Stationing and the associated problems of adequate training areas are the major complications we will have to overcome. Unlike the Continental United States, where large multipurpose military reservations such as Fort Hood and Fort Bragg provide considerable flexibility in organizing and training additional combat unts, the US Army Europe primarily is located on numerous small "Kasernes" scattered throughout Southern Germany. Most of these Kasernes are pre-World War II German Army installations established in the 1930s on the outskirts of major cities.

During the past 2 decades, the German population and economy have expanded, and these Kasernes have become surrounded by industrial complexes, high-rise apartments, homes, parks, and the like. This leaves little or no room for expansion and creates a premium on real estate. US Army Europe is faced with added requirements for training combat units when these Kasernes and training areas already are crowded. Support activities withdrawn under the law will free some facilities, but such activities are largely to the rear and do not have the hard stands, maintenance facilities, and maneuver areas required by tank, mechanized infantry, and artillery battalions. The construction of new facilities will require additional funds, and such funds will be extremely hard to find. It will be difficult and probably impossible to acquire additional training areas as well.

As support units are reduced, it will be necessary to hire local civilians to perform certain tasks previously done by military men, e.g., providing transportation, maintenance, and medical support. Whether these local nationals can be attracted in sufficient numbers for an acceptable wage is subject to some doubt. Inflation has struck Europe hard. In the past 5 years, the average dollar cost for local national labor in Europe has risen from approximately $3,400 per man year to almost $10,000 per man year.

It is estimated that negotiations with host nations on wages and fringes in FY 1976 will result in approximately the same rate of annual escalation of costs; that is, between 14 and 17 percent. Thus, there are preliminary indications that Section 302 will cause an increase in the US Army Europe budget. The European Command is now formulating its recommendations for the implementation of Section 302. The thrust of those recommendations—and the law itself—is a conversion of a sizeable amount of manpower from support to combat rather than a reduction in total strength. It is likely that the peacetime impacts of such conversion can be overcome by diligent effort.

Aside from the issues associated with Section 302, logistics remain of continual concern. Increased emphasis has been placed on logistical aspects of all exercises, to include US unilateral and NATO exercises.

Recent Accomplishments and Planned Improvements

Among significant accomplishments is the marked improvement in automated intelligence data handling systems as well as in the area of electrical transmission of imagery. The latter is of substantial importance both for the warning of potential enemy intentions and for the planning and conducting of military operations. Nonetheless, there is a need to improve further our capability to provide the right photography to the right man at the time he needs it. We continue to emphasize electrical transmission of imagery to obtain full value from our expensive, sophisticated national systems.

Among the other areas where accomplishments are noted, but in which further improvements are necessary, are communications in Eucom. Communications are furnished primarily by the Defense Communications Systems, Europe, as a part of the worldwide DCS. The DCS–Eur, with organic, service-owned systems, provides US Cinceur with communications in support of the WWMCCS and US Cinceur's command and control, including information on: status of forces; surveillance; intelligence; alert/warning; consultations/decisions; nuclear weapons, custody and release; reconnaissance; logistics augmentation control/coordination between lateral and subordinate headquarters, SAS sites, airfields and combat elements within the theater. The reliance on out-dated equipment and the lack of redundant circuitry in automatic switching facilities continue to hamper this important upgrade of NATO communications system.

The Military Worth and Value of NATO

NATO has served and will continue to serve US security interests. The Alliance has continued to carry out successfully for 25 years its mission of

defense and deterrence while, at the same time, supporting solidarity and formulating the initiatives of detente. It has demonstrated that it is adaptable to a greater degree than is generally recognized. The Alliance is beset by economic difficulties and marked by social changes. The cumulative results of these factors have placed pressures on NATO at a time when the Alliance also is faced with the difficulty of repairing the damaged security of the southern flank following the Cyprus affair. These problems do not lend themselves to simple solutions by the military staffs since the breadth and influence of their scope are highly pervasive and therefore fall in the political structure of NATO.

Common problems, such as inflation and scarce resources, demand economic cooperation, standardization, shared research endeavors, and a closer mutual look at common political problems. The problems, old and new, which are now arising exceed the classic military concerns, such as a massive land attack or confrontation. The continued solidarity of NATO and the composition of its member states are critically important assumptions underlying US military strategy. Any significant disruption or fragmentation of the NATO Alliance will have a profound effect on the US strategic outlook, and hence, the strategy for meeting the security objectives of the United States.

Atlantic

The Soviet strategic threat in the Atlantic is embodied in its submarine-launched ballistic missile force, including *Yankee* patrols in the Western Atlantic. The newest weapon in the Soviet naval strategic inventory is the *Delta*-class SSBN with its SS–N–8 missile. From existing *Yankee* patrol areas, the *Delta* could target the entire Continental United States, and from areas as distant as the Barents Sea, a *Delta* can cover any target along the eastern seaboard now being targeted by *Yankee* SSBNs.

Soviet general purpose naval units represent a substantial and capable force equipped with modern multipurpose platforms, weapons, and sensors. The primary weapons system of this force is the cruise missile, which is deployed on most classes of surface combatants as well as in submarines. A new antiship missile system, the SS–NX–13, is currently under development by the Soviet Union.

An important mission of the Soviet Navy is to counter the Polaris/Poseidon deterrent. In the Atlantic, the Soviet Union has the capability to conduct coordinated antisubmarine warfare against the US submarines, with a quality force of major surface combatants, fixed-wing ASW aircraft, plus other forces which are supported by capable intelligence, surveillance, and adequate command and control systems.

After the Polaris/Poseidon, the major naval deterrent to the Soviet Union is the aircraft carrier task force. To neutralize this deterrent, the Soviet Union is capable of utilizing Badgers, Bisons, Blinders, cruise missile/torpedo submarines, and conventional submarines plus surface-to-surface missile ships and Bear D targeting support aircraft.

The Soviet Northern Fleet has the capability to conduct amphibious landings with a regimental-size naval infantry force, which could be reinforced by administrative lift of Soviet Army motorized rifle units. These forces could be brought to bear in Northern Norway or Iceland. Continued improvement of Soviet capabilities for sustained deployment can be anticipated.

Atlantic Regional Considerations

From the Soviet point of view, the Northeast Atlantic and the Norwegian Sea constitute the primary threat area for SLBM and other seaborne attacks against Northwestern Russia. We see the North Atlantic air and sea LOC as the avenue for US reinforcements and resupply of Western Europe. The Soviet Union maintains significant sea and air surveillance in this region, and its objectives in wartime almost certainly include denying us its use.

Because of its strategic geographic location in relation to the North Atlantic and Norwegian Sea LOC, Iceland is an element of major importance in the equation of Atlantic power.

By virtue of its strategic location, the air base at Lajes, in the Azores, is important to the control of the Atlantic.

Achievements and Shortfalls

The Atlantic Command must be able to contribute to deterrence in the face of the anticipated threat. The strategic forces can perform their mission.

In the area of achievements, the Atlantic Command's contribution to the Nation's strategic forces will continue to grow as Poseidon-equipped SSBNs enter the fleet. In addition, the Cinclant Airborne Command Post attained final operational capability on January 1, 1974, significantly increasing Cinclant's capability for ensuring continuity of operations in the execution of strategic nuclear war plans.

In spite of the shortfalls noted above, the overall readiness of the Atlantic Command forces has remained constant over the past years. Also, Cinclantflt was able to deploy an impressive augmentation force to US Cinceur during the Middle East conflict last year and for the mine-clearing operation in the Suez Canal which followed. Some problem areas were noted, however, particularly during the past 2 years, when it has been necessary to increase the level of naval units deployed to the Mediterranean in order to help counter the Soviet presence in that area.

Furthermore, the material condition of some of our surface ships continues to be a problem. It is aggravated by the shortage of enlisted supervisory personnel to provide routine preventative and corrective maintenance, and by the fuel crisis and increase in fuel prices which have necessitated a curtailment of fleet operations. This, in turn resulted in inadequate opportunities to conduct at-sea exercises, type training, and individual ship exercises with a consequent degradation in training readiness.

In addition, our Navy has lagged behind the Soviet Union with respect to surface-to-surface weapons, but it is anticipated that a significant improvement will be realized with the introduction of the Harpoon.

Because of budgetary problems and inflation, antisubmarine warfare systems are not being upgraded as fast as they could be. Support of essential fleet training operations and base support requirements has been highly diminished. Substantial FY 1975 shortfalls in ship, aircraft, and base operating funds could have serious short- and long-term effects. It is anticipated that inflation and the cumulative effect of funding shortfalls in FY 1975 will negate the prospect of any substantial improvement in fleet mission readiness in FY 1976. In addition, personnel deficiencies continue, with serious shortages in certain ratings, particularly in the middle pay grades E–4 through E–6 of the electronic warfare and tactical missile technician and engineering rate areas.

Strategic Problems

From the beginning of NATO, we have proceeded on the basis that NATO Alliance would be able to control and use the high seas; and up to the present we have planned on the ability to carry out, more or less simultaneously, the full range of Cinclant/Saclant tasks, such as the conduct of operations to gain control of the sea; to contain the threat posed by Soviet nuclear-powered ballistic missile and attack submarines; to deal with Soviet surface forces; to protect the transit of the combined amphibious force and strategic reserves; to defend the Iceland Command, and finally, to defend merchant shipping carrying economic cargo essential to the Alliance.

Reinforcement of Europe will depend on our first getting the submarine threat under control. This reinforces the Secretary of Defense's urgent action to have our NATO allies upgrade their conventional forces, including their maritime forces, which are essential as a complement to our own, and highlights the problems associated with reduction of prepositioned equipment required by a reduction in support personnel.

THE AMERICAS

Latin America Background

The countries of Central and South America remain important to the United States. The extension of unfriendly foreign influence into this area or use of the area by hostile forces would endanger US security. The proximity of the United States to Latin America, particularly Central America and adjacent waters, makes it an area from which a wide range of military actions, including strategic attack, could be launched against the United States.

Some threat to US security interests is already posed by the regime in Cuba. Soviet naval and air activity in the Caribbean, and an increasing tendency toward confrontation with the United States in several other countries, add to the potential threat. Despite some notable failures in efforts to export revolution through guerrilla warfare, Fidel Castro probably will provide limited support to selected leftist insurgencies in the region. Cuba, in addition, poses a poten-

tial threat as a source of supply, training, money, and perhaps personnel for subversive and insurgent activities in Panama. This prospect, in turn, would cause security problems for the Canal.

Regional Overview

Change continues to be the hallmark of Latin America; change characterized in part by a new regime in Chile, escalating terrorism in Argentina, and extensive arms purchases by Peru, including some from the Soviet Union. The past year has been a period of impressive economic growth for some Latin nations, but for others it has simply been another year of struggle to keep up with the increasing requirements of a growing population aggravated by escalating world inflation.

Nationalism continues to set the political and economic framework for the area's foreign policies. The Latin Americans often regard the US presence as overwhelming. Thus, we have become the natural target for much of their nationalistic sentiment. Increasingly, they are pursuing more independent foreign policies and are more and more unwilling to align themselves with the United States as in the past. Furthermore, US rapprochement with the PRC and the process of detente with the USSR has led Latin American neighbors to reassess their relationships with all Communist countries, particularly Cuba.

One element remains strongly in US favor, however, and that is the rapport between representatives of the US Armed Forces and the Latin American military. A wellspring of goodwill towards the United States seems to exist within the Latin American military fraternity, which more often than not comprises the leadership of the governments in these countries. Against this backdrop, it would seem to be prudent to relax existing restrictions on foreign military sales to Latin America and continue to extend selective military assistance within the region in support of US policy objectives. It is apparent that Latin America's geographical proximity to the United States, its economic potential, and its existing commercial relationships with the United States make it an area of prime strategic significance.

The Threat

US interests and objectives in Latin America continue to be threatened by both internal and external forces. The principal external threat is posed by the USSR, whose naval and air assets, when deployed in the Caribbean, could threaten the Panama Canal and important shipping lanes. Soviet efforts indicate a long-range policy of building its following in the region while undercutting US interests whenever the opportunity arises. The Soviet Union does not possess currently the capability to embark on military aggression in the region; however, the USSR can be expected to make inroads in the form of arms sales as Latin American nations press for modernization of their armed forces. Following serious defeats in its attempt to export revolution, Cuba, with USSR support, now has adopted a policy of attempting to capitalize on anti-US sentiment prevalent among several of its fellow Latin American conutries. This effort has been well received, and Cuba's goal of breaking out of its isolation has been partially successful. Venezuela's reestablishment of diplomatic relations was the latest gain along these lines. Panama's earlier recognition of Cuba may present a challenge to the future security of the Canal.

Accomplishments and Problem Areas

Our influence has been greatly enhanced by our contribution to improve professionalism by the Latin American Armed Forces. Progress toward the goal of self-sufficiency through our continued emphasis on developing managerial and logistics expertise within the Latin armed forces has been the objective of the US advisory groups. Furthermore, US Forces, particularly the US Navy, continue to conduct joint exercises with the armed forces of the Latin American republics. Combined antisubmarine and amphibious exercises are held off those countries and in the Caribbean training area. The Inter-American Treaty of Reciprocal Assistance (1947 Rio Treaty) commits the US to participation in hemispheric defense efforts. Additionally, the US has bilateral common defense agreements with 11 Latin American countries and participates in the Central American Defense Council through the day-to-day working agencies. Furthermore, humanitarian efforts in the field of disaster relief, civic action, and search and rescue continue to record important gains for the United States in the region. Following the pattern of efforts in Peru and Nicaragua, US Forces responded in the past year with relief efforts in Colombia and Honduras, particularly in mitigating the effects of the recent Honduran hurricane disaster.

Probably foremost as a general regional problem is the continued uncertainty among the Latin American countries with respect to current and projected US policy. The US ought to give more visible support to its often-voiced general statement that Latin America is important to the United States. The Panama Canal, of course, warrants special emphasis by virtue of its strategic importance.

Throughout Latin America it is apparent that there is an intense desire on the part of individual governments to modernize their armed forces. This is in consonance with the basic thrust of nationalism. Within this context it is significant that except for a handful of smaller nations, grant materiel has been supplemented by FMS or commercial purchase. The few grant materiel aid countries are in the process of shifting to FMS or commercial acquisitions as permitted by their budgets. Whatever the arrangement, it is clear that security assistance is regarded by the republics of Latin America as a basic and highly important element in their relations with the United States. The countries continue to manifest the desire for responsive security assistance programs and for strengthening of the military ties that have united their forces with those of the United States over the span of many years. It is heavily in the interest of the United States to support this desire through expanded FMS credit and retention of selective grant aid, both materiel and training. Such support would constitute a sound and reproductive investment in furthering US-Latin American relations, both political and economic.

North America

Our 2 contiguous neighbors, Mexico and Canada, represent the ideal relationship between neighbors, which is to live distinct from, but in harmony with, each other. Mexico, one of the most highly developed countries in Latin America, flanks the maritime lines of communication between US ports and the Panama Canal as well as connects the US transportation network with numerous lines of communication with Central America. Canada's military importance to the United States stems from its geographic location on the great circle air approaches to the United States from the USSR, its role in North American defense, including partnership in NORAD, and its membership in NATO.

Alaska

Alaska is of major importance and significance. Although not contiguous to the Continental United States, it is important due to its strategic location; its close proximity to the USSR; and its natural resources, particularly its oil fields. All of this makes Alaska a probable military target in connection with any attack upon the principal targets in the United States.

The Forces remaining in Alaska today are adequate only to provide warning, limited aerospace defense, and minimal deterrence to Soviet military adventurism. The deficiencies are particularly apparent in the failure to capitalize upon the training opportunities which abound in Alaska. The opportunities are in danger of being ignored or forgotten in the attempt to save training dollars as the US military remains largely warm weather-oriented.

Because of Alaska's remoteness from CONUS, its proximity to the USSR, and the demands for unity of effort during peacetime crisis operations or in time of war, contingency plans for Alaska must articulate clearly the means of command and control within the region in order to provide for quick responsiveness to national level direction.

ASIA/PACIFIC

Strategic Importance

The Pacific side of Asia needs no introduction to the American people. Three times in the last 35 years the United States had made tremendous investments in blood and treasure in the interest of the right of individuals and the countries they live in to determine their own destiny, free from external force.

This area is a source of many of the raw materials, such as oil, iron, coal, tin, rubber, and many others, upon which modern civilization is dependent. Economic and political demands, unrest, and uncertainty are increasing. In nearly all cases, significant quantities of imports, particularly oil, are required to keep the wheels of progress turning.

This is the arena where the interests of 4 major powers—USSR, Japan, PRC, and the United States—converge. The power and influence of this vast area, with approximately two-thirds of the world's population, will have important impact on the global balance of power.

The area has great potential for growth; but, additionally, great potential for conflict. Peace is still incomplete after 2 long and bitter wars, and insur-

gencies, often with foreign support, continue to harass many nations which, more than most, require relative security and freedom from external threat to develop according to their individual desires and capabilities. While we have removed US personnel from the conflict in Southeast Asia, peace is not present.

In addition to our significant economic ties to the area, we have linked ourselves to a number of countries—Japan, Korea, the Republic of China, and the Philippiness—with bilateral defense treaties.

U.S. Mission

U.S. policy, in recent times, has been to promote stability in this large and complex area. A credible U.S. commitment is important for this effort. Serious international confrontations could occur if regional stability were to deteriorate seriously and tempt outside powers to seek greater influence or dominance. Our specific policies must adapt to daily realities, while at the same time, continuing to serve our long-term objectives.

Our primary policy objective continues to be to maintain a stable military and political balance in Northeast Asia and to seek an end to hostilities in Southeast Asia without sacrificing opportunities for a peaceful political outcome in South Vietnam, Laos, and Cambodia. Japan, because of its size, political and economic strength, and close relationship to the United States is key to our policy in Asia. Retention of close security ties with Japan continues to be an important objective of our defense policy. More specifically, our policy is to encourage Japan to maintain military forces adequate for the defense of the Japanese Islands against air attack and seaborne invention, and to develop an ASW capability complementary to our own.

In Korea, the presence of modest American forces is now appreciated by the major powers as a stabilizing element, not only in preventing a renewal of hostilities between North and South, but obviating any further clash of major power interest over this strategically important piece of terrain. At sea, our mission has taken on additional importance with the growth of both Soviet and Chinese naval capabilities and the dependence of Japan and other allies on the movement of oil from the Middle East. In addition to protecting our own and our allies' interests in these areas, we will continue to honor our other treaty commitments in Asia and provide a nuclear shield.

The Threat

The principal military threats in the Asia/Pacific region are those emanating from the Soviet Union and the Peoples Republic of China. Of the two, that posed by the Soviet Union is the more serious in that the Soviet Union has a more powerful and technologically advanced military capability than does the PRC.

U.S.S.R.

The Soviet naval force consists primarily of strategic submarine weapons systems capable of being targeted against the United States. Additionally, it consists of strong sea denial forces in the form of general purpose air, submarine, and surface ship elements. The Soviet air threat consists of some 1900 combat aircraft and approximately 1000 transports and helicopters.

Most of the 18 divisions and 2 brigades in the USSR–Far Eastern military district are oriented towards the PRC. It is unlikely that the Soviet Union would consider deploying its strength from this position on the Chinese frontier in other than emergency situations.

Soviet strategic offensive missile forces in the Far East consist primarily of ICBMs. Obviously, all ICBM launchers in the USSR are capable of being retargeted to cover Far East targets.

Since the Soviet Union is the only power which has the potential to significantly challenge the United States militarily at this time, we must consider the power of the Soviet Union as our primary military concern. Fortunately, the current detente with the USSR, and the Sino-Soviet rift, lessen the probability of overt conflict with the USSR in Asia.

PRC

Although the PRC perceives the Soviet Union as her major adversary, she classifies both the US and the USSR as imperialists. While the PRC has only a limited capability for deploying its forces for any extended distance beyond its borders, it can be expected to rely on the impact of its growing nuclear capability as a means of projecting its influence throughout the region.

The PRC ground forces, totaling over 3,000,000 actives, are the largest in the world; are expanding their armed units; and are taking steps to modernize equipment, logistics support capabilities, and command and control techniques. The PRC navy is basically a coastal defense force. While it is acquiring a limited offensive capability in the form of its substantial and growing fleet of conventional attack submarines, it is highly restricted in its operational scope at this time. The PRC air force is composed of both air defense and tactical aircraft. Although large in numbers, the air force is equipped primarily with older model Soviet-designed airplanes and has only a very modest all-weather capability. The PRC is believed to be developing a modern supersonic all-weather fighter interceptor.

Other Threats

While the USSR and PRC pose the primary strategic threat in this area, we should continue to be mindful of the local insurgencies and threats to political-military stability which affect many of our allies.

These include the continuing pressure on the Republic of Vietnam (RVN) by North Vietnam (DRV); the uneasy peace in Laos; the internal attack of the Khmer Communists in Cambodia; potential for insurrection in Burma; insurgency in Thailand and Malaysia; the Muslim problem in the Philippines. The recent nuclear explosion in India cannot be ignored. To deal with these problems, the United States looks primarily to the countries involved, but also to other allies.

THE MILITARY BALANCE

United States

To defend its interests and to meet its treaty commitment in the Far East, the United States maintains limited, but potent, forces deployed in East Asia and the Western Pacific. By the end of FY 1976, Air Force tactical squadrons are planned to decline from an FY 1974 level. Ground troops deployed beyond Hawaii will consist of 1 Army division in Korea, and two-thirds of a Marine amphibious force in Japan. Our Naval forces consist of 3 carrier task forces and 3⅓ patrol squadrons. By the end of FY 1976, we plan to deploy approximately 152,800 military personnel in the area.

Japan

On the allied side, Japan remains our most important friend in the region. Asian peace and stability depend to a great degree on the character and direction of Japan's political and economic evolution. Inflation has plagued Japan, however, and could slow down the development of her self-defense forces. It is in our interest to encourage Japan to build on our common interest for peace and stability by maintaining forces adequate for the defense of the Japanese homeland and contiguous areas.

Korea

With respect to Korea, the outlook suggests little change on either side. North Korea remains a military threat, but has no overall clearcut military advantage. It is difficult to predict, but moderation, dialogue, international pressures, and self-restraint probably will continue to avert major hostilities in Korea. US Forces in Korea remain an important stabilizing influence to Northeast Asia and will remain so for the foreseeable future.

Vietnam

The continued life of the RVN is linked directly to continued US economic and military assistance. A secure RVN would contribute significantly to stability in Southeast Asia. The probability of the DRV's causing the RVN's collapse through political and clandestine warfare is decreasing; however, the NVN's constant attacks, steady buildup of war materials in the south, and generally increasing offensive make it essential for the United States to provide the RVN with the means to defend itself. The alternative to sufficient military and economic aid is the eventual collapse of RVN. We have scrupulously abided by the Paris Agreements, while North Vietnam has consistently violated its provisions, including full disclosure of the fate of our more than 1300 missing in action.

Cambodia

In Cambodia, the Khmer Republic continues to survive, but under increasingly perilous conditions. The Khmer Government has offered to negotiate a peace

settlement, but the Khmer Communists have not been receptive. Neither side has shown the capability to wage a decisive military campaign, and so the conflict drags on. Without some modest level of continuous US assistance, the Khmer Communists will have no real incentive to open negotiations.

Thailand

Thailand continues to be a friendly and valuable ally, but Thailand is observing carefully the outcome of the war in the RVN and Cambodia and is scrutinizing US actions in Southeast Asia. Thailand is already showing evidence of adjusting some of its policies to the changing political climate in the region. Thailand's primary military concern is vulnerability to attack by the NVN through Northeast Thailand. In the meanwhile, she continues to fight the persistent insurgency centered there.

Republic of the Philippines

The Republic of the Philippines faces a continuing struggle to become a strong and modern nation. Insurgency in the south hinders her progress. The Philippines and the United States continue to have strong ties and benefit mutually from our security relationships.

Problem Areas—Requirements

Current US forces in the Pacific would require rapid augmentation from outside the theater if a major war occurred. Considering the vast geographic area involved, strategic mobility is a vital problem. We must be capable of moving and supporting forces in response to threatening situations. A shortage of amphibious shipping continues to be a major problem. Accordingly, it is essential that we maintain our forward deployment and bases. US ground forces in Korea and Okinawa, the Seventh Fleet, and our deployed tactical air forces help deter aggression and reassure our allies that we intend to live up to our treaty commitments. Military power in plain sight, close at hand and ready to fight, greatly influences perception on both sides. Any changes we make in the size and location of our forces anywhere in the Pacific will be taken as indicators of US intent.

We should not hastily cut back our military forces and bases in the Pacific. We need to continue our forward deployment strategy and security assistance. These are the positive steps which will promote growth and suitable evolutionary change, and in the final analysis, are in our best national interests.

Middle East/Africa/Indian Ocean

The Middle East today stands as the area where the potential for military conflict is the greatest. The Middle East is strategically important because of both geographical and geological factors. As the corridor connecting the Eastern Hemisphere's 3 major continents, it is perhaps the most notable area where the interests of the major powers converge. In addition to its strategic geographical importance, the Middle East has economic importance because of petroleum resources, so important to the US and indispensable to her allies. Control of this area by any single power or by a coalition of powers opposed to the United States could threaten Western military security, economic viability, and political stability.

Middle East oil is not only essential to the land, sea, and air forces which support US defense commitments, but also to the general economy of the United States and her allies. Seventy-five percent of Western Europe's oil requirements and 85 percent of Japan's must be imported from the Middle East. These requirements cannot be met from other sources. Thus, these major US allies, and to a significant extent, the US as well, will continue to be dependent on Middle East oil for the foreseeable future.

U.S. Mission in the Middle East

US policy in the Middle East continues to be directed primarily towards maintaining peace and stability in the area, obtaining a just settlement of the Arab-Israeli conflict, and preventing hegemony by the Soviet Union or any other power with interests adverse to the United States. In addition, we continually are mindful of our national commitment to the survival of Israel. Our programs in the Middle East have reflected an awareness of the myriad complex factors which influence the attitudes and interests of the many countries of the area. Recent initiatives to increase cooperation between the United States and the governments of Iran and Saudi Arabia in economic, military, and technological

matters are indicative of our overall efforts to enhance the security and development of the area.

By means of our balanced military assistance programs with several countries in the area, and the resultant military relationships we have established over an extended period of time, we seek to improve stability in the Middle East.

Middle East Threat

In addition to the danger inherent in the continuing Arab-Israeli conflict, are concerned about the activities of the USSR in the Middle East. The Soviet Union has a great deal at stake in the Middle East, and can be expected to capitalize on opportunities to increase its influence in an area. If a permanent resolution of the major disputes in the Middle East, foremost of which is the Arab-Israeli problem, is not found, the Soviet position is likely to be further enhanced, especially in Egypt, Syria, and Iraq. While Soviet attempts at political influence with individual states in the Middle East have met with only limited success to date, they have resulted in improved relations with the Peoples Republic of Yemen and with the Somali Democratic Republic, across the Gulf of Aden. The USSR may still be expected to try to reduce Western presence and influence in the region, although we expect they will seek to avoid any direct military confrontation with the United States. It is more likely that the Soviet Union will continue to resort to covert techniques of subversion, economic and military aid programs, and exploiting of lower risk opportunities.

U.S. Forces in the Middle East

The United States maintains very limited forces in the Middle East. Only the Middle East Naval Force of 2 destroyers and a command ship are permanently stationed in the area.

Strategic Importance of Africa

The vast African Continent has become of increasing importance to the United States and could provide significant challenges to the US' strategic interests in the future. Our primary military focus remains on the Mediterranean littoral states because of their location along NATO's southern flank.

Further south, in the Horn of Africa, our strategic interests stem from its geographical relationship to the LOCs to the Indian Ocean and Persian Gulf. Elsewhere in Black Africa, we are primarily concerned with air and sea routes and the area's vast raw materials that are becoming increasingly important to the industrial world. This neglected area could take on increasing importance in the years to come.

U.S. Mission in Africa

The US military presence in 5 countries of the Continent is related directly to our Security Assistance programs. These small programs are designed to ease arms imbalances and to foster favorable bilateral relationships. The service-to-service rapport we have developed is proving very beneficial. As a result of increased Congressional restraint on worldwide funds, most grant aid programs have been phased out. Legislative restrictions against the use of grant of credit funds for providing sophisticated equipment also have had direct implications on our arms supply program for Africa. Since many emerging African states have been turning to the United States for help, the present constraints have made it difficult, if not impossible, to render such assistance, and our efforts have been undercut by the easy availability of arms from other sources.

The Threat in Africa

The USSR and the PRC have shown considerable interest in the African Continent, with both apparently seeking the same principal long-range goals of weakening African links to the West and encouraging African nations to identify with the Socialist Movement. The Soviet Union has been notably successful in its efforts to establish a foothold on the eastern coast of Africa in Somalia. Soviet technicians, advisors, and military personnel work closely with the Somali Government and military at all levels. In addition, there is a permanent Soviet naval presence at the Somali port facility of Berbera, and recently the USSR has delivered MIG–21 aircraft and missiles to Somalia as well. On the west coast of the Continent, the USSR has acquired access to a port and airfield in Guinea and, since mid-1973, has occasionally deployed long-range aircraft to Guinea for mari-

time reconnaissance over the Atlantic. The Soviet Union also has extended military aid to 15 Black African countries.

The PRC currently has extended almost $90 million in military aid to 11 Black African countries of which some $62 million has been concentrated in Tanzania, where many of the liberation groups have their training camps. Of the approximately 1000 PRC advisors and technicians in Africa, most of them are in Tanzania.

Military Forces in Africa

The military personnel who support our communications facilities in Morocco and Ethiopia, the personnel associated with our Military Assistance Advisory Groups, satellite tracking stations, and Defense Attaches represent the only US military presence in Africa. This presence is very small and is one of low visibility. The intermittent port calls by US naval vessels and occasional military aircraft transits provide the only other military contact with African countries.

Special Problems Relevant to Africa

Although there is no serious external military threat to the African countries at this time, aside from the Arab-Israeli conflict, the dispute which could lead to further conflict on the Continent exists between Ethiopia and Somalia, and it is likely we will see an increase in the growth of insurgencies against the white regimes of southern Africa.

Strategic Importance of the Indian Ocean

The Indian Ocean derives its importance from its geographic location and the LOCs running through it. The United States desires to promote and maintain the status of a leading world power sincerely interested in world peace and is committed to the peaceful pursuit of its national interests. We attempt to avoid major power confrontation with the USSR, but to maintain transit rights and the security of lines of communication which support US interests in contiguous areas.

Indian Ocean Threat

Soviet presence and influence in the Indian Ocean have increased since 1968. No major external power has predominant influence in the area, but the interests of several major powers extend into it. It is apparent that the Soviet Union intends to remain in the Indian Ocean. Its naval presence enhances its influence. The Soviet presence includes combatants, air transport, mine sweeping, auxiliary ships, and facilities, as well as scientific research and merchant shipping.

There are differing views as to whether the opening of the Suez Canal, anticipated sometime this year, will result in an increase in Soviet presence in the Indian Ocean. What we can say for certain is that the opening of the Suez Canal will greatly facilitate the resupply and reinforcement of any naval forces which the Soviet Union operates in the areas of the Red Sea, the Persian Gulf, the Arabian Sea, and the Indian Ocean. The distance from Odessa, on the Black Sea, through the Dardanelles and the Suez Canal to Soviet anchorages near the Island of Socotra (belonging to the Peoples Democratic Republic of Yemen) is 3155 nm; to make the same trip around the Continent of Africa would require a distance of 10,715 nm.

The British and French also operate naval units in the Indian Ocean. We welcome this presence. Our presence, although considerably less in numbers than the Soviet effort, demonstrates our continuing interest in the area and our concern that it not be dominated by any outside power.

Since 1971, three UN General Assembly resolutions have declared the Indian Ocean as a "zone of peace," and since 1973, and ad hoc committee of the General Assembly has been set up to study the implications of an arms race in the Indian Ocean. The matter continues to be an active issue.

Political stability in a number of countries is likely to be a continuing problem during the mid-range period as a result of the increasing popular expectations of economic advancement and the inability of existing governments to satisfy many of these aspirations. Increasing anti-Western sentiments could jeopardize the Western presence in the area.

Should any of these special problems require naval presence, US forces, other than the Middle East Force, must come from the Atlantic or Western Pacific. Accordingly, because of the long distances involved, it is necessary to secure bunkering and limited support from friendly countries in the area. The modest

expansion of the Diego Garcia facilities proposed by the President will alleviate most of this problem without the establishment of a major base.

With Britain's almost complete divestiture of her once mighty overseas military presence, and with the pullback of most of the British forces east of the Suez, British influence in the Indian Ocean has diminished substantially. The UK 1974 Defense Review has proposed, in addition to reduction of operating forces, the closing by 1976 of the RAF staging Air Base at Gan in the Republic of Maldives and the Royal Navy Communications Station in Mauritius. The United States, with France, will be the only Western Powers with forces in the area. We will maintain an enhanced and frequent naval presence in the area in order to demonstrate a balance to Soviet naval strength. The US presence is important in balancing Soviet attempts to consolidate their influence in the Indian Ocean by providing evidence of US interest to the nations of the Indian Ocean littoral.

Unified Command Structure

Prior to concluding this regionally oriented global analysis, it may be helpful to discuss in broad terms the basic objectives of the intensive review of our command structure, which is now being conducted. First, we recognize that our interests are global, and that fact alone makes all commands and regions interdependent. Second, there were lessons learned in both the Southeast Asia conflict and the Middle East crisis that should be incorporated in the structure. Finally, management and command effectiveness should be subjected to continuing examination. The creation of a peacetime posture which is compatible with the requirements of an immediate and smooth transition from peace to war or other contingency is a prudent risk. Simplification of headquarters structure and manpower economies are the underlying rationale. This effort is designed to produce a more streamlined, austere structure. The manpower savings thus achieved will permit increased combat power.

Other Factors Bearing on the Balance

The number of factors impacting on the relative strategic balance is virtually limitless. They run from the obvious static measures, such as megatonnage, through such qualitative functions as weapons' accuracy to imponderables like the morale of a nation's population. All are not capable of measurement. Some are not capable of comparison. There are, however, 3 functions which appear particularly relevant. The discussion that follows will deal briefly with the facilities, equipment, and communications available for the planning, directing, and controlling of military operations; the relative capabilities of the Forces of the United States and the USSR to move from place to place while retaining the ability to fulfill their primary missions; and the comparative efforts and capabilities of the research and industrial programs of the United States and the Soviet Union in support of national military objectives.

Command, Control, and Communications (C^3)

Command, control, and communications are the connecting links between national strategy and the actual employment of military force by operational commanders. These are the instruments which translate decisions into action. Development of the C^3 capability for normal peacetime command and control, for crises management, and for conflict control has been a continuing effort within the Department of Defense. In our earlier efforts, we concentrated on C^3 for massive strategic nuclear war. We now are implementing follow-on decisions—as reflected in the policy enunciated by Secretary Schlesinger last year—which retains the C^3 objectives required to respond to massive strategic conflict, but also provides for implementing flexible response options. We previously stressed the characteristics of responsiveness and survivability; we are now adding the characteristic of flexibility.

Our C^3 capability must give commanders at all levels for all types of forces the means to apply force with reason and restraint. It must provide our national leaders a means to perceive strategic and tactical warning so that they can develop appropriate precise responses. If conflict should ensue, our leaders must be able to discriminate available response options and to direct the desired mix of forces to deny the enemy his objectives. They must be able to assess accurately damage to our own forces, as well as to the enemy, and to adjust our activities to these assessments. These functions are performed by the interaction of com-

mand centers, sensors, data processing, communications facilities, personnel, and procedure, which we call the Worldwide Military Command and Control Sytems or WWMCCS.

The priority component of the WWMCCS is the National Military Command System (NMCS), which supports the National Command Authority. It provides the national level command and control of our strategic and general purpose forces and provides our attack, strike, and damage assessment capability.

Our plans and procedures are being revised to implement new strategies and tactics as they are developed. Data processing support for our commanders is being upgraded. We are striving to provide more timely and meaningful information to decision-makers at all levels. We hope to standardize data bases and software, as well as to interface further the European Command C^3 system with the NATO system. Reporting procedures will be streamlined so that more data can be captured at its sources in machine-readable form. Coverage by our sensor system should be expanded. Satellite communications support needs to be expanded to provide more terminals for our forces and greater capacity in our satellites. A good framework for most of these programs either exists or is well along the way in development. We continue to stress research and development for new capabilities at the present time and will procure equipment when we are ready to incorporate the general purpose forces into our new plans.

Our goal is to achieve maximum effectiveness in the employment of our forces, providing our national leaders and commanders the means to perceive danger, to analyze its impact, and to employ our forces at their full combat potential. In this way, our potential adversaries will perceive that our forces are able to discreetly respond to any threat of aggression.

The Secretary of Defense has dealt at some length with our C^3 program and systems. I will, therefore, limit my remaining discussion of this topic to the Soviet system with only a few comments as to ours.

Soviet Command and Control

The decision to employ Soviet military power rests with the 16-member Politburo. In the event of a national emergency, military decisions could be expected to be made by the Defense Council, which includes party General Secretary Brezhnev; President Podgorny; Premier Kosygin; and Marshal Grechko, Minister of Defense. In extreme emergencies, the party General Secretary probably would assume his wartime role of Supreme Commander in Chief and make critical decisions himself.

Significant advances in Soviet command and control technology have been made during the past few years, and these subjects are expected to continue to be given high priority status during the 1975 to 1980 time period. The command-control-communications systems at the disposal of the Soviet Armed Forces are extensive and modern. An idea of the size and magnitude of the Soviet command-control-communications system can be appreciated from the fact that thousands of sites are distributed over an area twice the size of the United States, from Eastern Europe to the Pacific Ocean. When mobile platforms are considered, they would include command-control-communications ships such as *Zhdanov* and *Admiral Senyavin* of the *Sverdlov*-class command light cruisers as well as airborne command posts and trawlers.

The Soviet command and control system is exercised frequently and realistically in multiforce exercises.

Survivability

By far the most significant aspects of Soviet command and control systems are the tremendous comprehensiveness and diversity being developed and deployed to ensure the survivability of those systems. Most of these efforts are to ensure the survivability of both personnel and equipment.

Survivability is achieved through various means such as dispersal, redundancy, hardness, concealment, mobility, as well as through the sheer number of facilities. Besides having many facilities that are dispersed and redundant, the Soviet Union, in addition, began a program in the 1950s wherein important command-control-communications centers were constructed to withstand nuclear attacks. Hardened headquarters have been dispersed throughout the Soviet Union, Eastern Europe, and Mongolia. The first echelon command-control-communications centers of the Soviet Government and Armed Forces at a national level are dispersed within an 80-mile radius of Moscow. The hardening program already has been accomplished for the strategic forces and is continuing.

The modular technique also is being used in the hardest, presumably manned, command and control facility to date.

By comparison, hardened underground facilities provide local launch control for our Minuteman missiles. These centers are clustered 5 per squadron of 50 missiles.

Redundancy

Redundancy is a major method by which the USSR seeks to assure C^3 survivability. There is not only a redundancy of command centers to assure continuity of control of armed forces, but also a redundancy in communications means and modes.

The basic principles of Soviet Command and Control doctrine for global multiforce strategic and general purpose operations emphasize centralization of control, flexibility, and survivability. Utilizing the General Staff of the Ministry of Defense as agent, the Soviet "National Command Authority" is able to rely on a highly redundant and sophisticated communications network to pass messages to its military commands. A series of airborne and alternate command posts improves both flexibility and survivability of the system under all circumstances.

Airborne Command Posts

Survivability of the command function is enhanced by the airborne command post in its role as an alternate command center because it is mobile and can be dispersed to different locations to serve as an alternate communications means in case of jamming or destruction of ground-based facilities.

Soviet airborne command posts are active during exercises and crisis situations. As the system evolves and as the Soviet Union's communications and computer technology progresses, the airborne systems management facilities and role probably will increase.

Alternate Command Posts

Redundancy of Soviet command-control-communications facilities also is achieved through the establishment of main and alternate command posts and in some forces, forward and rear command posts. The alternate command post is a duplicate of the main command post and is prepared to assume control should the main command post be neutralized. The rear command post is used to control logistical and administrative functions. The forward command post is established when the command is moving.

The major national telecommunications complex is known as the Unified Communications System. In the event of an emergency, the entire system could be readily converted into a nationwide military communications complex. Modern telecommunications engineering concepts stress flexibility, survivability, and reliability of the system to meet national military command and control requirements for continuous telecommunications operations.

AUTOMATION

Automation of Soviet command and control is evolving slowly. The Soviet Air Defense Forces represent the greatest operational usage of automated systems. Command and control of the Moscow ABM system probably represents the highest level of automation in their military forces. It is estimated that the Soviet technological capability in terms of computers and peripheral data processing equipment is adequate to support this limited weapon system.

Communications Satellites

The predominant communications satellite used in support of military command and control has been the Molniya I system in the ICBM forces.

Since the mid-1960s, when the first Molniya I was launched, the Soviet Union has continued to improve its communications satellite program. Satellite communications have the advantages of not being affected by terrain, of giving quick communications from around the world, and of allowing communications with areas that normally are isolated.

Within the last 5 years the Soviet Union has launched the improved Molniya II and Molniya III systems and a stationary Molniya. All 4 systems are capable of being used for military command and control. The Molniya I/II and stationary military ground sites are deployed at many major headquarters throughout the Soviet Union and stations are beginning to be deployed in East Europe.

In addition to the Molniya systems, the Soviet Union has orbited single payload communications satellites, and multiple payload communications satellites.

STRATEGIC MOBILITY

The red and blue maps of containment have been shelved, and the multihued charts recognizing new centers of interest and power have been substituted for them. In a polycentered world, the geopolitical differences between the United States and the USSR take on increased importance. Simultaneously a European and Asian nation, the USSR consists of a massive heartland contiguous to most of the world's major powers. On the other hand, the United States is separated geographically by vast ocean space. Unless we continue to develop and maintain the capability to rapidly move forces and supplies, we will be required to preposition sufficient resources to deter aggression. It will be necessary at every point where our vital interests intersect with another's ability to exploit militarily social, economic, or political turbulence.

In each of the regional analyses previously presented, I emphasized the requirement to reinforce and resupply. A principal element in the deterrent capability of our forces is our ability to augment our forward-deployed forces in a timely fashion.

The Soviet Union continues to place less emphasis than the United States on the development of heavy military transport, undoubtedly as a result of the geographical factors noted earlier. Nonetheless, its capability is significant. It operates AN–22s (COCK) in regimental service. This aircraft, powered by 4 turboprop engines, provides the USSR with the capability to transport bulky heavy equipment. Twelve large wheels on the main landing gear permit operations from semi-prepared surfaces. Production of this aircraft is believed to have ended in 1974. The IL–76 (CANDID) entered the Soviet operational inventory for the first time this year. Series production began in 1973. This is a long-range cargo transport with 4 turbofan engines. At present, only the COCK is assessed as being capable of transporting the T–62 tank. Complementing the strategic lift are AN–12 (CUB) aircraft, which are used for both strategic and tactical airlift. Follow-on replacements for the CUB and the COCK are postulated with an IOC of 1980–81.

The US active airlift force is composed of 70 C–5s, 234 C–141s, and approximately 272 C–130s. The 4 squadrons of C–5s and the 13 squadrons of C–141s have an equal number of C–5 and C–141 reserve associated units which do not have any aircraft of their own. These associated units are colocated 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.

Any comparison of Soviet Union and US airlift forces must not only consider the total airlift force, but the nature of their missions. The number of aircraft for the United States is 793, including Reserve and Guard C–130s, as compared to 730 for the Soviet Union.

The United States has substantially more airlift capability than the Soviet Union. Movement conditions, however, offset the US edge. For example, in a NATO contingency the distance from the Central Region to bases in the Soviet Union would be about 1500 nm, whereas the United States would have to airlift a distance of about 3500 nm.

The USSR has 7 airborne divisions. The US has only one comparable division.

The airlift capability with regard to passengers and bulk cargo—but not outsized cargo—can be augmented by the US Civil Reserve Air Fleet (CRAF) aircraft and Soviet Aeroflot aircraft.

The long-range commercial aircraft in CRAF include 74 cargo, 82 convertible, and 90 passenger aircraft. The actual number allocated would depend on the extent and nature of the defense needs, the total number of civil aircraft then available, and the urgency of non-defense needs. The Soviet Aeroflot aircraft available to supplement the military airlift include 1200 aircraft which will provide the inter-theater support required, thereby freeing military aircraft to fulfill tactical missions. About 25 percent of these can be used in a crisis situation without disrupting essential civil service. The US commercial fleet is composed of about 2300 aircraft with an unrefueled radius of 2500 nm.

We are seeking to enhance the CRAF by adding cargo nose doors to the 747 and DC–10 aircraft. This could require reinforcement of certain portions of the plane,

mainly in the cargo compartment floor area. We would have to compensate the airlines not only for the cost of these modifications and the time the aircraft is lost to service, but also for the cost of carrying the additional weight. Nonetheless, it is a cost-effective way to expand the airlift mobility force. The cost per 747 modification would be $7–12 million.

The critical importance of immediately available strategic airlift forces of sufficient capacity was demonstrated convincingly during the Middle East War of October 1973. During that operation, it became quite clear that the most serious weakness in our strategic mobility capability was in the area of transit overflight and base rights. The denial of these rights by Portugal, coupled with our lack of capability to aerial refuel our C–141s, could have been disastrous to Israel.

Our C–5s are physically capable of aerial refueling, and we now have fully trained crews. However, the C–141, which comprises approximately 75 percent of the strategic force and which flew over 80 percent of our sorties to Israel, currently does not have an aerial refueling capability.

The C–141 is dependent on overseas landing authorization and transit services for typical missions in excess of 3300 nm. The amount of transit time saved through an aerial refueling capability is negligible, but in terms of freedom of movement, it is considerable, particularly if base, overflight, or transit rights were denied us. Furthermore, it is economical. For instance, in the October 1973 Middle East War, if aerial refueling capability had existed, the same material could have been moved with 44 fewer C–141 sorties. Even by adding the fuel consumed by the tanker sorties, aerial refueling would have permitted a savings of 7½ million gallons of JP4 fuel or approximately $2½ million. Of course, a greater net cargo capability is provided by topping off cargo aircraft at altitude so that the airplane does not have to leave the ground carrying the fuel it must consume in flight.

Another limiting factor demonstrated during the Israeli airlift was that our C–141s were "cube limited." That is to say, in most cases, the cargo compartment was full even though the maximum weight had not been reached. These factors confirmed our prior independent analysis that an enhancement program for our strategic airlift fleet was imperative.

We seek funds to continue work on a prototype program to include strengthening of the C–141 to increase the volumetric capacity by 30 percent and by adding an aerial refueling capability to the aircraft.

Finally, we also are exploring a cargo/tanker convertible based on an existing commercial wide-body aircraft such as the 747, DC–10, or the L–1011. Tankers are the key to strategic mobility. Tankers are used to aerially refuel our strategic bombers, to refuel our tactical fighters, and to refuel our strategic airlift logistical flights. The tankers the "Achilles Heel" of the strategic air mobility concept. The current fleet of aerial tankers is not programmed for a replacement by any follow-on tanker. The existing fleet is aging and must eventually be retired. In the interim, we will invest in overhaul to extend the force life.

Sealift

Strategic mobility is not confined solely to airlift. The airlift capability is supplemented in both countries by sealift capability. While the movement of military personnel and their initial support requirements can be accomplished most expeditiously by airlift, the movement of the great volume of military resupply and the continuing support that would be required during the course of a war must be accomplished by sealift.

Overall, the Soviet merchant fleet of 1500 vessels of approximately 1000 gross registered tons is the world's fifth largest merchant marine fleet in number of ships and ninth in total tonnage. In contrast, the US fleet of 971 ships ranks ninth in total number, but the tonnage capability of these ships is the seventh largest in the world since US ships normally are larger than the Soviets'. The USSR has some 370 cargo ships and 112 tankers which are believed to be equipped and suitable for long-range military sealift. All are less than 20 years old, are capable of speed in excess of 14 knots, and have the needed heavy lift booms and hatch size. The United States operates 239 comparable ships and 162 tankers which could be utilized for similar military requirements. Unfortunately, these assets fail to meet total requirements in the event of a major contingency. To alleviate this problem in the event of a NATO reinforcement, provisions have been made for the early commitment of NATO flag ships to support US deployment and resupply to Europe. This combined fleet should prove adequate to accomplish the task.

The combined US commercial, Navy, and NATO tanker fleet ships are capable of meeting all wartime POL movement requirements. However, due to slow ship speeds and the relatively long distances involved as measured from POL contingency sources, early bulk POL product deliveries required for the support of tactical units cannot be ensured without a period of strategic warning. For this reason, we maintain prepositioned war reserve stocks at strategic locations to ensure a continuous supply.

In the initial phases of a NATO war, the function of general purpose naval forces will be to control the threat of a total Soviet submarine force composed of nuclear and conventional submarines, whose principal mission would be to intercept, detect, and destroy allied Naval forces and shipping. The Navy estimates that allied convoys to Europe would suffer high initial losses until the submarine threat could be reduced or attrited sufficiently so that surface sealift resupply could be accomplished within acceptable losses. This is a limitation on the concept of sea mobility. Tankers must move and be on the high seas at the peak of the greatest threat to surface shipping—the initial phase of conflict when the enemy submarines are plying the seas.

Soviet amphibious lift in modern 18-knot ships is available to transport troops of the Soviet naval infantry. This capability is expected to increase 25 percent by 1979. Presently, the US amphibious lift force has sufficient capacity to lift just over 1 of our 3 active Marine Corps Division/Wing teams (MAF), which includes about 39,000 troops. By 1978, the overall capability of US amphibious lift capacity will be increased to approximately 44,000 troops.

As we enter the last quarter of the 20th Century, the legal and political restrictions placed on freedom of mobility are changing the world and impacting on our strategtic mobility capability. Our position in international negotiations, such as the Law of the Sea, stresses, among other things, unimpeded transit through and over international straits. This principle or concept applies to surface movements as well as to overflight. Without this freedom, our mobility and logistic resupply in future contingencies could be impeded. Consequently, it is encumbent upon us to develop and maintain a balanced cost-effective strategic mobility capability.

To obtain ships to support our requirements, we currently must turn to the National Defense Reserve Fleet (NDRF), the Sealift Readiness Program and to the Military Sealift Command. Unfortunately, these sources do not appear capable of meeting possible requirements, particularly those of a minor contingency.

The NDRF is made up of a large number of World War II type vessels which are in a poor state of readiness. Due to their age, components and repair parts are no longer available. The situation is further aggravated by the shortage of trained personnel to crew the vessel once it is returned to serviceable condition.

The required vessels could be obtained through commitments made by US operators under the Sealift Readiness Program (SRP). There is considerable concern that these operators would lose some portion of their business to other domestic or foreign lines if their ships were taken off their routes for any substantial period. We are reluctant to utilize this program.

Of course, we also have the assets of the Military Sealift Command (MSC) available to use. The MSC fleet is in serious need of modernization since it contains a nucleus of vessels which are 30 years old. It is heavily utilized in its peacetime operations.

We are currently examining all possible alternatives which might provide this essential capability. Revitalization of the MSC fleet and the NDRF are distinct possibilities. In this regard, we are looking at the possibility of obtaining some 7 to 15 year old non-competitive breakbulk ships from US owners. In addition, we are looking at the SRP to see if it can be strengthened. We hope that our current study will permit us to move forward with an effective program in the near future. Mobility is a key element of deterrence.

RESEARCH AND INDUSTRIAL PREPAREDNESS

The US defense posture and its capability to deter aggression must obviously include research and industrial resources which represent the military forces of the future.

Research and Development

In the late 1960s, the Soviet Union adopted national policies to emphasize and encourage scientific creativity and to speed the incorporation of research

accomplishment into industrial production. The demand for greater scientific and technological progress to foster economic growth and military development has caused the acceptance of a limited degree of ideological compromise.

World preeminence in all important areas of science has become one of the principal objectives of the Soviet hierarchy and scientific community over the past decade. Science and technology are viewed as essential elements in the achievement of Soviet domestic and international goals.

The Soviet reforms, however, have not as yet succeeded totally. Measures to tighten the interface between science, technology, and production continue to meet bureaucratic resistance. Political expediency versus economic efficiency impedes the fundamental systemic change essential to economic exploitation of R&D achievement.

Nonetheless, the Soviet Union has mounted a technological offensive and has begun sweeping R&D management change that may, in the near future, assume major importance. The USSR's recent attempts to increase scientific and technical intercourse with the world's highly developed nations, as well as contractual relations with high-performance multinational corporations, are prima facie evidence of increased ideological risk.

In the 1971 USSR Academy of Sciences Yearbook, the Soviet Union sets the tone when it expressed this theme: "Scientific and technological progress will not slow down but conversely will be more accelerated. . . . Technological supremacy has become one of the more important platforms of competition of the two opposing systems (i.e., Capitalism versus Socialism)." The growing Soviet effort to achieve military technological superiority is a challenge to the United States.

Between 1962 and 1972, Soviet aircraft design facilities grew while missiles design facilities also increased. Missiles research facilities grew as did propulsion research facilities. Test facilities expanded for missiles/space activities, propulsion, and aircraft.

Along with the "brick and mortar" aspects of the facilities growth, the Soviet Union has not ignored the "people" side of the problem. Training of engineers to support national R&D continues to receive high priority.

Although the actual number employed in military R&D is unknown, the national engineering manpower base is more than adequate to support future military programs.

The Soviet Union's stated goal is to have, by 1975, 3.4 million technical specialists (roughly equivalent to US undergraduate degrees). By 1971, that goal was approximately 20 percent complete. The number of engineers graduated annually in the Soviet Union was over a quarter million by 1971.

The continuous roll-out of new aircraft systems illustrates the magnitude and continuity of the aviation industry R&D effort.

Over the past ten years, the number of aircraft engines reaching production status has averaged about 2 every 3 years, not including the variants which are direct fallouts of each design. The growth of these facilities has enabled the Soviet Union to exploit effectively all types of air-breathing engines—turbojets, turboprops, turbofans, and turboshaft engines.

Steady investment, emphasis on proven technology, and simplicity of design dominate the Soviet technology process. During the five-year period from 1970 to 1974, the number of ballistic missile launches in the Soviet Union exceeded those in the United States by at least 2 to 1. The trend reflects the growing difference in the relative size of the programs. The Soviet Union is exceeding the United States in numbers of launches in the ABM test program as well.

In the Soviet Union nuclear development program, both the civil and weapons-related efforts are characterized by sustained and significant growth.

The vigorous and extensive development program in nuclear marine propulsion and nuclear power systems has resulted in narrowing the technological gap. Many of the USSR's recent developments have significant military applications.

The final measure in security terms of the overall effectiveness of the Soviet R&D establishment is the impressive output of advanced military products. The deployment of major strategic and general purpose weapons systems, along with sophisticated munitions, radar systems, and electronic systems, vividly illustrate the progress the Soviet Union has made during the past decade. Projections of Soviet capabilities, based on its current research capacity and national determination to "overtake and surpass" the United States in scientific and military capabilities, give cause for great concern.

The R&D portion of the President's request will be presented in detail by Dr. Currie and the Military Departments. I would like to make only three points:

The strength of the US Armed Forces, present and future, is based in large measure on the wise use of our rapidly developing technology. If we cannot compete quantitatively, then we must remain a qualitative counterbalance.

From technology evolve the ideas and capacity for innovation without which we cannot face the future with confidence.

In the past, the oceans provided the protection which gave us the "time" to prepare our defense. They no longer serve that purpose effectively. Research, development, testing, and engineering are the oceans of the future; and if adequately funded, will ensure that we will have the "time" to meet and defeat any foreseeable future threat.

Industrial Preparedness

Industrial power and preparedness are also integral and significant parts of our deterrence. They demonstrate to potential adversaries the ability of the United States to respond rapidly and effectively to mobilization requirements.

Industrial capacity and preparedness promote a balanced defense posture, permitting a wide range of military responses appropriate to various threats. Modern wars do not have to be nuclear wars. In fact, nuclear war remains the least likely course of action for our potential enemies. The capability of industry is critical to the United States' successfully developing a stalwart conventional deterrent. It is for this reason that incipient industrial weaknesses bearing directly on the materiel readiness of US forces are of concern. We are experiencing a creeping erosion of the US industrial base that promises to grow progressively more severe in the foreseeable future. A brief look at the industrial trends in the USSR appears warranted to place the issue in perspective.

Our main concern is to be able to conduct an immediate defense against the Warsaw Pact at any time. Nonetheless, the industrial base must be capable of sustaining all mobilized US forces (Active and Reserve) in a long war against either the Warsaw Pact or the Peoples Republic of China. For this reason, Industrial Preparedness Planning must be projected in multiyear increments.

U.S.S.R.

In the Soviet Union, there has been a significant expansion of the production base for the Soviet general purpose forces. A new ammunition loading plant and the expansion of an existing loading plant and an explosive production plant have increased ammunition production capacity.

Between 1968 and 1973, the production floor space for manufacture of new major assemblies and subassemblies for tanks increased as did floor space for armored personnel carriers.

In addition to the construction of new plants and expansion of others, there is a substantial program to modernize older facilities.

It is estimated that floor space devoted to home defense and tactical fighter aircraft production increased.

Soviet tank production declined as a result of the major retooling required to introduce the M–1970 main battle tank. It is expected to rise to the prior level in the near future. Present maximum US production is running about 40 tanks per month. The Army has failed to reach its objective of 83 tanks per month due to a national lack of foundry capacity to produce tank hulls and turret castings.

The Soviet Union easily can produce within the USSR all the military equipment it requires. Nevertheless, it purchases limited quantities of auxiliary and amphibious ships, jet trainer aircraft, small piston transports, and small helicopters from the other Warsaw Pact countries. Some amphibious armored infantry combat vehicles possibly are being purchased from Czechoslovakia. It is believed that the Soviet Union purchases these items from the Eastern European countries to help them develop a military production base and to enable these countries to obtain money to pay for imports from the USSR.

Mobilization capacity relative to the production of military materiel varies by segment of industry and is impossible to estimate precisely, but it is believed that the Soviet Union has the resources to increase its already significant output

very substantially. This capability is vulnerable to attack, but the Soviet Union demonstrated in World War II a tremendous resilience and ability to move workers and equipment from the western part of the country to the Urals and beyond, while it increased its output of all types of equipment very significantly in a fairly short period of time.

As the USSR moves into the mid-1970s, Soviet hard currency earnings should rise rapidly because of higher export prices received for its oil, natural gas, gold, chemicals, wood products, and coal. With the expenditures for Western grain in 1974 about half of the 1973 outlays, these potential hard currency earnings easily could support expansion of Soviet imports of plants, equipment, and technology, especially high-technology products. These imports, ostensibly intended for civilian usage, nevertheless increase the military industrial base of the USSR.

United States

While the military industrial base of the USSR is growing, the capacity and willingness of US industry to support military requirements is eroding. The reasons for the decline in the traditional arsenal of democracy are multiple and interrelated. Our reduced capacity is best described under captions reflecting cause.

Environmental Requirements—Health and Safety

I appreciate the propriety of environmental and occupational safety and health regulations. But, when their application has a substantial adverse impact on Defense programs, that fact cannot pass unnoticed. The application of environmental and occupational laws has had significant impact on industries, processes, and equipment, which generally has resulted in increased lead times, higher costs, and inability to acquire essential items.

In certain instances, producers, either unable or unwilling to comply with new standards, have gone out of business. For example, in the past 3 years, approximately 1000 foundries, representing about 20 percent of the industry, have ceased operation. This has contributed to current casting capacity difficulties associated with production of the M–60 tank.

Equally important to Defense is the domestic production of ferrochromium, essential for the production of alloys, stainless steel, and carbon steel. It, too, has been affected substantially by application of environmental standards. From 1968 to 1972, US production dropped from 274,000 tons to 238,000 tons, while consumption rose to 310,000 tons.

Restrictions on the chemical industry and the handling and processing of toxic chemicals have had similar impact on vital military programs. Production of UDMH (unsymmetrical dimethyl hydrazine), an essential element in missile fuel, has ceased due to environmental considerations. As an interim measure, surplus BULL PUP missiles are being defueled to collect the UDMH element for incorporation in other missile propellant programs. An environmentally acceptable production process for UDMH is being sought. UDMH produced under the environmentally acceptable process is expected to cost $5 to $7.50, compared to the prior cost of $.57 per lb.

Unresolved environmental problems continue to impact adversely on other commodities as well. Discovery of the carcinogenic qualities of asbestos has caused critical shortages, not only in asbestos products, but in acceptable substitute materials. The SSBN 625-class submarine conversion to POSEIDON has been retarded by difficulties in obtaining fiberglass cloth as asbestos substitutes. The fiberglass shortage, in turn, has been aggravated by reduced production attributable to environmental requirements.

The Department of Defense in recent years has had particular difficulty in obtaining an adequate supply of coal to meet its total requirements. There are many reasons for this problem, among which are new local, state, and federal laws requiring environmental, health, and safety considerations. The Federal Coal Mine Health and Safety Act of 1969 has had a dramatic effect on the coal industry and has been the major reason for loss of anthracite coal production due to mine closures.

The Department of Defense is currently facing a shortage of 190,000 tons of coal for use in the United States and 126,800 tons for use in Europe. The supply problem is aggravated by inflationary cost increases. The coal used by the military and other federal office buildings in the District of Columbia, to cite one example of price increases, cost approximately $5 to $6 per ton in 1968. The current price

is around $32.75 per ton and is subject to further escalation during the 12-month contract period. There are indications that it will rise to a level of $43 to $60 per ton, and perhaps as high as $80 per ton before the contract expires.

Energy

Perhaps the most important material-associated problem is the provision of an assured supply of petroleum, a problem which, in the past year, has been subjected to the most intensive scrutiny. Yet, in most respects, the problem defies firm definition as well as adequate solution. The assurance of sufficient energy-producing materials to fill essential national requirements during periods of defense emergencies is of concern.

The 1973 petroleum embargo, though relieved partially by leakages and supplies from other sources, was lifted before the situation became acute. Nevertheless, it demonstrated several weaknesses which could be disastrous in time of war. Principal among these is the concern for the national petroleum distribution system, which is geared to existing supply sources. An immediate, total, and long-lasting stoppage or a large reduction of imports could not be accommodated readily, and supply would be denied many military and essential civilian activities. From a national security viewpoint, planning for alternative means to ensure adequate energy supplies to all sections of the Nation is a matter of utmost importance.

Inflationary Pricing Trends

As a result of continuing market uncertainties and raw material shortages, we are placing more reliance on the use of contract price escalation provisions to insure contract coverage for our requirements. We have had to raise the allowable escalation ceilings for many commodities, but in some product areas, producers and vendors will not accept contract escalation provisions, and insist that they be paid whatever price is in effect at time of delivery. Some contractors are so apprehensive of escalation provisions that they will not even agree to provisions allowing unlimited escalation. Some examples of price increases are illustrated by the differences in the average prices paid during Fiscal Year 1973 and prices paid during the past few months. Steel angle increased from $.23 per lb. to $.36 per lb. Manila rope increased from $.45 per lb. to $1.08 per lb. An electron tube more than doubled in price from $32.00 each to $65.50 each, and prices for JP4 jet fuel originating in the Caribbean area increased approximately 400 percent since. Fiscal Year 1973. Other prime examples of dramatic cost increases, between Fiscal Year 1973 and Fiscal Year 1974 in routine, yet essential, items are the 40 mm. cartridge case, which increased from $.22 to $.31 or 40.9 percent, and the 105 mm. projectile, which rose from $10.98 to $17.75 or 61.6 percent.

As a result of production and economic uncertainties, some facilities normally producing essential Defense products are closing down, production lead times are increasing, and an unhealthy reliance on foreign suppliers is being forced upon us.

Increasing Production Lead Time

Serious problems are arising due to increased production lead times. This is an important factor in determining levels of supply and procurement cycles. The times required to make deliveries have increased sharply for many items which the Services require. For example, the procurement lead time for sheet steel increased from 90 days to 300 days and wool cloth, from 135 days to 360 days. Between 1 April 1972 and 1 May 1974, the procurement lead time for aluminum plates went from 9 weeks to 52 weeks; titanium forgings, from 20 weeks to 44 weeks; bearings, from 18 weeks to 60 weeks; resistors, from 20 weeks to 50 weeks. These examples are typical of the lengthened procurement lead time required.

These dramatically lengthened lead times for both components and raw matrials have necessitated extraordinary measures to sustain a minimal flow for Defense production. Defense-sponsored special priority assistance cases increased 320 percent in Fiscal Year 1974. The priorities and allocation authority provided by the Defense Production Act has become essential to keeping Defense programs on schedule in a time of tight supply and shortage environment. Longer lead-times also require a larger, more costly inventory.

General Scarcity of Wide Spectrum of Raw Materials

Scarcity of a wide spectrum of raw materials generated by unprecedented worldwide demand has seriously impacted on procurements for support of mili-

tary requirements. Shortages of petroleum have created shortages of petrochemicals, which, in turn, are causing cutbacks in production of synthetic textiles and are restricting severely production of plastics.

Steel, the most basic of industrial materials for weapons systems, is in critical supply. Mills are operating at full capacity, but rising demand continues to exceed capability. Shortages and increased acquisition lead times of specialty steel products are affecting adversely the SS–N–688-class submarine, the LHA, and DD–963-class destroyer construction programs. There are also critical shortages of steel bars and tubing, copper wires and bars, aluminum ingots, and zinc.

Wood pulp suitable for use in the production of map and photographic paper is a continuing problem. Similarly, the national stockpile of abaca fiber, the principal raw material for manila rope, has been depleted.

Actions have been initiated to minimize this impact. The assistance of industrial associations has been solicited. Continuing emphasis is being placed on the use of the Defense Priorities and Materials Systems to alleviate bottlenecks which are delaying contractor deliveries. All of this represents, as a minimum, increased cost of operation to the Defense Department.

Grossly inflated prices and acute shortages have inspired an unprecedented number of demands for utilizing the national stockpile of strategic and critical materials, some of which have been successful. Some Defense programs have been assisted by the availability of materials from the stockpile. Nevertheless, there is cause for concern that during a peacetime period of increasing reliance on nonsecure foreign supplies of basic materials, we are disposing of stocks which may be critical to national survival in a more crucial future time.

The USSR is the most self-sufficient major world power in strategic minerals, domestically producing most of its needs from extensive mineral deposits. The United States is a distant second, with rapidly diminishing domestic reserves. During peacetime, neither country is entirely self-sufficient, but US shortfalls are much larger.

A comparison of US and Soviet self-sufficiency on Chart 15 in 15 critical strategic minerals shows that the USSR is far less dependent on foreign sources than the United States.

FOREIGN SOURCE STRATEGIC MATERIALS

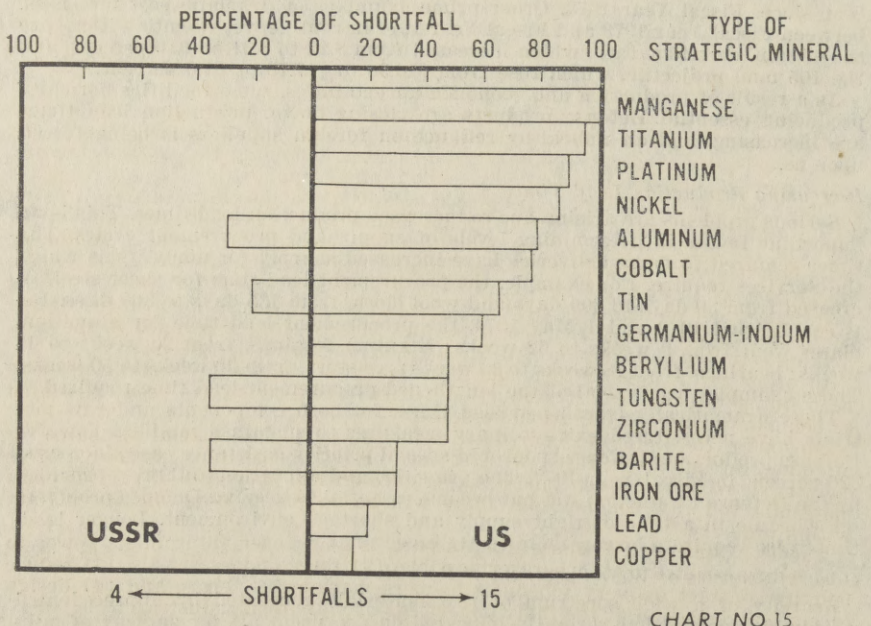


CHART NO 15

As demonstrated by the recent Arab oil embargo, countries possessing critical natural resources can be expected to pressure consumer nations for changes in political alignments, economic positions, and national decisions. The Soviet Union, as a result of a deliberate national policy to attain self-sufficiency, escapes most of this pressure, thus gaining an advantage and a future weapon in international affairs.

Facilities closedowns

Environmental requirements, rising costs, and material shortages are resulting in planned and actual closures of facilities considered essential to the operational needs of the Department of Defense. Facilities are in danger of being closed because compliance with the more stringent environmental requirements is often not feasible due to the age and condition of the facilities and the prohibitive cost of upgrading or repairs.

The Military Departments are experiencing increasing difficulty in maintaining reserve industrial plants. For example, US Steel's Christy Parks Works has produced ordnance items for several decades, most recently, the MK–82 bomb body. Current production was completed in February 1974 at which time the Navy had planned to place this plant in layaway. The company has refused a standby contract, and the Navy is now in the process of a costly removal of government-owned equipment and restoration of the facility. In the interim, reserve capacity for the production of 60,000 bomb bodies per month has been lost.

The dwindling domestic capability to support the Department of Defense is represented graphically by the production of ether. Large quantities of ether are used by the Services primarily for the manufacture of single base propellants. When one of two large producers (EXXON) ceased production in July 1974 because of the "lack of growth potential," the second producer (U.S.I.) would not increase production to satisfy Service requirements for the very same reason. Sixteen of the largest potential ether producers in the United States and Canada were contacted, but with no success.

Reductions in mobilization capacity have caused the Military Departments to examine more closely the relative efficiency of increasing levels of war reserve stocks of critical commodities as the only other apparent means of ensuring supplies. This approach is not without problems, not the least of which is cost.

Increased Reliance on Foreign Production

U.S. firms are relying to a greater degree on production imports from foreign sources for a variety of reasons. Short-term solutions for problems in the areas of balance of payments, tax incentives, economy, labor costs, and governmental regulations cumulatively have created a situation where the national security posture of the United States has been diminished.

During the years of worldwide excess capacity in the 1960s, domestic production of steel wire and bars decreased under the pressure of imports. Now, with world demand exceeding supply, U.S. fabricators, including Defense contractors, are experiencing extreme difficulty in obtaining supplies.

There has been a virtual disappearance of the domestic mechanical watch manufacturing industry. Historically, this industry has been the primary source of vital military precision components such as mechanical fuses. A minimally adequate domestic capability has been maintained through a series of expensive initiatives by the Navy which require contractors to agree that plants for the manufacture of pinions and gears will retain production equipment in the United States for a period of at least 5 years and that employees engaged in the tool-making setup and production will be only U.S. or Canadian citizens.

In order to broaden further this industrial base, individual contractors have been limited to single-shift production. All such contracts have been negotiated as being in the interest of national defense.

Obviously, the Defense Department cannot support such extreme measures for all domestic industries faced with strong foreign competition. As long as this country and the world continue to experience critical shortages of various basic materials and raw commodities, there will be no end to economic uncertainty within industry.

The Department of Defense, for its part, is doing everything in its power to (1) reduce requirements wherever possible, (2) forego nonessentials, (3) reduce lengthy contract delivery schedules to more manageable terms, and (4) design escalation clauses to fit the individual needs of individual industries.

CONCLUSION

The key judgments derived from the preceding analysis already have been presented. I would like, however, to conclude with two brief observations.

The incentives for arms control as a means for fulfilling national interests have been growing in both the Soviet Union and the United States over the last 5 or 6 years. Their scope is broad; their impact, manifest. Soviet purpose is not necessarily always benign. A US strategic force, stable in shape and limited in size, is, of necessity, in the Soviet Union's best interests. Each step we take in this direction, therefore, must be carefully examined to ensure an equal US interest is served. The political systems of our society ensure open compliance with such agreements. We, of course, must take risks for peace, but these risks must be prudent. Arms control is a means, not an objective. The objective is peace.

The analysis of the elements of military power contained in this statement is designed to permit a comparison of the basically asymmetrical forces of the US and the USSR and to facilitate the diagnosis of potential problems and the identification of future opportunities for ourselves and others. The Armed Forces of the United States are capable today of fulfilling their Constitutional obligation to provide for the common defense. They will perform as the Nation directs them and with tools the Nation provides. These tools must continue to be equal to the task.

Schemes for arms control are useful in reducing the fears and tensions caused by the destructive power and magnitude of modern weapons. They cannot, however, reasonably be substituted for dealing directly with the political, social, and economic causes of conflict. We must solve the more fundamental international political and economic problems which lead to a Pearl Harbor, a Czechoslovakia, or a Gulf of Tonkin prior to completely committing the security of the United States to the hope of peace and the goodwill of others.

Until these problems are solved, power—military power—must be maintained to preserve the peace.

This presentation is a part of the Congressional consideration of the FY 1976 Budget. The Defense portion of this Budget for the bicentennial year is large. The cost of the Revolutionary War, year-by-year, including domestic and foreign expenditures, federal and state, cash and indebtedness, amounted to about $135 million, roughly the cost of operating the General Accounting Office in FY 1976. This year's Defense outlays are estimated at $92.8 billion, considerably more than 700 times the entire cost of our War for Independence. Some may consider this a fatiguing sum.

The Joint Chiefs of Staff believe it is an austere and essential request and urge your full support of the President's Budget. As we contemplate the demands that liberty makes upon us, it is well to remember the words of Tom Paine 200 years ago: "Those who expect to reap the blessings of freedom must . . . undergo the fatigue of supporting it."

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, General Brown.

Senator Symington has the floor.

STATEMENT OF HON. JAMES R. SCHLESINGER, SECRETARY OF DEFENSE—Resumed

DETERMINATION OF SCOPE OF THREAT

Senator SYMINGTON. Mr. Secretary, I would refer to a subject considerably discussed in the press. That is the question of intelligence. Some months ago, the Defense Department presented its reasons for expanding into a new base many thousand miles away. We had the Central Intelligence Agency give their position on the same situation. There were sharp differences of opinion as to whether the Soviet Union was doing what the Defense Department people said in the area in question.

Back on the 13th of April 1973, when you were Director of the Central Intelligence Agency, I mentioned a speech that gave me appre-

hension because it seemed to assert the right as well as the duty of the Defense Department, the military, to decide the nature of the threat. And, of course, the nature and degree of the threat decides the nature of the budget.

You asked if I had read the talk.

I said, no, only the newspaper accounts of the talk.

You suggested I read it, when I did. And I wrote you as of April 13, as you can see by the attached: "I have read the article in detail; and have extracted certain statements made, hopefully not out of context." These were attached to my letter to you.

At the end of the article the writer, General Graham, states:

> There is no longer a need, in my judgment to duplicate, the Defense Intelligence Agency's efforts in other agencies.
>
> Especially in that this article, and the fact he is going to work for you have created much comment down here, I would hope we could get together soon re same.

And then I added a note in longhand: "Specifically, where does this leave the CIA, the second paragraph?"

I will read a part of the second paragraph, and then a concluding sentence. In this article written by General Graham, he states:

> If the military profession loses its role in describing these threats to national security, it surrenders much of its influence in decisions about military strategy, military force structure and the nature of its own armaments.

In the years I have served on this committee, and the years I spent in the Pentagon, with one exception I never saw the time when the Army estimate and the CIA estimate of the Soviet Army were the same. Invariably the Army and the Navy and the Air Force make the possible enemies, the Army, Navy and Air Force, respectively, considerably larger than estimates of the Central Intelligence Agency.

I noticed in a statement given by a high official the other day that the Central Intelligence Agency receives 15 cents out of the intelligence tax dollar. Somebody later said that was a little low, it was 17 cents of the total intelligence tax dollar.

I would ask unanimous consent, Mr. Chairman, so as not to be out of context, that the paragraphs I pointed out to Secretary Schlesinger in my letter some 2 years ago, be included at this point in the record.

The CHAIRMAN. The paragraphs in the article?

Senator SYMINGTON. Yes.

The CHAIRMAN. Without objection, it is approved.

[The article follows:]

STRATEGIC INTELLIGENCE—ESTIMATING THE THREAT: A SOLDIER'S JOB

In his landmark book, "The Soldier and the State," Prof. Samuel P. Huntington draws our attention to an extremely important and sometimes neglected fact: "The military institutions of any society are shaped by two forces: a functional imperative stemming from the threats to the society's security, and a social imperative arising from the social forces, ideologies, and institutions dominant within the society * * *."

So, the reason for the existence of our armed forces is to counter threats to our security, and the function, composition and size of those forces depend on the perception of threats by the national leadership. If the military profession loses its role in describing these threats to national security, it surrenders much of its influence in decisions about military strategy, military force structure and the nature of its own armaments.

We have in the past ten years come perilously close to losing this vital role. The impact of the intelligence views of the Department of Defense was progres-

sively weakened between 1960 and 1970, and the voice of civilian agencies in all facets of military intelligence became progressively more dominant. The military budgets carried the onus of heavy outlays for intelligence collection, but the key intelligence judgments derived from this costly effort were for the most part made in other agencies.

This situation can be too easily dismissed as the result of bureaucratic maneuvering, of "whiz kids" ignoring military advice, or of the general growth of anti-military sentiment in and out of government. The fact is that the muting of the military voice in military intelligence was largely of our own doing. Military professionals—both users and producers of intelligence—through failure to understand the strategic intelligence function, downgrading of the role of intelligence in general and sometimes abusing the intelligence process, have in the past produced the best arguments for taking the responsibility for threat description out of military hands. Now is the time to face these facts, and to take the attitude and the necessary steps to correct the situation.

One has little difficulty in arguing the need for good tactical intelligence among military professionals these days. One prime lesson learned in Vietnam was the fact that superior military force cannot be brought to bear in the absence of good intelligence. The Army has acted and is still acting vigorously to insure that good tactical intelligence will be available to commanders in all levels of warfare. However, we are concerned here with an area about which there is less agreement—strategic intelligence.

Strategic intelligence is that which is used to make strategic decisions. This fact is often lost sight of among planners and decision-makers. There is a tendency to think of intelligence gathered by Washington-controlled resources as "strategic" and that gathered by the commands as "tactical" or "operational" intelligence. This is nonsense. If intelligence is used to make tactical decisions, it is tactical intelligence; if it is used to make strategic decisions, it is strategic intelligence. The means by which it is collected is quite beside the point. For example, in 1950, when front-line troops reported the fact that the Chinese were crossing the Yalu, it was tactical intelligence to all levels of command in Korea, but strategic intelligence to Tokyo and Washington. On the other hand, knowledge of a new surface-to-air missile in country X is strategic intelligence to national planners but it is tactical intelligence to any air unit which may operate in the area.

It is extremely important to get this matter straight. If we don't, we will continue to have expensive bureaucratic squabbles about intelligence resources, based on spurious arguments about control echelons. Commands will jealously guard intelligence resources on the grounds of "tactical" intelligence requirements and Washington intelligence agencies will fail to see that their refined "strategic" collection systems are producing a great deal of tactical intelligence, neglecting the need for quick dissemination to the commands.

The definitional dilemma is compounded somewhat by tactical decisions that are often made in Washington. This fact of military life today means that military intelligence organizations in Washington find themselves hip-deep in the tactical intelligence business, traditionally the purview of commanders in the field. Further, there is the unfortunate tendency among intelligence producers and users to associate the term "strategic" exclusively with intercontinental nuclear-strike matters. For instance, you would find few intelligence officers in the targeting business who would not consider their product "strategic" intelligence. In fact, it is not; it is essentially tactical intelligence stored up against the contingency of executing the SIOP (Single Integrated Operational Plan).

The general conceptual confusion between tactical and strategic intelligence is jeopardizing the commanders' control of their intelligence assets. But a more serious intelligence problem, in my view, is the danger of the military profession as a whole losing the function of defining the military threat for the national leadership. The basic problem is one of confidence in the military intelligence product within the services, the Department of Defense and the other departments of government.

The intelligence products of greatest impact in the national decision-making arena are the estimates. These contain the intelligence which most heavily influences strategic decisions. They are usually predictive in nature, pulling together basic order-of-battle, technical ,doctrinal, economic and political intelligence to describe overall military postures of foreign powers. The estimates project military threats from the present out two, five and ten years. Military

planners are heavily dependent on these estimates in force structuring, force development and weapons development.

It is in this area that we military professionals have been in danger of losing our shirts to civilian agencies. To put it bluntly, there is a considerable body of opinion among decision-makers, in and out of the DOD, which regards threat estimates prepared by the military as being self-serving, budget-oriented and generally inflated. This gives rise to a tendency to turn to some other source for "objective" threat assessments. The suspicion exists not only with regard to broad strategic estimates—for example, trends in the manned bomber threat—but to such detailed military estimates as the ability of the Soviet field army to sustain itself in the field under various assumed levels of combat. The trend toward independent analysis has been gathering over the past ten years and there are now analytical staffs in the civilian intelligence community paralleling those of the Defense Intelligence Agency (DIA) on almost every military intelligence subject.

The responsibility for this siutation to a large degree rests with the military side of the house, not with the civilian agencies. The lack of confidence in the threat estimates emanating from military intelligence agencies which caused users to request outside opinion in the early 1960s, is fully understandable. It stemmed from a series of bad overestimates, later dubbed "bomber gap," "missile gap," and "megaton gap." These and other seriously inflated estimates of less notoriety have hung like albatrosses around the necks of military intelligence officers ever since.

In its first several years of existence, DIA was plagued by the prevalent notion, even in the DOD staff, that the agency could not be counted upon for an objective threat assessment. This suspicion was reinforced by the fact that DIA did not perform well in the estimating area. The agency was harried by a combination of birth pains and the burgeoning demands for essentially tactical intelligence in support of Washington-level decisions on the Vietnam war. The estimates function simply muddled along until the Agency was reorganized in 1970 by Gen. Donald V. Bennett, USA. Meanwhile, planners and decision-makers had become accustomed to going elsewhere for their threat estimates.

At first blush, it would appear that the blame for this situation can be laid at feet of intelligence officers—first in armed services intelligence agencies and then in DIA. But this is too simple; the military intelligence *user* must take his lumps as well. Too often the user has not been content with an objective judgment from his intelligence officer—he has wanted the answer that "supports the program." While planner pressure on intelligence estimates is not nearly as blatant or widespread as some quarters would contend, there has been enough of it to make it tough to regain full confidence in the military intelligence effort.

In the service staffs the fact that the position of the intelligence chief is a notch under the other key staff chiefs almost invites planner pressures on intelligence. It takes a pretty tough-minded assistant chief of staff for intelligence to defend an estimate that runs counter to the well-laid plans of the rest of the general staff. In some ways, planner pressure is worse when it arises in the joint staff arena. Planners of all service "coordinating" an intelligence estimate are quite capable of reducing it to lowest common denominator mush. There are still some "old hands" in intelligence who are so inured to yielding before user pressures that they automatically produce threat estimates designed to please, or at least certain not to offend. These types are getting fewer, but they still exist.

When intelligence yields to consumer pressure, it cannot remain credible. When intelligence estimates are reduced to bland judgments acceptable to all planners, it is difficult to justify the expensive outlay of resources to collect intelligence. Such inoffensive pap can be produced without evidence.

Fortunately, the somewhat dismal picture outlined above has brightened measurably over the past few years. The stature of intelligence estimates produced by the military has increased considerably and the accustations of bias have abated. Several factors account for this: DIA pulled up its socks and put proper emphasis on the estimates job; a new crop of more professional, less conformist intelligence officers is available for estimating work and, most important, there is a new appreciation of the intelligence function among our military customers.

The Defense Intelligence Agency was reorganized in November, 1970. One of the key changes was the establishment of a separate directorate charged with the production of defense intelligence estimates. One of the prime reasons for this move was the fact that there was, practically speaking, no way to discover the

views of the DIA director on important estimative matters. DIA views were submerged in the text of national estimates (NIE's) prepared at the Central Intelligence Agency (CIA) and coordinated with all Washington intelligence agencies, or in the text of joint estimates which were coordinated with the service planners. The only exception to this rule was the rare dissent to a national estimate when a specific view of the DIA director was noted at the bottom of the page. DIA's institutional anonymity was, in large part, a product of the original service objections to the creation of the agency. "Running with the pack" was the one way to avoid collison with the individual services. It was bureaucratically much safer to have any substantive argument be between a service and the "intelligence community" than between a service and DIA. The trouble was that this attitude put civilian agencies in the position of final arbiters of any disagreements inside DOD on threat definition.

The new DIA directorate for estimates permitted proper attention to the estimating function. Under the old setup, the estimates job was under the directorate for production, which was also charged with answering the daily intelligence mail. The heavy demand for current intelligence on Vietnam, the Middle East and other crisis areas was too urgent and too time consuming to permit much effort on the more scholarly problem of estimates. The new directorate created an adversary process on substantive issues within DIA. The estimators, who must defend DIA views in the DOD and national intelligence arena, frequently challenge the results of analysis from the other DIA directorates. This necessary friction causes key intelligence judgments to be thoroughly scrubbed internally, ensuring that DIA won't find itself out on a limb defending a weak argument of some single analyst, a situation which prevailed all too often under the old setup.

The new crop of analysts and estimators available to both the service intelligence offices and to DIA are indispensable to a new effort to regain respectability for military threat estimates. Intelligence specialist programs within the services—and here the Army must be singled out as having the most effective program—are paying off in the form of real professionals capable of making objective assessments of the evidence on hand and defending the intelligence product among their fellow officers. On the civilian side, the new generation of analysts who have entered DIA are not afflicted with an overriding defensive attitude about service intelligence opinions. Many of the old hands used to react with arguments about the DIA "charter," rather than counter differing intelligence views with good substantive analysis.

In the long run, however, the most telling factor in the improvement of military intelligence estimates is the increasing awareness among consumers that the only useful intelligence is objective intelligence. There was a time when the rule-of-thumb for acceptability of threat estimates among planners was "the bigger, the better." Intelligence estimates which failed to maximize enemy threats in both sum and detail were likely to draw fire as "wishful thinking." More often than not, military intelligence people came to heel under such criticism and stumped hard for the "worst-case" view. These old attitudes are waning now and simplistic demands for the scariest possible threat estimates are much less prevalent among users. Some hard lessons have been learned.

Military planners have seen some unfortunate results of inflated estimates over the past several years. With regard to Vietnam, it became painfully obvious that "worst-case" assessments of enemy capabilities by Washington estimators gave the erroneous impression that the more casualties we inflicted on the Viet Cong and North Vietnamese, the stronger they got. When theater intelligence tried to offset this by stressing the evidence of the telling effects of Allied operations on the enemy, the effort was branded as a lot of unwarranted, policy-oriented optimism. In February, 1968, the communists corroborated the estimate that they were in desperate straits by launching the militarily disastrous Tet offensive. That fact was overlooked by almost everyone, however, most preferring to believe the new gloomy estimates (later proved grossly overstated) that the VC, although defeated near the cities, had "taken over the countryside."

Many Pentagon planners have also learned that "worst-case" estimates can be used to squelch military programs just as easily as to support them. A proposed program can be made to look like a total waste if its opponents are given free rein to postulate the size and sophistication of future threats to the system. Overestimates of future Soviet strategic missile capabilities killed the U.S. counterforce strategy at least four years before the strategy became invalidated by real Soviet capabilities.

The advent of arms limitation agreements sharply underscored some additional

problems of inflated intelligence estimates. The "horse-trading" aspect of these negotiations raises the very real possibility of trading off actual friendly capabilities for enemy "capabilities" existing only on paper in our own intelligence estimates.

These examples lead to another important point that is beginning to be understood in military planner circles: Estimates of future enemy forces and hardware are by nature estimates of intent—not just of capability. The old arguments about "capability versus intent" are heard less now in DOD. It remains true that intelligence should emphasize capability in descriptions of current and near-future enemy forces. But the minute you tackle the usual problem of estimating enemy forces (or hardware) a year or so into the future, you have entered the realm of intent. For example, since World War II the Soviets have never, to our knowledge, deployed forces or fielded hardware as fast as their total capability permitted. To estimate that they would do so with regard to some weapon system or type of force in the future would make little sense. Indeed, all estimates of future Soviet forces derive from an attempt to discern what part of their total capability the Soviets intend to use in military programs and which programs they intend to emphasize. This is not a very difficult-to-fathom verity of intelligence estimating. It is remarkable how long it has taken some of our military users to wise up to it.

While not all users of intelligence in DOD have learned the pitfalls of trying to make intelligence "fit the program," most have. Today there is a much improved market for objective intelligence judgments and this is a most hopeful sign in the field of military intelligence. When we get to the point where the strategic intelligence officer knows that his prime customers are going to raise the same amount of hell about overstatement as about understatement of threats, the objectivity of intelligence estimates will be almost automatic.

Objective intelligence is a goal to be devoutly pursued by the entire military profession. However, an important word of caution is in order: An objective intelligence judgment is not necessarily a valid judgment. Validity depends on the evidence available to the intelligence people and the quality of the analysis applied to that evidence. Any planner or decision-maker not convinced that there is good evidence and good analysis behind an intelligence judgment should feel perfectly free to reject it. And the intelligence officer should not get his nose out of joint if his product is not always accepted as gospel. However, the user cannot insist that the intelligence officer recant and change his best judgment. If he does this, he corrupts the whole system.

To sum up, I think that the time is ripe for the military profession to reassert its traditional role in the function of describing military threats to national security. Both the military user and the military producer of strategic intelligence have come a long way since the "missile-gap" days. DIA has hit its stride in the production of respectable military estimates. While there will always be a legitimate reason for independent judgments from outside DOD on issues of critical importance to national decision-makers, there is no longer a need, in my judgment, to duplicate DIA's efforts in other agencies. The best assist the Army can give to such an effort is to insist on objective strategic intelligence, cooperate with DIA in producing it, and put good officers in the strategic intelligence field.

Senator SYMINGTON. Since that time, as I understand it, General Graham has returned to the Pentagon and is now the head of the Defense Intelligence Agency, is that correct?

Secretary SCHLESINGER. That is correct.

Senator SYMINGTON. I think it important to consider the importance of civilian approval, considering that into the Pentagon goes 85 percent of the intelligence tax dollar. I bring this up in the hope you will see that military intelligence estimates are reviewed by civilian authority because the whole military budget depends on what a possible enemy may be doing.

Re this Indian Ocean base development, there was a sharp difference between the position taken by the Pentagon and the position taken by the Central Intelligence Agency. Now, in your statement——

Secretary SCHLESINGER. Was that a question, Senator?

Senator SYMINGTON. It is a request that you comment. If you would like to do it now, fine. I only have 10 minutes, and have some other questions.

Secretary SCHLESINGER. Mr. Chairman, I would like to comment on the issues that Senator Symington has raised. And if the Senator would permit, I would like to comment after his 10-minute period.

The CHAIRMAN. We have to move along to get to the other Senators.

PROCUREMENT TO ARMS LIMITATION

Senator SYMINGTON. On page 15, line 25, you say, "We shall plan toward the Vladivostok goals." Do you mean by this statement that we have an obligation to build up to the allowed limits of Vladivostok?

Secretary SCHLESINGER. I would not say that we have an obligation under the Vladivostok accord, Senator. What I would say is that it is wise American policy to plan to build up to the 2,400 limit. We do not have an obligation, however.

Senator SYMINGTON. Thank you.

BUDGET REDUCTION

On page 3, line 7, you say "If the Defense budget is to be reduced, it should be done in clear recognition that we will not be able to fulfill our responsibilities." What responsibilities would you say would not be fulfilled if the Defense budget is to be reduced?

Secretary SCHLESINGER. That depends on which programs are reduced, Senator. If you can give me a description of that, I can give you an answer.

Senator SYMINGTON. Say across the board, 5 to 10 percent.

Secretary SCHLESINGER. Across the board?

Senator SYMINGTON. Yes.

Secretary SCHLESINGER. I think that such a reduction would substantially curtail our abilities, depending on where the cut is, to replace equipments in the force structure. This would gradually have a corrosive effect on our ability to project power into the Eastern Hemisphere in later years.

With regard to strategic forces, an across-the-board reduction should not have an immediate impact on the balance.

REDUCTION OF UNCERTAINTIES

Senator SYMINGTON. On page 14, line 13, you say "Arms control agreements such as the President has initiated as Vladivostok not only remove uncertainties from the process of military planning." Could you describe what are the uncertainties which the Vladivostok accord now removes from military planning?

Secretary SCHLESINGER. I believe I said it reduced the uncertainties. And the uncertainties are the open-ended nature of the possible Soviet deployment of strategic delivery vehicles, which is capped off at 2,400. In addition, there is a limitation on the proportion of strategic missiles that can be MIRV'ed, plus placing some limit on the number of high-yield MIRV's that the Soviet Union can deploy, given a certain amount of throw-weight.

Senator SYMINGTON. Thank you.

I think you said "remove," based on our copy. Am I correct?

Secretary SCHLESINGER. Yes, sir. It should be understood that it removes some uncertainties, but it does not remove them all.

DETERRENCE

Senator SYMINGTON. On page 22, line 4, you say "Our own forces should promote nuclear stability both by reducing incentives for a first use of nuclear weapons and by deterring and avoiding increased nuclear deployments by other powers."

How do our forces "deter" and avoid increased nuclear deployment by other powers?

Secretary SCHLESINGER. I think that the answer to that is quite straightforward, Senator, and has been for many years. The preponderance of the United States and the Soviet Union with regard to strategic nuclear forces and nuclear capabilities generally has, since 1945, had a suppressant effect on the inclination of other powers to acquire nuclear weapons. The nuclear predominance of the United States and the Soviet Union has been so great that the incentives and advantages that other powers can obtain from the acquisition of nuclear weapons are diminished.

FALLOUT SHELTER AND POPULATION RELOCATION

Senator SYMINGTON. Thank you. Page 22, line 24, you state our military posture should include:

A program of fallout shelters and population relocation to offer protection to our population primarily in the event that military targets become the object of attack.

Do you go back to Dr. Teller's theories on a proposed massive program of fallout shelters, plus population relocation?

Secretary SCHLESINGER. I am sorry, I missed the name. Dr. whom?

Senator SYMINGTON. Dr. Teller, who at one time suggested fallout shelters. Would you?

Secretary SCHLESINGER. We would be happy to do so.

[The information follows:]

Dr. Edward Teller has advocated a strong civil defense program for a number of years. For example, in 1963 testimony before a subcommittee of the House Committee on Armed Services, he referred to a legislative proposal to improve fallout protection as a "modest program" and a "first step" which should be taken. He went on, however, to advocate a program to provide blast as well as fallout shelters. In 1969, he again advocated a program of blast shelters in the cities and fallout shelters in the country, and stated he thought the U.S. should spend at least 10 percent of its military expenditures on civil defense. In 1970 Dr. Teller said that to spend one tenth of a cent for civil defense, for every dollar spent for defense, was "ridiculous" and that to increase civil defense expenditures by a factor of ten would be a "reasonable beginning." While Dr. Teller has thus advocated a greatly increased civil defense effort, and has endorsed fallout protection as a reasonable first step, he has not, so far as we have been able to determine, expressed any view or position on the desirability of contingency plans for relocating population from higher-risk areas during a period of intense international crisis.

The civil defense program outlined in the Secretary's report to the Congress is not of the magnitude advocated by Dr. Teller, but it is designed to protect some of the American population against both fallout and blast effects, so that its theme and thrust are consistent with Dr. Teller's concerns. The current program is seen as an essential element of our overall deterrence posture,

and is designed to include flexible response options comparable to those being introduced into military planning. One option provides for protecting the population in-place, at or near their homes, schools, and places of work. We are undertaking shelter surveys to identify existing fallout protection in all parts of the country. In addition, an "all-effects" survey is planned in order to identify best-available blast protection in existing structures in cities and other high risk areas. A capability will also be developed for relocating people from higher risk areas during periods of intense crisis. This will provide additional options for flexible response, including relocating people from the vicinity of key military installations (to strengthen deterrence against a Soviet counterforce attack), or from larger cities as well as areas near key military installations (to allow response in kind should Soviet cities be evacuated during a crisis).

TRIDENT PROGRAM

Senator SYMINGTON. On page 23, beginning with line 18, you say: "We should make certain that we are insured against major improvements in antisubmarine warfare. The Trident program provides that hedge." How will Trident be any more resistant to the major improvement in submarine warfare than its predecessor, especially when you can reduce the number of missiles in the launchers on the Poseidon and get the same number of miles of range, 6,000 miles? I could not understand how the Trident was more resistant to major improvement in submarine warfare. Is that a classified matter or should the American people be told what a retrofitted Poseidon can do, what the many more times expensive Trident can do?

Secretary SCHLESINGER. There are two aspects of it. The first is the quietness of the submarine, and the second is the longer range missile that permits the Trident to be hidden in much larger spaces of the ocean. A 6,000 mile missile, for example, just expands very substantially the area in which the submarine can be hidden. And the present practices in ASW are largely area dependent, that is, dependent on the area that must be searched. It is far easier, for example, to work in the Arctic Ocean or the Eastern Mediterranean or where have you, than it would be to cover vast reaches of the Pacific.

The CHAIRMAN. Senator Symington, your time is up.

Mr. Secretary, you said something about wanting some extra time. Do you have enough time to answer the question all right?

Secretary SCHLESINGER. Yes, sir.

The CHAIRMAN. Thank you.

Senator Scott.

Senator SCOTT. Thank you, Mr. Chairman.

Mr. Chairman, let me commend the Secretary for his thoughtful report.

DEPARTMENTAL MANAGEMENT

Mr. Secretary, I am certainly in agreement that your statement that there might be a tendency that "the most important social service a government can do for its people is to keep them alive and keep them free." For my part, I, and I believe the majority of the committee, will work with you in having an adequate, strong national defense.

I notice in the next paragraph you talk about having the best managed department in the government. I can understand your pride. But other Cabinet officials might have a difference of opinion, they might have equal pride in their own departments. But I would hope

you would continue to try to effect economies where necessary without hurting our national defense.

Secretary SCHLESINGER. Yes, Senator, we would be delighted to do so. We are pursuing that. And I can discuss the measures we are taking with the committee in detail.

The comment on the best-managed department in the Government was not made by myself; that was a comment by Senator Proxmire, whom I regard as one of the sharpest critics in the Congress. It was he who described the DOD as being the best-managed in the Government.

Senator SCOTT. That is quite a compliment, coming from that source. But I thought it was a self-serving declaration.

Secretary SCHLESINGER. It was a self-serving quotation from Senator Proxmire.

APPROACH TO DÉTENTE

Senator SCOTT. On page 7 here you talk about "relative prudent powers under their current leadership", referring to the Soviet Union and Red China. And you talk about "their client states appear to suffer from periodic excesses of revolutionary exuberance." Do you believe that Russia and Red China can cool off or can eat up some of these satellite nations in the spirit of détente? Can they not do more to restrict the people from North Vietnam, for example? Are they not furnishing the weaponry down there? That does not seem very prudent action on their part.

Secretary SCHLESINGER. I agree with the thrust of your comment, Senator. What I am referring to here is that the calculations of the Soviet Union and China may be characterized by less exuberance than their client states. And the behavior of North Korea, of North Vietnam, and of other states that have been influenced by these two major powers has been such that occasionally they have embarrassed the major powers. When they are embarrassing the major powers the ability of the major powers to keep them under control, while existing, remains limited.

Senator SCOTT. We are told that in Thailand there are roughly 8,000 guerrillas up in the mountains, and that they are Communists. That does not sound much like a spirit of détente. Is there not a little bit of two-facedness—and those are my words, I am not trying to put them in your mouth—but are they not practicing conflicting ways, détente on one side and then perhaps not restricting their dependencies in the sense of military equipment an inconsistency?

Secretary SCHLESINGER. Once again, it depends on one's views of détente, one's very views of détente, as to whether this is inconsistent or not.

Senator SCOTT. Is that not a two-way street?

Secretary SCHLESINGER. Détente has various facets. As I attempted to indicate in my statement, détente is not interpreted by the Soviet Union or by China as necessarily constraining them in what they regard as their national interests. Therefore, one does not necessarily expect them to follow Marquis of Queensbury rules under détente. If one does expect them to do so, we would be sadly disillusioned with détente.

Senator SCOTT. Are you saying, Mr. Secretary, that they do what is best for their own country?

Secretary SCHLESINGER. Yes, sir. And included in their calculations regarding détente is their relationship with the United States. So, they have to balance off various considerations.

NATO DEFENSE EXPENDITURES

Senator SCOTT. You talk on page 11 about the European Economic Community, and that we cannot pretend that it is a substitute for the United States. And I notice on page 31 you say: "We must be careful of the demands that we place on our allies, unless we be guilty of the 'beggar thy neighbor' approach which President Ford has deplored." I wrote down in pencil, and I can erase it, I put "nuts" down there. But I just cannot go along with such a statement, that where they have a high standard of living, that they cannot help more in the free world, whether you call it a war or our endeavors against the Communist world. Are you saying that they cannot do more?

Secretary SCHLESINGER. No, sir. And in my statement, I indicated that the burden should be picked up increasingly by our allies that can pay.

NATO TOTAL DEFENSE EXPENDITURES

$ U.S. IN MILLIONS

(CURRENT PRICES - 1974 EXCHANGE RATES)

	1970	1971	1972	1973	FORECAST 1974	PERCENT INCREASE 1970 vs. 1974
TOTAL NATO EUROPE (Excluding France)	21,457	24,508	27,851	30,643	35,490	65%
TOTAL NATO EUROPE (Including France)	28,210	31,627	35,336	38,830	44,433	58%
UNITED STATES	77,854	74,862	77,638	78,473	84,332	8%

1891

Since fiscal year 1968, if we take NATO Europe as a whole, they have increased their expenditures on defense from $28 billion to $44 billion, an increase of about 60 percent. The United States, in this period since the peak in Vietnam, has increased its defense expenditures by about 8 percent. There is, therefore, an improvement in the burden-sharing. The allies maintain about 2½ million men under arms. Their equipment purchases, particularly on the part of the Germans, is improving. That is all in the right direction, and I hope that my statement indicated that.

On the other page that you mentioned, Senator Scott, I was referring to the difficulties involved in the international balance of payments, given the price of oil at the present time. What we as a collection of industrial nations face is that there will be a balance of trade sur-

plus of approximately $70 billion a year going to the oil-producing nations. Consequently, the industrial nations will suffer collectively a balance of trade deficit of an equivalent amount.

Under those circumstances we must face the fact that all of the industrial nations—ourselves, the Germans, the British, and the Japanese—collectively must face this balance of trade deficit. In our dealings with each other, if we attempt individually to achieve a balance of trade surplus, the effect will be to shove off a larger share of the inevitable deficit with the oil producing nations onto the other nations.

In the 1930's, an attempt to avoid balance of trade deficits in this manner resulted in continuous devaluations which were referred to as beggar thy neighbor policies. And that is what President Ford was referring to, not the question of defense expenditures.

U.S. GLOBAL RESPONSIBILITY

Senator SCOTT. Down at the bottom of that same page 11: "No longer can we expect other nations by themselves to man the front lines of freedom." By the same token, can other nations of the free world expect us to be assuming what I consider to be an unfair share of the defense burden, or being policemen for the entire world? We seem to have area treaties, NATO, or SEATO, where we are helping, where they have an obligation to respond within their area. We have got obligations to respond all over the world. Is it not feasible for us to have treaties whereby, if the European countries have a treaty with us, that if we are involved in the Far East, that they would help us, that the Far Eastern nations would help us if we are involved in Europe, would that not be a fair method?

Secretary SCHLESINGER. It is feasible, and it has grown up that way in treaties, Senator Scott. It just does not work out that way. Britain was a member of SEATO. Britain is a member of the CENTO Pact. And they have provided token forces in the past. So there is something of what you are referring to. Nonetheless, I think that it is recognized that the United States does carry global responsibilities.

Senator SCOTT. Why would we carry global responsibility and England, France, Germany, Australia, and the other countries, not carry the same responsibilities?

Secretary SCHLESINGER. Because it is only the United States that has the power to carry that kind of weight around the world. That is not a question of theorizing on what might be, that is just a question of relative power.

Senator SCOTT. If we put together the relative power, if we base it on their economic strength, I would think that could be converted into military strength. If we put all the other nations of the free world together, would they not have greater resources than we would have individually?

Secretary SCHLESINGER. That is right. But they do not have the coherence in their association with the United States that a unitary state has.

Senator SCOTT. Let me share with you, Mr. Secretary, the results of the poll that I took just a few weeks ago from throughout Virginia. I asked the question: Should the Federal Government spend more, or less, or about the same in the following fields? In national defense,

they were very strongly in favor of it. But on foreign military aid—and I was somewhat surprised at this, because a lesser percent was for foreign military aid than for foreign economic aid—1.8 percent of the people responding wanted us to spend more. 88.2 percent wanted us to spend less. 9.8 percent wanted us to spend about the same. So far as Virginia is concerned, the people are concerned about this tremendous amount of money that we are spending on foreign aid. It is the most unpopular program, in my opinion, that this Nation has. If we believe in sovereignty ultimately presiding in the people, and if we believe in the collective judgment of the people being more nearly correct than that of a given individual, I think we ought to pay some attention to something like this. I just pass it along for your information as to what the people in Virginia feel.

Mr. Chairman, I yield back the balance of my time.

The CHAIRMAN. Thank you, Senator.

Secretary SCHLESINGER. Mr. Chairman, may I make an observation on that?

The CHAIRMAN. Briefly.

Secretary SCHLESINGER. First, with regard to Europe, Europe will not survive as a collection of free and independent states without the stiffening effect of a superpower like the United States. Separately those states are small and medium-sized, and they cannot stand up by themselves against the Soviet Union.

Second, I would observe, with regard to foreign aid, that it has always been unpopular in the United States. It lacks a constituency. But foreign aid and foreign military aid are frequently, although not always, a very cost-effective way of buying additional strength for the free world. In the case of Turkey, which has been a vexing question of late, the Turks maintain about 500,000 men under arms, more than one percent of their population. And they have a formidable military capability. Yet, they do not earn foreign exchange, nor do they have a domestic armaments industry. The small amounts of equipment that we have provided to the Turks in the past have permitted them to maintain a formidable military establishment. That is mutual security. And overall for the free world, it tends to increase our military capabilities at relatively low cost to the American public.

The CHAIRMAN. Thank you, Mr. Secretary.

The Chair would like to observe that Senator Leahy, who had planned to be here today, is ill. That accounts for his absence.

Senator McIntyre.

Senator MCINTYRE. Thank you, Mr. Chaiman.

MILITARY INTERVENTION IN MIDDLE EAST

Mr. Secretary, I have been very disturbed by press reports that Secretary Kissinger feels that the United States might use force in the Middle East to obtain the oil in the event of economic strangulation of the Western World, and that you feel it would be militarily feasible. I hope you can now assure this committee that these reports do not accurately represent our national policy, and that the full weight of our efforts is to avoid any such military action.

Secretary SCHLESINGER. I think that the full weight of our efforts is to avoid such military action. That has been stated repeatedly. Military intervention is not national policy, as your question suggested. I

think what Dr. Kissinger was referring to was that under great pressure the United States, like other great nations, would be prepared to use force to defend its national interests. But it was a rather hypothetical observation on his part. It certainly does not reflect U.S. Government policy.

GENERAL BROWN'S STATEMENT AT DUKE LAW SCHOOL—OCTOBER 1974

Senator McINTYRE. General Brown, I am certain that you understand and know that I was quite distressed at your statements down at Duke University. And I would appreciate if you would answer this question for me. I am sure that you will agree with me, General, that our Nation must be assured of the highest levels of judgment and performance from its ranking military officials. In the light of this expectation, and given your remarks last October at Duke Law School in which you committed, in my opinion, gross error in publicly slandering a segment of the American population, demeaning the integrity of Congress, and questioning the validity of American foreign policy, and adding fuel to a highly incendiary Mideast situation, would you please explain to me and to this committee why you thought it inappropriate to resign your position as Chairman of the Joint Chiefs of Staff?

General BROWN. Senator, I understand your concern. I wish to assure you and the committee, as I have stated publicly, that I support our policy in the Middle East as it affects Israel, not only out of a sense of duty, but also out of personal conviction. I deeply regret the divisiveness that the incident caused.

And with the permission of the chairman, I would like to insert in the record the original of my remarks and subsequent related expressions.

The CHAIRMAN. All right. Do you have them with you?

General BROWN. We will provide them. I do not have them.

[The information follows:]

STATEMENT OF GEN. GEORGE S. BROWN, CHAIRMAN OF THE JOINT CHIEFS OF STAFF

I deeply regret my remarks at Duke University which are currently being reported in the press. They were both unfortunate and ill considered—and certainly do not represent my convictions.

In particular, the remarks might mistakenly lead to the wholly erroneous inference that American citizens and groups do not enjoy in this nation the privilege of expressing their views forcefully. What are called pressures lie at the very heart of democracy. We in Defense know that: we experience pressures from contractors, pressures from those opposed to defense expenditures, pressures from foreign governments.

Moreover, my improper comments could be read to suggest the American Jewish Community and Israel are somehow the same. Americans of Jewish background have an understandable interest in the future of Israel—parallel to similar sentiments among other Americans all of whom at one time or another trace their descent to other lands.

I do in fact appreciate the great support and the deep interest in the nature of our security problems and our defenses that the American Jewish Community has steadily demonstrated, and I want to reemphasize that my unfounded and all too casual remarks on that particular occasion are wholly unrepresentative of my continuing respect and appreciation for the role played by Jewish citizens which I have just reiterated to the Jewish War Veterans.

(Transcript of General George S. Brown's response to question at Duke University concerning the Middle East—October 10, 1974.)

Now, in answer to the question would we use force in the Middle East. I don't know—I hope not. We have no plans to it. It is conceivable, I guess. It would be almost as bad as the Seven days in May. You can conjure up a situation where there is another oil embargo and people in this country are not only inconvenienced and uncomfortable, but suffer. They get tough minded enough to set down the Jewish influence in this country and break that lobby. It is so strong, you wouldn't believe now. We have the Israelis coming to us for equipment. We say we can't possibly get the Congress to support a program like this. And they say don't worry about the Congress. We will take care of the Congress. This is somebody from another country, but they can do it. They own, you know, the banks in this country, the newspapers. Just look at where the Jewish money is. But the point is, if you conjure up that sort of situation and disruption that an oil embargo would bring about in Japan and Europe, and there would be demands for something. Now, even if there is not another oil embargo and even with the recycle of the money and I don't really understand how that works, because it is kind of like tight money. But it is not going to be too many years when all the money is going to be in their corner of the bank. Seven to eight hundred billion dollars there. They are going to be the world's bank. In every country, every national effort, thus far, except the Soviet Union and except for oil producing countries. They are taking on a role they are not equipped to handle. I don't know whether the world will put up with it. It is a heck of a problem to contemplate. I don't intend to go off to war in the Middle East if that is the question.

(The following telegram was sent from General Brown.)

From: General George S. Brown, USAF, Chairman, Joint Chiefs of Staff—Pentagon, Washington, D.C.

To: Judge Paul Ribner, National Commander, Jewish War Veterans, National Headquarters, 1712 New Hampshire Avenue, N.W., Washington, D.C. 20009.

My true feelings concerning Jewish-Americans were not reflected in my statements at Duke University on October 10 which are now being reported in the press. In a rather rambling treatment of a difficult and complex subject the words came out very poorly. I share with you and all of America the pride you and the members of your organization rightfully feel in their demonstrated patriotism and sacrifices and I am well aware of the tremendously important contributions to our country made by its citizens of Jewish faith.

The effective support by your organization and other parts of the Jewish community in this country, of strong national defense, for which I work so diligently, is not only recognized but deeply appreciated by me and all other members of the Department of Defense.

I deeply regret that my poorly articulated statements have offended a segment of the American population. They don't represent my true feelings toward your organization or those of your faith. My true feelings are those of respect and appreciation.

EXCERPT FROM COMSTOCK CLUB SPEECH

And, now, one final thought. I could not address a group of distinguished Americans without some reference to the recent controversy I unwittingly stirred up by my statement at Duke University, which, over a month later, has understandably produced public controversy.

In response to a question from a student on a very complex and difficult subject, I provided an unthinking shorthand answer. In an all too casual fashion, fused inaccurate words, poorly chosen at random, without knowledge of their emotional impact. I meant no affront. In fact, those present felt none. On every possible occasion, I have expressed my concern at having unintentionally offended my fellow Americans, not merely Americans of Jewish faith.

More than anything else, I am both awed and appalled by the divisiveness this incident has caused. I understand the upset and dismay that have been expressed. I have received some letters of support of a type I totally reject as alien to America and alien to me. Polarization of our society is contrary to our traditions and clearly not in the best interests of the Nation.

There are two lessons that I have learned. First, I have learned a good deal about the corporate structure of banks and newspapers, and, in addition, I have learned how little I previously knew about that subject. Second, I have learned that the strategic direction of the Armed Forces in the defense of America is my forte and is a full-time job. With this in mind, I intend to avoid even the appearance of dealing with anything else.

One final word—in light of those offending remarks. In three wars, I have been shot at in an effort to serve and protect freedom of religion and freedom of speech. I feel we must now get on with the serious business of maintaining the strength of America—not for strength's sake, but in order to preserve these fundamental American freedoms. I assure you that I intend to continue in that effort.

Thank you.

General BROWN. As to specific question, Senator McIntyre—why I did not resign, I was not asked to by the two people to whom I am responsible, the Secretary of Defense and the President of the United States.

Senator MCINTYRE. Thank you very much, General.

ADVANCE PROCUREMENT OF TRIDENT

Mr. Secretary, the Trident submarine system is the largest single program proposed in this fiscal 1976 research and development procurement budget. If the recently reported delays up in Electric Boat in submarine construction are correct, why are you seeking advance procurement in fiscal year 1976 funds to start two Trident submarines?

Secretary SCHLESINGER. As you will recall, Senator McIntyre, we had discussions about the Trident program a year and a half ago, at the time, I believe, that the 1974 budget, which Senator Symington handled as acting chairman while Senator Stennis was in the hospital, came up in the Senate.

At that time there was concern on the part of yourself and Senator Symington about the acceleration of the program going to three submarines a year procurement.

In the 5-year defense plan, as you will recall, we adjusted the rate of procurement to three every 2 years, or one every 8 months, rather than what had been planned as one every 4 months. In other words, we decelerated the acceleration or cut the program pacing in half. We believe that this is the appropriate pacing of the program, and long lead time items are associated with the economical fulfillment of a particular production program.

Senator MCINTYRE. We started out with a plan to build these big subs on the basis of one, three, three. And that was the program I objected to strenuously. And I think, due to your discretion, and I thank goodness for it, we reduced that subsequently to 1, 2, 2, 2, 2, 1. As I understand it, the plan is to go ahead with one Trident submarine, 2, 1, 2, 2, 1, 2. I am glad to see this because, Mr. Chairman, the experience we have had is, the faster we go, and more we get into mistakes, the more it costs the taxpayers.

DECISION TO BUY B–1

Mr. Secretary, there have been press reports recently that the B–1 program has increased about $21 billion for a buy of 244 planes. If correct, this would mean that the projected program unit cost has increased to $83 million per airplane compared with $61.5 million a year ago. This would be an increase of $21.5 million, or 34 percent, in 1 year. I take it from your testimony here, that there is no decision to buy, to go in and by this aircraft, this year, fiscal 1976?

Secretary SCHLESINGER. That is correct, Senator. The decision will come later.

With regard to your observations, I think that the program costs for the B–1 have been under very good control. The biggest problem that we have had with the B–1 is that the purchases will take place in the outyears, particularly in the 1980's, and as a result, any change in the rate of inflation has a very marked effect on overall program costs. A 1-percent increase in the rate of inflation results in a billion-dollar increase in program cost. That is a consequence of pushing the program into the outyears as well as of the very high impact of inflation.

We must recall, however, as we talk about these aircraft and other equivalent aircraft, that one is dealing with the inflated dollars of the early 1980's, a period of time that will enjoy, I think, the $150,000-a-year Congressmen and $125,000-a-year journalists, as well as the 80-cent loaf of bread.

Senator McIntyre. The question I want to ask you, Mr. Secretary, is this. What specifically would have to occur to this program for you, as Secretary of Defense, to decide not to secure the B–1 bomber in substantial numbers?

Secretary Schlesinger. Such decision would rest upon whether or not there is a development failure.

Senator McIntyre. Development failure, not the cost?

Secretary Schlesinger. If the cost continues in what we expect to be an appropriate range in terms of constant dollars, we would expect to go ahead with the B–1. As I indicated earlier, the program costs in constant dollar terms have risen by about 15 percent, as I recall. The growth in the program costs is primarily the consequence of inflation.

ALTERNATIVE TO B–1

Senator McIntyre. You are talking about constant dollars. But even in inflated dollars, this plane, that a lot of us feel we need, is going to cost $83 million per plane. I am talking about program costs, which means R. & D. is built into it, or cranked into it. Are we not reaching a point where this plane is not going to be cost-effective? And my next question is, what specific alternative do you have under active investigation in the case you decide not to buy the B–1 bomber program in large numbers? Do you have any active program under way?

Secretary Schlesinger. We do not have an alternative program in the sense that you are employing the term. If there were a development failure, a technical failure in the B–1 program, and if that technical failure forced us to turn to another program in order to maintain our strategic forces, it would have to be built up out of technological building blocks, as it were. But we do not have a program at the present time in competition with the B–1.

Senator McIntyre. Let the record note, Mr. Chairman and Mr. Secretary, that there is $70 million for initial procurement in the fiscal 1976 request. And I would just like to say this. It seems to me that somewhere in the beginning the Air Force said, we want this plane, and this is what we want it to do. Now, program failure is one thing. But if that plane in its trials does not live up to its expectations, then I do not believe you should ask the American public to buy it. That

is an expensive plane. And it is an expendable item. A bomber is an expendable item.

Secretary SCHLESINGER. Agreed.

Senator MCINTYRE. Thank you, Mr. Secretary.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

Senator BYRD. Thank you, Mr. Chairman.

Mr. Secretary, I want to congratulate you on what I thought was an excellent statement you made to the committee this morning.

Secretary SCHLESINGER. Thank you, sir.

Senator BYRD. I want to make a three-paragraph observation and follow it with a question.

SOURCE OF BUDGET REDUCTION

Mr. Secretary, I am concerned with the recent trends in defense spending which go for manpower and for operation and maintenance compared with what goes to the investment side of defense, investment being defined as the sum of all procurement R. & D. and military construction. Let me give you some staggering figures to illustrate what I mean.

In fiscal year 1964 defense outlays were $50.8 billion. And in fiscal year 1974 they were $78.4 billion. That is an increase of $27.6 billion. And of that increase $27.2 billion went for personnel pay, leaving only $400 million for investment, which, as I mentioned, is the procurement, R. & D. and military construction. In other words, 98.5 percent of the increase in defense outlays in the past 10 years have gone to manpower and O. & M., and only 1.5 percent of the increase to investment or what you might call hardware. To my way of thinking, these are highly significant figures.

With this as a background, it would seem that if hard choices have to be made about reductions in defense spending, it would have to come from the manpower area and not from the investment or hardware area, which really has decreased significantly over the past 10 to 20 years.

Mr. Secretary, I know you would like to have both manpower and hardware. But if hard choices have to be made about reductions in the defense budget, where would you make them? Essentially would they be in manpower, namely, personnel and personnel-related costs, or in the investment portions of the defense budget?

Secretary SCHLESINGER. If reductions were made—and I certainly would not advocate them—I think that the reductions would have to be balanced. I should point out, Senator Byrd, that we have reduced manpower 600,000 men as compared to the prewar level, and our uniformed manpower today represents 1 percent of the population. That is the same percent as in the post-World War II demobilization. We have reduced our manpower very dramatically.

The increases that you speak of are caused by the two factors. One is the decision to go for an all-volunteer force, with market rates of compensation for the individuals serving in the Armed Forces rather than drafting them. The effect of this inevitably was to increase the manpower bill.

The second factor is that the Congress has borne down rather heavily on our investment program, and if the Armed Services Committee

in marking up the procurement and R. & D. bill sees fit to make an adjustment, I think that we can increase the percentage going to investment.

Senator HARRY F. BYRD, Jr. So you increase the percentage by taking a reduction in the personnel area?

Secretary SCHLESINGER. No, sir.

Senator HARRY F. BYRD, Jr. How would you increase it?

Secretary SCHLESINGER. By the Congress not taking a particularly hard whack at procurement and R. & D., which has been the focus in recent years. That is one of the elements that has been driving down the percentage going to investment in R. & D.

INCREASED PERSONNEL COSTS

Senator HARRY F. BYRD, Jr. How much of the $9 billion increase in spending that you recommend for the upcoming fiscal year will go for personnel and personnel-related costs?

Secretary SCHLESINGER. Let me go back one step. We are increasing our request to the Congress for procurement from $17 billion to $25 billion. In part this represents the curing of the underfunding of particular programs, most notably the ship construction budget, in which there is something on the order of $2.3 billion of underfunding. So $8 billion represents an increase in requested funding in the procurement account.

Senator HARRY F. BYRD, Jr. Then does that mean that your personnel costs will remain static?

Secretary SCHLESINGER. The personnel costs this year will decrease from 55 or 56 percent of the budget to 53 percent.

Senator HARRY F. BYRD, Jr. I am speaking of dollar costs.

Secretary SCHLESINGER. No, sir. The personnel costs will go up because of the pay and price increase.

Senator HARRY F. BYRD, Jr. In dollars, how much will it go up?

Secretary SCHLESINGER. From fiscal year 1975 to fiscal year 1976 personnel costs will increase from $46.8 billion to $49.2 billion, an increase of $2.4 billion.

Senator HARRY F. BYRD, Jr. Let me see if I understand you correctly. You advocate an increase in spending—and I am leaving out the TOA now—of $9 billion. Am I right on that, in round figures?

Secretary SCHLESINGER. The outlays increase is about $8 billion, I believe.

Senator HARRY F. BYRD, Jr. $8 billion in outlays?

Secretary SCHLESINGER. Yes, sir.

Senator HARRY F. BYRD, Jr. Then you say that the hardware represents $8 billion. So half of the increase goes to hardware?

Secretary SCHLESINGER. No, I was referring there to TOA.

Senator HARRY F. BYRD, Jr. Could we stay at this point with the outlays?

Secretary SCHLESINGER. In the $8 billion I would think about half of it would be hardware, $2.4 billion for personnel costs, and $2.2 billion for O. & M. About $3.5 billion would be for procurement, R.D.T. & E. and military construction.

[The information follows:]

DEPARTMENT OF DEFENSE OUTLAYS

[Current dollars; billions]

	Fiscal year 1975	Fiscal year 1976	Change
Civilian payroll	$14.6	$15.4	$0.8
Military payroll	18.9	19.4	.5
Other military personnel	6.2	6.4	.2
Retired pay	6.3	6.9	.6
Family housing nonpay	.9	1.1	.2
Total, pay and allowances	46.8	49.2	2.4
O. & M., excluding pay	13.8	16.0	2.2
Procurement, R.D.T. & E., military construction	24.2	27.7	3.5
Total, nonpay	38.0	43.6	5.6
Total, DOD/MAP	84.8	92.8	8.0

HARDWARE EXPENDITURES

Senator HARRY F. BYRD, Jr. Your increase in spending for the upcoming year, if I understand you correctly, will be about one-half or $4 billion for hardware?

Secretary SCHLESINGER. Approximately.

Senator HARRY F. BYRD, Jr. Additional cost of hardware. And the rest will be in personnel and operations and maintenance?

Secretary SCHLESINGER. That is correct, Senator. But it is difficult to spend hardware dollars quickly. When the Congress authorizes and appropriates funds, at that time we have to sign a contract for the delivery of hardware. So the appropriations that you make now will be influencing the fiscal year 1978 budget. Outlay effects come quickly.

Senator HARRY F. BYRD, Jr. That is right. But what I am trying to understand is, you want to spend an additional $8 billion. Will half of that go for hardware and actually be spent for hardware?

Secretary SCHLESINGER. No, sir, approximately half, probably a little bit less than that, about $3.5 billion.

Senator HARRY F. BYRD, Jr. So the bulk of that increase will go to personnel and O. & M.?

Secretary SCHLESINGER. Yes, indeed.

CIVILIAN PERSONNEL LEVEL

Senator HARRY F. BYRD, Jr. How may civilian employees does the Defense Department have at the present time?

Secretary SCHLESINGER. At end fiscal year 1975, we will have 994,000 direct-hire civilians.

Senator HARRY F. BYRD, Jr. How does that compare with 1 year ago?

Secretary SCHLESINGER. We are down about 20,000 as compared to the end of fiscal year 1974. And, by end fiscal year 1976, we will be down another 9,400.

BREAKDOWN OF PERSONNEL RELATED BUDGET EXPENDITURES

Senator HARRY F. BYRD, Jr. In working out the percentage of your total budget which goes to personnel and personnel-related costs, are you including in there such items as recruiting, for example?

Secretary SCHLESINGER. Yes, sir, where the recruitment expenditures are directed toward manpower, they would be included in the total budget.

Senator HARRY F. BYRD, Jr. That is what recruitment is, is it not?

Secretary SCHLESINGER. The paper clips or the typewriters or what have you used in recruitment offices would be charged to minor procurement. But the personnel services of the recruiting sergeants, and the like, would be in the manpower account.

Senator HARRY F. BYRD, Jr. How about medical expenses and hospital expenses?

Secretary SCHLESINGER. Those are personnel-related items, yes, sir.

Senator HARRY F. BYRD, Jr. Those are included in your figure?

Secretary SCHLESINGER. Pay costs of medical personnel are included but nonpay operating costs are not.

Senator HARRY F. BYRD, Jr. What is the unfunded military retirement cost now?

Secretary SCHLESINGER. I would have to give you an answer for the record, Senator. I do not know precisely what that is.

Senator HARRY F. BYRD, Jr. It was $133 billion 1 year ago. Until the last couple of years, that figure was always included in the material submitted to the committee, but it was not last year.

Secretary SCHLESINGER. We will be happy to make that available Senator.

Senator HARRY F. BYRD, Jr. I would appreciate it if you would.

[The information follows:]

The unfunded past service cost of the military retirement and survivor system was $130.4 billions on June 30, 1973; and a preliminary estimate for June 30, 1974 is $148.0 billions. A final figure will be available about March 15, 1975.

Senator HARRY F. BYRD, Jr. Take the raw figures, the dollar figures. What were your total personnel costs in fiscal year 1975 and fiscal year 1974?

Secretary SCHLESINGER. In fiscal year 1974, total pay and allowances amounted to $43 billion. For fiscal year 1975 it amounted to $46.8 billion. And for fiscal year 1976, $49.2 billion.

RETIREMENT COSTS

Senator HARRY F. BYRD, Jr. Let me ask you another figure in regard to fiscal year 1976. What is the retirement cost in the 1976 budget?

Secretary SCHLESINGER. About $6.9 billion.

Senator HARRY F. BYRD, Jr. Do you have a projection for the following year?

Secretary SCHLESINGER. That depends on how the Congress reacts to the President's proposal establishing a 5-percent pay raise limitation and the CPI assumption. That number would be about $7.9 billion for fiscal year 1977.

Senator HARRY F. BYRD, Jr. The figure that you are citing is $6.9?

Secretary SCHLESINGER. $6.9 billion for fiscal year 1976.

Senator HARRY F. BYRD, Jr. You are assuming that the limitation would be approved in that figure?

Secretary SCHLESINGER. In that figure; yes, sir.

Senator HARRY F. BYRD, Jr. If the limitation is not approved, it would then go to $8 billion, did you say?

Secretary SCHLESINGER. This year it would be about $7.5 billion, if that change in the law were not approved by the Congress. And next year, fiscal year 1977, it would go to about $8.7 billion.

Senator HARRY F. BYRD, Jr. Thank you, Mr. Secretary.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

Senator Nunn.

Senator NUNN. Mr. Secretary, I want to join Senator Byrd in his comment about your opening statement this morning on the posture of our national defense. I know that there will be a lot of quarrels about this philosophy. I think you have laid out, in the most articulate fashion that I have seen since I have been here in my short time, the theory and philosophy behind the defense budget. I think this leads to a meaningful debate rather than an emotional-type debate. I congratulate you for that.

EFFECT OF TERMINATION OF AID TO TURKEY

I have several questions relating to NATO. First of all, you alluded to the Turkey situation on the southern flank a little while ago. Just from a pure military assessment, I would like to get your ideas about the significance of the developments between the United States and Turkey, and more particularly, whether there is any immediate danger to the southern flank by reason of the termination of aid to Turkey?

Secretary SCHLESINGER. There is no immediate danger to the southern flank. The impact of the aid termination lies in the endemic danger of a weakening of the political cohesion of the alliance and the effect that it has on the overall deterrent posture of the alliance. In addition, if the Turks were to fail to receive military hardware over a period of years, the efficacy of their forces will diminish. The basic impact, however, is on the political cohesion of the alliance.

Senator NUNN. As I recall, the Turks have the largest manpower force in NATO other than possibly West Germany; is that right?

Secretary SCHLESINGER. They have about half a million men under arms; yes, sir.

Senator NUNN. The Germans have about that many?

Secretary SCHLESINGER. About the same number.

Senator NUNN. How many Russian divisions are on the Turk border, approximately? I think it is a sizable amount of force, I am not certain.

Secretary SCHLESINGER. In the southwestern U.S.S.R., the Soviets have about 170,000 men, which would work out to be on the order of 8 or 10 divisions.

Senator NUNN. 8 or 10 divisions.

Secretary SCHLESINGER. We can put the precise number in the record.

[The information follows:]

SOVIET GROUND DIVISIONS ON THE TURKISH BORDER

Borders of Turkey and the USSR join only in the area east of the Black Sea on the Soviet Transcaucasus Military District. There are [deleted] divisions located along this border. However, the area which we call the southwestern USSR includes the Odessa and Transcaucasus Military Districts. There are [deleted] divisions in these military districts including [deleted] airborne divisions. It is believed that these divisions are designated for wartime operation against NATO's Southern Region, which includes Turkey.

Senator NUNN. Do the Turks offset that in terms of numbers? I am trying to get some gauge between the numbers of Soviet troops on the Turk border and the number of Turk troops there defending.

Secretary SCHLESINGER. Yes, indeed; the Turks more than offset them.

MUTUAL BALANCE FORCE REDUCTION TALKS

Senator NUNN. Along the NATO line, I am sure you will agree that many things depend on the outcome, or lack thereof, in the MBFR talks. Do you expect any significant developments during the calendar year 1975 in MBFR; and can you bring us up to date on the status of those talks?

Secretary SCHLESINGER. I am always hopeful. The talks, as you know, have just resumed. There had been a growing coolness in those talks last spring, which I think, may have been related to Soviet perceptions of political difficulties in the U.S. It may also have been related to the fact that they may have regarded SALT forward momentum as a prerequisite for movement in the MBFR talks. Both of those conditions have changed. As a result, I am hopeful that we may move closer to agreement during this spring. But that all depends upon the willingness of the Soviets.

Senator NUNN. Are you more optimistic than you were this time a year ago on MBFR?

Secretary SCHLESINGER. I would say that I am more optimistic than I was 6 months ago. A year ago the conversations, I believe, were more congenial and more productive. And in the late spring they became far cooler, and remained so for a considerable period of time. I think that the agreement at Vladivostok may be an element that brings back a more constructive attitude in those talks.

Senator NUNN. I do not want to get into any kind of classified information here; so do not answer this if it is classified. But does the absence of the Vladivostok talks, the lack of including a forward-based system, enhance the allied position in MBFR?

Secretary SCHLESINGER. I think that rather than enhancing the allied negotiating positions, it maintains the cohesion of the alliance. There is certainly the possibility of introducing some of those forward-basing issues into the MBFR talks. It is plain that the exclusion of the forward-based systems at this time in the SALT negotiations was a proper decision on the part of the two countries. To the extent forward-based systems are discussed, they should be discussed on an Alliance-related basis. And that would mean bringing together the Warsaw Pact countries and the NATO countries as well as the two major powers represented in those alliances.

Senator NUNN. If there were to be an MBFR agreement along the lines that we have taken in terms of the American and allied positions, what would be the budgetary impact on this during fiscal 1976, assuming an agreement along the lines of the proposal we have taken? Would there be a significant enough reduction in needed American manpower?

Secretary SCHLESINGER. No, sir.

Senator NUNN. Would those troops be brought home?

Secretary SCHLESINGER. Those troops would be brought home. And that would tend to run up the immediate costs because of the cost of movement of those forces.

Senator NUNN. You mean you could not reduce the armed services personnel by that many?

Secretary SCHLESINGER. You could, but that would be unwise. We have not planned, or we have not submitted a plan, for a reduction of the U.S. forces. MBFR at the present time is concerned with the forces of the superpowers stationed in the NATO guidelines area. The reduction of U.S. Forces would have to be associated with a reduction of Soviet Forces.

OFFSET AGREEMENT WITH GERMANY

Senator NUNN. You talked a little while ago—I believe it was in your formal statement—about the offset agreement with the Germans, and the probability that the U.S. military force expenditure would be completely 100-percent offset for fiscal year 1974. This so-called Jackson-Nunn amendment did not apply beyond that, I realize. But the 2-year agreement would also cover fiscal 1975?

Secretary SCHLESINGER. Yes; and I did mention that in passing. I added to the words of the statement as I read it.

Senator NUNN. So 1975 would be included in there?

Secretary SCHLESINGER. Yes, sir.

Senator NUNN. Given the large number of reserves, or the large amount of reserves that the West Germans have, would it not be reasonable, even though some of the other European nations are experiencing serious balance-of-payments problems, would it not be reasonable to have the administration, without further legislation, to pursue it for the next 2 years on the same kind of basis; that is, 100-percent offset for American costs?

Secretary SCHLESINGER. I think that we will pursue that 100-percent offset as an objective. It would depend upon our perception of how well we could deal with the European alliance.

Senator NUNN. I was thinking of the relative position between West Germany and the United States. Since the passage of this amendment, the West German relative position has improved as measured against the United States. So it seems to me that we ought to pursue it even more vigorously and not less vigorously.

Secretary SCHLESINGER. I think the point is well taken, Mr. Chairman.

Senator NUNN. Mr. Chairman, I have got to vote. I have some more questions. I do not know how I stand on time.

The CHAIRMAN. Your time is just about up.

And I will recognize Senator Culver on our return.

Senator NUNN. Let me ask one final question, then.

STANDARDIZATION STUDY

The amendments that were in the authorization bill last year, the first one was on the troop reduction and support areas, and the second one was on the tactical inventory and so forth, and the third one was standardization. One of these reports, I believe, is already overdue. I believe the standardization report was due January 31. How are you proceeding on the tactical nuclear standard, and how are you proceeding on the standardization study?

Secretary SCHLESINGER. We are proceeding vigorously on the tactical nuclear study. The Chiefs have made some recommendations to me.

We are consulting with our allies to the extent that we are dealing with them in NATO, and also where we are not in a position in which we have to go through alliance consultation. I should be delighted to go into this with you in closed session.

On standardization, as you know, there is one of the most vexing and difficult problems that exists within the alliance. There is a high degree of protectionism in the armaments industries of the various nations, which tends to lead one away from standardization. These armaments industries are somewhat centrifugal forces. We are attempting to come up with a set of guidelines that you will find impressive. But we have to find guidelines that not only are impressive, but are implementable.

Senator NUNN. On the tactical nuclear portion of that study, I would hope that you would direct considerable effort to the possibility of terrorism against some of our tactical nuclear storage areas. I would hope that that would be a key part of this effort. Because it is one that I think should be of concern based on the current activities in the world.

Secretary SCHLESINGER. It is and always has been a matter of concern. If we were not emphasizing that aspect of tactical nuclear storage, we would be virtually unique.

[A recess was taken.]

The CHAIRMAN. I think that that is all the rollcall votes we have this afternoon. I now recognize Senator Culver.

Senator CULVER. Thank you, Mr. Chairman.

Mr. Secretary, I join with the others in welcoming you here. It is a particular personal pleasure for me, in view of the fact that I was one of your students in economics as an undergraduate in college. I must say that you had me convinced during that period of my life that you are infallible, and I therefore enjoyed hearing of your difficulty with the inflation projections as head of the OMB.

BUDGET JUSTIFICATION

Mr. Secretary, a headline in yesterday's New York Times capsulized very well, I believe, the difficulties many people in the country today have with this new budget. The headline read: "Military funding increased, program for poor and elderly cut."

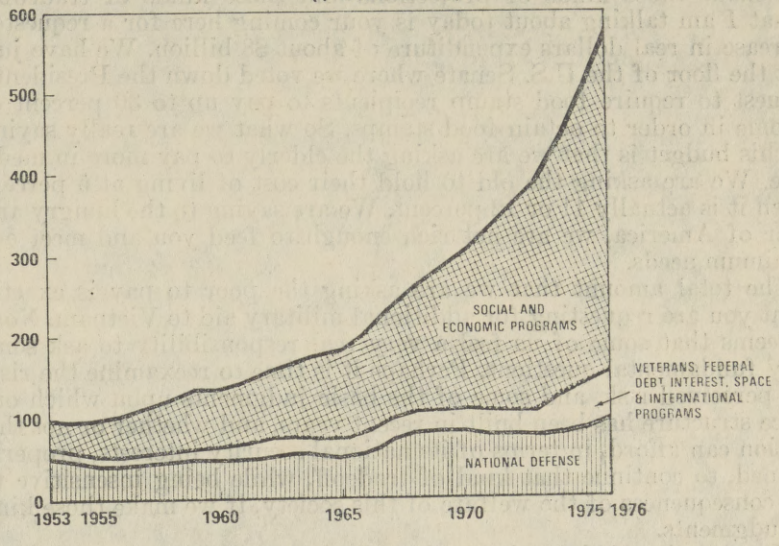
I recognize that you are responsible only for the defense portion of that budget. And I note that you believe that this huge dollar increase will buy only as much in goods and services as last year's budget. What I would like to know, and what I think the people are interested in learning, is, first, when we are still reaching arms control agreements with the Soviet Union, what is the necessity, in your judgment, for the Pentagon to get more money and for people programs to get less?

And secondly, in your judgment, does a proper definition of national security interests and national defense and adequate deterrent capability include the quality of life and morale of the country's people, specifically the quality of health, the quality of the welfare and the spirit of those peope? Is there not a point when spending more money for guns and tanks at the expense of neglected human needs results in a diminution of national security rather than an increase?

Secretary SCHLESINGER. Thank you, Senator Culver, for your kind words.

NET U.S. PUBLIC SPENDING (FEDERAL-STATE-LOCAL)

($ BILLIONS)



The chart that you have portrayed here shows the alteration in total U.S. public spending over the period since the early fifties. What we do see is a steady growth of social and economic programs, particularly since 1965. Defense, this year, will represent the lowest percentage of the Federal budget since 1940.

In addition to that, the defense budget itself cannot compensate for the growing cost of public programs. The reason for that is that the social and economic programs have been growing in constant dollars at a rate of 8½ or 9 percent. In current dollars, they have been growing at a rate of approximately 15 percent. Revenues of the Federal Government and the State and local governments have not grown—cannot grow, given the tax structure, at that rate. So the driving force behind the rise in Government expenditures has been represented by social and economic programs.

Defense, as has been indicated, has been shrinking in terms of Federal spending, it has been shrinking in terms of public spending. In public spending terms it is 16 percent now, the lowest since before Pearl Harbor.

If one projects the steady increase in social and economic programs, one sees those programs alone running to approximately 35 percent of the GNP by 1985, and the total expenditures for State, Federal, and local governments running to 45 percent by 1985. We cannot have the steady expansion of social and economic programs without paying higher taxes. Reductions in national defense will not solve that problem. There are some who at the extreme will advocate that the rising costs of these social and economic programs should be taken out of the defense budget. If we were to take it out of defense, given the rate of growth of social and economic programs in recent years, the last infantryman with his last bayonet would leave the Government establishment by 1985.

Senator CULVER. But Mr. Secretary, I think we all agree that by misleading linear extrapolation of the rate of social spending today you can make those kinds of projections and those kinds of tradeoffs. What I am talking about today is your coming here for a requested increase in real dollars expenditure of about $8 billion. We have just left the floor of the U.S. Senate where we voted down the President's request to require food stamp recipients to pay up to 30 percent of income in order to obtain food stamps. So what we are really saying in this budget is that we are asking the elderly to pay more in medicare. We are asking the old to hold their cost of living at 5 percent when it is actually 11 or 12 percent. We are saying to the hungry and poor of America, we are not rich enough to feed you and meet our minimum needs.

The total amount that we are asking the poor to pay is exactly what you are requesting for additional military aid to Vietnam. Now, it seems that some of us feel a very real responsibility to ask some very fundamental questions. Perhaps it is time to reexamine the risk, the perceived risk, and some of the basic judgments upon which our force structure has been built in recent years, and whether or not this Nation can afford, in terms of its national security interests, properly defined, to continue that kind of tradeoff, while being insensitive to the consequences of the welfare of this society, if we make those kind of judgments.

You mentioned about the decline of military expenditures as a percentage of GNP. It is true, it is now below 6 percent. But détente and the SALT agreements have also reduced the likelihood of war, hopefully. Why should defense spending be linked to GNP? The threat is not linked to GNP. If there were a linkage, then defense spending should drop this year, because real GNP will decline about 2 percent, or 2½ percent.

It seems to me that we can play with all these kinds of figures. But we do have an accountability to the American people. And none of us is interested in talking about a national security defense system that makes us vulnerable, that makes us incapable of having a credible deterrent. But part of the credible deterrent is more than just guns and tanks, it is the will of the people, it is their spirit, it is their confidence in Government, and the Government priorities. It is an appropriate discharge of our responsibilities to examine in a very fundamental way some of these risks. For example, you say that if the defense budget is to be cut "It should be done in clear recognition, that we will not be able to fulfill our responsibilities."

I hope you will help us make these choices more explicit. What are the price tags and force structures associated with: First, being able to fight a land war in Asia as well as in Europe; second, in meeting our commitments to Korea, the Philippines, and Thailand; third, our intention to preserve a balance of power in the Indian Ocean; and fourth, our commitment to NATO and in the Middle East? If we disagree with any of these commitments or their current magnitude or their nature, we want to know how much to cut. And alternatively, if we want a leaner, tougher force with adequate numbers of weapons, but less goldplating and sophistication, what programs would you cut if we were to give you only $5 billion instead of the $15 billion more that you requested?

Secretary SCHLESINGER. Once again, let me express my strong support for the approach that you take. I think that we have to get back to these fundamentals.

You raised a number of questions. Yes, indeed, the national security of the United States depends upon the cohesion of the American people. A foreign policy that lacks a base in the consensus of the American public, a foreign policy that is characterized by polarization of the American people, in the long run is a foreign policy that is difficult for a democracy to sustain. The feeling of well-being on the part of the public is an essential ingredient in the underlying consensus that supports foreign and defense policy. And I would agree with that point.

The growth of the Federal budget in fiscal year 1976 looks to be, given your reaction on the rescissions, on the order of $50 or $55 billion, of which $8 billion would go to the Department of Defense, were you to approve in the entirety the requests that we have made.

That represents about 15 percent of the increase in the Federal budget. Aside from the Defense Department, there would be a growth of the budget on the order of $45 billion, once again, an increase of 13 percent or thereabouts in nondefense programs.

What one observes is a very substantial and continuing increase in such programs.

You raise the question of the linkage to the GNP. I would want to emphasize in the first place that the defense budget is not linked to the GNP in terms of our requirements for defense. Defense must be related to the external forces that we attempt to balance and the risks that we are willing to live with in balancing those external forces, which go far beyond any of the internal disagreements that we may have within the country.

The relationship to the GNP only applies insofar as we are talking about the burden that defense represents on national resources. Moreover, I would not be inclined to link defense expenditures in that respect to the actual GNP. I would be inclined to link it to total national capacity.

Were the decision to be made this year to reduce defense expenditures, given the facts that we are operating below levels of full employment and with excess resources in terms of unutilized men and capital, the effect would be to drive up the unemployment rate.

So I think to the extent that you deal with the issues of the burden on the economy, it should be in relation to capacity GNP.

Senator CULVER. Do you seriously, as an economist, Secretary Schlesinger, believe that the military spending program in this country is an effective way to deal with the recessionary problems of unemployment?

Secretary SCHLESINGER. No, sir.

Senator CULVER. Don't you feel that in terms of being more labor intensive, being more selective in its application, and being more efficient in terms of cost benefit of employment, that we are much better off with Federal spending in some of the other social areas like health and education? Doesn't that really create more jobs? Isn't it more labor intensive? If you really want to make that argument you had better make it on terms of the wisdom of the Government appropriating in some of these social areas, shouldn't you?

The CHAIRMAN. Gentlemen, I am sorry, we have to get to the others.

Senator CULVER. I wonder if I might have a unanimous-consent request to provide additional questions for the record?

The CHAIRMAN. That will be all right. We will come back to you in a few minutes. It won't take long.

Secretary SCHLESINGER. May I have a word in response to that question, Mr. Chairman?

The CHAIRMAN. We don't have a hard and fast rule. But we want to get to every Senator. Senator Hart has been here all day.

Senator HART. Mr. Chairman, I would be more than happy to have the Secretary answer that question.

The CHAIRMAN. When you are called on you had better take your time. We will come back to Senator Culver.

We recognize you, Senator Hart.

TREND OF DETERRENT FORCE

Senator HART. Mr. Secretary, I think in many respects the most important part of your statement is the first 12 pages, because it really sets the tone, the spirit, and the mood of the overall projects. Frankly, I was rather concerned about it. First of all, it took 12 pages to reach the most important statement. The real issue, thus, is hardly one of need. It centers on the types and magnitude of deterrent forces that we must have. I couldn't agree with you more on that, and I think that is what we are here to discuss today. But, what disturbs me about the preceding 11 pages is the black and white tone in which you place these very, very difficult questions that Senator Culver was raising.

For example, on page 2 you say: "If we want the shadow rather than the substance of a first-class military power." Across the page on page 3 you say: "If the defense budget is to be reduced, it should be done in clear recognition that we will not be able to fulfill our responsibilities."

Senator Culver mentioned that.

On page 6 you say: "Surely the right cure for what may seem an excess of commitments is not the blind and hysterical abandonment of all commitments."

And page 11 you say: "No longer can we expect other nations by themselves to man the front lines of freedom."

My question is this: This is a communication addressed to the Congress of the United States through this committee. General Brown has addressed his statement to this committee. Would you please identify for us, for this committee and for Congress, the people that you are talking about in your prepared statement. I presume you are talking about some specific people in Congress, but frankly, I don't know who those people are. I don't know who represents that point of view.

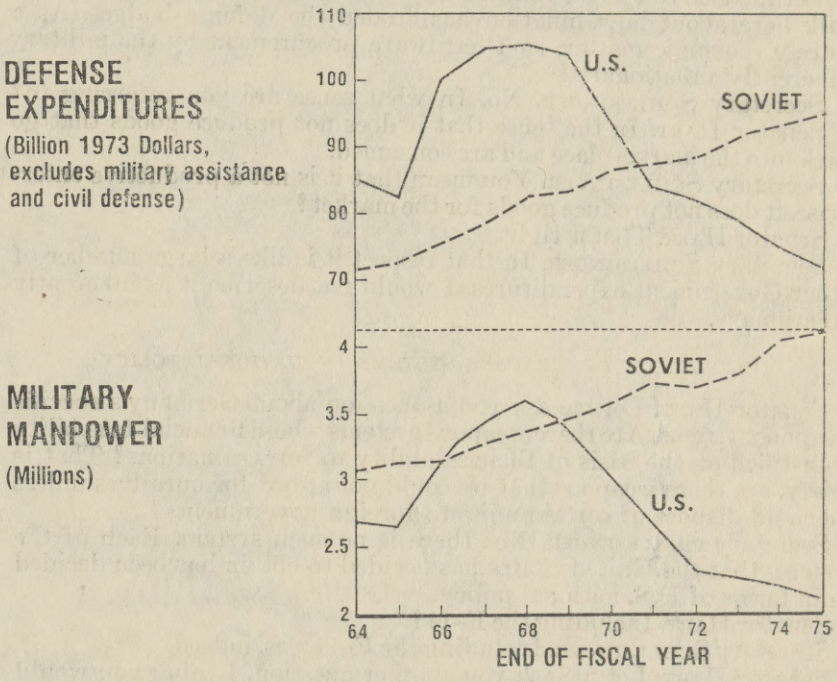
Secretary SCHLESINGER. I would not care to characterize a point of view by mentioning individuals. I think that you have raised some very useful questions. I believe I did answer earlier one of the questions, that given the capabilities of the Soviet Union, we are not in a position to expect other nations to stand up against the Soviet Union by themselves.

The main emphasis that I have attempted to make for some period of time is what the trends have been.

We have observed in recent years a slow and steady erosion of the U.S. defense budget at the rate of about 5 or 6 percent per year, and a slow and steady expansion of the Soviet defense expenditure at the rate of 3 to 5 percent a year. A continuation of that trend would have the net effect of leaving the Soviet Union the preponderant power in the Eastern Hemisphere. I think that is the point that must be understood. If we desire to allow that to happen, it is a conscious decision that we could make.

These trends are across the board.

SOVIET — U.S. DEFENSE EXPENDITURES AND MILITARY MANPOWER



Senator HART. That is really not responsive to my question. I understand the statistics, and I have been studying them.

The question is, Who are these people? Is it everyone that is critical of the military budget? That seems to be the thrust of your statement that has already been cited on page 3; "if the defense budget is to be reduced, it should be done with the clear recognition that we will not be to fulfill our responsibilities." Is that a $1,000 reduction? Is it a $10,000 reduction?

Secretary SCHLESINGER. Of course, it is a matter of degree. What you have drawn there is an inference with regard to individuals. Let me emphasize that I believe there has been a very great improvement in the climate of opinion in the United States in the last 18 months or so which reflects a greater ability to discriminate about these issues

than was characteristic of the high point of the war in Southeast Asia. During that period of time—and I think you will recall it—there was a widespread belief that we should withdraw our forces from Germany, because we were opposed to the deployment previously of our forces to Southeast Asia. The main point here is just the point that you and Senator Culver have been making, that we should indeed discriminate very carefully about those commitments that we wish to retain, rather than in an across-the-board rejection of such commitments.

Senator HART. I couldn't agree with you more. But what I am saying is that the first 12 pages of your statement inflame the differences rather than encourage that kind of statement. And I think that is unfortunate.

Let me ask you about inflated dollars, since there has been a lot of talk here about how inflation has eroded the defense budget. As a purely economic matter, isn't hardware procurement by the military inherently inflationary?

Secretary SCHLESINGER. No. In what sense are you referring to?

Senator HART. In the sense that it does not produce goods that go back into the marketplace and are consumed.

Secretary SCHLESINGER. You mean that it is not a productive enterprise, it does not produce goods for the market?

Senator HART. That is right.

Secretary SCHLESINGER. In that respect it is like a large number of other Government expenditures. I would not describe it as inherently inflationary.

USEFULNESS OF WEAPONS SYSTEMS IN NATIONAL POLICY

Senator HART. Let me ask you a question about Germany's specific weapons systems. Are there weapons systems whose financial feasibility is justified on the basis of their salability to foreign nations? That is to say, are there weapons that we could not afford for ourselves unless we could dispose of certain units to foreign governments?

Secretary SCHLESINGER. No; there is no such system. Each of the systems that the United States has decided to obtain has been decided on in terms of U.S. national policy.

Senator HART. Including the F–14?

Secretary SCHLESINGER. Including the F–14, yes, indeed.

Senator HART. Let me ask you another question. I think you would grant that we would not have veterans, or retired military personnel, if we did not have a standing army. Would that be a fair assumption?

Secretary SCHLESINGER. The Armed Forces, yes.

REFLECTION OF RETIREMENT AND VETERANS BENEFITS IN BUDGET

Senator HART. Wouldn't it, then, in terms of elevating the level of public debate, and encouraging the kind of discrimination that we both want, be more accurate when we draw these charts and graphs to put veterans' benefits and military retirement in the total military budget?

Secretary SCHLESINGER. Of course, military retirement is included in the DOD budget. Inclusion of these figures depends on the purpose that you have in mind. If you want to talk about the defense capacity of the United States, one does not refer back to the payments for

veterans of World War I or World War II or Korea. That has nothing whatsoever to do with the defense capacity of the United States in view of the present requirements, the present balance. Indeed, it represents the payment for past wars, as does probably a chunk of the interest payments on the national debt. If one wants to draw up an account of that sort, one can well do that. On the other hand, when one examines the defense budget, one recognizes that the Department of Defense is spending $3 billion a year on health services to 10 million Americans. And I presume, given even the perspective that you and Senator Culver have hinted at, that we would regard expenditures on the health services for 10 million Americans, whether or not they are in uniform, as a desirable thing. In addition, the Department of Defense runs the largest educational establishment in the world. I might well argue under those circumstances that those are part of the social services provided by the American Government generally, even though they are housed in the Department of Defense. So depending upon one's particular purpose, one can slice up the Federal budget in a number of ways.

Senator HART. That might be helpful also.

By the way, I don't hint at perspectives, I think you will find that out. I can't speak for Senator Culver.

FULL WEAPONS SYSTEM COST

Let me ask one final question. In terms of elevating public debate, and encouraging understanding, would it be helpful, when putting forward a major weapons system such as the B–1, Trident, and a number of others, to also attach to it the related or correlated expenses that are expected in terms of future operations and maintenance and in terms of additional kinds of items to be procured? That is to say, you are not just buying a bomber or submarine, you are paying for a whole raft of things.

Secretary SCHLESINGER. Up to a point we can do that. We should be quite willing to do that. One cannot predict a retrofitted system 10 years out with any degree of precision. But to the extent that one does have a definition of the system, one can associate with it, the operations and maintenance costs. And in many ways that would be very useful, because comparison of the life cycle cost of these systems is far more valuable than simply looking at the procurement dollars.

Senator HART. I am talking about things like bases abroad that are going to be needed for refueling, and so on. I am just saying that they are attached costs and are preconditions for making the system work. And I think it would be helpful if all those costs were put together as part of that total system.

Secretary SCHLESINGER. I think that you get into infinitely complex accounting problems under those circumstances. What one would be attempting to do is to allocate overhead costs. And as you well know, for the accountants that is an exceedingly difficult problem. One gets rather arbitrary assumptions about how to allocate some costs. Would in fact the base structure not be there if you did not acquire this weapon system? That is a rather iffy question.

Senator HART. I would suspect that the experts with you could answer that.

Secretary SCHLESINGER. Oh, no. The acquisition of weapons systems is not necessarily tied to a particular base structure. In some cases specialized base facilities are created.

Senator HART. That is what I am talking about.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

COST INCREASE OF AN ADDITIONAL DIVISION

Mr. Secretary, the Army has been working on the matter of personnel, the matter of transfer from headquarters over to combat units, and so forth shooting for that 16 divisions. The Congress never has authorized 16 divisions, and hasn't said no to 16 divisions, as I recall. Now, for your answer later I want you to explain the associated cost increases that would go with an additional division, assuming that you can build them within your present manpower. And I commend you for it. But at the same time, we have to pass on the personnel. So for the record, I want you to supply your cost estimates.

Secretary SCHLESINGER. Yes, sir.

[The information follows:]

About $381 million designated for Army force initiatives is included in the fiscal year 1976 budget request. This figure isolates what is required to reconfigure Army forces and provide the increase in combat power. The FY 76 costs which are peculiar to, and specifically associated with the three new divisions are only a part of that designated cost. They are:

	TOA (*millions*)
Operation and maintenance	$51
Military construction	24
Procurement	38
Total	113

The remaining $268 million associated with FY 76 force initiatives is not directly tied to the division add-on. A large portion of these FY 1976 TOA funds, of course, will not be spent in FY 1976.

The CHAIRMAN. The other point that I wanted to mention is just to get your assessment regarding the volunteer forces concept, and how it is working out in reference to the quality of that manpower.

I am going to pass the rest of my time.

And we will go back to Senator Thurmond when he comes back.

Senator SYMINGTON. Thank you, Mr. Chairman.

EFFECT OF NO VIETNAM AID

Mr. Secretary, if the Congress does not grant the additional heavy aid being asked for South Vietnam, in your opinion will South Vietnam fall, and if so, would this present a security threat to the United States?

Secretary SCHLESINGER. One is dealing there, Senator, with probabilities. The likelihood of its falling does increase, as I attempted to indicate in response to Senator Thurmond's comment this morning. I think that the impact on the security posture of the United States is more indirect than direct, although there are some direct elements. The question is the degree of credibility that is placed in America's foreign policy by others.

Senator SYMINGTON. Perhaps I have been in South Vietnam and Cambodia as much as anybody in the Congress. I think those coun-

tries, their governments will fall whether we give them aid or not. And it begins to look as if we need money at home more than we did.

A few days before Government prices were issued to Iran on two fighter planes I had a letter from the Director of Research and Engineering saying the F–14 program cost was $19.8 million, the F–15 $11.2 million—as I remember. Today the F–15 is acknowledged to be the finest fighter in the world. It just broke a lot of records. I read that in the papers this morning. The F–14 is grounded. Now my understanding is that when our government prices were quoted to Iran, the price of F–14 was cut from $19.8 to $13.8 million, the F–15 raised from $11.8 million to $13.2 million. Do you know if that is correct, and if so, why it was done?

Secretary SCHLESINGER. Senator, I do not recall what the program costs are. I think we had a discussion in a Foreign Relations Subcommittee last spring sometime. And subsequent to that, I had the Department provide to you the basis for those prices. I do believe that the program costs are as divergent as the numbers that you cited.

Senator SYMINGTON. I will send you a copy of the letter received from the Director of Research.

Secretary SCHLESINGER. That afternoon after that meeting, I took a look at the letter. The program costs did not appear in the letter.

Senator SYMINGTON. I'll send you a copy.

When we caught the Grumman Corp. using the money the Defense Department gave them to pay for the needed parts we found out about their desire to play the market. They made millions by playing the market from the standpoint of the high interest rates. So Congress withdrew the $100 million, advanced only with the assurance that it was needed to pay suppliers. Then, as we know Iran paid the money, because they were already committed to that program. This worries me from the standpoint of futures.

In your statement to Senator Hart, I believe, you mentioned we hadn't ever built a plane designed for foreign countries. I can't coordinate that with the concept the F–5 plane was thought not good enough for us but was good enough for the South Vietnamese or anybody else who would like to buy it.

Secretary SCHLESINGER. That is correct, Senator.

The CHAIRMAN. I wanted to make that record in your interest.

Secretary SCHLESINGER. The F–5, of course, was developed by Northrup, and the Congress forced some money on us in order to push foreign sales.

Senator SYMINGTON. I am glad to note somebody shoved you just once.

Secretary SCHLESINGER. We have been pushed on the F–15, too, Senator.

Senator SYMINGTON. You pushed the F–15 down and the F–14 up. Inasmuch as the F–15 was and is a lot better airplane than the F–14, and the latter cost a lot more money, you made a major mistake.

Secretary SCHLESINGER. I think the Shah made his own decision to purchase the F–14.

Senator SYMINGTON. On the basis of the prices you gave him, plus superlative lobbying I can understand why he might have been influenced.

Secretary SCHLESINGER. I would have thought that he would think the F–15 was sufficiently better than the F–14, rather than the million and a half dollar savings that the Shah might have without the F–15.

Senator SYMINGTON. You have the answers. But I still have the questions.

On page 11, line 8 you say: "It would be surely then unwise for the United States to forego the maintenance of a balance of power in critical areas of the world."

Secretary SCHLESINGER. I am sorry, Senator, I missed that.

WORLD AREAS CRITICAL TO U.S. POLICY

Senator SYMINGTON. In your statement you said, page 11, line 8: "It would surely be unwise for the U.S. to forego the maintenance of a balance of power in critical areas of the world." Are there any parts of the world left, following the questioning of Senator Scott, that we do not consider critical to our own security?

Secretary SCHLESINGER. That depends upon the individual, and that depends upon Congress. I tried to spell out some of the areas that had been critical to U.S. policy. The main point that I was attempting to make—and I think it is a point that Senator Culver and Senator Hart took up—is that there are areas of the world which individual members of the U.S. Congress may decide are not inherently important to the interests of the U.S. and that U.S. policy decisions regarding those areas should be made explicitly by the individuals and the institutions involved.

Senator SYMINGTON. I was asking if there is any part of the world you think not critically important to the United States?

Secretary SCHLESINGER. I had some words on that many years ago, but as long as I am in this job I think I will refrain from making observations on that subject.

RETROFIT OF POSEIDON

Senator SYMINGTON. Specifically somebody mentioned the Trident, Senator McIntyre did. And it is our single most expensive weapons system. I understand it is up pretty close to a billion and a half for a submarine. Would it not be possible to retrofit the Poseidon with Trident I missiles and achieve virtually the same goals with considerable savings? For example, if you reduced the number of MIRVs per missile you would get your 6,000 miles at considerably less cost.

Secretary SCHLESINGER. No, sir, you could not get that range. You could put the Trident I into the Poseidon and we plan ultimately to do so. The range, I believe, would be on the order of 4,000 miles.

Senator SYMINGTON. I would check that, because one of the best scientists question—and you would be the first to agree—said that if you reduced by roughly half—we can get specific figures—the number of warheads per missile that you could get to 6,000 miles.

Secretary SCHLESINGER. Yes, sir, if you reduce the number of warheads on each missile to one or two or three, as the case may be, you can get to almost any range you want.

Senator SYMINGTON. That is what I said. And then you have a question, of course, of effectiveness that I wish you would give consideration to.

EFFECT OF INFLATION

My final question. Page 140, line 3, you say: "As a result of underestimates of inflation, the Department is not able to buy $10 billion in contracted goods and services." Which goods and services, roughly, are you referring to?

Secretary SCHLESINGER. The principal example of that, Senator Symington, was the ship construction program I mentioned earlier. As a result of the inflation, there is a substantial increase in prices. In addition, in many other procurement areas—the F–15 may be one of them—there is a substantial increase pending in the price of the aircraft. We can cut the buy, or we can increase the price. But given the runup in costs, in many of these procurement contracts we are not able to purchase the number associated with the original contractual agreement. And you are left with the choice, as indicated, of cutting the buy or expanding the amount of resources required to retain the initial buy.

Senator SYMINGTON. Thank you.

One more quick question. In one of the newspapers it showed what you could do in certain weapons situations or situations here at home. For example, deficits in 1 of our 10 large cities could be made up by not purchasing one B–1. And they gave the B–1 figure as $40 million apiece. The latest figure given us by the Defense Department was $76 million apiece. I understand now it is up to $83 million apiece.

Secretary SCHLESINGER. $84.

Senator SYMINGTON. Thank you, Mr. Secretary.

Thank you, Mr. Chairman. My time is up.

The CHAIRMAN. Thank you, Senator.

Senator McIntyre, I indicated that you would be next. But I did reserve the right to give some time to Senator Thurmond, who was called to answer the telephone.

Senator THURMOND. I yield to him. I will follow.

The CHAIRMAN. All right, Senator McIntyre.

PROJECTED REASON FOR DISCONTINUANCE OF B–1 PROGRAM

Senator MCINTYRE. Mr. Secretary, taking up on that B–1, you said that the only circumstances that would cause you to discontinue the B–1 program would be development or technical failure. And I would like to know what you mean by that term.

Let me cite some developments that have occurred during the past year. Our committee reported to you that there was an expected 11 percent shortfall in some 17 more performance categories. The Air Force gave up on the crew-escape module because of technical problems. Aviation Week just reported that consideration is now being given to eliminating the variable geometry air inlet. Such a step will further penalize speed and a range performance. Let me repeat, program costs also went up 34 percent during the same year, much more than the change in the estimate of the rate of inflation. So my question is, these appear to me, Mr. Secretary, to approach my definition of management failures, if not technical failure. So how much more specifically will you tolerate?

Secretary SCHLESINGER. That is a complex question, Senator McIntyre. Let me first address the 34 percent inflation.

You will recall once again that we are talking about the production of aircraft in the early 1980's. To arrive at a reasonable inflation estimate, one must compound that 7 percent or 8 percent rate of inflation and its impact over a period of 6 or 7 years. So that a 34 percent rate of inflation applies to the total program costs compounded over many years. You cannot compare an increase in program costs with an annual estimate of inflation, because of the compounding problem.

I shall address two additional items that you mentioned. One is the escape capsule, which was removed in order to save funds, to reduce the cost of the aircraft.

Similarly, the decision with regard to the engine inlet is underway in order to reduce the per unit costs of the aircraft. The attempt here is to keep aircraft costs manageable, and deal with the impacts of the rising rate of inflation on total program costs. As I indicated, in terms of constant dollars the increase in program costs is on the order of 12 percent or 15 percent.

Senator McIntyre. Only you and the experts are the judges. But what, of course, bothers me as a layman is that we started out to buy quite an aircraft, and I am concerned that as we try to reduce costs and keep it under control, that we got a lot less than what we started out for. That we will wait to see, because the tests have not been run yet. But these are the sort of things that are difficult to put together with this extreme high cost.

CBW BUDGET REQUEST

Mr. Secretary, are there any R & D funds requested in this year's bill for the development of CBW, chemical warfare agents, or delivery systems, the use of which would be precluded by the agreement in the Geneva Protocol and the biological weapons convention that President Ford signed recently, and the clarifying declaration of national policy. And if there are, can you justify to this committee any such R & D efforts in financial or policy terms?

Secretary Schlesinger. There are no requests for CBW funds; that would be inconsistent with the treaty. There is money in the budget for work in the chemical-biological area which is directed exclusively to the defense mission of chemical-biological warfare. But it does not contravene the treaty.

Senator McIntyre. It does not contravene the Convention of biological weapons either?

Secretary Schlesinger. That is correct.

JUSTIFICATION OF COUNTER-FORCE DEPLOYMENT

Senator McIntyre. Thank you, Mr. Secretary. I know you are very knowledgeable about the counter-force that you mentioned so frequently in your statement. I would first like to ask you, what Soviet developments would justify in your estimation, the deployment by the United States of, first, improved Minuteman III accuracy, and second, the MK–12–A reentry vehicle, increasing yield of the Minuteman III reentry vehicle?

And third, a new highly accurate reentry vehicle in the megaton range for the Minuteman.

And four, a new MX missile with silo kill combinations of accuracy and yield if deployed in the fixed mode base, or base mode.

Fifth, the precision guided MARV which would reduce CEP's [deleted].

Sixth, the silo kill combinations of yield and accuracy in the Trident II missile [deleted].

And would you please, if you can—I know you can if given time—frame your answer in terms of the Soviet SS–18 and the SS–19 and the SS–17 missiles that are now being tested by the Soviets, and what Soviet deployment in your estimates, justify the employment of those increased accuracy and yields?

Secretary SCHLESINGER. I cannot give an off-the-cuff answer to that, Senator McIntyre. That would depend upon the development of counter-force capability by the Soviets. Both are estimates as to the number of weapons that they can deliver, and to the accuracy with which they deliver such weapons. As I indicated earlier, we would prefer that both sides refrain from the development of major counter-force capabilities. The growth of Soviet throw-weight with the potential for major counter-force capabilities bears careful watching on the part of the United States.

The Soviet developments that are, I think, critical in this area are the deployment of these much larger throw-weight missiles to which you refer, particularly the growth between the SS–11 and SS–19, that add substantially to throw weight in Soviet forces.

The development by the Soviets of much higher betas in their reentry bodies is clearly intended as a movement toward accuracy.

You will note in the classified statement that I make some observations with regard to accuracies and what that will imply in future years. I would be happy to discuss that further in executive session. However, we would have to watch very carefully the overall capabilities of the Soviet forces with regard to counterforce, and we would adjust the mix of the options to which you referred in order to balance that growth.

Senator MCINTYRE. I was just thinking that the SS–17 would not justify in my estimation—and I assume in your estimation—the deployment of any of these things, if that is all that the Russians had out there?

Secretary SCHLESINGER. That depends, of course, on the growth of Soviet accuracy in the future. At the present time and for the foreseeable future, I would agree with you, Senator.

Senator MCINTYRE. I think the SS–19 would not really bring us into some of these highly accurate counterforce programs. For example, the precision-guided MARV, one of your programs [deleted]?

Secretary SCHLESINGER. I think it was indicated last year that that is a development effort, and there is no intention of deploying it at the present time. It is a rather iffy development, as a matter of fact.

Senator MCINTYRE. Because of the verification question, would you be willing to state that these programs that you are asking us to fund in the accuracy and yield area would be in laboratory research and would not go into flight testing, or do you plan flight testing in these programs?

Secretary SCHLESINGER. I would have to take a careful look at the individual programs and give you a statement for the record on that, Senator. I cannot answer about individual programs; as I indicated, not all are planned for flight testing. With the MARV, I think that that is one of those kinds of programs. Some of the weapons options that we propose to the Congress in the wake of the limitation on testing also fall into that category. They would have to be watched very carefully.

Senator MCINTYRE. Verification is one of the big questions that bothers us on the R. & D. subcommittee as we get into the R. & D. on these improved accuracies. Verification by the Soviet Union becomes impossible, and they have to assume that you are going all the way. I think that if you could come before the R. & D. subcommittee and say that all you plan to do is go ahead with the limited R. & D. development in the laboratory testing stage rather than the flight testing, it would be helpful I am quite worried about the destabilizing effect that they have.

Secretary SCHLESINGER. We will give you some comments on the individual programs, Senator. Of course, a question such as the deployment of larger yield weapons onboard the Minuteman, or some successor missile, would depend entirely on congressional funding. For that reason, until such time as there were such congressional funding, we would not be able to deploy larger yield weapons on our ICBM's.

[The information follows:]

The Soviet Union has already begun what appears to be a very substantial deployment of new ICBMs—each of significantly greater capability than their predecessor. This initial deployment will give the Soviets a limited capability to attack hard targets. Continued deployment of this new force, even with the terms of the Vladivostok Agreement, will give the Soviets the capability to threaten the survivability of the Minuteman force. To deter limited attacks as well as urge restraint in Soviet ICBM deployments, we plan to make modest improvements in the Minuteman force and maintain a vigorous R&D program.

Our land-based Minuteman force provides us the flexibility and control necessary to counter and thereby deter a wide range of attacks on U.S. military targets. Minuteman is our most reliable system for the limited response options which are essential to nuclear deterrence under conditions of nuclear parity. We plan to continue making improvements in our command and control systems in order to enhance the flexibility and responsiveness of our strategic systems. In addition, modest improvements in the Minuteman III force enhance our credibility and improve our confidence in our ability to carry out limited nuclear options. Therefore, we are planning to take advantage of the capability inherent in the existing Minuteman III guidance system to reduce the CEP by roughly [deleted]. Improved Minuteman accuracy would help reduce collateral damage to the Soviet Union resulting from limited attacks by reducing the number of missiles required to achieve a high confidence that a given target or set of targets was destroyed.

Because missile systems are never flight tested on operational trajectories, many uncertainties surround the accuracies of all-inertial guidance systems. These uncertainties are the result of gravitational anomalies, weather conditions, and unknown biases which cannot be predetermined for operational trajectories. Consequently, accuracies may be uncertain by as much as [deleted]. In order to compensate for these uncertainties in accuracy and increase our confidence that we could effectively carry out limited attack options against hard targets, we plan to increase the range of yields available for our nuclear warheads. The MK–12A warhead with a yield of [deleted] will help overcome the uncertainty in Minuteman accuracy and thereby increase the deterrent value of the Minuteman force.

We are not interested in developing a disarming first-strike capability against the Soviet Union and these modest improvements in the Minuteman III force should in no way be construed as such. We prefer to see both sides avoid major counterforce capabilities. We do not propose, however, to concede to the Soviets a unilateral advantage in this important aspect of the strategic nuclear balance. Accordingly, how far we go with our counterforce options, such as a new [deleated] RV, a terminally guided MaRV, and hard target capability in a new ICBM (MX) and SLBM (Trident II), will depend upon the pace and extent of Soviet counterforce developments.

The Soviets could drastically improve their counterforce capability by a combination of developments: extensive deployment of high-yield ICBM MIRVs, improved ICBM accuracies, and increased yield-to-weight ratios for their warheads. These developments could occur in any or all of the new Soviet ICBM MIRV programs, although we are presently most concerned with the SS–18 MIRV and the SS–19. The Soviets already have a significant ICBM throw-weight advantage over the U.S. and their new ICBM programs threaten to further increase this advantage. This throw-weight, combined with several thousand new high-yield MIRVs and rapidly improving accuracies, could pose a significant threat to our land-based ICBM force by the early 1980s. Such a development would be destabilizing because it would bring into question our ability to respond to limited attacks in a controlled, selective, and deliberate fashion.

How and when the Soviets achieve a counterforce capability sufficient to threaten the survival of the Minuteman force depends upon the pace and extent of their ICBM MIRV deployments and their ability to improve ICBM accuracies. Analytical methods exist which will enable us to evaluate the extent of Soviet counterforce improvements. We will continue to monitor these important developments and, if it appears that the Soviets are attempting to exploit their throw-weight advantage, we will be prepared to respond accordingly. By keeping counterforce options available in R&D, we hope to deter the Soviets from developing a counterforce threat to Minuteman. This approach is far less costly than deploying new systems capable of surviving a first-strike attack after the Soviets have already developed a significant counterforce capability. We seek stability at current force levels and capabilities. But without a demonstration of U.S. resolve, the Soviets will have no incentive not to exploit their large throw-weight advantage and develop a threatening counterforce capability.

Concerning your question regarding the flight testing of these new programs, the flight test program for the improved Minuteman III guidance and the MK–12A is scheduled to begin in the summer of 1976 and be completed by the summer of 1977.

The large advanced ballistic reentry vehicle and the terminally-guided MaRV programs are being developed under the auspices of the ABRES program. These are essentially technology development programs with no projected IOCs. Flight testing will be needed for these systems throughout development but total system tests are still years in the future. These programs should not result in verification problems before we have learned of Soviet counterforce intentions.

The Trident II and MX missiles have projected [deleted]. These systems will not be ready for flight test before the early 1980s.

The CHAIRMAN. We thank you very much, Mr. Secretary.

Senator Thurmond.

AID TO SOUTH VIETNAM AND CAMBODIA

Senator THURMOND. Thank you, Mr. Chairman.

Mr. Secretary, earlier today we were talking about South Vietnam. I have some other questions here, though. I wonder if you would put in a statement for the record as to the importance of supplying aid to South Vietnam and to Cambodia, give your reasons why it is important in our national interest if you see it that way.

Secretary SCHLESINGER. Yes, sir, I would be happy to do so.

[The information follows:]

Our provision of aid to South Vietnam and Cambodia is tied directly to our overall foreign policy objectives. In this regard, our specific foreign policy toward these two nations cannot be reviewed in a vacuum, but rather must be considered in the context of the total U.S. posture, our foreign policy objectives, U.S. global commitments, the world in which we live, and the world we would like to live in. Our objectives in South Vietnam and Cambodia are to restore peace thereby providing the opportunity for the people of both nations to decide their political future free from outside interference and the imposition of rule by force.

To achieve these objectives we have negotiated a Peace Agreement and committed ourselves to abide by the provisions of the Paris Cease-fire Agreement. As you well know, the provisions of the Agreement have not been fully implemented. This state of affairs is the result of the intransigence of the North Vietnamese who have flagrantly and repeatedly violated the provisions of the Agreement by refusing to terminate their aggressive policy toward South Vietnam and Cambodia. Peace will not come to these two besieged nations until the North Vietnamese decide not to continue their present policy of aggression, and that a political settlement is their best and most reasonable course of action.

The nations of the world gauge their response to U.S. foreign policy, in part, by their assessment of our willingness to meet our commitments. If other nations of the world perceive that the United States does not possess the will and determination to fulfill our commitments, this perception by the world community may militate against our ability to influence future events in the world in which we live.

Senator THURMOND. I want to ask you two questions here. Would you amplify in your prepared statement where you discuss the declining purchasing power of the defense budget since 1964 by relating the employment figures in the fiscal 1964 to the current year for active duty manpower, civil service and defense-related industry?

Secretary SCHLESINGER. We would be happy to do that, Senator.

Senator THURMOND. If you would do it for the record it would save time.

[The information follows:]

DEFENSE EMPLOYMENT OUTLOOK

[End year; in thousands]

	Fiscal year—					
	1964	1968	1974	1975	1976	Change
Military:						
Army	972	1,570	783	785	785	−187
Navy	667	765	546	536	529	−138
Marine Corps	190	307	189	196	196	+6
Air Force	856	905	644	612	590	−266
Total, military	2,685	3,547	2,161	2,129	2,100	−585
Civil Service:[1]						
Army	360	462	342	337	334	−26
Navy	332	419	324	318	322	−10
Air Force	305	331	274	266	256	−49
Defense Agencies/OSD	38	75	75	74	73	+35
Total, civil service	1,035	1,287	1,014	995	985	−50
Total, military and civil service	3,720	4,834	3,175	3,123	3,085	−635
Defense related industry	2,280	3,173	1,665	1,494	1,469	−811
Total, defense manpower	6,000	8,007	4,840	4,617	4,554	−1,446

[1] Direct-hire only.

Senator THURMOND. The next question is, many defense critics say that the defense budget is bloated and swollen, that it has doubled in dollars the last 10 years. And yet, the number of people working in national defense has declined from 6 million to 4.6 million. And the part of the taxpayers' dollars spent on defense has gone down from 42

cents to 27 cents. And in fact, I think this next year it will be 26.6, will it not?

Secretary SCHLESINGER. Yes, sir.

Senator THURMOND. Would you agree that the debate on defense spending should concentrate on how much we need, and such terms as bloated or swollen are no responsible contribution to this debate? Is it not a question of what we need?

Secretary SCHLESINGER. I would agree entirely, Senator, that we must have the resources and capability to fulfill our commitments.

Senator THURMOND. I have a few questions here for General Brown.

IMPORTANCE OF MAJOR PROGRAMS

General Brown, as you have no doubt seen in the press, a number of programs have become targeted by critics of the Defense Department for removal from the Defense budget. We have had a fight here now for several years on some of these programs. The Congress has gone along with these programs. And the major programs which fall into this category would be the B–1 bomber, the Airborne Warning and Control System (AWACS) the SAM–D, and the Army tank. I am wondering if you would elaborate on the importance of each of those programs for the record.

General BROWN. I would be pleased to, Senator.

[The information follows:]

The programs identified represent the development of capabilities essential to the maintenance of a viable deterrent. Should we fail to take the steps to modernize our forces as represented by these programs, we increase the risk of war and reduce our capability of defeating aggression if deterrence fails. The individual programs you have identified are addressed below.

B–1

Our TRIAD of strategic forces, comprised of land-based missiles, sea-based missiles and manned bombers, gives us assurance that an enemy cannot disarm our deterrent capability by an effective attack against a single element of our strategic forces.

As an integral element of the TRIAD, the manned bomber makes a synergistic and substantial contribution to our strategic force. In times of mounting crisis, the bomber force can be alerted to an advanced state of readiness, including airborne alert, and it can be dispersed. Generation to advanced readiness status provides a demonstration of national resolve. Bombers can be launched on warning under positive control, and subsequently recalled or redirected if desired. Thus, bombers provide the National Command Authorities time to reasonably weigh and consider appropriate options and can visibly demonstrate controlled intent to provide an appropriate level of response. Bombers are effective for attacks on all categories of targets, both soft and hard, and can deliver variable yield weapons which limit undesirable collateral damage. The targeting flexibility they provide makes them particularly effective for follow-up attacks to reinforce damage expectancy, and for reconnaissance/strike assessment of targets, including those scheduled for earlier attack by strategic missiles. Moreover, due to its recoverability and reload capability, a portion of the manned bomber force could constitute a critical element of the U.S. strategic residual force following an initial nuclear exchange. Bombers, alone among the elements of the TRIAD, can be used across the entire spectrum of conflict from global nuclear through selective application and conventional conflict to a simple show of force. Their relatively long time of flight to the target deprive them of the destabilizing influence of weapons which could be used for a disarming first strike.

The B–52s were delivered to SAC during the years 1955 through 1962, and some of the earlier models have already been phased out. By 1980, the force will be from 18 to 25 years old. The sophisticated Soviet air defense environment

projected for the 1980s will require high penetration speeds, small radar signatures, low penetration flight altitudes, and survivability in a nuclear environment. Prudence suggests that we prepare against the possibility of significant technological breakthroughs in ASW. Further, the B–52 cannot last forever. Eventually, it must be replaced, and the B–1 is planned as that replacement. To delay completing its development and getting on with its procurement will only increase its cost, given inflation and production factors.

AWACS

If we are to realize full effectiveness from our air defense and tactical systems, we must provide adequate means to employ them and—in the Central European scenario—employ them in an environment characterized by high target densities composed of aircraft of many different types, missions, and flight regimes. Current surveillance and control systems deployed to provide this support have certain fundamental limitations. They are fixed and vulnerable to enemy attack, and they are usable only in their deployed locations. In addition, by virtue of being located on the ground, low-altitude detection capability for detection of either hostile or friendly aircraft in enemy territory is severely limited. Moreover, these systems are vulnerable to enemy electronic countermeasures, which limits severely their utility in an intense and sophisticated conflict environment.

The Airborne Warning and Control System (AWACS) will be a highly mobile and flexible national military resource designed to provide presently unavailable all-altitude surveillance and data exchange for air defense and tactical forces across a wide range of possible conflict. It will be a rapidly deployable and survivable warning and control system integrated with ground-based systems where they exist or providing effective control where such systems do not exist or are degraded or destroyed by hostile action.

AWACS will provide currently unavailable capabilities. AWACS will materially assist responsible high-level force commanders to obtain accurate and timely information with which to make force allocation decisions, identify proper quantitative and qualitative responses, and insure against premature escalation. The proper response to threatening situations can cause the enemy to deescalate. Lack of accurate and timely information could result in over-reaction on our part.

In order to provide for general control of his forces, the Commander requires information on activity, concentrations and direction and size of raids, much of which can be expected at minimum altitude. The use of mutually supporting AWACS orbits can provide total surveillance of areas of prime interest. AWACS, through its radar and IFF sensors, obtains unique low-level, all-altitude, and long-range information for relay to command authorities. The air battle and ground battle are directly related. From its vantage point, AWACS can transcend political borders and technical communication interface problems, which are especially important in Europe.

AWACS provides a timely and accurate picture of the total battle environment. In a control mode of operation, AWACS will vector interceptors and provide appropriate warning for friendly fighters and ground attack aircraft.

AWACS is the only known solution to a major set of constraints on our present ability to appropriately employ existing military resources. Progress is being made toward a meaningful command control capability in Central Europe. Information is required from many sources to make the proper decisions. AWACS plays an essential and integral role in providing that information.

SAM–D

SAM–D is required to combat the air threat to our ground forces in the 1980s and beyond. The Nike Hercules and Improved HAWK systems are good systems, but they derive from technology of the 1950s. The aircraft of our potential enemies fly higher, and faster and are more maneuverable than ever before and possess electronic devices to neutralize defensive systems. Our air defense systems must keep pace.

SAM–D will provide a mobile, responsive, and capable ground-based air defense missile system with reaction time measured in seconds. It provides a multiple simultaneous engagement capability and high firepower rate to counter saturation tactics. It provides the electronic counter-countermeasures capability to be effective in the electronic countermeasures environment projected for its deployment timeframe. It is designed with a high single shot kill probability in the

severest environment against the most maneuverable aircraft. The employment of the Soviet SA–6 in the October War of 1973 demonstrated that a land army can provide effective initial defense against air attack by extensive employment of mobile, integrated SAM systems. The SAM–D design will provide these increased and necessary capabilities with substantially less operating and maintenance personnel than present systems. In short, SAM–D is an essential system if we are to fill the void in our integrated air defenses which will occur as the present day systems' capabilities become progressively degraded by the ever increasing quality of the threat.

XM1 Tank

The XM1 tank program is the Army's principal effort to develop a superior tank for the future. This new Main Battle Tank is generally twice as effective as the older M60 series it will replace in [deleted] selected [deleted] battalions. Lower silhouette, improved agility, significantly improved ballistic protection, and the compartmentalization of ammunition of the XM1 will provide the combined arms team of the 1980s with a highly survivable tank. The XM1 will be employed as the decisive element of the Army's forces. With improved fire control system and "shoot-on-the-move" capability, it will be the principal assault weapon of the armored units. This tank will possess a degree of simplicity and reliability which will insure its availability on the battlefield without excessive training or maintenance requirements. It will provide cross-country mobility, sufficient speed and agility to permit rapid massing and dispersion of combat power as well as protection and fire power to successfully engage any enemy force encountered. Tank survivability on the battlefield of the future is the key to winning. The XM1 technology now in hand will provide the Army with the most survivable tank on present and future battlefields. An armor capability as represented by the XM1 is essential to success on the modern battlefield.

SOVIET THROW-WEIGHT ADVANTAGE

Senator THURMOND. General Brown, as you have pointed out in your statement, the Soviet Union is clearly moving toward a capability in ICBM's in excess of that processed by the United States, that new missiles have a greater throw-weight capability. As I understand it, throw-weight is the number of pounds that a missile takes off the ground and tosses in the air, and with which it strikes targets. When missiles are MIRVed—of course, if a missile is MIRVed, it has a lot of warheads instead of just one warhead.

The Soviet's new missiles have a greater throw-weight capability, I believe, than ours.

What would be the consequences to the United States of this Soviet advantage?

General BROWN. That is a very complex question, Senator, and one with which the Joint Chiefs of Staff wrestle continuously to try to define the balance of power. We sleep well at night. We currently have adequate power in this country. Our concern goes to the future. I am talking about the indefinite future, I cannot point to a date on the calendar. Throw weight is a most important element of the problem, particularly how that throw weight capability is used—whether it is used to launch one warhead of very high yield, or several of lesser yield. There may come a time, now that we have capped this program at Vladivostok, if we are not successful in the arms control negotiations to achieve a treaty on that agreement, when we will have very serious problems.

The next step, assuming we achieve a treaty, is to come down together and reduce the number of nuclear weapons. That is our national objective. I might add—and this may sound strange coming from someone in uniform—but that is the only solution to the problem as I see it.

Senator THURMOND. I believe the Vladivostok agreement provided a limit of 2,400 missiles for each side, 1,320 of which could be MIRVed. And so the 2,400 were launchers rather than warheads necessarily, they were launchers. Is that the way you construe it?

General BROWN. That is exactly right, Senator.

Senator THURMOND. That concerns some people, for the reason that we are ahead of the Soviets in MIRV's. But this Vladivostok agreement puts a limit on the number of MIRV launches, but not on the number of warheads. In other words, if they put more warheads in these missiles, then that could give them a greater throw-weight, could it not?

General BROWN. No, sir, the greater throw-weight would give them a capability to deploy a greater number of reentry vehicles. The worries and concerns you express are exactly the ones the Soviets must have had for a great number of years when we had a tremendous number of warheads on MIRVed missiles. The agreement that was achieved at Vladivostok did cap the program. I would like to go into this in executive session in detail. I will be able to show in specific terms that the program is capped. We now can work within that number. The next step after a treaty is reached on this agreement will be to work for a gross reduction where we can come down together.

Senator THURMOND. Of course, I think we would all like to see the number made less if we could. I was talking to the President about it, and he said he would favor a lesser number, too. But the Soviets would not agree to a lesser number. And they made 2,400 as a lesser cap, and that is better than an unlimited amount. What is your opinion on that?

General BROWN. I agree. It was not a sure thing that we could get the Soviet agreement on even 2,400. It was quite an achievement to do so, and get equal numbers. You remember in SALT I we had vastly different numbers, and the difference was explained by the technological advantages of the United States. That technological advantage is fast being eroded. They are making their missiles more accurate. They are MIRVing. And, therefore, it was in the U.S. interest to get a fixed number for both sides that was equal.

Senator THURMOND. This agreement that is to expire in 1977, I believe that limits the United States to 1,710 defensive missiles, and the Soviet Union to 2,360. Have you given any consideration to that as the Joint Chiefs?

General BROWN. The only defensive missile treaty I am aware of is the Antiballistic Missile Treaty. We reached an agreement on the number of sites that could be defended, and a hundred missiles within each defensive complex.

Senator THURMOND. We have a treaty without a time limit, I believe, basing limits on defensive missiles and radar.

General BROWN. Yes.

Senator THURMOND. Then the other agreement, as I understand it, is the agreement due to expire in 1977 that limits the United States to 1,710 missiles and the Soviets to 2,360.

General BROWN. I think you are referring to the interim agreement on offensive missiles, which, if we achieved this SALT II agreement confirming Vladivostok——

Senator THURMOND. I said defense, I should have said offensives on that one, that is right.

Some people are concerned about the advantage that the Soviets got on their first agreement, and so they are watching very closely these other agreements. Just offhand, it would seem wise if we can put a cap on this thing of 2,400, which the President has done, and was able to do at Vladivostok, in the hope later of getting it reduced to still lower. The lower we can get this thing reduced the more money we can save and invest, the more for the Soviets in their economy and ours too; is that not right?

General BROWN. That is right, but I would put the money secondary. I think a reduction in the concern for the tremendous nuclear power that is in the hands of the United States and the Soviet Union is the first objective. Obviously, we will save some money as well.

Senator THURMOND. I think we all agree that the first duty of the Government is to protect its people. I thought Dr. Schlesinger expressed that in his statement.

I believe you are the one that expressed it; it is to keep people alive and keep them free.

Was that in your statement or somebody else's statement?

Secretary SCHLESINGER. That was in my statement.

Senator THURMOND. That would seem to be the first obligation of government. And then after that, of course, to do what we can. But our survival as a nation depends, I think, on doing what we need to do in the Military Establishment, knowing that the world is situated as it is today, and the conditions in the world like they are today.

My time is up. Thank you very much.

The CHAIRMAN. Senator Nunn, that brings us to you, sir.

Senator NUNN. Mr. Chairman, it is getting late in the day. And many of my questions are manpower-related. So I will hold them for another hearing.

STATUS OF AWACS CERTIFICATION

I will just ask one question.

Concerning the AWACS program, Mr. Secretary, last year the committee directed a special review of the AWACS program with particular emphasis on the issue of its vulnerability to an electronic countermeasures which jammed the mechanism. I believe at that time the committee also directed you to provide a certification that AWACS is cost effective and meets the mission need and requirements for the Department of Defense. Today it is my understanding that certification has not been made. So the question is, what is the status of the certification? And at this time could you give us your assessment of the AWACS program?

Secretary SCHLESINGER. Yes, sir. The certification has not as yet been made, I was not satisfied with what was initially presented to me, so I sent it back for revision in order to provide more detailed information. That certification will be forthcoming in the next few days. Senator Cannon has indicated that he would expect that after the certification arrives on the Hill, we should delay picking up the option with Boeing until such time as the Subcommittee on Tactical Air has had an opportunity to review it.

I would prefer to give the details with regard to the type of vulnerability of AWACS in executive session.

PREPARED QUESTIONS FROM SENATOR NUNN

Senator NUNN. Thank you, Mr. Chairman.

[Questions submitted by Senator Nunn. Answers supplied by Department of Defense.]

Question. Mr. Secretary, why does the U.S. military force structure need 16 Army divisions?

Answer. I believe that in the drawdown following the Vietnam War we went too far in reducing our active duty ground forces. As I have said many times a non-nuclear defense of Western Europe is feasible. However, this feasibility relies strongly on our capability to meet the minimum initial defense requirements in the early days of the conflict. The demanding schedule for the deployment of forces in those early days can only be met by predominantly active forces. For these reasons, I have concluded that we must increase the size of our active duty forces and have encouraged the Army in its efforts to convert support to combat, and support their proposal to increase the active force to 16 divisions with affiliated Reserve Component units by the end of FY 76. I believe these divisions increase the deterrent represented by the Army and increase our capability should that deterrent fail.

Question. If the number of Army divisions is increased from 13 to 16, where will each additional division be based and with what mission?

Answer. The 7th Infantry Division Headquarters, base, and two Active brigades will be established at Fort Ord, California. The 5th Infantry Division Headquarters, base, and one Active brigade will be established at Fort Polk, Louisiana, while a second Active brigade will be the redesignated 194th Armored Brigade stationed at Fort Knox, Kentucky. The 24th Infantry Division Headquarters, base, and one Active brigade will be established at Fort Steward/Hunter Army Airfield, Georgia while a second Active brigade will be the redesignated 197th Infantry Brigade at Fort Benning, Georgia.

Question. What is the increased cost associated with adding three divisions to the Army? Specifically, in the FY 1976 budget, how much money in each title—Procurement, O&M, Military Personnel, and Military Retired Personnel, is a result of the added divisions?

Answer. The fiscal year 1976 budget request includes about $381 million designated for Army force initiatives. This figure isolates what is required to reconfigure Army forces and provide the increase in combat power. The FY 1976 costs which are peculiar to, and specifically associated with the three new divisions are only a part of that designated cost. They are:

	TOA millions
Operation and maintenance	$51
Military construction	24
Procurement	38
Total	113

The remaining $268 million associated with FY 1976 force initiatives is not directly tied to the division add-on. A large portion of these FY 1976 TOA funds, of course, will not be spent in FY 1976.

Question. Mr. Secretary, you have indicated that the Soviet military manpower increased from 1960 (a postwar low point) to the present by about one million men. How many of these troops were to man the China border and shore up the Warsaw Pact after the Czech invasion? Also, how many of their troops are for their own security purposes—border guards, et cetera? What then, is the net figure of threat to U.S. interests? General Brown?

Answer. We estimate that personnel costs account for about [deleted] percent of total Soviet defense spending valued in dollars.

The increase of approximately one million men included only some [deleted] used to augment Soviet forces opposite China. The bulk of the increase represented a general expansion of the USSR armed forces during that period. There was some emphasis on the strategic attack and defense forces. Personnel increases attributable to the Czechoslovak invasion were minimal. Approximately [deleted] troops are assigned as USSR border guards and to internal security elements.

A reasonably broad operational definition of U.S. interests must include North America, Western Europe, Japan and the Middle East. I consider the total personnel strength of Soviet armed forces, excluding security forces and personnel associated with the 40 divisions oriented toward China to be an available threat to those interests. [deleted]

Our manpower estimates of the Soviet armed forces are, as I have said, undergoing reassessment. This re-analysis may result in a higher assessment of both past and present Soviet force levels.

Question. Mr. Secretary, has there been any progress in the mutual balanced force reduction talks (MBFR)? Do you expect an agreement to be reached this year? If agreement is reached, how large are the initial reductions likely to be?

Answer. There has been progress in the talks to the extent that both sides have advanced basic proposals, exchanged ideas, and put forward new proposals. But we have not yet reached the common ground necessary for structuring an agreement. The conceptual bases of the Eastern and Western proposals are fundamentally different. The East seeks to preserve, at lower levels, the present relationship of forces favoring the Warsaw Pact. To this end, they have proposed symbolic first steps. We believe these Eastern moves are inadequate. Instead, NATO seeks militarily significant reductions, beginning with U.S. and Soviet forces, aimed at improving the security situation in Central Europe. Our objective is to reduce the possibility of military confrontation through a balanced outcome that reduces the present disparities and ensures undiminished security for both sides at a lower level of forces.

As for prospects in the year ahead, with the progess made at Vladivostok the Soviet may begin to take a more constructive attitude in MBFR negotiations. They have expressed their desire for an agreement with initial reductions in 1975. For our part, we are seeking timely conclusion of an acceptable agreement that will provide a more stable security environment in Central Europe. Thus, I remain optimistic. We hope to move closer to agreement in the months ahead.

With respect to the size of initial reductions, we and our allies have proposed that reductions begin with U.S. and Soviet forces and that these reductions should be substantial and militarily significant.

Question. Mr. Secretary, in your statement, page 32, you say NATO "has certain serious vulnerabilities that we are working to correct." What are the serious vulnerabilities, what action is being taken to correct the problems, and are both the U.S. and its allies working on the problem?

Answer. The serious vulnerabilities in NATO include [deleted]. The US and its Allies are working together to make these needed improvements in their national forces. In addition, the US and other NATO nations are seeking improved combat effectiveness through greater flexibility in the use of NATO forces, reorganization of NATO military headquarters, rationalization of force structures and of logistics, and standardization.

Question. Mr. Secretary, in 1973 it became known that the Office of the Secretary of Defense was working on a major study comparing the capabilities of NATO and the Warsaw Pact. Indications at the time were that the study, though incomplete, showed NATO to have a credible conventional capability. What is the status of the study now, and is consideration being given to releasing it? What are the conclusions of the study?

Answer. The study to which you refer is more a continuing DoD staff activity than a study with an expected completion date. The importance and complexity of the NATO conventional balance require that we continue to review our assumptions and methodologies upon which our preliminary and tentative findings are based (for convenience the findings, as reported last year, are summarized below.) During the past year our attention has been devoted to the problems of air-ground interaction in combat, but only very limited progress has been achieved. However, the NATO Military Committee has recently initiated its own study of the conventional balance in the Central Region. DoD is actively participating in this study. As a multinational effort, this study will require some time to produce conclusions, but when completed, it will provide a more broadly based Alliance view of the conventional balance.

Summary of Findings: A recent study conducted jointly by the Army and the Office of the Secretary of Defense has raised our confidence that NATO could counter Pact threats in the 80 to 90 division range. This study has been briefed to the Senate Armed Services Committee Staff, and they were provided with copies of the script and slides from the briefing. The major differences between this study and previous, more pessimistic assessments of the Central European balance are:

—Previous studies only considered the forces that were formally committed to NATO. This study counted all forces of NATO countries that could reasonably be expected to fight in Central Europe, regardless of formal political commitments. All NATO countries have forces above and beyond those committed.

—Analyses formerly assumed that all Pact divisions had the same capability as the best equipped and manned Soviet divisions now stationed in Central Europe; they also considered divisions at low peacetime manning strength to be as combat capable as the best divisions after only a few days of mobilization. On the other hand, NATO forces were degraded for readiness and equipment quality. The new study used more refined intelligence estimates for the Pact to degrade the capabilities of most Pact divisions to reflect differences in equipment and manning levels.

—Previous work had estimated very short Soviet reinforcement times because they ignored the Pact's need to make logistical preparations. This new study assumed that the Pact buildup would take longer than had previously been estimated so that they could make suitable logistical preparations.

—Previous methods for comparing the value of opposing weapons systems of differing quality had used only a rough measure of firepower. This study used a new method that improves estimates of relative firepower, as well as including weapons mobility and the ability of weapons to survive attack. The new system places less value on tanks and artillery, which the Pact holds in large numbers, and more value on the lighter weapons systems, where NATO has some advantages in numbers.

Question. Mr. Secretary, the FY 1975 authorization law contains three NATO-related amendments on reduction on non-combat forces in Europe, standardization of weapon systems, and tactical nuclear weapons and policy. Will you please describe how each one is being implemented?

Answer. A. Reduction of Non-Combat Forces in Europe. We were directed to reduce 6,000 support spaces by 30 June 1975 and 12,000 more by 30 June 1976 and authorized to convert those reductions to combat forces. We are on schedule on our reductions and will introduce a mechanized brigade into FRG by 30 June 1975. Additional Army, Air Force, and Navy conversions will be made as authorized by the law. Consultations with NATO are underway on the addition of these combat forces to Europe.

B. Standardization. The initial Standardization Report is nearly completed and should be submitted to you in the near future.

C. Tactical Nuclear Weapons and Policy. The nuclear report is being prepared now for submission to Congress on 1 April. We have requested views from NATO military and political authorities and are in the process of considering them now. We have begun consultations with our Allies in this regard and will continue to consult as we make changes to our stockpile and policy for the employment of nuclear weapons.

Question. The law, Public Law 93–365, requires a semiannual report to Congress on assessments of costs and possible loss of non-nuclear combat effectiveness of NATO forces caused by failure to standardize weapons systems, ammunition, fuel, et cetera, plus a list of standardization actions that could save NATO resources and improve combat capability. As of yesterday, the Congress had not received the first report, though it was due January 31. When can we expect to receive this already-late report? Why is it late?

Answer. You can expect to receive the report by February 28, 1975. There were basically two reasons this report has been delayed:

1. Complexity of the problem, and *final decision* as to the limitations of what we could do in response to the Amendment.

2. Coordination process, especially with U.S. Mission NATO, took longer than anticipated.

Question. The standardization amendment also required that the assessments be presented to the NATO allies. Has this been done? With what results?

Answer. The specific assessment of the costs and possible loss of non-nuclear combat effectiveness of military forces due to non-standardization and standardization actions that could improve non-nuclear defense capability or save resources for the Alliance have begun and our progress will be reported via the semi-annual reports as evaluations completed. The first report will be preliminary in scope covering the importance of standardization, assessing its operational and fiscal impact on conventional combat capability, and listing specific high priority actions which are being taken in the area of standardization. The report will also cover the loss of military effectiveness in general terms, identify historical obstacles, along with specific initiatives and recommendations to overcome them. In preparing our reply we have been drawing on previous NATO studies and are in contact with Secretary General Luns on this matter. Dr.

Tucker, the Assistant Secretary General for Defense Support is conducting his own analysis and has already provided us considerable assistance. At the December 1974 NATO Defense Planning Committee meeting, the Ministers of Defense agreed to support, individually and collectively, greater standardization in NATO forces. NATO is currently examining six areas for standardization: Airborne early warning and control, electronic warfare, inter-operability and security of communications, selection of a new NATO rifle and standardization of ammunition for portable infantry weapons, development of a second generation anti-ship missile and the selection of a replacement for the F–104G aircraft. The NATO military commanders are also studying standardization. SACEUR is planning to make a presentation on standardization to NATO this spring. SACLANT recently made a similar presentation. These efforts serve to focus attention on what the military can do to further progress in the area. I plan to discuss this subject further with Secretary General Luns and I can assure you that my staff will continue to work closely with his staff on a continuing basis. With this as a beginning, I believe our findings and recommendations will be well received in NATO.

Question. What specific items in the fiscal year 1976 budget reflect an effort to standardize NATO systems?

Answer. There are a number of programs in the budget in which action is being taken with our Allies toward improving standardization. These include AWACS, SHORADS, SAM–D, Pershing II, F–16, AIM–9L, NATO PHM, and common ammunition for future main battle tanks and 155 mm howitzers. In addition, under the Services line items for International Cooperative R & D, funds are to be allotted among the three U.S. Services to participate in NATO Working Groups on specific areas of potential standardization, or to permit U.S. evalution of candidate European systems.

Question. General Brown, what do you consider to be the most urgent priorities in increasing the conventional capability of the U.S. force in Europe?

Answer. The Central Region of NATO is most critical, since it is here that the major Warsaw Pact conventional threat lies. Within this region we have identified six priority areas for improved capabilities.

—*Physical protection of aircraft:* In order to provide shelters for [deleted] aircraft which will be in theater within 3 days of mobilization (M+3), we require [deleted] additional shelters; which have been programmed for construction with NATO infrastructure funding by end of CY–1976. [Deleted.]

—*Anti-armor improvements:* We are converting part of our M–60 tank inventory to carry the Shillelagh missile. The 2 Armored Cavalry Regiments and all divisional reconnaissance squadrons in Europe have been equipped with the M–551 Sheridan reconnaissance vehicle, which also carries the Shillelagh. The A–10 aircraft is another system specifically designed to defeat armor, which will be deployed to our European forces. [Deleted] TOWs have been added to the armament of each mechanized infantry battalion, and we plan to add [deleted] Dragons as well. We also intend to equip each Corps with an additional [deleted] Cobra-TOW helicopters. Precision guided air-to-ground munitions (Maverick, Rockeye, MK 82 and MK 84 laser-guided bombs) have been provided to Europe and stocks are being increased. Parenthetically, all NATO nations have been briefed on the US anti-armor program and many are formulating similar plans. The FRG has already added the US anti-armor improvements in its forces.

—*Air delivered munitions:* As just discussed, air-to-ground munitions for close air support, particularly in the anti-armor role, are being modernized and stockpiled in Europe. These munitions offer the fastest way by which the ground battle can be influenced with reinforcements. Precision guided air-to-air missiles are being studied here and in NATO in order to determine the best alternatives for future improvement. Improvements to stocks of war reserve munitions, as noted below, will also increase our capabilities in this area.

—*War reserve stocks:* Our goal is to provide war reserve munitions for US forces at a [deleted] level. Other NATO nations, because of geographic considerations, have agreed to provide a [deleted] stockage level for their own forces. Throughout NATO now, however, stockage levels vary from [deleted]. The Alliance is working to meet its [deleted] commitment, particularly in the areas of ammunition, POL, and other expendables.

—*Mobile air defense for the Field Army:* Our recent decision to purchase the French/German Roland will help to fill the gap in our air defense that currently exists between Hawk and Chaparral/Vulcan. We also plan to upgrade the

Chaparral and to provide enhanced mobility for the improved Hawk which is now deployed in Europe. Further out, SAM–D should provide a highly mobile replacement for both Hawk and Nike Hercules. The Europeans are working with us in developments in this area.

—*Electronic countermeasures:* The current US ECM capability is the best in the world. We are providing equipment and training to the Alliance in order to upgrade NATO's ECM capability to approach or equal our own.

As a general statement on force capability, I should point out that readiness is of constant concern to me, and is the subject of constant review and improvement.

Question. Mr. Secretary, what will be the cost in fiscal year 1976 of the U.S. commitment to NATO? This cost was set at $17 billion for fiscal year 1974 in terms of total annual costs for the general purpose forces the U.S. maintains in support of NATO security.

Answer. As we have noted before, the question of what forces we maintain in support of NATO security and how much they cost is extremely complicated. To begin with we are really maintaining most of our forces to protect U.S. national interests against Soviet threats. A key focus of U.S. interest and most of the Soviet threats either are in or involve Europe and joint U.S.-European interests.

Some believe that only the Europeans benefit from the NATO alliance. But that is not so. Maintaining a peaceful, and economically solid Europe, free from Soviet domination, is most definitely in the U.S. interest.

Europe is the ancestral home for most Americans, and we remain bound together by history. We share the same sources of civilization, spiritual commitments, and views about the preservation of free society.

Economically Europe has grown to the world's second largest power, behind the U.S. and ahead of the Soviet Union. U.S. direct investments in Europe are now over $40 billion. Europe is the world's largest exporter and importer, and the repository of most of the western world's monetary reserves. Europe has real economic weight and usually has acted to the benefit of the U.S.

The loss to the U.S., if this economic potential were to be dominated by the Soviets, would be catastrophic. The impact on American life created by the Arab recent economic actions has brought the nature of the problem into focus. But the Arab economic might is small compared to that of Europe. For example, even with Arab oil imports U.S. imports from Europe are 20 times as large as those from the Arab oil producing countries.

We deploy U.S. forces to protect these interests. Without the U.S. guarantee, the Soviet forces could be used politically, if not physically to dominate the Europeans. Europe remains a collection of medium size states with a long history of mutual suspicion and divisiveness. Europe has aspirations for political cohesion, but they have not yet been realized.

The Europeans do provide most of the forces in Europe for NATO defense. Ninety percent of the ground forces, 80% of the ships, and 75% of the aircraft are European. They contribute to political stability, but the U.S. forces provide the backbone for the Alliance, the nuclear uncertainty with which the Soviets have to contend and the glue that holds it all together.

Therefore, the best we can do is to identify general categories of forces that we would plan on using against the Soviets and their allies if they attempt to challenge U.S. vital interests in Europe. The attached table sumarizes the FY 75 costs of these forces by each of these general categories. The detailed development of such estimates is a complicated, time consuming process which has not yet been undertaken using FY 76 data.

Department of Defense General Purpose Forces

	Fiscal year 1975 costs (billions)
I. The U.S. forces and support elements forward deployed in Europe	$8.8
II. The U.S. forces that are ready to rapidly deploy to counter Soviet aggression—currently planned for the European theater crises. These are mainly based in the U.S. and in general would be withheld from deployment to contingencies elsewhere	10.6
III. Other U.S. forces that would be used in NATO conflict, based upon current Defense Department planning. They would also be available for conflicts in other areas	10.7
IV. The remaining general purpose forces, whose primary purposes are essential forward deployments in other regions of the world, strategic reserve, and to meet the needs of other contingencies	15.0

The above costs include, in addition to the direct costs of the combat forces in each group, an allocated share of the costs of new equipment and a proportionate share of U.S. based training and logistics support. They also include all FY 75 Security Assistance costs. DoD retired pay costs, costs associated with U.S. strategic forces, RDT&E, DoD administration and some intelligence and communications costs are excluded.

The above costs provide a rough idea of the variable cost of the forces in each of the four groups. The amounts shown are mainly determined by the numbers of forces, the types of equipment bought for them and the manner in which the forces are trained and their equipment maintained.

Question. Have any of the NATO countries increased their military expenditures or the size of their armed forces during the past year?

Have any of the NATO countries decreased their military expenditures during the past year?

Answer. We only have preliminary estimates of defense spending figures for 1974 for many of the allies. These are subject to change as information concerning their supplemental appropriations and revised estimates of inflation are received. Based on information currently available, the picture is as follows:

Based on defense spending figures that include inflation, all of the allies have increased their defense expenditures for 1974 compared with 1973. This amounts to a net increase of around 15% for all of the allies combined

In constant prices, excluding increases due to inflation, indications are that Belgium, Denmark, Greece, the FRG, the Netherlands, Norway, and Turkey have increased, by amounts ranging from 2% to a high of almost 6% [deleted]. The United Kingdom and Italy, the NATO nations that have been hit hardest by economic difficulties, have declined. Portugal also has declined while Canada and France appear to have maintained spending at the 1973 level. The net change for all of the allies combined is a small increase of around 1%.

During the past year there has been no significant change in the size of Allied Armies and Air Forces in terms of major equipment and major combat elements. However, the allies have continued to modernize their forces. For example, modern fighter aircraft have replaced older aircraft in West Germany, Greece, Italy, and the United Kingdom and about 300 new Leopard tanks have replaced a similar number of M–48 tanks in the FRG.

During the year the Federal Republic of Germany announced plans to increase from 33 to 36 the number of brigades in its Field Army by 1978. Accompanying these changes will be some reorganizations with the FRG Territorial Army increasing [deleted] the total number of main battle tanks in its force. [Deleted.]

Question. Please prepare for the record the following information on the NATO allies (include U.S., Canada, France): defense budget in U.S. dollars, defense expenditure as percent of GNP, per capita spent on defense.

Answer:

DEFENSE EXPENDITURES OF NATO COUNTRIES—1974

	Defense expenditures by NATO definition		
	Amount (U.S. millions)	Percent of GNP	U.S. per capita
Belgium	$1,406	3.0	$144
Canada	2,584	2.2	107
Denmark	644	2.3	115
France	10,045	3.8	191
Germany	13,290	3.9	220
Greece	691	4.1	76
Italy	4,594	3.0	85
Luxembourg	174	1.0	49
Netherlands	2,188	3.7	161
Norway	644	3.5	161
Portugal	655	5.4	77
Turkey	1,026	4.3	26
United Kingdom	9,141	5.4	162
United States	83,322	6.4	392

Question. To what extent has Greece carried out her withdrawal from NATO? What is the effect on the security of the southern flank? Has U.S. access to and use of Turkey ports or airfields changed?

Answer. Greece announced on August 14, 1974 that it would withdraw its military forces from NATO, and its forces are no longer committed to NATO command. Greece has also withdrawn from the Defense Planning Committee. However, it remains a full participant in the North Atlantic Council, and has also chosen to remain in the NATO Military Committee and the Nuclear Planning Group. Further, Greek personnel remain in all NATO headquarters except those located in Turkey.

The impact on security of the southern flank will be determined to some extent by the ability of Greek forces to maintain equivalent NATO combat-ready status without full integration in the NATO military structure. [Deleted.]

[Deleted.]

Question. What is the expected impact on the MBFR talks of the deployment of two additional U.S. Army brigades to Europe?

Answer. Deployment of the two brigades is part of our effort to improve our forces in Europe and, of course, is consistent with the Nunn Amendment. While MBFR considerations are taken into account, the negotiations themselves are no bar to force improvements in Europe. I would also note that we see no slackening in the activities of the Soviets in Eastern Europe in the re-equipping and modernizing of their ground forces, which by the way are significantly larger in number than US forces in the area.

Question. Mr. Secretary, since fiscal year 1968, total military end strengths have fallen from 3,547,000 to 2,100,000, a decrease of 41 percent. At the same time, civilian personnel has only fallen off 24 percent (from 1,287,000 to 985,000). Why has the civilian decrease been so much smaller?

Answer. During periods of build-up or drawdown, the rate of change in the direct-hire civilian employment level is always lower than the rate of change in the military strength level. The majority of the direct-hire civilians are employed in sustaining base activities. Many of these activities do not fluctuate in size directly with changes in the size of the force being supported.

The FY 76 direct-hire civilian level is 50,000 lower than in FY 64, a pre-war year. During this same 12-year period over 120,000 military positions were civilianized. This civilianization permitted the elimination of military positions and tends to hide the even higher reductions that have taken place in direct-hire employment levels.

In summary, although civilian strength levels have only dropped 24% since FY 1968, they only rose 24% during the build-up from FY 64 to FY 68. The civilianization of 120,000 military positions between FY 64 and FY 76 further masks a direct comparison between the military and civilian rates because it understates the "real" civilian reduction and overstates the "real" military reduction.

Question. Looking again at the period from fiscal year 1968 through fiscal year 1976, I see that employment in defense-related industry has fallen off 54 percent. Why has this figure decreased so greatly and so much more than military and civilian personnel figures?

Answer. From 1968 to FY 1976, defense-related employment in the private sector does decline 54 percent or by 1.7 million jobs. During the same period, the decline in the number of military and civilian personnel in the Department of Defense has not been as sharp although quite significant, particularly in the case of military personnel (a drop of 41%). The cause for this is that the purchase area of the Defense budget, i.e., the noncompensation part, which impacts directly on private sector employment, has been reduced much more significantly in dollar terms than has the compensation portion of the Defense budget. For example, in constant FY 1968 dollars, the purchase portion of the Defense budget declines from $45.8 billion in FY 1968 to $23.1 billion in FY 1976, a drop of $22.7 billion or 50%. During the same period, military pay and related costs drop by 36%. The reason for this is that a minimum force structure and operational capability can and must be maintained even if we underfund our investment accounts—unless the underfunding is of an extended nature.

Question. In light of the $8 billion real growth of the Defense Department budget, most of which lies in research and development and procurement, why do you expect a decrease in employment in defense-related industry this year?

Answer. There is an $8.2 billion growth in total obligational authority (TOA) in constant dollars from FY 1975 to FY 1976. This increase, however, will not in itself alter the expected decline in defense-related employment, principally because the increase in TOA as you correctly note is mostly in procurement and RDT&E areas, where there is some lag between the time the funds are approved and actually spent. On the other hand, Defense outlays from FY 1975 to FY 1976 in constant dollars will decline by $422 million (for procurement and RDT&E the drop is $267 million). The trend in outlays at this stage more accurately depicts what the employment trend for defense-related employment will be in the coming months.

Question. The average cost of maintaining a U.S. serviceman on active duty in fiscal year 1975 was over $12,000, according to figures drawn from the Manpower Requirements Report. What is the estimated cost per man for fiscal year 1976?

Answer. Using regular military compensation (RMC), consisting of basic pay, subsistence allowance, quarters allowance, and tax advantage, as a surrogate for military pay, the estimated average cost for active duty personnel in FY 1976 will be $10,420 in contrast to $9,930 for FY 1975.

Question. What sort of a trend in costs per man do you see developing since the end of the U.S. involvement in Vietnam and the subsequent end of the draft?

Answer. Pay comparability levels were established for most military personnel during the FY 1967–FY 1969 period. The large 1971 pay raise created competitive wages for junior enlisted personnel. Since that time, the trend in costs per man have followed the level of annual private sector wage increases which averaged an increase of 5% to 6% per year.

Question. Now that we have an all-volunteer force, what kind of a cost trend do you foresee over the next few years?

Answer. The DoD expects active duty personnel wage increases to follow private sector wage increases which in turn are largely influenced by increases in the consumer price index. If inflation continues to be a major problem, then large (matching) wage increases are likely.

Question. The second largest component of Defense Department manpower costs is payments to and for civilian personnel. What is the average cost per civilian employee in the fiscal year 1976 budget?

Answer. For all civilian employees, the average cost is expected to be about $14,120 during FY 76.

What is the present trend in civilian costs? What cost trends do you foresee over the next several years?

Answer. Recent trends in average costs for civilian personnel has followed, as military pay costs, private sector wage increases. This trend of private sector wage matching is expected to continue over the coming year.

Question. Given the continued increase in manpower costs, what steps have been taken to keep the costs down? Particularly, what has been done to work for the best military-civilian personnel mix to keep costs down?

Answer. Only those positions that dictate military incumbency by reason of law, security, combat readiness, training, discipline, rotation, or the need for military experience are designated as military positions. All remaining positions are analyzed in accordance with existing policies and directives to determine the most economic form of manpower, military, civilian, or contract, consistent with the needs of the DoD.

The increases in active duty military pay that have been granted over the past several years have produced a general comparability between military and civilian compensation when all elements of compensation are considered. Also, civilians do not have a costly training and support base behind them as do their military counterparts. Nevertheless, generalizations concerning one form of manpower being less costly than another form are not valid. Each position is unique and must be analyzed on an individual basis to determine the most economical way of filling that position.

Question. What is the expected cost per individual in the Reserve forces for fiscal year 1976? What have the cost trends been and how do you hope to keep them down?

Answer. The expected cost for pay, allowances, clothing, subsistence, gratuities and travel per individual in the Reserve forces for FY 1976 is $1,930.00.

The cost trends have increased approximately $300.00 per individual over the past 4 years. This could be attributed primarily to pay increases.

We have several on going management actions which should help to keep program costs from escalating. Some of these are:

a. restructure of the Army and Navy Reserve to eliminate unneeded non combat capability and to validate manpower requirements.

b. balancing the enlistments of already trained prior service and higher cost non prior service personnel,

c. limiting overseas training of Reserve units to that which is essential to execute the mobilization mission,

d. increased use of the Individual Ready Reserve to man positions in units which require little or no skill training and which are required some time after M-day, and

e. by improved training methods within units such as increased use of simulators.

Question. Mr. Secretary, why does the U.S. still have military personnel and aircraft stationed in Thailand? If it is a deterrent force, what is it deterring? Would North Vietnamese activity in South Vietnam be at a higher level if the U.S. did not have a remnant of its Southeast Asia force in the area?

Answer. We maintain U.S. military personnel in Thailand for the following primary purposes: deterrence, regional stability, and to provide military assistance to the Royal Thai Government. We believe that our continued presence in Thailand helps deter the North Vietnamese in their military action against South Vietnam, particularly an all-out invasion such as occurred in 1972. The North Vietnamese remain very worried about our possible military action in South Vietnam.

Question. What is the current number of U.S. military personnel and aircraft in Thailand? What are your plans for reducing this force? Are there plans to entirely remove U.S. military forces from Thailand? If not, what is the advantage to the U.S. of indefinitely supporting a presence in Thailand?

Answer. Our current authorization in Thailand is 27,000 military personnel. However, due to the phase down of headquarters and personnel on TDY or leave out of the country, the actual strength reported as of 30 Sept. 74 was 26,000. We plan to continue force reductions when the situation in Southeast Asia stabilizes. However, we first need to effect the necessary consultations with the Royal Thai Government in regard to future force levels and withdrawals plans. As you know, our current programs are based on projections through the next five years. [deleted] conditions permitting, we hope to reduce to at most a force of about 10,000 military personnel. Actual redeployments will essentially depend on the level of hostilities in Southeast Asia and the future political/military situation; therefore, it is possible that our force levels may increase or be reduced altogether. Obviously the Thai Government must also be satisfied about keeping our forces in this country and we will be consulting with them. Some Thai have doubts that we would be able to use our forces because of present restrictions. Our forces are needed to provide a force deterrence to increased North Vietnamese hostilities, to strengthen regional security and stability, and in the case of the JUSMAG, to administer the military assistance program to Thailand.

Question. Mr. Secretary, why does the U.S. maintain a division in South Korea? Has U.S. policy toward South Korea changed since the Korean War?

Answer. U.S. policy has not changed since the Korean War and we are still committed under the U.S.–ROK Mutual Defense Treaty to preserve the territorial integrity of the Republic of Korea. Our military presence, however modest, operates as a restraint to possible North Korean adventurism and also means that other powers in the area must think twice before instigating major trouble on the Korean peninsula or redeploying forces to theaters where they might prove more threatening to us. Our troops there contribute to stability on the Korean peninsula and in the area.

Question. Has the North Korean "threat" increased in the last year?

Answer. North Korea's goal remains ultimate unification of the peninsula on its own terms. During the last year, as in the past, progress in the improvement and modernization of the North Korean forces has taken place. Considerable effort has been devoted to construction just north of the DMZ of jet capable airfields. North Korean military developments observed during the past few years clearly reveal the existence of a program designed to enhance the offensive aspects of their military capabilities while continuing to improve the defensive posture of the armed forces. Should the North shift to a hard line military

strategy, it has the capacity for launching a unilateral surprise attack against the South.

Question. Are there political constraints on the use of U.S. forces stationed on Okinawa?

Answer. We are required under a 1960 agreement with Japan to enter into prior consultation before taking certain specified actions. This arrangement gives the GOJ a measure of control over US deployments, and equipment introduced, into Japan/Okinawa. It provides a similar control over US combat missions staged directly from Japan/Okinawa except in the defense of Japan. It does not limit the US ability to support logistically combat operations in Asia or to transfer men and equipment from Japan or Okinawa into a theater of combat as long as they are not on a combat mission. If a situation involving prior consultation does arise, the GOJ's response will depend, of course, upon its view of its national interest—including the threat to Japan's security.

The CHAIRMAN. Thank you very much.

Senator Culver, that brings us back to you, sir.

Senator CULVER. Thank you, Mr. Chairman.

BUDGET ANALYSIS

Mr. Secretary, I would like to pickup on this comparative spending subject in terms of relative expenditures for defense and the social purposes in our own country and our own budget, and also compared to the military expenditure of the Soviet Union. I must say, that having been on the House Foreign Affairs Committee and having listened to testimony over the years, I get the impression in a rather disturbing way that the Soviet Union managerially seems to do an awful lot with much less over the years in terms of their comparative military outlays. And I think sometimes the answer may not be in appropriations and additional expenditure so much as to get our hands on some new defectors to see how they do it. It is a reflection on some of the rest of us, the extent to which they can maintain such a frightening capability and such an imposing strength vis-a-vis our own security interests, and manage to do this, relatively speaking historically, with far less expenditures of money.

According to the Arms Control and Disarmament Agency's latest publication on world military expenditures, Soviet military expenditures as a percentage of GNP have varied between 6 and 10 percent in the last decade. The same is true of U.S. percentages. There are no precise yearly figures given for the U.S.S.R. If you measure the per capita military expenditures for the two countries, the United States has spent substantially more for every year, until the most recent, when our per capita defense spending was still 8 percent more than the U.S.S.R.

Another measure given by the Arms Control Disarmament Agency is military expenditure per person in the armed forces. And by that measure also the United States spends far more than the U.S.S.R., most recently by almost 50 percent.

There are many ways to measure relative effort, as we all know. We can make up charts and play with GNP and torture up sets of statistics to prove just about anything you want to prove. But it seems to me that the real questions are, one, whether the reduced danger of war justifies even the current level of defense spending; and secondly, whether our own national priorities justify increasing defense budgets while we hold the line or cut back on people programs.

You may think it is easy to go back to my own State and others like it and say to the elderly—who are facing a 12 percent annual cost of

living increase, who cannot make their monthly heating bills, cannot pay for food, and cannot economically manage their lives, who live in fear and destitution—there is a 5-percent cap, as we say nowadays, on any increase in social security, you are going to have to pay more for medicare. We, in this country, say you have to pay more for food, up to 30 percent of your income.

If now we cannot take care of these basic needs at home, and you go to the American taxpayers and say, we are going to have an $8 billion increase of actual expenditure in defense, at a time of unprecedented overkill, I say that the people in the State I represent do not think that makes much sense.

You mentioned some of these scare stories that Roy Ash and others give out, that if we keep spending at this rate, we are going to have a socialized State in 1985.

Let me just say this. The Joint Economic Committee has made up an analysis of the budget. And I ask unanimous consent that this be made a part of the record.

The CHAIRMAN. Without objection.

[The information follows:]

TABLE 1

	Outlay increases over fiscal year 1975		Authority increases over fiscal year 1975	
	Amount (billions)	Percent	Amount (billions)	Percent
National defense	8.75	10.26	16.39	17.94
International affairs	1.44	29.69	7.76	159.23
General science, space and technology	.40	9.51	.39	9.0
Natural resources, environment, and energy	.62	6.54	.76	6.65
Agriculture	.04	2.43	−1.60	−27.24
Commerce and transportation	1.93	16.34	−22.34	−77.19
Community and regional development	1.03	21.14	.09	1.75
Education, manpower, and social services	.09	−.62	−.89	−6.11
Health	1.56	5.91	2.57	9.05
Income security	12.02	11.27	−20.79	−13.31
Veterans benefits and services	.13	.81	.18	1.11
Law enforcement and justice	.26	8.66	.10	3.09
General government	.53	20.18	.61	22.39
Revenue sharing and general purpose fiscal assistance	.22	3.07	.24	3.44
Interest	3.09	9.86	3.09	9.86
Allowances	7.35		7.58	
Undistributed [1]	−3.35	19.9	−3.35	19.9
Total	35.93	11.46	−9.23	−2.34

[1] Includes sales of offshore oil leases.

Source: "Analysis of the Fiscal 1976 Budget" Prepared by the Staff of the Joint Economic Committee.

Senator CULVER. This table shows the outlay increases in the fiscal year 1976 budget compared with fiscal year 1975.

National Defense, 10.6 percent increase over fiscal year 1975.

National resources, environment and energy, 6.54.

Education, manpower, and social services, less than 1 percent increase.

Health, 5.91. In a country like ours, if you are not rich, you cannot afford to get sick.

As we go on through the budget requests, the increases over fiscal year 1975, the percentages, Mr. Secretary, are even more disturbing.

National defense represents almost an 18 percent increase.

Natural resources, environment and energy expenditures, 6½.

Education, manpower, social services, 6.11.

Health, 9 percent.

It just seems to me that we have reached the point where perhaps we do have to start examining some very fundamental and perhaps uncomfortable and even unthinkable thoughts, and we have to look at the basic premises of risk, and make some very basic decisions. And yes, perhaps, it has gotten to the point where America does not need to be first in every conceivable category if it is not first in terms of the quality of life of its own people. And yet, the tradeoffs they are asked to make are to continue the greatest national mistake in our history in Southeast Asia, at an unconscionably high expenditure.

I served over in the House Foreign Affairs Committee last year when you had a $1 billion request. We cut that down, and voted $700 million. And yet you are back here 2 months later with a $300 million supplemental request as well as $1.2 billion more on top of that for next year.

Mr. Secretary, I bow to no one, in my regard for the distinguished service of the military on behalf of this country or in my interest and determination to have a strong and adequate defense. But I must say that I think we have gotten to the point here where the definition of national security interests, the definition of what constitute a strong country in dispute—we have gotten to the crossroads in America, and we are going to have to ask ourselves some very fundamental questions.

You mentioned that you consider that we must maintain an adequate national security interest and deterrent in order to meet our responsibilities, properly defined, our commitments. And I would like to just ask you if you feel that you are in a position to tell us whether or not, when you make some of these comparisons, you still agree with CIA Director Colby, who in testimony last year said the dollar estimates of Soviet spending are based on what it would cost the United States to purchase and outfit the same military establishment.

Secretary SCHLESINGER. Absolutely.

Senator CULVER. You are basing it just on that. That is the technique still used?

Secretary SCHLESINGER. There is no other technique.

Senator CULVER. Is that reasonable, given the much lower pay scales and the difference in operating costs? What other measures do you have?

Secretary SCHLESINGER. Of course, there are deficiencies in such a technique. There is no other way to measure the gross capabilities of these forces except in terms of straight comparison, if you prefer to avoid a comparison using the ruble-dollar exchange rate such as we have displayed here. One can compare the gross force structure but exactly the same conclusions would be reached.

You mentioned some things with regard to estimates of the Soviet Union peak. Approximately 14 to 15 percent of the Soviet nonagricultural labor force works for the Soviet Ministry of Defense. In the United States, we use 4.8 percent of the nonagricultural labor force. As you well know from your earlier student career, gross national product measures the market value of goods and services. In the Soviet society those market values are manipulated in a variety of ways; therefore, the labor cost reflected in the production of military goods and services are not reflected in market values, and consequently, not reflected in the gross national product. The effect of this is that a very major effort in the Soviet society is directed toward defense.

We can rationalize that; we can introduce statistics of whatever sort we may want to. We can, as you indicate, accept the fact that the United States will not be No. 1 in terms of overall military power. Clearly, today we are no longer No. 1 in terms of many of the categories of military power.

Senator CULVER. Why is that significant? If our deterrent is credible and adequate, why is it necessary to have all these symmetries that you speak of? The Soviet Union does not have a bomber force, the Soviet Union does not have symmetry when it comes to a Navy. I get a little confused when you make these arguments back and forth between quality and quantity and asymmetry and symmetry. Why is that so critically important to arbitrarily match each other arithmetically?

Secretary SCHLESINGER. It is not. So that one knows which asymmetry one is prepared to live with, one must deal very carefully with the qualitative aspect of the forces.

Senator CULVER. So it is not important to be No. 1 in every category?

Secretary SCHLESINGER. Of course not.

Senator CULVER. I am glad to hear you say that. And I agree with you wholeheartedly.

Secretary SCHLESINGER. I have stated that repeatedly. But I have said that the United States, in association with the——

Senator CULVER. Not only have I said it, but you have said it.

Secretary SCHLESINGER. Yes, sir. The United States, in association with its allies, must retain worldwide military balance or equilibrium if we are going to protect the kind of world in which we have lived since 1945. It may well be that the American public is no longer prepared to support that. It may well be that that is not the type of world in which we care to live any longer. If so, the consequences will be that large parts of the Eastern Hemisphere would fall under Soviet hegemony. We may be prepared to accept that. But those things should be decided on quite consciously. I do not think that you would prefer to live in such a world, to take one example. However, that is a decision that can be made.

Senator CULVER. Do you also agree that reasonable men can differ as to the perceived risks and the adequacy of our national defense to meet that risk?

Secretary SCHLESINGER. Of course. I think that reasonable men can differ with regard to the level of risks that they would care to live with. I also think that the range of assessment about that degree of risk must be much narrower than you imply.

Senator CULVER. You would also concede that no nation on Earth, or combination of nations, has enough material resources to cover every conceivable contingency that could be dreamed up in the fertile minds of those planners charged with the resposibility of protecting national security interests against every conceivable danger, wouldn't you?

Secretary SCHLESINGER. Of course. And our military posture is based upon that presumption.

PREPARED QUESTIONS FROM SENATOR CULVER

The CHAIRMAN. Thank you very much, gentlemen.

[Questions submitted by Senator Culver. Answers supplied by Department of Defense.]

Question. Mr. Secretary, I was pleased to read your statement supporting negotiations to lower the 2,400 ceiling in strategic delivery vehicles agreed to at Vladivostok. Are there any programs in this budget which commit us to build to these levels, or which would be cost effective only if the 2,400 ceiling is retained?

Answer. Throughout the SALT negotiations the U.S. has pressed for reduced levels of strategic arms. The Vladivostok Agreement is an important milestone in that direction and provides a basis from which further negotiations on mutual and equitable reductions can proceed. However, until we obtain solid evidence of Soviet restraint, we shall plan for a deployment of 2,400 strategic delivery vehicles.

Question. If the Congress were, for whatever reason, to vote to terminate the B–1 bomber program—or if a production decision on the B–1 were denied—how would you preserve U.S. equivalence with the USSR under the Vladivostok agreement? Since a decision against production is a possibility for which you must plan, what are your fallback alternatives?

Answer. We believe the retention of a bomber force is essential to a well balanced strategic posture. The current bomber force, paticularly the B–52Gs and Hs, should be able to fulfill this need into the 1980s. In the event the B–1 does not enter the force we could take steps to further modify and improve the B–52Gs and Hs. However, if we are to maintain an effective bomber force into the mid-1980s and beyond, a new aircraft will have to be procured. We believe that that aircraft should incorporate improvements to ensure its pre-launch survivability and its ability to penetrate Soviet defenses. In addition, it should have the ability to carry large and varied payloads and have sufficient space and weight to be adaptable to future and as yet unforeseen threats.

Question. Have any programs in fiscal year 1976 been reduced or increased as a result of the Vladivostok agreement? Please explain the recent reports about halting Minuteman III deployments at Malstrom AFB?

Answer. Our major strategic force modernization and replacement programs (e.g., B–1 and Trident) have not been affected by SALT because they were designed to replace aging components of our current force and to ensure the effectiveness of our strategic deterrent in the face of an ever-improving Soviet threat. Throughout the SALT negotiations, these programs have been pursued prudently and at a steady pace to permit an orderly phase-in/phase-out process.

After some delay, the deployment of Minuteman III's at Malstrom is proceeding as scheduled. Our plans to deploy 550 Minuteman III's remains unchanged.

Question. What restrictions of understandings are there as a result of the Vladivostok agreement regarding air-sea-launched cruise missiles? Under what circumstances are launch platforms for such missiles to be counted against the 2,400 ceiling?

Answer. (S) The Vladivostok Agreement covered several broad system categories for limitation. ICBMs, SLBMs, heavy bombers and certain long range air-to-surface missiles (ASMs) are to be limited. Negotiations currently are underway addressing details.

Question. Will you please provide an unclassified table of strategic force strengths for 1974, 1975, and (if possible) 1976 for the US and USSR, including force loadings as well as other factors?

Answer:

U.S. AND U.S.S.R. STRATEGIC FORCE LEVELS

	Mid-1974		Mid-1975	
	United States	U.S.S.R.	United States	U.S.S.R.
Ballistic missile launchers:				
ICBM launchers [1]	1,054	1,575	1,054	1,590
SLBM launchers [2]	656	660	656	700
Intercontinental bombers [3]	500	140	498	160
Total Force Loading	[deleted]	[deleted]	[deleted]	[deleted]
Weapons	7,650	2,500	8,500	2,800

[1] Excludes launchers at test sites and launchers under construction. Includes operational launchers and those launchers undergoing modernization (conversion/upgrade).
[2] Excludes launchers on diesel-powered submarines [deleted].
[3] Excludes bombers configured as tankers and reconnaissance aircraft. [Deleted].
[Deleted].

Question. Mr. Secretary, what were the October 1 budget submissions—by Service, function, and major programs? What reductions were made by OSD? What by OMB? Were there any increases?

Answer. Service submissions, by component and function, and OSD/OMB joint budget review changes are shown below in tabular form. The Office of the Secretary of Defense and the Office of Management and Budget conduct a joint budget review, thus the reductions shown below are combined in the middle column.

DEPARTMENT OF DEFENSE—FISCAL YEAR 1976 TOA REQUEST

[Thousands of dollars]

	Oct. 1, 1974 budget submissions	OSD/OMB joint budget review changes	Budget request
Department of the Army	24,268,318	−723,285	23,545,033
Department of the Navy	34,208,100	−1,410,900	32,797,200
Department of the Air Force	31,374,995	−1,963,995	29,411,000
Defense Agencies/OSD	4,696,299	−78,899	4,617,400
Defense-wide	8,225,953	413,749	8,639,702
Total, DOD	102,773,665	−3,763,330	99,010,335
Functional summary:			
Military personnel	25,384,167	−306,467	25,077,700
Retired pay, Defense	6,469,521	415,679	6,885,200
Operation and maintenance	29,288,145	11,422	29,299,567
Procurement	27,975,605	−3,556,105	24,419,500
R.D.T. & E	10,686,590	−449,990	10,236,600
Special foreign currency program	2,537	131	2,668
Naval petroleum reserves		122,000	122,000
Inventory replenishment	300,000		300,000
Pay increase/retired pay reform	1,374,100		1,374,100
Military assistance, South Vietnamese forces	1,293,000		1,293,000
Total, DOD	102,773,665	−3,763,330	99,010,335

Fiscal year 1976 TOA amounts requested by major program are:

	Thousands
Strategic forces	$7,379,193
General purpose forces	34,612,262
Intelligence and communications	6,941,687
Airlift and sealift	1,570,451
Guard and Reserve forces	5,215,699
Research and development	9,234,698
Central supply and maintenance	9,552,427
Training, medical and other personnel activities	19,295,415
Administration and associated activities	2,064,287
Support to other nations	1,470,116
Undistributed inventory replenishment	300,000
Undistributed pay increase/retired pay reform	1,374,100
Total, DOD request	99,010,335

The TOA Requests shown above differ from Appropriations requested by the following amounts:

	Thousands
Fiscal year 1976 appropriations requested	$97,796,549
Stock funds	—476,800
Prorata collections of R. & D. funds from the foreign military sales program	57,700
Proposed legislation:	
Inventory replenishment	300,000
Naval petroleum reserves	112,000
Pay increases/retired pay	1,374,100
Liquidation of contract authority, fiscal year 1972	—163,214
Total	99,010,335

Question. Does this budget produce any more jobs in the civilian economy than last year's lower budget? Why is there not a substantial stimulative effect? Does the long-lead time nature of defense production make defense spending ill-suited to counter recessions?

Answer. At the end of FY 1976 we now estimate there will be about 25,000 fewer jobs in private industry as a result of Defense contracts than there were at the end of FY 1975 even though total Defense outlays would increase from $84.8 billion in FY 1975 to $92.8 billion in FY 1976 in current dollars. The reason that there is not a substantial stimulative effect is that all of this increase (and about $400 million more) is needed to cover the effects of inflation on the Defense budget. In constant FY 1976 prices, there is a decline in Defense spending of $422 million from FY 1975 to FY 1976. The portion of the Defense budget which impacts directly on private sector employment, i.e., the noncompensation part of the Defense budget, declines in constant prices and this explains the continuing decline in defense-related employment. Also, it takes more money to create a job from whatever source (defense or nondefense) in 1976 than it did the year before because of the effects of inflation.

The long-lead-time nature of Defense production is well-understood by the Congress, and in discussions of previous years it has been stated that Defense programs are not intended to correct or adjust the economy in a fiscal policy sense. These programs are primarily intended to meet our national security requirements.

On the average, Defense manpower-related outlays (about 53% of the DoD budget) probably result in the employment of more people than do similar outlays in the rest of the federal sector. The remaining portion of the DoD budget (47%) probably generates through industry spending as many civilian industry-related jobs as does such spending in the rest of the federal sector. But it should be reiterated that Defense forces are sized to cope with threats to our national security and not to stimulate the domestic economy.

Question. You highlight the underfunding, because of inflation, of major shipbuilding programs. What part of this amount is directly attributable to unforeseen inflation and what to other factors? What contract renegotiations are necessary? Can you assure us that the Navy is not surrendering to contractor demands?

Answer. It is extremely difficult to identify the amount of cost increase due to inflation and the amount due to other factors. For example, cost estimates can rise on a particular ship when skilled workers cannot be hired by the contractor to maintain production schedules. The cost increases for that ship reflect additional mandays of effort related to disruption that accompanies a slippage in schedules, but the increase also reflects inflation associated with the longer construction period. Separating the different elements contributing to the increases can be very difficult, particularly when dealing with a subcontractor who does not have the reporting requirements of a prime contractor.

Of the $2.3 billion we are requesting this year to fully fund prior year shipbuilding programs, over $1.1 billion is directly related to the change in prices. This portion will be paid to the contractors on the basis of escalation clauses that are tied directly to prices as reported by the Bureau of Labor Statistics. Approximately $360 million of the budget request is for claims and specific changes which the Navy wishes to make. These amounts are not inflation related. The approximately $800 million balance of the budget request is due to a variety of problems such as target-to-ceiling cost growth, estimating changes, market place conditions and schedule changes. Inflation has interacted with these factors to produce the cost increases you see before you. We are unable to separately identify the amounts in this category related to inflation.

It has not been necessary to renegotiate any shipbuilding contracts in connection with this budget request. We are at present negotiating a revised target price for the DD 963 contract, but since these negotiations are being conducted within the scope, terms and liability initially agreed to in the DD 963 contract, they are not considered to be a renegotiation.

On the last of your points you should be assured that the Navy is not surrendering to contractor demands. With the exception of the money requested for 14 unawarded ships in the FY 1975 shipbuilding program, this budget request provides for growth on ships presently under contract. The critical aspects of these contracts were discussed with members of my staff prior to award to insure they were in consonance with DOD procurement practices and were in accordance with the management desires of the Secretary of Defense. Contract cost increases contained in our budget request are in accordance with the contract terms, conditions and liabilities agreed to earlier by the Navy. The request does not assume contract revisions in which the Navy would be in a position to surrender to contractor demands. Our dedicated, professional contracting officers, auditors and procurement specialists will continue to exercise vigilance in preparing and negotiating our contracts.

Question. Why have the other Services not come forward with similar requests to cover underfunding? Do you believe that shipbuilding is a special case and that this is a one-time only device?

Answer. Both of your questions can be answered at once. Yes, we believe that the shipbuilding cost growth is the product of special circumstances not present in other major procurement programs, and yes, those circumstances explain why the other services as well as the Navy in its nonshipbuilding programs have not required such a cost growth request. The three critical factors which make the shipbuilding program unique are: the very long construction periods required for ships; the small number of ships that are procured each year; and the relatively small active inventory of ships being supported by the new construction shipbuilding program. Because of the very long procurement lead times, the shipbuilding programs are vulnerable to severe price fluctuations over a longer period of time and the impact of cost growth is more significant when the longer construction periods are involved. No other weapon system takes 5, 6 or 7 years to complete. During that period, even a minor miscalculation on the state of the economy can produce a very sizeable funding shortfall. The longer periods of time also increase the possibility that characteristics changes will be made to keep abreast of changes in technology.

The small number of ships procured each year severely limits our management flexibility. In other systems such as aircraft, tanks or missiles, we procure 30, 40 or 50 units in one year. With a procurement program of that size, it is possible to revise production schedules to accommodate cost growth. When we are procuring only one or two ships in one year, cancellation of one ship can many times mean elimination of a program. In view of our shared concern for the modernization of our Fleet, cancellation of ships is our last resort. Likewise, because the Fleet itself is substantially smaller than our inventories of aircraft, missiles and tanks, the loss of a new modern warship or a one or two year delay

in its introduction carries much more impact than one or two less airplanes in a total procurement of 400 or 500 aircraft.

In summary, because management options are much greater in other areas of procurement, cost growth requests have not been necessary. It is our hope that additional budget requests for shipbuilding cost growth will not be necessary. However, it would not be responsible for me to suggest that your approval of our current estimates will provide a guarantee against all such problems in the future. In an area where even the smallest miscalculation in predicting the future course of the economy can have significant impacts on total program costs, no such precise guarantees are possible.

Question. Can you provide us with life cycle cost estimates for, say, the ten most expensive programs which are now under development?

Answer. Our estimates of LCC, particularly the Operating and Support (O&S) costs contained therein, are used primarily for general planning or relative comparison purposes. The estimates of development, procurement and military construction costs for our programs are well known and available to you. But in order to arrive at a LCC estimate for any program we have to add to the development, procurement and military construction costs, an estimate of O&S costs. These O&S costs are much more subject to change over time than either development or procurement costs since O&S costs are greatly effected by policy decisions on the use of a weapon system and also by changing support policies that we evolve over time to take advantage of lessons learned and new technology.

About half of our weapon system costs are in this O&S area and for this reason DoD has continually tried to improve its capability to more accurately estimate these costs. However, many of these estimates are based on assumptions as to what the activity rates will be or what percentage of a depot's operations will be needed to support a particular weapon system. These assumptions have not always proven valid as we accumulate experience over a long period of time.

Operating costs are very sensitive to variables, such as, flying hours per month, where the equipment is based, the number of items assigned to an organizational unit, policy on the frequency of routine maintenance checks, level of parts availability, etc. Without detailed knowledge of what the specific operating rates or maintenance policies are at a given installation, data on the actual operating cost of a weapon system would provide you little understanding of the meaning of these costs.

Because of these types of problems in the O&S cost area our largest use for our current LCC models, and estimates derived therefrom, is for tradeoff comparison purposes at major decision points.

It should be added however, that we are actively working on methods for both improving our LCC models and reducing O&S costs. We are placing heavy emphasis on improving reliability and maintainability of our major systems, two key drivers of support costs. In this area we are initiating a system whereby contractors assume additional responsibility for the field reliability of their equipment. Also reliability and maintainability minimum thresholds are to be specified in the Decision Coordinating Papers (DCP) in the future and the Services will be responsible for tracking their progress against these thresholds. To improve our own ability to manage these costs the ASD (Comptroller) and the three Services have been studying our accounting systems over the last year in an effort to seek ways of modifying these systems to furnish actual cost information that will allow us to manage our O&S costs more effectively and thus reduce it in the future.

Question. Mr. Secretary, you say that we cannot allow major asymmetries to develop in throw-weight ratios, reliability and other factors in strategic weapons. Yet the Russians have accepted asymmetries in strategic bombers, forward bases, numbers of warheads, aircraft carriers, accuracy, MIRVs, and overall numbers of warheads. From our standpoint, which of these differences are we most willing to allow the Russians to balance and which are of the greatest concern to us?

Answer. The Vladivostok Agreement restricts the Soviets and the U.S. to equal numbers of strategic nuclear delivery vehicles (ICBMs, SLBMs, heavy bombers) and equal numbers of MIRVed missiles. Since each side is essentially free to choose the composition of its strategic force, the Soviets are free to match our number of strategic bombers (if they phaseout the appropriate number of ICBMs and SLBMs), warheads, and MIRVs. (Forward based systems

and aircraft carriers are not central systems and, therefore, were not included in the Vladivostok Agreement).

A goal throughout the SALT negotiations has been to achieve an agreement with the Soviet Union which provides the basis for a stable strategic relationship between the two sides. To promote this nuclear stability, we must provide forces which are perceived by all nations to be highly effective, highly flexible, and on par with those of any other nation. The Vladivostok Agreement, when converted into a 10-year agreement, will go a long way toward achieving the stable relationship we seek.

However, even within an agreement, we cannot allow major asymmetries to exist which could be a continuing source of nuclear instability. Major asymmetries in such strategic weapons factors as ICBM throw-weight and accuracy could be destabilizing because they could provide strategic options to the Soviets which we ourselves would lack. Our greatest concern is the substantial Soviet throw-weight which, if in the future were combined with several thousand high-yield MIRVs and rapidly improving accuracies, could jeopardize the survivability of our land-based deterrent forces.

Question. You say that the extent of our counterforce programs will depend on how far the USSR goes in developing a counterforce capability. How should we measure these changes in counterforce capability? What are the benchmarks which would indicate to us a need to increase our counterforce capability?

Answer. The Soviets could improve their counterforce capability by a combination of developments: extensive deployment of high-yield ICBM MIRVs, improved ICBM accuracies, and increased yield-to-weight ratios for their warheads. The Soviets already have a significant ICBM throw-weight advantage over the U.S. and their new ICBM programs threaten to further increase this advantage. This throw-weight, combined with several thousand new high-yield MIRVs and rapidly improving accuracies, could pose a significant threat to our land-based ICBM force by the early 1980s. When and whether the Soviets actually achieve this improved counterforce capability will depend on the pace and extent of the developments mentioned above. We will continue to monitor developments in each of these areas and if it becomes clear that the Soviets are attempting to exploit their throw-weight advantage, we will be forced to take appropriate action in order to maintain essential equivalence.

Question. When do you estimate that the Soviet Union will have the counterforce capability and flexibility which we now have? Assuming the countinuation of present programs, how much will be ahead of them at that time?

Answer. Our concern is that the Soviets will exploit their large ICBM throw-weight advantage and seek a counterforce capability sufficient to jeopardize the survivability of our land-based ICBM force. Such a counterforce capability would be far in excess of that contemplated by the U.S., and could be deployed by the early 1980s.

We are seeking modest improvements in our ICBM force in order to improve our hard-target kill capability so as to have higher confidence of executing limited hard-target attacks.

The targeting flexibility of the Soviet ICBM force will increase dramatically with the MIRV deployments and with improvements in accuracy. Soviet efforts to improve their retargeting and command and control capability are difficult to estimate. All of these developments are important and will remain of great interest to the U.S.

Question. How much, and for which specific programs, is planned for next year to continue the counterforce initiatives which were approved last year?

Answer. The FY 76 R.D.T. & E. cost for the counterforce initiatives approved last year are shown below.

Program	*Fiscal year 1976 (milions)*
MK–12A warhead	$36.3
NS–20 improved guidance	40.6
SLBM accuracy	51.0
ABRES (counterforce portion)	~25

Question. You say explicitly that "each leg of the triad is not required to retain independently a capacity to inflict in a second strike unacceptable damage upon an attacker." When do you estimate that the USSR will have the

capability of reducing our confidence in our Minuteman force below such sufficient second strike capability? What problems do you foresee in negotiating mutual reductions in vulnerable land-based missiles?

Answer. Current estimates show the Soviets as being capable of achieving a significant counterforce capability against the Minuteman force in the early 1980s. When they actually achieve such a capability will depend upon the pace and extent of their ICBM MIRV deployments and their ability to improve ICBM accuracies.

The amount of resistance the Soviets display against mutual reductions in land-based missiles may well depend on the extent of their new ICBM deployments. For instance, if they replace a large fraction of their current force with their newer systems, we can probably anticipate significant resistance to near-term reductions. However, if they show restraint in their ICBM deployments and put some of their allowable MIRVs in their SLBM force, one can hope that they might be receptive to mutual reductions of their older ICBMs.

Question. What percentage of territory and population did the U.S. supported governments in South Vietnam, Laos, and Cambodia control in January 1973, January 1974, and January 1975?

Answer. Since the cease-fire accords of January 1973 both sides have resisted efforts to delineate zones of control in South Vietnam. Even if such a task were undertaken it would be fruitless because neither side currently would abdicate any territorial claims. By the same token there has seldom been a discernible line of contact between the two sides or natural boundaries. In many areas control varies almost daily. Therefore, the enclosed statistical data should not be construed as the US official position on areas or population under control of the GVN or a conclusive indicator of the military situation in South Vietnam.

[In percent]

South Vietnam	January— 1973	1974	1975
Territory	80	80	75
Population	97	98	96

In Laos the statistical data is also sketchy, but there has been no appreciable change in the area and population controlled by the Vientiane Side since January 1973.

[In percent]

Laos	January— 1973	1974	1975
Territory	33	33	33
Population	66	66	66

As in the case of South Vietnam the situation in Cambodia is very fluid and territorial control can change daily. Since no one knows the exact limits or even if limits exist these statistics cannot be treated as authoritative nor can the data be considered the US Government's official position on areas of control or percent of population under the protection of the constituted government.

[In percent]

Cambodia	January— 1973	1974	1975
Territory	30	25	20
Population	60	58	80

Question. Please list the types, quantities, and total costs per month of military equipment and supplies furnished in calendar year 1974 to South Vietnam, Laos, and Cambodia.

Answer. We do not have the data recorded by month. We have the information by quarter as reflected in our records for Laos, Vietnam and Cambodia. The quarterly data are as follows:

SOUTH VIETNAM—MILITARY EQUIPMENT AND SUPPLIES FURNISHED

[Value in thousands of dollars]

Categories (including spares)	Jan. 1–Mar. 31, 1974	Apr. 1–June 30, 1974	July 1–Sept. 30, 1974	Oct. 1–Dec. 31, 1974
Total	210,133	117,576	179,668	268,862
Aircraft	38,048	38,872	10,705	32,599
Ships	83	59	217	252
Vehicles and weapons	6,248	2,304	24,231	10,447
Ammunition	122,595	11,960	47,893	91,521
Missiles	11	21	33	1,040
Communications equipment	2,115	2,080	4,215	2,593
Other equipment	16,486	12,157	58,874	46,304
Construction	5,700			1,200
Repair and rehabilitation	7,145	8,238	3,549	2,938
Supply operations	6,168	11,610	10,849	17,147
Training	1,800	314	11,276	1,993
Other services	3,734	29,961	7,826	60,828
Quantity of selected items:				
Aircraft fighter F–5E	18	10		
Armored personnel carrier		1		
Trucks	125	128	26	103
Rifles			544	944
Machine guns			25	1
60-mm mortar	1			
105-mm howitzer			1	

Note: Items delivered during July 1–Dec. 31, 1974, were programed in prior years.

CAMBODIA—MILITARY EQUIPMENT AND SUPPLIES FURNISHED [1]

[Value in thousands of dollars]

Categories (including spares)	Jan. 1–Mar. 31, 1974	Apr. 1–June 30, 1974	July 1–Sept. 30, 1974	Oct. 1–Dec. 31, 1974
Total	67,185	166,892	37,828	193,475
Aircraft	1,711	3,017	944	579
Ships	1,501	265	4,662	234
Vehicles and weapons	4,318	9,903	4,641	1,760
Ammunition	42,424	133,079	7,251	156,654
Communications equipment	1,022	399	315	555
Other equipment	3,841	5,931	4,226	8,457
Construction	625	727	5	149
Repair and rehabilitation	1,035	2,237	2,858	985
Supply operations	9,375	9,375	8,978	23,022
Training	966	1,005	3,333	1,023
Other services	367	954	615	57
Quantity of selected items:				
Aircraft cargo AC–47		1		
Aircraft cargo C–123				2
Aircraft observation O–1				5
Aircraft trainer T–28		23		
Helicopter UH–1H	3	4		
Landing craft mechanized	7			1
Landing craft veh/pers	1		2	
Patrol craft			19	
Harbor tugs			6	
Miscellaneous boats and craft	1		8	
Armored personnel carrier	11	74	14	
Tank recovery vehicle		7		
Trucks	457	295	21	2
Rifles		17,916	18,325	
Machine guns	186	295	63	80
60mm mortars	99	139	26	
81mm mortars	109	28	2	
105mm howitzers		33	30	30
106mm recoilless rifles		11	6	

[1] Based on constructive deliveries/expenditures as reported by the military departments.

Note: Totals may not add due to rounding.

[See p. 360 for Laos.]

Question. How much of the money requested for assistance to Vietnam will go to finance petroleum imports? How much for Cambodia?

Answer. The FY 1976 Defense Assistance Vietnam (DAV) for South Vietnam and Military Assistance Program (MAP) for Cambodia contain $121.3 million and $18.1 million respectively for petroleum, oil, and lubricants.

Answer. The information you requested for 1974 is shown below.

Question. What are the average monthly rates for ammunition usage, aircraft sorties, etc. for South Vietnam in 1974? What are the assumed usage rates for the remainder of fiscal year 1975 and fiscal year 1976?

SOUTH VIETNAMESE AMMUNITION CONSUMPTION AND AIRCRAFT SORTIES (MONTHLY AVERAGES)

	1st quarter 1974	2d quarter 1974	3d quarter 1974	4th quarter 1974	Yearly average
Tons of ground ammunition consumed	15,852	15,183	20,434	16,820	17,072
Tons of air ammunition consumed	4,039	4,252	3,914	2,396	3,650
Vietnamese Air Force sorties	[deleted]	[deleted]	[deleted]	[deleted]	[deleted]

As can be noted, both ammunition consumption and air operations were reduced in the fourth quarter of the year as a result of DAV limitations, despite an upsurge of Communist activity.

Consumption and sortie rates cannot be meaningfully forecast for the remainder of FY 1975 and FY 1976. They will be determined by the scope of Communist offensive activity and the level of U.S. security assistance.

Question. What are the estimated strengths for (1) North Vietnamese and (2) PRG forces in South Vietnam as of January 1975? What was the infiltration rate in each year? What casualty rate? How much buildup of PRG forces?

Answer. Estimated strengths of communist forces in the Republic of Vietnam are shown in this table:

[In thousands]

	January 1973	January 1974	January 1975
NVA:			
Total	140–160	193–219	208–234
Combat	110–125	143–159	150–166
Admin	30– 35	50– 60	58– 68
VC:			
Total	50– 70	65– 79	68– 82
Combat	20– 30	25– 34	25– 34
Admin	30– 40	40– 45	43– 48
Guerrillas	25– 35	25– 35	31– 41
Overall total	215–265	283–333	307–357

[Deleted] the total southbound infiltration for the three years totals about 225,000.

NVA/VC KIAs were 131,949 for 1972, 33,316 for 1973, and 60,976 for 1974.

The VC buildup since 1973 has been approximately 20,000 while NVA forces have increased by approximately 60,000 for a total of approximately 80,000.

Question. How much did North Vietnam receive from its allies in terms of (1) military and (2) economic assistance in each of the past two years?

Answer. In response to this and similar questions concerning comparative support to North and South Vietnam, an interagency working group was convened in order to arrive at the best estimate of total communist assistance to North Vietnam. The memorandum which has been prepared jointly by the Central Intelligence Agency and the Defense Intelligence Agency is enclosed and includes detailed data for the period 1970–1974.

MARCH 5, 1975.

Memorandum.

Subject: Command Military and Economic Aid to North Vietnam, 1970–1974 [1]

1. The Intelligence Community has been requested to estimate the amounts of Communist aid delivered to North Vietnam in the years 1970–1974, using current US dollar costs of the materiel and services provided (see Table I). It is important to recognize that the Intelligence Community's estimate on this subject is not equivalent to—and hence not comparable with—US appropriaions for military and economic aid to South Vietnam, for the following reasons:

(a) On the matter of accuracy, our information on North Vietnam has always been incomplete, although coverage on civilian imports is substantially better than for military aid. The drawdown of the US presence in Southeast Asia has further limited intelligence collection capabilities in the area, so that current information on North Vietnam is less comprehensive than it was formerly. In particular, on the question of Communist military aid, our information base is very spotty. Hence we know we are seeing only part of the picture on military aid, and our estimates for the part we cannot see have a wide margin of error.

(b) Military aid to North Vietnam is focused on materiel required for the type of military action undertaken by the Communist forces in South Vietnam—i.e., selected attacks from redoubt areas at times and places of their choice. US military aid to South Vietnam supports a different military mission—i.e., defense of scattered communities, large agricultural areas, and lines of communication, plus reaction and reinforcement of local forces after Communist attack. As the total forces for the different missions differ in size, so do their requirements for assistance. Throughout the war, South Vietnam's forces have been roughly twice the size of North Vietnam's forces in the South, primarily because the missions of South Vietnam's forces—protecting population and holding territory—have required a much larger and widely dispersed military structure.

(c) The GVN has therefore also required a combat air force and an ability to redeploy forces rapidly by ground and air transport. Thus, the types of equipment supplied to South Vietnam by the US have been more sophisticated and therefore more expensive than those required by Hanoi. South Vietnam also requires considerably more logistic support.

(d) In addition, shipping, overhead, and other support costs of military aid to the GVN are substantially more than support costs of Communist aid to North Vietnam because of the greater distance involved and other factors. (See Table II at annex.)

2. Several conclusions may nonetheless be drawn with respect to levels of military and economic assistance to North Vietnam from 1970 through 1974.

(a) Total Communist military and economic aid to North Vietnam in 1974 was higher (in current dollars) than in any previous year.

(b) The suspension of US air bombardment in North Vietnam at the beginning of 1973 brought about a large decrease in assistance for defense against such bombardment or to replace losses caused by it (e.g., air defense equipment, missiles, trucks, etc.).

(c) The US disengagement from combat and the reduction in the level of hostilities in South Vietnam in 1973 were reflected in a substantial decrease in the amount of ammunition and ground force equipment received by North Vietnam, compared with 1972.

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[1] This memorandum has been prepared jointly by the Central Intelligence Agency and the Defense Intelligence Agency, and concurred in by the Bureau of Intelligence and Research, Department of State.

(d) In 1974, the delivery of ammunition to Hanoi markedly increased over 1973 and reached a level as high as that of 1972 *, although deliveries of ground force equipment continued at relatively low levels.

(e) Economic aid was reduced in 1972 with the closure of North Vietnamese ports, but with their reopening rose sharply in 1973 and reached a record level in 1974. The economic aid increase in 1974 was further spurred by typhoons which damaged the 1973 North Vietnamese autumn rice harvest, the inflation of dollar values in 1974, and the increased pace of reconstruction during 1974.

3. The figures leading to the above conclusions are shown in Table I. They give a rough order of magnitude of Communist military assistance to North Vietnam and a somewhat more precise indication of economic aid. Within the category of military assistance, the estimates of deliveries of equipment and materiel ($275 million in 1974), as well as the estimate for transportation equipment ($25 million in 1974), are fairly good. Even a more complete data base would produce estimates of the same relative magnitude. This is not true, however, for those items listed under the "other military-related support" heading, where the lack of hard data makes our estimates subject to wider margins of error.

4. It should also be noted that in the final analysis what is significant is not so much the level of military assistance but the relative balance of forces on the battlefield in South Vietnam. North Vietnamese forces in South Vietnam, supported by record stockpiles of military supplies, are stronger today than they have ever been. The Communists are expected to sharply increase the tempo of the fighting in the next few months. Given the present military balance in the South, the GVN's forces will not be decisively defeated during the current dry season. At currently appropriated levels of US military assistance, however, the level of combat that we anticipate in the next few months will place the Communists in a position of significant advantage over the South Vietnamese forces in subsequent fighting.

TABLE I.—ESTIMATED COMMUNIST MILITARY AND ECONOMIC ASSISTANCE TO NORTH VIETNAM

[In million current U.S. dollars [1]]

	1970	1971	1972	1973	1974 [2]
Military	205	315	750	330	400
Military equipment and materiel	140	240	565	230	275
Air defense equipment	20	85	310	100	55
Ground forces equipment	45	80	110	40	45
Ammunition	70	60	130	85	[3] 170
Other	5	15	15	5	5
Military transportation equipment (trucks, helicopters, transports)	20	15	30	35	25
Other military-related support [4] (delivery and packaging costs, spare parts, POL for the military, technical assistance and training, medical supplies)	45	60	155	65	100
Economic	735	755	465	670	1,295
Commodity shipments [5]	635	645	360	540	1,145
Food	65	60	80	170	420
Fertilizer	10	15	5	5	25
Petroleum	10	10	5	15	55
Machinery, transport equipment, and metal products	240	175	125	165	345
Other	310	385	145	185	300
Technical assistance (includes cost of foreign technicians in NVN and NVN trainees abroad)	100	110	105	130	150
Total of estimated Communist goods and services provided to North Vietnam (repeated from last page)	940	1,070	1,215	1,000	1,695
Less—North Vietnamese exports to Communist countries [6]	50	50	30	80	125
Total estimated Communist aid to North Vietnam	890	1,020	1,185	920	1,570

[1] Because of rounding, individual figures do not always add to the totals in this table.
[2] The data for 1974 are preliminary.
[3] Although ammunition supplied to North Vietnam in 1974 constituted an estimated 40 percent of its military aid, our data regarding probable ammunition costs per ton are admittedly soft. Therefore, if our price estimates are off by, say, 10 percent, the total value for annumition alone could fluctuate by some $17,000,000 U.S. dollars.
[4] The lack of hard information on the items included under Other military-related support makes these estimates subject to a wide margin of error than exists for other categories of military assistance to North Vietnam.
[5] For economic goods, the cost of transportation is included in the cost of the goods as shown in the table. (For military good delivery and packaging costs are included under Other military-related support.)
[6] Since North Vietnamese exports in these years paid for some of North Vietnam's imports, we have subtracted them to derive our estimates of Communist aid to North Vietnam.

*The dollar figure shown in the table for ammunition deliveries in 1974 is considerably higher than that for 1972, but tonnages were about the same. Inflation of ammunition prices explains the difference.

TABLE II.—COMPARISONS OF MAJOR CATEGORIES OF COMMUNIST MILITARY AID TO NORTH VIETNAM AND U.S. AID TO SOUTH VIETNAM [1]

[Dollar amounts in U.S. dollars]

	Communist military aid delivered to North Vietnam, calendar year 1974		U S military aid so far appropriated to South Vietnam, fiscal year 1975	
	Amount	Percent	Amount	Percent
Total military aid [1 2]	400	100	700	100
Military equipment and materiel	275	69	268	38
Air defense equipment	55	14	----------	([3])
Ground forces equipment	45	11	----------	([3])
Ammunition	170	43	268	38
Other	5	1	----------	([3])
Military transportation equipment	25	6	----------	([3])
Delivery costs	20	5	74	11
Other military-related support (including spare parts, POL for the military, technical assistance and training, medical supplies, and miscellaneous costs)	80	20	358	[4] 51

[1] For reasons explained in the text, our figures on Communist aid to North Vietnam (some of which are soft estimates) are not readily comparable with U.S. aid appropriations for South Vietnam. Also, the data we have on Communist aid is kept on a calendar year basis while U.S. aid appropriations are keyed to a fiscal year cycle. The above table, however, gives a rough indication of the way the two aid packages break out in calendar year 1974 for Communist aid and fiscal year 1975 for U.S. aid.

[2] Figures may not add because of rounding.

[3] Negligible.

[4] One reason for the wide disparity is a charge against the U.S. aid account for administrative expenses for the DAO in South Vietnam which has no known counterpart on the Communist side There are also other items which no counterparts on the Communist side are available, such as ———————— of military equipment and construction.

Question. What new or significantly expanded overseas bases are planned for next year?

Answer. Based upon present planning, there are no U.S. FY 1976 military construction funds programmed for the establishment of any new bases in foreign areas or for the significant expansion of any existing bases used by the U.S. Forces in foreign areas for the purpose of force deployment. New facilities will continue to be programmed at a number of foreign bases used by the U.S. Forces overseas in order to meet established requirements, improved conditions or modernize existing facilities.

Question. How much money is being asked for Diego Garcia, Tinian, and Masirah? How will those funds be used?

Answer. In the case of Tinian we have requested one million dollars in FY 1976 to initiate comprehensive planning for a limited development of port and airfield facilities. For Diego Garcia we have requested $13.8 million in construction funds to improve the Naval Communication Station which was authorized in a prior fiscal year. This funding is intended to improve logistical support facilities. Insofar as Masirah is concerned no funds are being requested in FY 1976.

Question. What overseas bases or deployments will be reduced in the next year? How many U.S. forces will be returned to CONUS?

Answer. Total military strength deployed in foreign countries and waters is programmed to decline from 484,000 at the end of June, 1975 to 475,000 at the end of June, 1976. The principal reason for this decline is continued withdrawal of our forces from Southeast Asia.

Question. What are the actual or estimated figures for the number of U.S. military personnel stationed in Japan, Thailand, Korea, Taiwan, and the Philippines as of 1 January 1975 and 30 June 1976?

Answer. The following table shows actual military strengths in Japan, Thailand, Korea, Taiwan, and the Philippines as of September 30, 1974 and end strengths programed for those countries on June 30, 1976 in the President's FY 1976 budget. Exact figures for January 1, 1975 are not yet available.

SOUTHEAST ASIA AND WESTERN PACIFIC MILITARY STRENGTHS ASHORE

[In thousands]

	Sept. 30, 1974 actual	June 30, 1976 programed
Japan (including Okinawa)	52	[Deleted.]
Thailand	26	
Korea	40	
Taiwan	50	
Philippines	18	

Note: In addition we have had, and plan to continue having about 35,000 men afloat in the Western Pacific area. [Deleted.]

Question. How many U.S. military personnel were or will be assigned to naval vessels operating off the coast of Indochina as of 1 January 1975 and 30 June 1976?

Answer. On 1 January 1975 there were no U.S. naval vessels operating off the coast of Indochina. U.S. Navy ships are no longer stationed off the coast of Indochina on a regular basis and there are no plans to resume a continuous U.S. naval presence there. Occasional training exercises will continue to be conducted in the Gulf of Tonkin.

Question. How was the $300 million request for "Inventory Replenishment" derived? Is this a one-time only request? Can these problems be handled in the future through the Foreign Military Sales Act?

Answer. We are asking for authority and funds to initiate procurement of equipment in high demand for Foreign Military Sales, thereby reducing the incidence of drawing down of Service stocks or diversions of planned Service production. Equipment ordered using these funds will assist in reducing adverse impact on force readiness while meeting pressing foreign requirements in the national interest. When this equipment is used to meet foreign requirements, it will be paid for by the foreign country. If the demand does not materialize, the equipment will accelerate US force modernization. The $300 million request represents the minimum necessary to initiate this project, and we anticipate a request for $100 million in FY 1977.

Question. How much—in dollars and quantities of major equipments—has been taken from U.S. active force inventories for overseas grants or sales in the past year? How much is planned for next year? To what extent have our military capabilities suffered in this process?

Answer. In FY 74, during the October War, we withdrew some selected items of equipment from our active force inventory and provided them to Israel under FMS, on an emergency basis, to maintain the balance of power in the Mid-East. We are preparing a breakout of the cost and amount of major items involved in this and other countries and will provide these data as soon as they are compiled. No withdrawals of that magnitude are planned for FY 75 or 76.

There has been with regard to armored combat vehicles; certain ammunition types; air-to-ground, anti-tank, and air-to-air missiles; and fighter aircraft an adverse impact, particularly in the area of our ability to deploy reinforcements to Europe and to modernize the reserve components. On the other hand, these unprogrammed requirements have focused attention on the need to augment our production base. It has sometimes been necessary to withdraw equipment from our own forces in order to meet such requirements on an expeditious basis. The President is proposing this year to establish an Inventory Replenishment Fund for FMS in the amount of $300,000,000 to permit us to procure certain critical items of equipment in anticipation of foreign military sales of such equipment from existing inventory. This would enable us to meet the demands of foreign military customers on an expedited basis without adverse impact on our own forces.

Question. Does the Defense Department have a direct say in the sale abroad of nuclear reactors or associated materials? Are there any such announced sales to which you would object on military grounds?

Answer. Under Sections 91C and 144C of the Atomic Energy Act, the Defense Department would have a direct say in the sale broad of what are termed by the

Act "military reactors". As a practical matter, such a situation (involving a "military reactor") has not arisen in quite a number of years. "Naval nuclear propulsion plants, their land prototypes and special facilities for their construction, support, and maintenance, including any machinery, device, component, or equipment specifically developed or designed for use in such plants or facilities" is Category VI(e) of the U.S. Munitions List and hence is subject to export licensing by the Office of Munitions Control of the Department of State. In munitions licensing matters, the Department of State does seek Defense Department recommendations and hence we would have a direct say in such cases. However, Category VI(e) is footnoted and qualified to yield jurisdiction to the Energy Research Development Agency (formerly the AEC) when such equipment is "coextensive" with that controlled under the Atomic Energy Act. In summary, the statutes do not provide for a direct say by the Defense Department in the sale abroad of nuclear reactors or associated materials, except in the narrow areas described above, which do not encompass nuclear reactors for so-called peaceful purposes. But again, as a practical matter, such sales, unless clearly covered by longstanding national policy, are given consideration by the National Security Council, of which the Secretary of Defense is a member. In that forum, Defense views are given careful attention.

As for the second part of the question, sales of commercial power reactors or small research reactors, which in themselves have no immediate military significance, are not a problem. Nevertheless, we are sensitive to the export of reactor technology which could assist in improving military propulsion reactors and recognize that all reactors produce plutonium which can be used in nuclear weapons. In addition, high temperature gas cooled reactors use highly enriched uranium fuels which also can be viewed as having weapons implications. Therefore we would oppose sales which would result in an undesirable export of technology, or were made under terms which do not provide high assurance of protection against theft or diversion of nuclear fuels and produced plutonium from stated non-military uses.

Question. Leaving aside political considerations, do you see any military consequence from our practice of supplying substantial amounts of sophisticated weapons to both antagonists in the Middle East? Does this make a stalemated war more likely? Does this run any risk of allowing other nations information about our weapons which would make them more vulnerable to countermeasures?

Answer: We have not been supplying weapons to the principal antagonists on the Arab side. They have been supplied with Soviet built equipment. The types and levels of arms support we have provided to certain moderate and friendly Arab states are not such as to stalemate a future war or frustrate our policy of providing Israel sufficient means to defend itself effectively.

As for the final part of your question, there is always some risk that a weapons system may be compromised when it is sold abroad. The questions of risk and whether an item represents sensitive technology or latest state-of-the-art are, of course, two of the factors considered in the release of any weapons system. We believe we have exercised prudence in our decisions on release.

Question. Counting both sales and grants, what countries are scheduled to receive in fiscal year 1975 and fiscal year 1976 military assistance amounting to more than 20 percent of what that country spends on its own defense? What are the percentages?

Answer: On our request to the Congress for FY 1975 authorizations and appropriations we proposed programs (military assistance and foreign military sales credit) for nine countries in an amount that would exceed 20% of that country's defense budget. In our planned request for FY 1976 authorizations and appropriations it is estimated that there are eight countries in this category. The countries, amounts in millions of dollars, and percentages are shown below:

[In millions of dollars]

Country	MAP Plus FMS Credit	Estimated Defense Budget	Percentage
Fiscal year 1975:			
Khmer Republic	362.5		
Korea	213.5		
Laos	85.2		
Jordan	124.2		
Ethiopia	16.3	[Deleted.]	
Ecuador	12.9		
El Salvador	4.6		
Honduras	4.6		
Nicaragua	4.1		
Fiscal year 1976:			
Khmer Republic			
Laos			
Jordan			
Ethiopia		[Deleted.]	
Bolivia			
El Salvador			
Nicaragua			
Panama			

Unk=unknown.

Question. What lessons of the Middle East War have led to reduced spending by the U.S.? What types or quantities of weapons were deemed less necessary or more vulnerable as a result of analysis of that war?

Answer. Our continuing analysis of the recent Middle East war has convinced us that the tank is still the single most important land forces weapon system wherever armored forces can be used effectively. But that conflict also sustained the credibility of modern antitank weapons, especially in a defensive role. The ground-based versions do not have the protection, mobility and versatility of the tank but they are much less expensive. Given our defensive strategy in Europe, we believe that modern antitank weapons deployed in sufficient numbers can help offset the Warsaw Pact's quantitative superiority in tanks.

In compliance with PL 93–199, we reported to the Congress, in December, on the effectiveness of U.S. military aid to Israel. Major uncertainties became clear when the equipment employed in that war was evaluated in its full military context. Many "lessons" that were drawn right after the war have since been shown to be either incorrect or simply one of several equally valid explanations. Some of the major conclusions to emerge from our study are as follows:

The outcome of the October War was affected more by the efforts of both sides to improve their readiness and training during 1967–73 than by weapons performance or the numerical balance of forces.

The special terrain and visibility conditions in the area where the war was fought, make it difficult to establish how given performance characteristics might affect the outcome of a NATO and Warsaw Pact conflict.

U.S. equipment functioned well in Israeli hands. It consistently out-performed Soviet equipment in Arab hands. Post-war study was shown that some major differences exist in design concept between U.S. and Soviet land and air equipment. However, no U.S. systems suffered a major failure during the war, and there is no evidence of over-design or "gold-plating" [deleted]. In fact, U.S. attack aircraft, tanks, and artillery were key elements in Israel's ability to overcome the effects of surprise and superior numbers. [Deleted.]

Question. How ready are our own forces for contingency action in the Middle East, if that should be necessary? How much training has been devoted to covering that contingency?

Answer. Under our current strategic concept, most of our general purpose forces already are or soon will be oriented toward a war in Europe. But we maintain some less heavily armored and mechanized units for a lesser contingency and as the basis for a rapid swing toward Asia, or some other theater. These forces are typically maintained in a high state of readiness. For example, the 82nd Airborne Division at Fort Bragg, North Carolina, is prepared to begin launching combat forces very quickly within [deleted] after being alerted. Our carrier task forces, afloat, are ready, if required, to project tactical air power ashore where land bases are insufficient or not available to us. We also maintain reinforced Marine battalions aboard their assault ships in various sensitive parts of the world. U.S. Navy and Marine Corps units assigned to the 6th Fleet are capable of responding to contingencies within a few hours, or a few days, depending upon their location in the Mediterranean.

The capabilities and training of our general purpose forces are not tailored to any specific defense problem. They are premised upon the general need for defense flexibility to deal with a wide variety of contingencies.

Unfortunately, the readiness of our non-nuclear forces and our ability to train and exercise them are now being adversely affected by fuel shortages and costs. Our efforts to conserve fuel have meant reductions in Army training exercises, Navy steaming hours, and flying hours for both the Navy and the Air Force.

Question. What part of the budget can be attributed to the all-volunteer force? If the draft were to be reinstituted next year, what would be the likely first year savings for each Service?

Answer. The real cost of the AVF is the annual budget savings which would occur if the draft were reinstituted. Assuming that pay comparability levels were maintained, a return to the draft would result in an annual savings of $325 million. This amount is quite small because pay comparability levels would be maintained and because certain costs would increase in a return to the draft including: higher training costs because of increased manpower turnover and an increased budget for the selective service system, a cost unrelated to any specific military service. If pay levels for junior enlisted personnel were reduced to the minimum wage in a return to the draft, manpower costs could be decreased by $1.3 billion, reducing total manpower costs from 53% to 52.4% of the total defense outlays in FY 76.

Question. What are your best estimates of the strength of insurgent forces now fighting in the Philippines? How has that changed in the past year? What monetary, material, or advisory assistance will the U.S. provide in fiscal year 1975 and 1976?

Answer. There are currently two insurgencies underway in the Philippines; one in the North, principally on the island of Luzon; the other in the South in and around the island of Mindanao. [Deleted.] "A continuing modest military assistance program, dating back to 1946, has provided a limited amount of equipment for the legitimate government to use for maintaining internal security. [Deleted.] We have a small JUSMAG to oversee the MAP program but there are no US military advisors assisting in counterinsurgency operations. Our programs for FY 1975 and FY 1976 are as follow:

[In millions of dollars]

	FY 1975	[Deleted]
MAP:		
Grant material [1]	17.4	[Deleted.]
Supply operations	2.1	
Training	.5	
FMS credits	5.0	
Excess defense articles	2.5	

[1] Helicopters, patrol craft, trucks, trailers, weapons, ammunition.

Question. What is the estimated strength of the insurgent forces fighting in Thailand? How has that changed in the past year? What monetary, material, or advisory assistance will be the U.S. provide in fiscal year 1975 and 1976?

Answer. The current estimated strength of the insurgents in Thailand is approximately 8,400 which is the same level estimated at this time last year. This is an increase of approximately 1,200 from the total of 18 months ago.

The original budget request for the FY75 Military Assistance Program for Thailand was $56M. In addition, $4M was identified for supply operations. However, thus far only $1.6M has been funded and the final figures will not be known until we receive the total military assistance appropriation from Congress. The proposed program for FY76, including funds for supply operations, is [deleted]. The major materiel items include aircraft/helicopters, patrol craft, trucks, weapons, ammunition, communications equipment, and spare parts. We estimated the provision of $18.5M in excess defense articles (EDA) for FY75; we do not have an estimate at this time for FY76. Although no Foreign Military Sales (FMS) credits were included in the FY75 program, the FY76 submission includes [deleted] of FMS credits.

US advisory assistance to the Royal Thai Armed Forces is limited to the normal Military Assistance Advisory Group functions such as training, maintenance, and resources management. This assistance is provided by personnel assigned to the Joint US Military Advisory Group (JUSMAG) Thailand; present authorized strength of the JUSMAG is 174 personnel.

Question. What safeguards or sanctions do we have to prevent the unauthorized transfer of weapons from other Middle Eastern nations to those bordering Israel?

Answer. Section 505 of the Foreign Assistance Act and Section 3 of the Foreign Military Sales Act both provide that unauthorized transfers to third countries of weapons or materiel furnished under the terms of either Act would render the offending nation ineligible for further assistance. We do not believe that the nations we are assisting will take their obligations in this regard, nor the sanctions in the legislation, lightly.

Question What steps have you taken in the past year to improve the safety of our nuclear weapons at home and overseas? What else needs to be done?

Answer. Since September 1972, increased awareness of the terrorist threat has resulted in a continuing series of actions to increase the security measures at all nuclear weapon storage sites. These actions include:

a. Improved physical security.
b. Revised operational procedures.
c. Increased training for security forces.
d. Increased R and D on security-related hardware.

Subsequent to a 1973 worldwide survey of nuclear storage sites, physical improvements needed to upgrade site security at each location were and continue to be implemented as follows:

a. Hardening of key control and communications facilities.
b. Additional firepower and protective equipment for defensive forces including light automatic weapons and machine guns.
c. Improved perimeter barricades, fences, and assault obstacles.
d. Additional defensive fighting positions and hardening of sentry boxes. [Deleted.]
e. Quantitative and qualitative improvements in communication and mobility equipment for security and reaction forces.
f. Improved lighting, intrusion detection sensors, and intrusion alarm systems.

The nuclear weapon security improvement program is comprehensive, well-integrated and has strong command support at every level. In addition to physical security improvements, other changes were directed to reduce the exposure of weapons and improve the reaction capability of security forces. For example:

a. Increased use of air movement via ground convoy.
b. More effective escort units for ground convoys to include additional armed guards and helicopter surveillance.
c. Increased quantities of defensive weapons and ammunition for security forces at storage sites.
d. Increased training for convoy escorts and all security forces.
e. [Deleted.]

Intensive efforts have been made to insure full awareness of the significance of the terrorist threat to nuclear weapon security and the many facets of the

security improvement program. High-level conferences and working-level meetings are being held to further this objective.

[Deleted.]

Improved security devices are under development to provide increased protection for the individual weapons against irrational acts and preclude their unauthorized use. [Deleted.]

Continuing review of the nuclear weapon stockpile and storage locations will insure that an optimum deployment posture is maintained with proper balance between security and operational requirements. The addition of newer, more secure, and more effective weapons to the stockpile and changes in deployment and employment policies will impact on the long-range security improvement program. Adjustments and modifications will be made accordingly; however, the program as now identified must be supported by adequate appropriations to realize the desired improvement in security. Continued Allied nation support and participation in the improvement program is fully expected. Some U.S. prefinancing may be required, however, to expedite upgrade of European storage sites pending NATO infrastructure financing.

Question. Have the reliability factors associated with our different strategic weapons changed in the past year? Are they now satisfactory?

Answer. The reliability factors associated with our strategic offensive weapon systems have remained essentially unchanged during the past year with the possible exception of the Poseidon missile. As a result of deficiencies encountered in the Poseidon Operational Test program in 1973 steps have been taken through the Poseidon Modification program to correct deficiencies in the missile itself, in the special test hardware, and in test procedures. Initial indications, based upon 7 tests and a success rate of [deleted] are that the deficiencies identified last year were minor in nature and can be successfully corrected.

The correction process, however, will take place over a period of about 4 years. The improved missile will be installed in the 21st through 31st submarines as they are converted from Polaris to Poseidon. The first 20 Poseidon submarines (those SSBNs that had already been deployed when the problem arose) will be retrofitted with improved missile components during normal overhauls. The entire modification program is expected to be completed by 1978.

While the Poseidon force-wide reliability is not as high today as we would like due to the presence of older, non-modified missiles, it will continue to increase as the improved missiles are deployed and, hence, is considered satisfactory.

Question. How can we be sure that the USSR is abiding by the MIRV limitations agreed to at Vladivostok? How can they be sure that we are not exceeding those limitations?

Answer. The verification procedures which are necessary as part of the provision limiting MIRVs are yet to be negotiated and agreed upon by the Soviets. The U.S. is satisfied that national technical means of verification, together with several additional collateral constraints which address definitions and counting rules, will provide adequate assurance that the agreement can be verified. The negotiations for such measures are currently underway in Geneva.

Question. What are the precise comparisons in terms of dollars, rubles, percentage of central government spending, and percentage of GNP?

Answer. [Deleted.] Soviet announced ruble expenditures for 1974 were placed at 17.4 billion rubles while intelligence estimates place ruble expenditures at about double this level or higher. As indicated previously, our estimates of defense as a percentage of GNP are considered very low at 8 to 10 percent. Since these estimates are based largely on [deleted] they do not fully reflect the burden of military spending on the Soviet economy. The percentage that defense spending represents of total central government spending cannot be accurately derived from available data.

Question. Are these estimates the same as those of the CIA and the agreed estimates of the intelligence community?

Answer. These figures are generally in agreement with those of CIA, but the intelligence community estimates of Soviet defense spending are considered to be conservative as they do not fully reflect all outlays. [Deleted.]

Question. In testimony last year, Director Colby said that dollar estimates of Soviet spending are based on what it would cost the United States to purchase and operate the existing Soviet military establishment. Is that the technique still used?

Answer. Yes.

Question. Is that reasonable, given the much lower pay scales and the differences in operating?

Answer. This technique is valid for the purpose of reflecting the magnitude of observed Soviet defense efforts if they were being undertaken by the United States. While this dollar-costing technique may omit some outlays, we feel that it covers the bulk of the Soviet defense effort and provides useful spending trends. Differences in missions, composition and characteristics of the Soviet and U.S. military establishments make any comparisons difficult. This technique should not be used in isolation to draw conclusions about military effectiveness or capabilities.

Question. What other measures do you have of relative Soviet military spending compared to other governmental activities?

Answer. Soviet defense spending cannot be accurately measured against other spending categories in the Soviet budget for comparison with similar U.S. spending. Under a communist economic system far more economic activity, including social services, is generated by government spending than is the case in the U.S.

Question. Isn't it correct that ruble spending has been essentially the same in recent years?

Answer. Intelligence estimates indicate that Soviet ruble spending has been increasing in recent years at nearly 5 percent annually.

Question. What has been the average annual percentage in US defense spending for the past ten years—both for total defense spending and for spending excluding the incremental cost of the Vietnam War?

Answer. The information you have requested is included in the following table:

ANNUAL PERCENT CHANGE IN FEDERAL OUTLAYS SINCE FISCAL YEAR 1964

Fiscal year	National defense	National defense excluding SEA	Nondefense	Total Federal
1964–65	—7.9	—8.1	6.1	—0.1
1965–66	15.0	3.2	12.8	13.7
1966–67	23.7	1.3	13.1	17.5
1967–68	14.9	17.2	11.5	13.0
1968–69	1.0	—1.2	4.9	3.2
1969–70	—1.2	5.5	12.4	6.5
1970–71	—3.1	5.6	14.8	7.5
1971–72	.7	7.3	14.8	9.7
1972–73	—3.0	—.4	11.0	6.3
1973–74	4.6	8.6	10.7	8.9
1974–75	8.5	10.8	20.2	16.8
1975–76	10.3	10.6	11.9	11.5
Average, fiscal years 1964–76	4.9	4.8	11.9	9.4

Question, How much is the USSR spending on the functional categories used in the U.S. defense budget? What shifts have occurred in the past five years?

Answer. Allocation of U.S. and Soviet defense spending, by resource category, is shown in the following table for the period 1970–1974.

[Percentage by function]

	1970	1971	1972	1973	1974
R. & D. Investment Personnel O. & M.	[Deleted.]				

Question. What are your best estimates of the percentage of its GNP that the USSR spends on its military forces? How does that compare with the percentage spent on, say, health and education?

Answer. Soviet defense spending estimates are based on [deleted]. Using this methodology places the portion of Soviet GNP spent for defense at 8–10 percent of GNP. Since some outlays are not captured in the direct costing method these figures are too low, and do not actually represent the true burden of Soviet defense expenditures. [Deleted.]

Question. What is your best estimate for Chinese spending on military forces? What percentage of GNP is that amount?

Answer. Economic data concerning the People's Republic of China (PRC) is scarce to non-existent. Consequently, we can only estimate the annual Chinese GNP and defense budget. Further, since there is no recognized dollar/yuan exchange rate, it is not feasible to estimate PRC defense spending in dollars. [Deleted.]

BASE-CLOSING AND PROGRAM TERMINATION

Senator HART. Thank you, Mr. Chairman.

One question, Mr. Secretary. Could you estimate in very round terms now, and provide to the committee if we don't already have it, the amount of money presently being spent by your Department on installations and weapons systems that you do not want or need?

Secretary SCHLESINGER. We have a number of rescissions included in the rescission and deferral package sent up by the President to the Congress late last year.

Senator HART. And that accurately reflects your present thinking regarding base closings and termination of certain projects?

Secretary SCHLESINGER. It reflects our present thinking with regard to procurement and O. & M. With regard to base closings, I think this is a subject that one would be rash to enter.

Senator HART. I think we are all committed to doing the public business before the public eye. Why not bring these things out? If Congress is forcing things on you that you don't want, why not let the American people know about it.

Secretary SCHLESINGER. I think that, under those circumstances, I would deal directly with your fellow Congressmen and Senators. I have had a large number of conversations on such subjects, and I will not interfere with the freedom of the other branch of government to reveal all of these matters.

Senator HART. That is not the question. The question is, what, in your best judgment, as the ranking policymaker of the Department, is not in the interest of national security that we are presently appropriating funds for? Only you can answer that.

Secretary SCHLESINGER. That depends, of course, once again, on the level of appropriations. The ideal base structure depends upon the overall force structure. The amount of money available for operations and maintenance, and the decisions with regard to the base structure, must reflect such considerations. One cannot, therefore, deal with that in the abstract.

Senator HART. So what you are saying is that there are no installations presently being operated which are unnecessary?

Secretary SCHLESINGER. I would not even suggest that for a moment. We have presented a closure package in the course of the last 6 months which deals with the present redundancies in the base structure, given the decline in personnel and the decline in constant dollars. We are ad-

justing that. In the future, with further adjustments in personnel, we may recommend additional closures to the President.

Senator HART. Thank you.

The CHAIRMAN. Thank you, Senator.

Are there others that have questions?

[No response.]

PREPARED QUESTIONS FROM SENATOR SYMINGTON

(Questions submitted by Senator Symington, Answers supplied by Department of Defense.)

Question. Mr. Secretary, last year the Defense Budget contained a funding request for weapons to be considered as a War Reserve for Allies contingency. I understand the budget this year also contains funding requested for a contingency stockage of weapon systems for potential distributions to allies. Why do you believe these funds should be provided in a defense budget intended for U.S. forces, rather than through some other means such as the Military Assistance Program?

Answer. We are asking for authority and funds to initiate procurement of high demand items of defense equipment in anticipation of foreign requirements. We know that the demand for certain items is high although we do not have specific signed requests. Our experience has been that national objectives require the prompt provision of such equipment and the capability to anticipate the requirement would lessen impact on our forces. When this equipment is used to meet foreign requirements, it will be paid for by the foreign country or the Military Assistance Program. If the demand does not materialize, the equipment will accelerate US force modernization.

Question. The B–1 program costs have risen a lot since last year. There are reports a new program cost estimate of $21 billion, or more than $83 million each, has been developed by the Air Force.

This program will absorb a significant portion of the Defense budget in the next few years. Is it your viewpoint the Defense budget must absorb this bomber program, as presently configured, without regard to cost?

Answer. B–1 appears to be the best alternative available to strengthen and modernize the bomber force. While total estimated program cost for the B–1 has increased due primarily to the inclusion of higher inflation factors, the costs of alternatives have similarly increased. One must distinguish between real cost growth due to factors such as design changes and costs growth due to inflation. The latter category affects all segments of our domestic economy.

Question. Last year you testified that the budget included long leadtime funds to protect the option to deploy more than 550 Minuteman III missiles if that should prove desirable. The FY 1976 budget contains a full funding request for 50 additional Minuteman III missiles. Has a decision now been made to deploy more than 500 Minuteman III MIVR missiles? If not why is the full funding for the additional missiles being requested?

Answer. As was the case last year, our current program calls for the termination of Minuteman deployment at a level of 450 Minuteman II and 550 Minuteman III missiles. The $270 million requested in this year's budget to fully fund 50 additional Minuteman III missiles and initial spares is designed to serve two purposes. First it will keep open, at the lowest feasible rate—5 per month—the only ICBM production line the U.S. currently has in being until we have a more definitive assessment of how many of each type of the three or four new MIRVed ICBMs the Soviet Union intends to deploy. Second, should the Soviet Union show restraint and the option to deploy more than 550 Minuteman III missiles be deemed unnecessary, these 50 additional missiles would provide the requisite test assets to ensure a viable follow-on flight test program into the mid-to-late 1980s.

Question. It has recently been reported that the planned deployment of Minuteman III missiles at Malmstrom Air Force Base, Montana, has been held up pending resolution of certain issues related to the SALT agreements. Will you bring us up to date on this situation and advise the Committee if there is serious consideration being given to limit the deployment to 500 Minuteman III MIRV missiles?

After some delay, the deployment of Minuteman III's at Malstrom is proceeding as scheduled. Our plans to deploy 550 Minuteman III's remains unchanged.

Question. Last year you testified of your concern for improved strategic airlift capabilities and that an amount of $155 million was being requested for a modification of commercial aircraft as a means of improving this airlift. The FY 1976 budget presentation now includes only $22 million to again request this commercial aircraft modification program. What is the reason for this marked decline in funding priority for this program?

Answer. The lower level of funding does not mean a decline in priority for the commercial aircraft modification program. Improving our strategic airlift capability remains very high on our list of priorities and the modification of the commercial aircraft is a very important part of that total effort. The FY 1975 budget request for $155 million was based on the assumption that the design and manufacture of the initial modification kits would be funded with the $19 million requested in the FY 1974 Supplemental Budget. However, the funding for this program in both the FY 1974 Supplemental request and the FY 1975 budget was deleted by the Congress. We are now proposing to start the program in FY 1976 and the $22 million requested will provide for the design and manufacture of the initial modification kits. In addition we are requesting $24 million in the Transition Budget and $124 million in FY 1977 for this program.

Question. Mr. Secretary, on page 26 of your statement you state that no significant long-range bomber threat to the United States now exists. Does this mean that the Defense Department does not consider the deployment of the Soviet Backfire bomber a threat to the United States?

Answer. The Soviet strategic bomber program is progressing just about as anticipated last year. The Backfire B bomber is clearly designed for air-to-air refueling. It is now generally agreed that with this refueling capability, staging through arctic bases and flying a high altitude subsonic profile all the way, the Backfire B could cover virtually all targets in the U.S. and return to the Soviet Union. On one-way missions, recovering in non-hostile territory in the Western Hemisphere, the Backfire B, flying subsonically, could operate from its home bases without any tanker support. The extent to which Backfires will be assigned missions against the continental United States, however, remains an open question. We must await evidence from basing, operational and training patterns, or tanker development before we can confidently judge whether the Soviets intend the Backfire for intercontinental missions and, if so, to what extent.

PREPARED QUESTION FROM SENATOR THURMOND

(Question submitted by Senator Thurmond. Answer supplied by Department of Defense.)

Question. Mr. Secretary, would you explain in detail the proposal in the FY 1976 budget request to place military commissaries on a more self-supporting basis? Provide budget detail on what has been the direct and indirect subsidy support for commissaries in the past and what changes will be made in this area under the new proposal. Also, provide the historical and legal basis for the operation of commissaries by each Service and the rationale for now placing commissaries on a more self-supporting basis. Would such a step require any change in present law, such as that authorizing commissaries, and so forth? What specific congressional action would be required to place commissaries on a more self-supporting basis?

Answer. Senator Thurmond, as you know, military commissary stores have been provided direct support by appropriated funds, primarily to meet the payroll costs for their civilian and military employees. Our FY 1976 budget request proposes a change in the method of financing some of the costs of operating the commissary stores. In an effort to reduce Defense expenditures and to increase the share of the Defense budget allocated to combat forces, we are proposing to require reimbursement for the personnel costs of commissary store operations. These additional costs will be borne by commissary store customers beginning on October 1, 1975. On that date reimbursement of fifty percent of these costs will be required. Further, our plan is that on October 1, 1976, and

thereafter, one hundred percent of the personnel costs would be reimbursable by the commissary store customer. At that time almost all of the direct costs would be reimbursed by the customer with the major exception being the cost of transporting merchandise to overseas stores. A major consideration in arriving at this decision is our belief that, when all elements of compensation are considered, active duty military compensation is now generally competitive with other public as well as private sector compensation. The following table depicts the appropriated fund support for commissaries for FY 1974 and proposed for FY 1975 and FY 1976:

COMMISSARIES—APPROPRIATED FUND SUPPORT[1]

[Millions of dollars]

	Fiscal year—		
	1974	1975	1976
Army	89.0	92.5	64.5
Navy	53.5	59.0	36.0
Marine Corps	8.3	8.2	5.8
Air Force	106.2	105.6	70.1
Total, all appropriations	257.0	265.3	176.4

[1] Excludes cost of transporting merchandise to overseas stores. Indirect support costs are not readily identifiable to commissary store operations. They do consist, however, of such items as the land and building, fire protection, garbage collection and police protection services provided by the base to commissaries as a tenant of a base, camp or station. Commissary stores have been in continuous operation since 1866. They are currently operating under the statutory authority contained in title 10 U.S.C. Sec. 814 of the general provisions of the DOD Appropriation Act 1975 contains limitations on the use of appropriated funds. This provision has been in effect for over 20 yrs. As proposed in the President's budget this year, we would expand the limitation in appropriated funds as indicated above. The Department of Defense would not implement the change unless sec. 814 is enacted for fiscal year 1976 as proposed. While we see no immediate need to change the provisions of title 10, U.S.C., it is most important that we receive congressional approval of our request to change the general provisions of the DOD Appropriation Act.

PREPARED QUESTIONS FROM SENATOR M'INTYRE

(Questions submitted by Senator McIntyre. Answers supplied by Department of Defense.)

Question. Your request for $10.3 billion for Research and Development is the largest amount ever requested for this purpose by the Department of Defense. It is a billion dollars more than you requested last year and about $1.7 billion more than was appropriated ($8.6 billion) for FY 1975.

Since R&D is substantially a level of effort program, why not hold it at $9.5 billion, which is $800 million less than you have requested but which would still provide for a 10 percent inflation increase over the $8.6 billion appropriated for FY 1975.

Answer. The following factors contribute to the FY 1976 request of $10.2 billion for RDT&E:

- Approximately $200 million is comprised of items transferred to RDT&E during the budget review.
- Inflation accounts for something between $700 million and $1 billion depending upon the inflation factors used.
- The remainder of the difference between the 1975 appropriation and the FY 1976 request represents peaking of some particularly large development programs such as Trident and B–1 and the initiation of full scale development of the Air Combat Fighter.

The FY 1976 program is designed to reverse the trend of the last decade and establish an adequate overall RDT&E program for the future.

Question. With our economy in serious recession and intense inflation, why is it that no major weapon system development is being considered for cancellation? Is every program sacrosanct and are we afraid to face up to the hard decisions?

Answer. As you are aware, every major weapon system under development by the Department of Defense is subject to intensive and continuing review under the established Major Defense System Acquisition Policy. Once a decision has been made to proceed with the development of a weapon system, its progress is periodically reviewed by the Defense System Acquisition Review Council

(DSARC) to determine whether (1) the need for the system still exists, (2) that the development risks have been identified and milestones achieved and (3) that cost thresholds have not been exceeded. As a system moves through its initial, advanced and full scale development, its initial test, and evaluation and full scale production it is subject to continuing review by the DSARC and is subject to cancellation at each milestone in the process. No Defense program is sacrosanct.

Question. You are requesting $25.4 million in the FY 1975 Supplemental for RDT&E to cover civilian pay increases. Why are you at the same time proposing to transfer the $63.0 million from this same account to other Army appropriations in FY 1975?

Answer. The transfer of $63.3 million from the RDT&E, Army appropriation is part of a larger transfer that was required to provide adequate funds for the operating appropriations. Inflationary pressures made it necessary to increase the latter accounts to maintain readiness and to fulfill other commitments. The only sources available were the investment accounts, including RDT&E. All of the R&D projects are required to fulfill valid Army requirements. The reduction was accomplished by cancelling lower priority efforts, reducing and restructuring some development efforts, and reducing the level of effort in certain support activities.

On the other hand, the FY 1975 supplemental request is a valid statement of additional funding requirements for RDT&E occasioned by the October 1974 civilian pay raise approved by the Congress and Wage Board increases that have occurred since the FY 1975 budget was submitted. Under current budget procedures these additional salary costs could not be included in the FY 1975 appropriation request.

Question. Now that we and the Soviets have agreed to only one ABM site and the Congress last year directed that the Site Defense program be reduced from a prototype demonstration to simply a technology program, why are you asking for an increase of $40 million or about 20 percent for the three BMD programs in FY 76? Why shouldn't this be cut back sharply or completely eliminated?

Answer. First, to clarify the FY 76 BMD funding request, the request for the three BMD programs is compared to the current FY 75 funding for the same programs as follows ($ in millions):

	Fiscal year 1975 current program	Fiscal year 1976 request	Difference (fiscal year 1976 minus fiscal year 1975)
By program:			
Safeguard	116.5	95.3	−21.2
RDTE	[1] (34.3)	(——)	(−34.3)
Procurement (repair parts)	(3.0)	(1.9)	(−1.1)
OMA	[1] (71.7)	(85.3)	(+13.6)
MPA	[1] (7.5)	(8.1)	(+.6)
Site defense (RDTE)	[1] 114.9	140.0	+25.1
BMD advanced technology (RDTE)	[1] 91.6	105.0	+13.4
Total	323.0	340.3	+17.3
By appropriation:			
RDTE	[1] (240.8)	(245.0)	(+4.2)
Procurement	(3.0)	(1.9)	(−1.1)
OMA	[1] (71.7)	(85.3)	(+13.6)
MPA	[1] (7.5)	(8.1)	(+.6)

[1] Includes October 1974 pay raise funding which is pending appropriation.

It can be seen from the above tabulation that the total FY 76 request for the three BMD programs reflects an increase over the current FY 75 funding for these programs of only $17.3 million or 5.4%. For the RDTE appropriation only, the requested increase is $4.2 million or 1.7%. The increases are caused by the following—

SAFEGUARD. Although the SAFEGUARD FY 76 request is $21.2 million lower ($34.3 million in RDTE) than in FY 75, there is a $13.6 million increase in the OMA appropriation. FY 76 is the peak year for SAFEGUARD OMA. The requested funding is required to support the one year of full operation of the

site and thereby to gain operational experience of the type the USSR has been accumulating for some years.

Site Defense. The reoriented Site Defense Program is consistent with Congressional guidance. The FY 76 budget request for the Site Defense program is lower than would have been requested for the prototype demonstration program and is less than requested in FY 75. Any lesser amount will mean the program will not be able to meet its objectives and, in the long run, will cost the government more.

BMD Advanced Technology. The additional amount requested in this program will permit us to increase laser and optical sensor technology efforts and to more vigorously pursue the application of new concepts and technologies to ballistic missile defense.

The funds requested for BMD program in our best judgment provide for a minimum but efficient effort and should not be cut back. This program provides an option for defense of ICBMs or other high value targets should they be required in the future, assists US offensive weapon designers, assists US intelligence activities to evaluate Soviet BMD activities, helps prevent technology surprise, and provides an incentive to the USSR to continue to negotiate in good faith at SALT.

The CHAIRMAN. Mr. Secretary, is there anything further that you would like to say?

Secretary SCHLESINGER. I have one or two points I should make.

First, Senator Symington made some observations with regard to Gen. Daniel Graham. I think that it would be appropriate for General Graham's entire article to be included rather than the two excerpts that Senator Symington quoted.

General Graham's article was a plea for improved military intelligence to achieve accurate intelligence, and the responsibility of the military intelligence community to provide such accurate intelligence. That article went in precisely the direction that Senator Symington and others have argued for over the many years.

Senator Symington also made some observations with regard to differences in intelligence estimates. There is a spread of estimates in the intelligence area. Sometimes they are too high and sometimes they are too low.

The CHAIRMAN. You are still talking about the Graham statement?

Secretary SCHLESINGER. This relates to other observations Senator Symington made at that time.

The CHAIRMAN. Senator Symington is not here. But your request was that the entire Graham article be placed in the record?

Secretary SCHLESINGER. Yes, sir.

The CHAIRMAN. Is there any objection?

The Chair hears none. That will be allowed.

[See p. 275.]

The CHAIRMAN. You may proceed on your other points. I wanted to clear them up one at a time.

Secretary SCHLESINGER. The question of intelligence estimates is a difficult question. Sometimes the civilians are wrong, sometimes the military is wrong, and sometimes they are both wrong. In the 1950's the military and the civilians repeatedly overestimated the deployment of Soviet Strategic nuclear forces. In the 1960's, starting about 1962 or 1963, both the civilians in CIA and the military intelligence dramatically underestimated the deployment of such strategic forces. Even the Air Force estimate, which was the highest estimate in the community, was still a dramatic underestimate of such deployment. There are inevitable differences. One will discover, I think, that the climate of opin-

ion tends to influence the intelligence estimates more than whether the sources are civilian or military. I think it is very important for us to retain adequate military intelligence capabilities both within and outside of the Central Intelligence Agency.

The final point Iwould like to make concerns Senator Culver's observations with respect to the efficacy of various types of expenditures in generating employment. I would like to emphasize, as I have repeatedly emphasized here, that the character of the American defense establishment should be based upon the perception of external threats and the degree of risk which the United States wishes to accept in meeting those external threats as against a set of commitments. The Department of Defense is not engaged in generating employment.

If one were to engage in the comparative analysis that Senator Culver referred to, I think that one can accept that more jobs would be generated by Government expenditures focused in other directions than in the Department of Defense. There is no purpose to be served in terms of generating jobs in expanding the defense budget, for the reasons that Senator Culver mentioned.

I should emphasize, however, that the U.S. defense estimates are based upon our best judgment as to the resources necessary to maintain deterrents against a set of commitments.

The whole problem of generating demand is best left to overall fiscal policy considerations. The point that I attempted to make is that, in the circumstances to which Senator Culver referred, one must accept the fact that with idle resources, inadequate demand, the effect of cutting the defense budget, just as cutting any form of demand under such circumstances, is a diminution in the number of jobs. The considerations to which Senator Culver pointed at that time do not apply to situations of inadequate demand.

How one wishes to adjust to shortfalls in demand is, of course, a question for national policy, as indicated by Senator Culver.

However, I repeat, given the commitments of the United States, we do not regard the present budget as in any way reassuring with regard to the level of risk. The trends that I have pointed to are disturbing. I do not regard the expenditures referred to by Senator Culver, coming from ACDA, as compelling. And I have spent a fair amount of my life in the intelligence community and in intelligence work. I most respectfully suggest that we have a further conversation with regard to his data.

The CHAIRMAN. Thank you, gentlemen.

Let me just say something about the past reference to the Graham article. Please call the attention of Senator Symington to the remarks of the Secretary which were responsive, as I caught it. I want him to see them. And if he wants to make any response, of course, he can.

Senator Culver.

Senator CULVER. Nothing further, Mr. Chairman. Thank you.

The CHAIRMAN. I am going to call on General Brown to see if he has anything further to say.

General BROWN. I have nothing further, thank you.

The CHAIRMAN. As I understand it, no committee member wishes to ask anything further.

The requirements as to NATO, as set forth in last year's bill, Mr. Secretary, and the Nunn amendments—the Senator brought those up

while he was questioning you, but you ran out of time. We are interested in those, and I am especially interested myself, all of us are interested. What did you say now? These reports are due soon, I believe.

Secretary SCHLESINGER. The report on nuclear weapons, I believe, is due April 1, Mr. Chairman. Senator Nunn mentioned that the standardization report is overdue. I attempted to discuss that. And finally, the shift of 18,000 men from their present support slices to combat slices is underway. I believe that the Senator has received briefings on that subject. We shall prepare a report for the committee.

The CHAIRMAN. Thank you very much.

This concludes the hearings. And we have hearings set for Friday.

This question about classified testimony, I think we will go on with unclassified testimony and take up the classified testimony and maybe hear more than one witness at the same time.

Senator CULVER. I would welcome the opportunity to question General Brown. But I would prefer to do it tomorrow.

The CHAIRMAN. Perhaps we can shift to some other time.

Senator CULVER. It was my understanding that he would be available tomorrow.

The CHAIRMAN. We set it for 2 days, but we were so near through that I thought we would just skip tomorrow.

Senator CULVER. Mr. Chairman, I haven't even had a chance to read the Brown posture report.

The CHAIRMAN. You will have a better chance.

And also the question of classified testimony from another one of you gentlemen, I think it would be better to move on with the open hearings further, and then we will get to the classified matter.

You are not going abroad or anywhere, General?

General BROWN. Not right away.

The CHAIRMAN. So we will omit the hearings for tomorrow, and we will get time for you to question General Brown in both open and closed session.

Gentlemen, we will suspend the hearing for tomorrow, then, and resume hearings on Friday.

[Whereupon at 6:05 p.m., the committee was adjourned to reconvene at 10 a.m., Friday, February 7, 1975.]

LAOS—MILITARY EQUIPMENT AND SUPPLIES FURNISHED

[Value in thousands of dollars]

Categories (including spares)	Jan. 1 to Mar. 31, 1974	Apr. 1 to June 30, 1974	July 1 to Sept. 30, 1974	Oct. 1 to Dec. 31, 1974
Total	14,271	69,912	14,444	4,403
Aircraft	5,136	3,487	306	125
Ships	12	10	5	
Vehicles and weapons	1,051	1,049	792	29
Ammunition	4,382	3,763	8	
Communications equipment	122	331	109	14
Other equipment	2,216	27,029	3,198	43
Construction	100	458		
Repair and rehabilitation	804	424	160	27
Supply operations		695	1,475	1,475
Training	340	27	757	278
Other services	108	32,638	7,634	2,412
Quantity of selected items:				
Aircraft trainer T–28	18			
Aircraft observation O–1A	5			
Helicopter UH–1H		4		
Armored car	9	1		
Trucks	30	82	23	
Machine guns	329	104		
75mm recoilless rifles	4			
105mm howitzers		6		

Note: Totals may not add due to rounding. Periods Jan. 1 to Mar. 31, and Apr. 1 to June 30, are MASF. Periods July 1 to Sept. 30, and Oct. 1 to Dec. 31, are MAP plus MASF.

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