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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS UNITED STATES SENATE

NINETY-THIRD CONGRESS

SECOND SESSION

ON

H.R. _____

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

Printed for the use of the Committee on Appropriations

PART 2—ARMY

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Staff Assistants, Department of Defense Appropriations Subcommittee

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

TUESDAY, MARCH 12, 1974

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

The subcommittee met at 10:07 a.m., in room 1223, Everett McKinley Dirksen Office Building, Hon. Milton R. Young presiding.

Present: Senators Young and Case.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

STATEMENTS OF:

HON. HOWARD H. CALLAWAY, SECRETARY OF THE ARMY
GEN. CREIGHTON W. ABRAMS, CHIEF OF STAFF, U.S. ARMY

ACCOMPANIED BY MAJ. GEN. J. A. KJELLSTROM, DIRECTOR OF THE ARMY BUDGET, COMPTROLLER OF THE ARMY

SUBCOMMITTEE PROCEDURE

Senator YOUNG. The meeting will come to order.

Chairman McClellan has been detained on the floor of the Senate with some important bills. He regrets that he is unable to be here, but has asked that we carry on with the scheduled hearing.

This morning we will hear testimony from the Secretary of the Army, the Honorable Howard H. Callaway, and the Chief of Staff of the U.S. Army, Gen. Creighton W. Abrams in support of a fiscal year 1974 supplemental request and the regular fiscal year 1975 budget request for the Department of the Army.

Our first witness will be Howard H. Callaway, Secretary of the Army. Do you have a statement I could follow?

Secretary CALLAWAY. Senator Young, we have submitted a prepared statement and whatever your pleasure is. I was prepared to speak rather briefly rather than read the entire prepared statement.

Senator YOUNG. Proceed.

Secretary CALLAWAY. The statement does address the questions why we need an army and why we have an army. I don't think it is necessary for me to speak in great length about that although I am prepared to if you have questions.

I think it is very clear that a major purpose of an army is to deter war and to the extent that we have a strong army that this is a part of the deterrent forces that can be an important part of détente and the generation of peace which this administration so strongly supports.

I also wanted to say that this statement identifies the three major challenges that I see facing the Army. The first one is to recruit and retain good people. A great many people have felt that we would not be able to do this with the large number of forces that are required to support the nations of the world, and I am prepared to talk about this in any length that you like.

We are optimistic in the Army now. We feel that we are making real progress toward getting and retaining outstanding people in the Army.

STRENGTH OF THE ARMY

Senator YOUNG. What percentage of your programed strength have you attained?

Secretary CALLAWAY. At the moment, sir, we are at 100-percent strength, but we have had some shortfalls in recruiting. We are at 100-percent strength because there was a reduction in authorized end strength last year. We anticipate at the end of this fiscal year that we will be somewhere between 10,000 and 20,000 short of our authorized end strength, but June, July, and August are good recruiting months because of high school graduations. We think we will pick back up after that time.

RECRUITING DOCTORS

Senator YOUNG. Are you acquiring an adequate number of doctors?

Secretary CALLAWAY. Senator Young, recruiting doctors of course is an enormous challenge for us. A doctor today, as you well know, can earn $50,000, $60,000, $70,000 a year and in some cases more. We cannot expect to appeal to a doctor based on money alone. We are not going to be able to meet that kind of an appeal. We have got to challenge him, instead, with the service in the Army which many doctors feel is important. Our job is to see that his or her job is meaningful.

Now we do have before the Congress, and I think it should be up for a final passage very soon, a proposal which would increase the amount that we could pay doctors, but that would not get it anywhere comparable to what they could make; it would just narrow the large difference. We will very shortly have doctors only that are volunteering. It is going to be a tough, tough job that will demand all of our skills and all of our leadership to challenge these doctors so that they will feel that the Army doctor's life is what they want to make their career.

Senator YOUNG. If you fall short, can you go back to the Selective Service? Would that require special legislation?

Secretary CALLAWAY. Yes, sir; it would require legislation. We have not yet recommended that, but if the Congress saw fit to do that, that would be an option.

OTHER PERSONNEL SHORTAGES

Senator YOUNG. Are there any other categories where you will fall short?

Secretary CALLAWAY. We are short, sir, all the way from enlisted men in some combat arms to certain professionals, such as the doctors you mentioned. We are having difficulty recruiting lawyers. There

are a number of areas where we are short but we have programs in all of these areas that we are very hopeful we can work out. We are working on it.

Senator YOUNG. Proceed.

Secretary CALLOWAY. All right, sir.

There are three challenges that I identified in this report. The first is to recruit and retain good people.

The second is to get the most out of every budget dollar. We don't need to talk to this committee on that point. This committee has a strong record of encouraging that which of course is enormously important.

The third challenge that I see for the Army is to make full use of the Reserve components. We have a number of on-going programs now which we hope will make a better use of the results and in fact our objective is to come up with a total force, one-army concept, so that the Reserve and the National Guard and the Active Forces are united into one total force.

That was very briefly, sir, the gist of my prepared statement.

Senator YOUNG. Senator McClellan has asked that the questions he would have asked had he been here be included in the record at the proper place in your statement and that the responses also be included at that point. I will ask that you also provide answers in the same manner to such questions as I may have that are not asked during the course of the hearing.

Secretary CALLOWAY. We will see that that is done, Senator Young.

BIOGRAPHICAL SKETCH, STATEMENT, AND QUESTIONS AND ANSWERS

Senator YOUNG. Your biographical sketch and your statement, together with the questions and answers, will appear in the record at this point.

[The information follows:]

BIOGRAPHY OF HOWARD H. CALLAWAY, SECRETARY OF THE ARMY

Howard H. Callaway was born April 2, 1927, at LaGrange, Georgia. He was graduated from Episcopal High School, Alexandria, Virginia, in 1944. In June of 1949 he received his BS Degree from the United States Military Academy, and was commissioned a second lieutenant in the Regular Army.

Mr. Callaway served in the Infantry during 1949–1952. He is a veteran of the Korean War where he participated in three campaigns while serving as a platoon leader in the 17th Infantry Regiment, 7th Infantry Division. He was awarded the Combat Infantryman's Badge. His last two years in the Army were spent as an instructor at the Infantry School, Fort Benning, Georgia. He was honorably discharged December 19, 1952.

He has long been active in a variety of business, political, educational and civic enterprises. He was named Civilian Aide for the Third Army Area by former Secretary of the Army, Stanley R. Resor, December 18, 1970. He has served as Chairman of the Council of Trustees, Freedoms Foundation at Valley Forge; International President of the Young Presidents Organization; and Republican National Committeeman for the State of Georgia. He was the Republican candidate for the Governor of Georgia in 1966. He served in the 89th Congress and represented the Third District of Georgia in 1965–1966.

Mr. Callaway is a former member of the Board of Regents, University System of Georgia; the National 4–H Service Committee and Trustee of the National Recreation Association. Prior to joining the Nixon Administration, he was President of Interfinancial, Inc. of Atlanta, and a Trustee of the Ida Cason Callaway Foundation of Pine Mountain, Georgia.

Mr. Callaway is married to the former Elizabeth Walton of Hamilton, Georgia. They have five children—Elizabeth (23), Howard (21), Edward (18), Virginia (17), and Ralph (14).

Mr. Callaway was sworn in as Secretary of the Army on 15 May 1973.

Introduction

Mr. Chairman and Members of the Committee: I consider it a great privilege to appear before this Committee. In my presentation I will concentrate on our 1975 budget with emphasis on the funding requested for those programs which are necessary to carry out our extensive missions. General Abrams, in his prepared statement, will discuss the place of today's Army in today's world, describing the requirements placed upon it and emphasizing the structure, posture and programs we believe are necessary.

I am proud to be the Secretary of the Army because of the great importance to the country of the Army's mission and because of the high quality of the people we have in the Army.

Why an Army

At this particular period of our history, more so than in the recent past, we seem confronted with uncertainty about the Army's role and the continued allocation of resources to support our programs. The relevant question is "Why an Army?". It is, I believe, appropriate that I address it in my first formal Posture Statement.

One of the difficulties in formulating a response is that, although stated in the same words from various sources, the question really is not singular. From my own experience, I perceive at least three different questions.

One group that asks the question, "Why an Army?" is actually asking why we have not found ways to resolve conflicts peacefully and hence why we haven't abolished war. At that philosophical level, I really have no satisfactory answer. I am, as you are, well aware of the efforts to achieve this goal recorded throughout history by men of both wisdom and common sense. Even though the past efforts failed, we certainly should not reject further effort toward this lofty goal. And, of course, we have not. President Nixon's foreign policy has as a major goal the creation of conditions which will lessen the probability of war. The Army contributes to the military strength essential to the success of this policy.

For another group the question, "Why an Army?" is really couched in relation to the current major policy goal summarized as "Detente." In effect they are asking, "Since our major policy is aimed at detente and since we seem to be making some real progress, can we not now (or very soon) make substantial reductions in defense expenditures and divert those resources to other urgent national needs?"

The answer to this question seems clear for those of us whose formative years span the period from World War II, through the Berlin Blockade, Korea, the Cuban Missile Crisis, Vietnam and to the recent conflict in the Mideast. With these events as background, we developed a set of assumptions and associated priorities which accepted as self-evident the need for the Army and other military forces. Those who now question these assumptions and ask "Why an Army?" need only glance at the history of warfare in this century to realize that military programs, if they are to be successful in deterring war, must be based on a realistic appraisal of the demonstrated capabilities of potential adversaries, and not on our perception of their intentions. We must be ready to fight if we are to avoid war.

Governments change, as do policies and intentions and perceptions of issues that warrant the use, or threatened use, of military force. It is rare in history that a power preferred the use of force to that of achieving the same ends through the threat of force. It is freedom from coercion, from the threat of force, which we gain by being ready to fight if necessary.

In this light, I think you must agree that the most important ingredient leading toward successful detente is that we maintain an adequate and stable posture of military balance between the negotiating parties. Detente is most unlikely by negotiation if one of the parties believes it has an exploitable military superiority. The history of the 1930's demonstrates that detente is possible only when there is a balance of military force that stops would-be aggressors.

As the Secretary of the Army, I support the President's policy of detente. This policy appears to have significant political and public support. We in the Army see the same hopeful signs that others see, but we see dangers as well. I believe that the Army can make its greatest contribution to detente by maintaining its readiness as part of our contribution to the essential military balance.

A third group asking the question, "Why an Army?" concedes that continued military strength and large defense expenditures are necessary but is really asking, "Why must the Army of today be so much larger than the Army we had before World War II?" "Surely," they say, "there is not a threat of invasion of any part of the Western Hemisphere. So why not an Army like that of the 1930's; a base for mobilization rather than a large force in being?"

I agree there is no credible threat of military invasion of the U.S. or the Western Hemisphere from any power or combination of powers at this time. The development of such a capability would require such an obvious and lengthy effort that our forces could mobilize to react to it.

But I cannot accept the implied conclusion that defense of the United States from direct threat of invasion is the only viable threat to the national interests of the United States and, thus, the only valid basis for the allocation of resources or for design of the Army.

This view rests not merely on a philosophical commitment to freedom as a political concept nor on an automatic, unthinking desire to continue our role as leaders of the free world. We grew into the mantle of world leadership. It was not attained as a result of a long-term national objective which was deliberately sought. Those are, of course, sound enough reasons, and either we believe in freedom and make commitments to this belief or we will see it lost. But I think it also true and increasingly more evident that the United States must prevent essentially hostile powers from denying peaceful access to critical resources. We do not, of course, desire or require satellite nations and do not seek the degree of control such arrangements imply. We do require the reasonable degree of access that can be attained by negotiation between free people acting in their own self-interest.

Finally, since we cannot yet guarantee that wars will not occur, we should commit ourselves to insuring that any which do occur, do not occur here and are terminated without the destruction of modern society and without the loss of interests vital to us or our allies.

Presence of U.S. Army in Europe

Chairman McClellan. When you say "We should commit ourselves to insuring that any wars which do occur do not occur here", do you mean within our 50 states? Do you feel that the continued presence of the US Army in Europe will assist in assuring this commitment?

Secretary Callaway. In answer to your first question, I did mean preventing an attack upon our 50 states. Certainly, the survival of the United States is, and will continue to be, our most vital interest. US ground forces are deployed in Europe as part of our strategy of Realistic Deterrence. These forces deter armed conflict by contributing to the immediate strength necessary to control conflicts which might erupt, and by providing the necessary assurance to our allies that we stand by our commitments. These deployments are based on the consideration that any threat to Europe is also a threat to our 50 states. Should deterrence fail, and conflict occur, we would rely heavily on our forward defense to insure our nation's survival.

(Prepared statement resumes.)

Even though a substantial fraction of our real military capabilities resides in our National Guard and Reserve forces and our general mobilization potential, the objectives I outlined above cannot be attained in today's world with an Army that is merely a cadre for expansion.

To rely upon a cadre force is to court disaster should a major conflict erupt. A fundamental requirement for the success of such a concept is the time to mobilize. It is highly unlikely that in the future we, or our allies, will enjoy the luxury of the time needed for extensive preparation and mobilization. The recent Middle East War, which lasted only 19 days, is a case in point. The speed and violence with which an aggressor can attack dictates that we have an Army ready to fight.

"Cadre" Concept of Israeli Army

Chairman McClellan. You reject the concept of a "cadre" force that can be expanded in wartime, and cite the recent Middle East war as illustrating the limited amount of time that will be available for preparation and mobilization, thereby requiring large and ready forces in being. Isn't it true that the Israeli Army operates essentially on the "cadre" concept, and that the reservists are an overwhelming percentage of their fighting forces?

Secretary CALLAWAY. Yes, the Israeli Army operates on the "cadre" concept and the reservists do constitute an overwhelming percentage of their fighting forces. However, the Israeli concept is totally different from ours. They are configured for a short war in a home defense. They are a small country with a "front" nearby. The heart of their Army is the reserve forces which is totally accepted by the populace. They also have universal conscription. Besides our basic differences in a perceived threat, no universal conscription, national structure and public attitudes, our military requirements would not allow time to bring Active Army cadre units or Reserve Component contingency units up to deployable readiness standards. We must provide both trained fillers and ready units because the Reserve Components are structured to provide the right mix to our total force concept.

Chairman MCCLELLAN. Doesn't the Middle East war and the Israeli experience point principally to the need to have a well-trained and ready force, though not necessarily a large active army?

Secretary CALLAWAY. Without question, the lessons learned in the Middle East war emphasize the need to have a well-trained and ready force. However, the size of a country's army as well as the proportion of active to reserve forces is dependent on national strategy and the size of the expected threat. Our strategy which is quite different from Israel's requires us to structure our forces to provide a reasonable probability of success in the early stages of a conventional war with the Soviet Union and Warsaw Pact, principally in Central Europe, while simultaneously protecting American interests elsewhere. The Army believes that a force of 16 Active and 8 Reserve Component divisions, supported by our reserve affiliation program, is the appropriate size and structure to support our national strategy.

SIZE OF ISRAELI ARMY VS US ARMY

Chairman MCCLELLAN. Describe the differences in doctrine and concepts used in determining the size of the Israeli Army compared with those used in sizing US forces.

Secretary CALLAWAY. The Israeli doctrine and concepts used in sizing forces and that of our Army are one and the same. The basis is a perceived threat, a strategy to meet that threat and the allocation of resources to fulfill that strategy. The basic difference between our forces lies primarily in the type and perception of the threat and the derived strategy.

Israeli sizing doctrine is dictated primarily by:

—A small population upon which, both the day to day economy and the active defense depends.

—[Deleted]

—No requirement for support of forces stationed worldwide.

—A dependence on conscription and universal military training to man their forces; with reservists serving until age 55.

—The necessity and virtual assurance of external logistic support for any war of a duration [deleted].

—A geographic environment with short interior lines that militate against a defense in depth.

U.S. Forces (Army) sizing is dictated primarily by:

—Commitments to other nations that require US forward deployed units. (More than one scenario).

—A requirement for a CONUS base to support and sustain forward deployed units.

—A geographic situation that requires a capability for projecting and sustaining forces rapidly throughout the world.

—A need not only to logistically support our forces in CONUS and overseas but our allies as well.

Chairman MCCLELLAN. The Israelis place great emphasis on rapid callup of Reserves in wartime—similar to the US "total force concept." Explain why the US Active Army couldn't or shouldn't be structured along lines similar to the Israeli Army—a small immediately ready active force, with a large well trained reserve force capable of being mobilized within a few days.

Secretary CALLAWAY. The accomplishment of US national policy and objectives as well as commitments to other nations require forward deployed forces and CONUS combat units immediately available for deployment. Our force structure is based primarily on a major conflict between Warsaw Pact and NATO although other additive contingencies must be considered. While it is difficult to

compare there is no basic difference between Israeli and US Active/Reserve structuring—we maintain a small active army, with a large ready reserve force capable of being mobilized within the time that we require them. The difficultise in comparison are a result of:

—The smallness of the Israeli nation; about the size of New Jersey with a population of 3.2 million of which [deleted].

—Israeli military service is perceived as a necessity and a normal way of life; experience of four wars in the past thirty years and continuous terrorist activity has confirmed these perceptions to the point that [deleted].

—Short geographic distances to Israeli's enemies dictate Israeli defensive positions; the Israeli Army Cadre and some reservists can literally reside in these mandatory defensive positions thereby placing reservists in the active army environment.

—Israeli transportation system is fully tasked in the mobilization plans and there is no requirement for mobility outside its contiguous borders.

—Israel has no allies to depend on for additional combat forces.

(Prepared statement resumes.)

We need not and should not and, of course, we do not carry the burden alone. In none of the wars of the twentieth century has the United States provided either the majority of the ground forces committed to combat or even the largest Army in the field. But we have, and we must continue, in concert with our allies, to insure that the total military capability is adequate to free world needs.

The long-standing policy and practice of partnership is another of the fundamental elements of the President's foreign policy. To the extent our allies cannot provide needed specialized and technical combat support, we are prepared to assist them. When compared with the threats, none of our allies is self-sufficient in nuclear weapons. Many, accepting the United States promise to protect them from nuclear blackmail or to support them should nuclear war occur, have foregone the development of their own capability.

Tactical Nuclear Capability of Allies

Chairman McClellan. You mention that none of our allies is self-sufficient in nuclear weapons when compared to the threat. In our computation of required tactical nuclear U.S. forces, to what extent is the tactical nuclear capability of our allies considered?

Secretary Callaway. [Deleted.]

Our programs must be based on a realistic appraisal of the protracted capability of potential adversaries. Our major potential opponents have given, and still give, great emphasis to ready military forces. These forces continue to be improved and modernized. They stand poised as formidable war waging threats to our allies, and hence to our own vital interests. The size and technical sophistication of this threat is beyond the capacity of any one of our allies to match singly.

The Soviets know and their recent writings show that their military posture in the 1930's was wrong as was ours. Both the United States and the USSR underestimated the speed with which mechanized forces supported by tactical aircraft could achieve decisive results. They thought, as we did that there would be sufficient time to mobilize and methodically prepare for war. They paid a vastly greater price for the miscalculation than we. A major tenet of Soviet military policy is that such a debacle will not be permitted to occur again. I can believe them when they say their intent is peaceful, as they see no inconsistency between a peaceful intent and readiness for war. I also see no such inconsistency in our case and because they are ready we must be.

We can believe and we can hope. But I cannot suggest that today's peaceful intent is unchangeable or that it will endure the many crises that surely will erupt before a lasting peace is achieved. Until then, the United States must have an Army ready to fight, ready to meet each of its commitments, worldwide.

The Arab-Israeli conflict has impacted on our own military capability and readiness. As you know, after the outbreak of hostilities, the Army provided large amounts of combat essential equipment and quantities of ammunition to the Israelis on short notice as replacements for their combat losses and war expenditures. These items came from prepositioned contingency stocks and from

active forces in Europe, as well as from depot stocks and combat units in the United States. This resulted in units from which major items were withdrawn, dropping to lower levels of readiness. Some critical shortages were generated and modernization of some Reserve Component units has been deferred until additional equipment can be obtained. If we are to reach our planned level of readiness for the active and reserve force, additional legislation is needed promptly to enable us to prccure replacements for those items supplied to Israel.

Impact of Arab-Israeli Conflict on Readiness

Chairman McClellan. You have stated that the Arab-Israeli conflict has impacted on our own readiness, especially as a result of the Army's provision of large amounts of combat essential equipment and ammunition to the Israelis. Can you provide us with a specific picture of the degradation in readiness in the divisions by comparing their immediate pre-war position with their post-war position?

Secretary Callaway. Immediately prior to the outbreak of hostilities in the Mid-east during October 1973, the readiness condition of the 12 Active Army divisions reporting readiness status [1] was as follows:

Readiness condition:	*Number*
Fully ready (C–1)	[Deleted.]
Substantially ready (C–2)	[Deleted.]
Marginally ready (C–3)	[Deleted.]
Not ready (C–4)	[Deleted.]

By way of comparison, the readiness status report of 20 December 1973, subsequent to the active part of the mid-east conflict, reflects the Active Army division readiness conditions as follows:

Readiness condition:	*Number*
Fully ready (C–1)	[Deleted.]
Substantially ready (C–2)	[Deleted.]
Marginally ready (C–3)	[Deleted.]
Not ready (C–4)	[Deleted.]

Although these statistics indicate some degradation of overall readiness in the December period, none of this statistical decline is the result of the provision of equipment to Israel, rather, it was the result of a [deleted].

[Deleted] time frame, valuable training time has been lost contributing to a reduction of TOW crew proficiency. Simultaneously, [deleted] were withdrawn from the CONUS training base resulting [deleted].

Outside of the divisions, the provision of [deleted] standard tanks to Israel withdrawn from [deleted] USAREUR and diverted from Reserve Component claimants, [deleted]. Current projections indicate that the Army's prime tank asset availability will not match authorized acquisition levels prior to [deleted]. The diversion of standard tank assets (M48A3 and M60) delays or precludes the improvement and up-grading of the Reserve Component capability to support mobilization plans. Likewise, the diversion of [deleted] delays the planned replacement of overage/high mileage vehicles in the Active Army and adds an additional 12 month delay in meeting Reserve Component requirements pending added procurement.

The requirement to withdraw major quantities of ammunition items (principally 105mm tank ammunition) from CONUS and USAREUR stocks has reduced the war reserves and training stocks of selected ammunition. Prior to the Mid-east conflict the anti-tank ammunition stock position was below authorized acquisition levels. Meeting the Israeli requirements further aggravated this position.

Equipment and Ammunition Provided Israelis

Chairman McClellan. Will you provide a list of the quantity and type of equipment provided to the Israelis from Army inventories of stocks? Indicate what percentage of the requirement for that type of equipment was left in the particular unit it was taken from.

---

[1] 9th Infantry Division commenced reporting readiness status on 20 Jan 74.

Secretary CALLAWAY. The following major items of equipment had been shipped to Israel as of 28 February 1974:

Nomenclature:

Track vehicles	[deleted]
Wheel vehicles	[deleted]
Artillery	[deleted]
Communications equipment	[deleted]
Small arms	[deleted]
Hawk battery/missile (basic)	[deleted]
[Deleted.]	
TOW launcher/missiles	[deleted]

The only item actually withdrawn from units was [deleted].

At the time of withdrawal, [deleted] authorized Launchers. The withdrawal of TOW Launchers left [deleted]. The balance of materiel furnished Israel was shipped from War Reserves and/or depot stocks of materiel which was destined for shipment to multiple claimants.

Chairman MCCLELLAN. Provide a list of the quantities of major items of equipment and ammunition provided the Israelis as replacements for their combat losses/war expenditures and compare this with the quantities of the same items of equipment and ammunition requested in the FY 1974 supplemental budget request. Could not some of these items be deferred to the FY 75 budget request?

Secretary CALLAWAY. The items approved for Israel as of the end of February 1974 compared with like items in the FY 74 supplemental budget request are as follows:

Item	Quantity			
	Approved	Shipped	Undelivered	Fiscal year 1974 supplement
Missiles:				
TOW missile attack				6,000
TOW launcher				985
Combat vehicles and weapons:				
Tank, 105-mm M60 series				133
Carrier personnel, armed M113A1				923
[Deleted]				5
[Deleted]	[Deleted.]			1
Ammunition:				
Ctg, 5.56-mm				328,000,000
Rocket, 66-mm HEAT				140,000
Ctg., 105-mm HE				2,800,000
Project 155-mm HE				270,000
Ctg. 90-mm HEAT				240,000
Ctg., 90-mm HET				1,100,000
Ctg., 106-mm HEAT				176,000
Ctg., 106-mm HEP-T				60,000
Other support equipment: [deleted]				250

In view of the equipment drawdown brought on by the Mideast War, coupled with the lessons learned from this conflict, it was considered essential to take positive and immediate action to improve the readiness posture of our standing forces. The urgency of the situation dictated that these items be included in the FY 1974 supplemental budget request rather than defer them until the FY 75 budget request.

(Prepared statement resumes.)

TODAY'S CHALLENGES

I see the Army of today confronted with three primary challenges in carrying out its mission.

The first of these is to recruit and retain good people. Since discontinuance of the draft just over a year ago we have been competing with the civilian job market for our personnel. I think we have been doing quite well, although we have yet to feel the full impact of either draftee separations or our incentive programs. I want to assure you that we will continue to do our utmost to make the volunteer system work for the essential Army. We feel confident that opportunity for meaningful service to the Nation, in a well-trained and well-led Army which

is concerned about the individual soldier and his contribution to mission accomplishment, will attract sufficient young men and women to maintain both the strength and the quality of the Army.

Another aspect of this challenge is to maintain a competent civilian work force in support of the military. For every two men or women in uniform we have one civilian who performs a vital support function. These civilians share fully the responsibility for mission accomplishment. For example, our largest single civilian group are scientists and engineers, who perform the majority of our research and development work.

Civilianization of Military Positions

Chairman McClellan. Are you continuing to convert military positions to civilian in those support areas where combat capability is not required? How many positions will be converted in FY 74 and FY 75? How many of these conversions will be officer level positions?

Secretary Callaway. Yes, the Army is continuing to convert military positions to civilian incumbency primarily within the General Support Forces. The Army will civilianize 10,000 positions by end FY 74 and will convert an additional 4,078 positions during FY 75. These conversions do not include officer positions.

[Prepared statement resumes.]

A large group is engaged in maintenance and repair facilities, especially in support of installations. Sixty-eight percent of our civilian employees are in white collar jobs and 32 percent are in the skilled and unskilled labor group. The civilian force has been declining as the uniformed force has been cut back, and every effort is being made to keep the civilian force at the minimum required for mission accomplishment. Reorganization and consolidations that have recently been carried out have reduced the civilian force and planned consolidations in the future will result in additional reductions.

The second challenge relates to the task of getting the most we can out of every budget dollar. This is the central goal of all our managing, programming and budgeting efforts. Additionally, certain aspects are getting particular emphasis as people and weapons costs go up and as we see the capability of our potential adversaries increasing. We are disciplining our equipment acquisition process—development time must be shortened and costs must be carefully controlled. Our procurement, carefully pruned for economy, emphasizes essential programs—directed at force readiness and modernization. Finally, our conservation efforts in the areas of energy and supply economy will enable us to realign operating and maintenance outlays to maximize their return.

The third challenge is to make full use of the capability of our Reserve Component resources as a distinct but integral and essential part of the One Army—our Total Force policy. We are aware of the need for a highest possible state of readiness in the reserves. Today, reserve forces must be ready to fight within two or three months or they may be too late to participate.

Deployment Times of Reserve Forces

Chairman McClellan. You stated that reserve forces must be ready to fight within two or three months or they may be too late to participate. Could you tell us what the objective deployment times are, in weeks, for each of our reserve and guard units? Would you also indicate how long it would actually take them to be ready to deploy compared with their specific deployment objectives?

Secretary Callaway. The earliest requirement by NATO for forces to oppose Warsaw Pact aggression, in addition to Active Army combat units, is for Reserve Component (RC) support forces. The current Army Capability Plan (ACP) calls for [deleted] Army Reserve Component personnel, in approximately [deleted] units, to be in Europe in the [deleted] after the start of the conflict. These early deploying forces are [deleted] forces because that is what is needed. The deployment objective times (time lapse from mobilization until ready for deployment) used in our current planning for a deliberate mobilization are: [deleted] weeks for all divisions, [deleted] weeks for infantry, mechanized and armored brigades and armored cavalry regiments, [deleted] weeks for our maneuver battalions and squadrons.

Each of these factors of [deleted] weeks includes 4 weeks of non-training time. The 4-week factor includes 1 week for alert, 1 week to move to designated mobilization stations and 2 weeks, after completion of training, for preparation for oversea movement (POM) by surface transport. This last factor (POM) can

be reduced from 2 weeks to 1 week when movement is by air rather than by surface shipping.

Under extreme emergency conditions and by accepting short-falls in desired training readiness and some shortages in equipment and personnel, these same units could deploy earlier. By earlier, I mean that selected Reserve Component units could be deployed in about [deleted] the time used in current planning and that even with shortages the units have a capability to fight.

(Prepared statement resumes.)

However, on the scale now envisioned, this level of readiness has never before been achieved by the Reserve Components. This Nation owes a great debt of gratitude to the hardy Guardsmen and Reservists, who with limited time and resources for training, are striving to attain the readiness goals established. The Reserve Components have the added incentive that goes with a meaningful, important mission.

These are the challenges confronting the Army. Our efforts to overcome them provide the very essence of the Army's budget philosophy of FY 1975. This basis for the budget request will become clear as I discuss our program makeup.

Total Obligational Authority

To provide an overview of the Army budget I would like to begin with several summary fiscal tabulations and make some general observations. The Army budget for FY 1975 requests $22.9 billion in total obligational authority (TOA) summarized below.

TABLE 1.—COMPARISON OF FISCAL YEARS

[In millions of dollars]

	Fiscal year—		
	1973	1974	1975
Military personnel	7,685	7,762	7,915
Operation and maintenance	6,782	6,695	6,837
Procurement	2,987	2,951	3,315
Research, development, testing, and evaluation	[1] 1,885	1,971	1,986
Military construction	593	697	745
Reserve components	1,723	1,993	2,104
Total	21,656	22,069	22,901
Military family housing	394	495	524

[1] Includes $3,500,000 Cheyenne funds transferred to fiscal year 1974 (Public Law 93-238) to support the Advanced Attack Helicopter Program.

The FY 1975 TOA is about 4% higher than FY 1974, but, in terms of constant dollars, you will note that this is the lowest funding level in the last ten years.

TABLE 2.—COMPARISON OF TOA BY YEAR

Year	Percent of gross national product	Billions of dollars	
		Current	Constant
1964	2.0	12.5	23.9
1968	3.0	25.0	40.8
1972	2.1	22.2	27.6
1973	1.8	21.7	25.3
1974	[1] 1.6	22.1	23.6
1975	[1] 1.6	22.9	22.9

[1] Estimated.

Recruiting and Retention

Much of our total effort will be spent meeting our first challenge—recruiting and retaining good people. Thus far, I can report qualified success with our recruiting program.

Chairman McClellan. What is the current authorized and assigned strength of recruiting personnel?

Secretary Callaway. The current authorized strength is 11,610. The assigned strength is 13,087 as of 31 January 1974. These figures include all military and civilians, both medical and nonmedical, who are involved in recruiting and

examining. To insure the present for duty field recruiter strength remains at 4725, USAREC has been authorized a temporary overstrength of 473 individuals in the recruiter military occupational specialty.

(Prepared statement resumes.)

Qualified is the short term, since it appears that the Army will not recruit enough soldiers to fill all of the authorized spaces this fiscal year and possibly not during the first half of FY 1975. This is driven by the large numbers of accessions necessary to replace the last of the draftees leaving the service. In the longer term, however, I feel confident that we will be able to maintain an effective, disciplined Army of at least 785,000 in a volunteer environment.

While accessions are a measure of results, our mission is far more than just signing on people. We must insure that the Army is recognized as being meaningful service—to one's country and to one's self. Today's potential enlistee grew up during a period when the role of the Army was often misunderstood in the minds of the general public. During those years, the Army was engaged, with the other Services, in an unpopular war which resulted in severe repercussions on our Army personnel policies. We have been hard at work to correct these problems and I have seen the positive results of our labors in my visits to all major units and in my personal discussions with our men and women of all ranks, in the United States and overseas.

In the past, the draft did not require that a premium be placed on recruiting. We found it necessary to revitalize our whole concept of recruiting and to improve the quality of our recruiting force. Managers and troop commanders are now more actively and deeply involved in recruiting and retention functions.

As our first step in meeting our challenge, we must gain and maintain the attention of eligible young men and women. Thus, our promotional and advertising programs are designed to appeal to the ideals, the sense of adventure and the desire for self-improvement we have discovered in the youth of America.

Recruiting Advertising

Chairman McClellan. In its report on the fiscal year 1974 Defense appropriations, the Committee stated that all effective methods of advertising for recruitment purposes should be used. How much is the Army's fiscal year 1975 budget for recruiting promotion and advertising? Break the amount down as to the printed media, radio and television.

Secretary Callaway. The FY 75 Active Army enlisted recruiting advertising budget amounts to $43.0 million and is broken out as follows:

	Millions
Media	$16.0
Production	4.5
Films	2.0
Field representatives	2.4
Recruiting promotion	6.8
Research	.3
Local advertising	4.1
Printing	3.4
Miscellaneous	3.5
Total	43.0
DOD institutional advertising	3.4
Subtotal	46.4

We are using all available media to get our message to our target audience and their influencers. Since FY 72, as you are aware, we have restricted our use of radio and television advertising to that which was provided as a public service. This policy will be continued in FY 75. Our media dollars, therefore, are planned for print advertising, including:

	Millions
Magazines	$8.3
Newspapers	1.5
Outdoor/transit	3.0
Direct mail	3.0
Yellow pages	.2
Total	16.0

(Prepared statement resumes.)

In this light, we plan to supplement our revitalized corps of recruiters with a program designed to convey the advantages of Army service to the potential enlistee. Additionally, we propose to improve our examining and entrance facilities to reinforce the initial good impressions that a prospective soldier gains from our advertising campaigns.

We offer our candidates a choice of locations and job opportunities. As an example, the Unit of Choice Program, initiated in February 1971, has grown steadily in unit participation and in percentage of enlistments.

Unit of Choice/Station of Choice Programs

Chairman McClellan. Provide the FY 73 and projected FY 74 and FY 75 cost of the home town canvasser programs which support the Unit of Choice/Station of Choice Programs. How many man years were lost from active duty units as a result of assigning personnel on temporary duty to their home towns? What was the average length of the temporary duty of these canvassers?

Secretary Callaway. The FY 73 and projected FY 74 and FY 75 support cost are displayed below (dollars in thousands):

Fiscal years:	
1973	$13,900
1974	15,000
1975	15,000

During FY 73, approximately 650 man years were devoted to the canvasser effort in support of the unit and station of choice programs. In FY 74 we plan to use approximately 1,100 man years. These man years are considered acceptable because of the temporary nature of the duty, the need to meet accession requirements, and the success of the programs. During FY 73, 42 percent of the total non-prior service male enlistments were attributed to the recruiter/canvasser team effort through the use of these programs. Data with respect to the average length of canvasser temporary duty is not maintained. The duration of the temporary duty period may vary from one to six months depending upon the canvasser's success in identifying potential applicants for his unit, the personnel needs of his unit, and the availability of unit funds to support his TDY and travel expense. Canvassers are placed in a temporary duty status in accordance with the Joint Travel Regulation.

(Prepared statement resumes.)

In December 1972, 21 units, 34 CONUS installations and 6 major commands were participating, compared with 140 units, 43 installations and 9 major commands 11 months later. During the first 10 months of 1973, 49% of our total nonprior service enlistees volunteered under this program.

We have also instituted a computerized system called Project REQUEST, which matches a potential enlistee's aptitudes and desires with Army job and training vacancies prior to enlistment. The system is designed to insure that the Army and the man are in complete agreement before the enlistment contract is signed. This promotes satisfaction among the enlistees and benefits the Army by improving job performance. We are not perfect in this regard, but we are trying hard and getting better.

Once we have gained an enlistee, we must be able to retain him. Studies have indicated that job satisfaction is essential to a successful reenlistment program. Stabilized, meaningful jobs are the key to this. We have taken steps in this direction by firming up our tour lengths.

The prospective enlistee now has multiple options:

A 12-month established tour at one of 43 CONUS installations.

A 16-month stabilized tour under the Special-Unit-Enlistment or CONUS Unit-of-Choice Enlistment Options (12 months if Korea is selected).

Tour of Duty in Korea

Chairman McClellan. What is the current tour of duty in Korea? Is it the same for each service?

Secretary Callaway. The current tour of duty in Korea is 24 months for personnel accompanied by their dependents. It is 12 months for all other personnel. The tour of duty is the same for each service.

(Prepared statement resumes.)

The reenlistee also has options available which insure a stabilized tour. As an example, those who reenlist for assignment to the Communications Command or to Europe are guaranteed a minimum of a 16-month tour. Twelve-month assignments are assured for reenlistees at their present CONUS duty station or an overseas station, other than Europe.

While stability is a key ingredient, we are continuing to investigate other ways to improve job satisfaction. We know from a recent survey that officers' and noncommissioned officers' job satisfaction is comparable to the national average. Even though 62% of the junior enlisted personnel surveyed indicated that they were generally satisfied with their job, this survey placed them below the national average. This information has spurred us to investigate new programs designed to increase job satisfaction, and, at the same time, to improve unit effectiveness.

Soldier living conditions and services to soldiers and their dependents, of course, relate directly to our ability to retain people. In this regard, 31% of our O&MA request is scheduled for installation support, including materiel needed to maintain and repair our real property and upgrade and restore our physical plant.

Each of you can appreciate how this maintenance of facilities contributes heavily to the soldier's perception of the Army. Unfortunately, previous budgets have not permitted us to allocate sufficient funds for this purpose and a substantial backlog of essential maintenance and repair has accumulated. We are requesting the maximum we could set aside for this purpose within the funding constraints and priorities of the FY 1975 budget.

Backlog of Facility Maintenance

Chairman McClellan. What is the dollar backlog of facility maintenance as of end FY 73 and projected for FY 74 and FY 75? How much is specifically being requested in FY 75 to perform the required maintenance?

Secretary Callaway. The dollar value of the backlog of essential maintenance and repair at the end of FY 73 was $299.2 million and is expected to increase to $384.0 million by the end of FY 74, and remain at $384.0 million by the end of FY 75. In the OMA Appropriation we are requesting $396 million in FY 75 to finance facilities maintenance.

(Prepared statement resumes.)

In all candor, this will not reduce our backlog, but it will preclude an increase. Hopefully, future budgets will permit us to embark on a program to reduce this backlog to a level more in keeping with good management practices and acceptable to us both.

Chairman McClellan. You also stated that your FY 75 request will not reduce the backlog, but will preclude an increase. How do you determine how much to allocate each year for the backlog of essential maintenance and repair? Since the Army has obviously been permitting BEMAR to accumulate over the last few years, why has FY 75 been selected as the initial year to try to begin to increase the funding for this purpose? Why couldn't the backlog of essential maintenance and repair be permitted to increase this year as it has been during the past several years?

Secretary Callaway. Generally in prior years we did not allocate funds specifically for BEMAR, however, for FY 75 we are targeting OMA funds solely for application to BEMAR. Priorities for accomplishment of maintenance and repair (M&R) work are established by each installation commander by balancing the recommendations of his Facilities Engineer, his known mission requirements, and his available funding program. The installation's annual M&R program includes both backlog maintenance and current maintenance requirements. We have not willingly been permitting the BEMAR to increase. Priorities for resources have for the past few years been for critical requirements in support of the Vietnam conflict. Much of our facilities maintenance work had to be deferred. Unless positive steps are taken, many facilities which potentially have long life will, for lack of M&R, require premature replacement. In the FY 75 budget, we have made a firm commitment to a meaningful M&R program to halt the growth of BEMAR and to accomplish our most essential backlog projects.

(Prepared statement resumes.)

Our construction request of $745 million is up $48 million from last year. It represents our programmed requirements for troop housing, health facilities, and community support projects, as well as training and logistical facilities essential to professionalism.

Sixty-nine percent of the funds requested for major construction is for projects which have a direct bearing on our people. The remainder of our planned con-

struction is designed to insure that our soldiers are adequately trained and supported during their stay in the Army.

We still do not have the family housing we need. Congressional support, however, has enabled us to take meaningful steps to improve our living conditions. This year we are asking for $524.3 million with which we propose to build 4,360 new family housing quarters at a unit cost of $30,000 compared with $27,500 last year. Funds are also being requested to modernize to more liveable standards our existing housing inventory, some of which is antiquated.

Painting of Family Quarters on a "Self-Help" Basis

Chairman McClellan. A recent staff visit to Fort Bragg included a tour of junior officer on-base housing. The housing was in good repair but badly needed painting. Are paint and materials ever provided for use by occupants on a "self-help" basis?

Secretary Callaway. Occupants are furnished paint for use in their quarters on a self-help basis providing the quarters are not scheduled for contract painting in the immediate future. Quarters are normally scheduled for interior painting on a three year cycle and for exterior painting on a four year cycle. Interiors are painted as quarters are available between occupants. Most of the demand for self-help paint comes from long term occupants where quarters have gone beyond the three year cycle. At Fort Bragg a contract for exterior painting of the Wherry Housing was begun in the summer of 1973. The contractor completed most of the Non-Commissioned Officer's units before cold weather caused deferral of continued painting until spring. He will resume on 1 April 1974 to paint the junior officer's quarters.

(Prepared statement resumes.)

Where we do not have dependent housing, we have resorted to leasing as an alternative solution. Again this year, we are requesting an increase in our authority to lease civilian housing. Five thousand additional leases are being sought. Eighty percent of these will be for our men and women in Europe, where, as you know, we have our greatest housing problem. A decent place to live, comparable to their civilian counterparts, is all our Army families expect or require. If this basic need is satisfied, we will have done much to remove a major irritant.

I am confident that these programs and policies will raise both the quality and quantity of enlistments and increase our retention rate. In addition, and as an outgrowth of this approach, those young men and women who decide to leave the Army after serving their country will be better ambassadors for the Army, having been treated fairly and maturely. They will have the satisfaction of having performed well important duties essential to the defense of their nation while enjoying opportunities for self-improvement and personal growth.

I ask for your active and continuing support for our recruiting concepts. I also need your patience as we overcome the undesirable side effects of the war, overcome the former reliance on the draft, and develop a set of policies which will assure us of being able to adequately support our authorized Army. Of paramount importance is your active assistance in the development, among our youth and those who influence them, a willingness to serve our country as well as a conviction that the Army offers an opportunity to do so in a meaningful way. The net result of Congressional support and Army efforts in these endeavors will be viewed in the years ahead as a period of genuine accomplishment for both the Army and the Nation.

Management

I would like now to turn to our second challenge—getting the most out of every budget dollar. We are improving our weapons systems acquisition process, and I will summarize these management changes. I will relate some of the rationale that has gone into the development of our investment programs, including our modernization and improvement programs. In addition, I will discuss the objectives that guide our procurement programs. Fnally, we see our budget dollar going further if we are able to make some conservation efforts pay off; I will enumerate these programs.

Acquisition Process

Our management policies and procedures for weapons systems acquisition are continuously being improved. Our objective is to maintain an efficient acquisition process enabling the Army to meet its force needs with equipment acquired in the shortest possible time and at the most reasonable cost. Consequently, I have directed a study of the current organizations, procedures, and policies for materiel

acquisition. Experts from outside the Department of the Army supported by people from my staff will conduct this study and should provide recommendations which will enable us to develop and procure needed materiel in the most economical manner.

Results of Materiel Acquisition Study

Chairman McClellan. When will the study of current organizations, procedures, and policies for materiel acquisition be complete? Will you provide the Committee with a copy of this study when available?

Secretary Callaway. The Army Materiel Acquisition Review Committee (AMARC) study will be completed within the next two or three months. We will provide the Committee a copy of the study, together with Army comments, when they have been developed.

(Prepared statement resumes.)

Our search for ways to improve our management led us to the recent report by the Commission on Government Procurement, established by the Congress via PL 91–129 (as amended by PL 92–47), containing a number of recommendations which we have evaluated in depth. This evaluation, together with other studies conducted by the Army, led to such changes as extending the average tour of duty of Program Managers to provide program stability; extending the competitive prototyping concept through the equipment design phase for several of our major weapon systems programs; and establishing a Design-to-Cost goal for twelve of these programs where the production phase has not been reached.

Tour of Duty for Program Managers

Chairman McClellan. What was the average tour of duty for Program Managers completing their assignment in FY 73 and projected for completion in FY 74 and FY 75? What is the current total number of program managers and how many are civilians?

Secretary Callaway. The average tour of duty for Program Managers is 30.8 months in FY 73 and projected to be 39.2 months in FY 74 and 38.5 months in FY 75. We currently have 38 Program Managers; none are civilians.

Design-to-Cost Goals for Major Army Systems

Chairman McClellan. Would you give us the design to cost goals of these twelve systems, preferably on a comparable basis (i.e., all expressed in the same year dollars)?

Secretary Callaway. The twelve major Army systems under the design-to-cost philosophy and their associated unit production cost goals are listed below. These cost goals are either in existing contracts or will be contractually implemented when contracts are awarded. There are several other different measures of cost that may be used in the management of these programs all of which are consistent with each other. All costs are in constant year dollars and do not normally include the cost of Government Furnished Equipment or nonrecurring tooling.

[Dollar amounts in thousands]

System	Amount	Year dollars, (fiscal year)
AAH	[1] $1,400–1,600	1972
ARSV	80–100	1972
ARTY locating radar	1,100	1972
Bushmaster (gun)	26.8	1972
HLH:		
Airframe	4,960	1972
Engine	202.2	1972
MICV	122.9	1972
Pershing II (RV)	287.9	1972
Stinger	5.2–6.1	1972
SAM–D:		
Missile	90	1972
Radar group	2,828	1972
Weapon control group	887	1972
Launcher group	250	1972
UTTAS:		
Airframe	600	1972
Engine	78.7	1972
XM–1	[1] 450	1972
AN/TTC–39Q(V) switch:		
450 termination circuit switch	762.3	1972
750 termination circuit switch	1055.9	1972
50 line message switch (tactical)	880.7	1972
50 line message switch (autodin)	1145.9	1972

[1] There are 2 contractors with slightly different design to unit production cost goals. These amounts are representative of the contract amounts.

(Prepared statement resumes.)

Investment

Our investment account can be viewed as two separate segments of the TOA—the research, development, testing and evaluation (RDT&E) request and the procurement portion of the budget. I will address each in turn.

Research, Development, Test and Evaluation

RDT&E efforts actually contribute to the resolution of all three of the major challenges facing us today. The table below compares the FY 1975 RDT&E budget request with the programs of the past two fiscal years and identifies funds to be used for strategic and joint programs and for General Purpose Forces.

TABLE 3.—R.D.T. & E. BUDGET

[In millions]

	Fiscal year—		
	1973	1974	1975
General purpose forces	$1,193.7	$1,398.2	$1,413.8
Strategic and joint programs	687.4	572.3	572.2
Total	1,881.1	1,970.5	1,986.0

Joint Programs

Chairman McClellan. Which programs are considered to be "joint programs" and what is meant by this term? Would you split out the funding of these joint programs?

Secretary Callaway. Joint programs are those programs in which two or more Services and/or Government agencies participate. In the case of defense programs proponency for a joint program is usually designated by the Office of the Secretary of Defense. A participant does not have to provide funding to be considered a part of a joint program, nor does the highest level of funding invested result in designation of proponent.

Joint programs that the Army's RDT&E program participates in are the following:

Program element	Project title/number	Fiscal year 1975 thousands	Remarks
6.11.02.A	Joint Service Electronics Program (JSEP)/B31F.	$1,800	Equal Funding, Army, Navy, USAF.
6.11.02.A	Studies in Energy Conversion/B34B	25	Spt to Interagency Advanced Power Group for info exchange on Gov. energy conversion R.&D. programs. (Equal shares w/AF, Navy, AEC, NASA, DOT, HEW, EPA, and NSF.)
6.47.15.A	Army Support for Naval Training Equipment Center/A573.	700	Joint eff. w/Navy.
6.27.20.A	Environmental Quality Protection/A835	310	Joint effort w/EPA, NASA; 50/50; split to develop criteria for direct recycle & reuse of treated waste water.
6.27.58.A	Army Aviation Med/A819	255	Joint effort w/Navy.
6.27.60.A	Mil Internal Med/A822	2,700	Army contribution to DOD Coord. effort.
6.11.02.A	Comm Disease Imm/B71Q	140	Joint effort w/HEW in infectious disease research. (HEW contributions for fiscal year 1975 not identified yet).
6.27.58.A	Drug Abuse/A833	400	Joint effort w/NIH in Drug Abuse. (NIH contributes $50K).
6.27.07.A	Mapping & Geod. Dev/D853	200	Joint program w/Def. Map. Agency (DMA) in Pershing II. Testing. DMA contributes $40K.
6.27.19.A	Engr Appl Nuc/Non-Nuc Explosives/AT32	1,324	Joint program w/DNA in Earth Penetrating Warhead. DNA contribution not identified yet. (Fiscal year 1974 DNA contribution was $1,800K).
6.57.02.A	Armed Service Explosives Safety Board/M857.	531	Joint program w/DNA in Identification of Fragmentation Hazards. DNA contribution is $40K.

Program element	Project title/number	Fiscal year 1975 thousands	Remarks
6.11.02.A	Research in Materials/B32A	80	Support of National Material Advisory Board. Equal shares w/AF, Navy and NASA.
6.11.02.A	Life Support Research/A71C	1,184	Army is the Executive Agent for DOD Food Program. (Funding is 100 percent Army)
6.27.24.A	Food Technology/AH99	5,986	Do.
6.47.13.A	Wholesomeness Testing of Irradiated Food/DL47.	984	Do.
6.47.13.A	Military Subsistence Sys/D548	1,110	Do.
6.32.12.A	Tilt Rotor Research A/C/DB74	5,750	Joint Army/NASA Program (50/50).
6.32.13.A	Rotor Systems Research A/C/DB36	6,770	Do.
6.57.02.A	Ammo effectiveness Test/D620	5,200	Tri-Service development of Joint Munitions Effectiveness Manuals (JMEM'S).
6.57.09.A	Druid Grove/D054	9,000	Tri-Service exploitation program. ACSI/DIA has overall responsibility.
6.36.08.A	Ammo/D007	988	Joint explosive fills program. Tri-Service. About equal shares.
6.57.02.A	Stratospheric Warming Affects Communications/D127-03.	30	ASL portion: $5K. Other participants—USAF, NOAA, NASA.
6.57.02.A	NIMBUS Satellite Comparison/D127-02	350	ASL portion: $15K. Other participants—NASA, NOAA.
6.11.02.A	Winter Anomaly Absorption Study/B53A-18	20	ASL portion: $15K. Other participants—NOAA.
6.11.02.A	Project DA-VINCI (Balloon)/B53A-18	200	ASL portion: $35K. Other participants—National Geographic Society, AEC.
6.32.08.A	Acft Survivability/DB52	500	Helicopter inflight escape sys: Program conducted by the Navy w/Army participation and funds (Army sunk funds: $1.57M in fiscal year 1973).
6.42.02.A	Aerial Wpn DLVR Sys/D136	470	DOD directed Tri-Service effort to develop the LVV-2B/B parachute flare w/externally mounted dispenser. DT-II/OT-II will commence 1QFY75. Air Force has project responsibility. Army obligated $390K in fiscal year 1973 and $465K in fiscal year 1974.
6.32.12.A	Tilt Rotor Research Aircraft/DB74	5,800	Joint Army/NASA effort to design, fabricate and flight test 2 tilt rotor research aircraft. Sunk cost fiscal year 1973 and prior $5.6M, fiscal year 1974—$4.6M.
6.32.13.A	Rotor Systems Research A/C/DB36	6,700	Joint Army/NASA effort to design, fabricate and flight test 2 A/C for flight research. Fiscal year 1973 and prior $1.0M, fiscal year 1974—$6.0M.
6.33.07.A	Target Missiles/D238	5,254	The Army provides funds to USAF and USN for joint development of target missiles and ancillary materiel for use in T. & E. air def wpn sys. Fiscal year 1975 programs are: IR Plume Targets (USAF 100K); Target Automatic Formation Flying Equipment (USAF $411K); Droned Aircraft (USN $50K); Vector Miss-Distance Indicator (USAF $135K); High Altitude Supersonic Target (USAF $300K).
6.36.04.A	Nuc Proj/D443	750	USN and USMC representatives are anticipated to participate in the AEC/DOD Phase 2 Study of an Improved 155mm AFAP.
6.36.04.A	Atomic Demolition Munition/D444	1,369	USN and USMC representatives are participating in the AEC/DOD Phase 2 Study of LOADM/RADM.
6.46.03.A	M422 Projectile/D388 8" AFAP/D663	[Deleted]	These are joint AEC/DOD development projects for nuclear artillery projectiles. AEC portion, [Deleted]. The Army provides the chairman for the Joint Project Officer's Group (POG). The AEC, USN, and USMC furnish members to the POG.
6.34.03.A	NAVSTAR-Global Positioning System/D656	4,000	Navy provides approximately $6.5M USAF—$27.0M.
6.47.23.A	Physical Security/DL82	800	Joint Service interior intrusion detection system. Navy—USAF participate but provide no RDTE funds.
2.80.10.A	Tri-Service Tactical Communication Program/D104, D110, D111, D152, D222.	37,273	In addition: Navy funds ($15.2M), USAF funds ($15.7M), USMC ($2.4M).
6.47.12.A	Joint Advanced Tactical Command, Control, and Communications Program/D321.	5,970	Program consists of tactical air control system and tactical air defense system funded by Navy ($2.2M), USAF ($1.8M), USMC ($0.9M), and, Ground Amphibious Mobile Operations funded with Navy ($0.5M).
6.33.09.A	Cannon Launched Guided Projectile/D073	10,600	$2.0M (Navy).
6.46.19.A	Mine Systems (GATOR)/D016	2,500	Figures from the Joint Development Plan. ($1.4M of the Air Force total is presently listed as unfunded. The Navy's total share, $6.8M, is unfunded).

(Prepared statement resumes.)

Secretary CALLAWAY. Our RDT&E efforts cover approximately 178 programs which, basically, fall into the two major categories of strategic weapons and weapons for general purpose forces. Army spokesmen will discuss the details of each of these important programs. However, I would like to take a few moments to cover some of the more salient features.

GENERAL PURPOSE WEAPONS

Our General Purpose Forces must be equipped with modern weapons which will provide a qualitative edge on the battlefield of the future. Our reliance on an effective combined arms team with quality equipment to bear the brunt of that combat demands this. We can provide no less to our combat soldiers. The qualitative edge I speak of is embodied primarily in the "Big Five" program composed of the Utility Tactical Aircraft System (UTTAS), the Mechanized Infantry Combat Vehicle (MICV), the Advanced Attack Helicopter (AAH), the XM1 Main Battle Tank and the SAM–D Air defense system.

"BIG FIVE" SELECTION CRITERIA

Chairman MCCLELLAN. What are the criteria used by the Army in selecting the Big 5 programs? Your statement implies that these are required to provide the Army with a "qualitative edge" on the future battlefield, yet are there not other systems which are in development that also contribute to this objective?

Secretary CALLAWAY. To be selected as one of the Army's highest priority systems (currently "Big 5"), a system must have functions and capabilities that are:

1. Central to the performance of the Army's combat mission.
2. Directly associated with the fundamental organization, tactics and performance of principal Army forces.

While many other systems under development will also contribute to providing the Army with a "qualitative edge" on the future battlefield, only the "Big 5" currently meet the above criteria.

(Prepared statement resumes.)

These systems will provide increased life expectancy of the major components, will reduce unscheduled maintenance manhours, and will decrease spare parts requirements. Battlefield requirements of the future dictate increased mobility on the ground in conjunction with airmobility, both in the troop assault and combat resupply role.

Our new systems which will provide exciting increases in battlefield mobility are the UTTAS, AAH, XM1, and the MICV. Two of these systems—UTTAS and MICV—will be capable of moving troops swiftly to the right place at the critical time, while the AAH and XM1 will provide the mobile firepower, shock action and staying power essential for success on the modern battlefield.

The UTTAS has been designed specifically as the Army's first helicopter for the troop assault mission which will maintain the integrity of the infantry squad. The UTTAS is designed to accomplish this task faster, more safely and at a lower cost per mission than our present lift ship, the UH–1 ("Huey") which we relied on so heavily in Vietnam. The UTTAS is air transportable and thus able to be deployed anywhere in the world. Its design will allow it to be flown only minutes after unloading. The UTTAS will accomplish the troop assault mission in a more tactically sound manner, with fewer aircraft and crews, while requiring less maintenance labor than our current utility helicopter.

UTTAS VERSUS UH–1

Chairman MCCLELLAN. You state that the Utility Tactical Aircraft System is the first helicopter for the troop assault mission which will maintain the integrity of the infantry squad, and further, that UTTAS will do it faster, safer and cheaper than the current UH–1. Can the UH–1 maintain the integrity of the infantry squad? Is UTTAS planned to be used to replace all of the UH–1s?

Secretary CALLAWAY. No. The infantry squad has eleven men and under the most optimum conditions the UH–1 is limited to a maximum of seven or eight combat troops. The UTTAS will replace the UH–1 only in air assault companies, air cavalry and aeromedical evacuation units.

(Prepared statement resumes.)

While the UTTAS will meet the Army's need for tactical airmobility on the battlefields of the 1980's and 1990's, the MICV will provide the mobility needed on the ground. The MICV will be more than just a squad carrier; it will be a fighting platform, offering increased survivability, a stabilized automatic cannon, light machine gun and six weapon firing ports. It will be a better, tougher, more potent vehicle and have a larger capacity than our current armored personnel carrier, the M113A1, while retaining the reliability, durability and easy maintenance features of this proven vehicle. The MICV will have three times the cross-country mobility of the M113A1, enabling it to keep pace with both the present tank and the Army's new XM1. It is designed to move while under supporting air-burst mortar and artillery fire. Against moderate resistance, the infantry may remain mounted in MICV and fire from protected positions.

Our objective is to procure about 1200 MICV's to replace selected M113A1's in some mechanized battalions. All other armored carrier requirements will continue to be satisfied with M113A1's.

Replacement of M113A1 With MICV

Chairman McClellan. You indicated that about 1200 Mechanized Infantry Combat Vehicles are to be procured to replace selected M113A1s in some mechanized battalions. How many M113A1s will not be replaced? What is the basis for selecting the particular battalions to receive MICVs?

Secretary Callaway. Approximately 4000 M113A1s which carry infantry squads or rifle company commanders in the active and reserve forces will not be replaced by Mechanized Infantry Combat Vehicles. In addition to the above quantity, 7500 M113A1s will remain in the inventory assisting in other roles such as reconnaissance, communication, maintenance, medical evacuation and antitank missile carriers. As a basis for selecting which battalions were to receive the MICVs, the Army chose only forward deployed mechanized infantry battalions in Europe.

[Prepared statement resumes.]

In sum, the UTTAS and MICV are two complementary systems designed to save lives and raise combat efficiency.

AAH and XM-1

A vital element of battlefield success is the ability of combat troops to deliver sufficient and accurate firepower. The Advanced Attack Helicopters (AAH) and XM1 battle tank are designed to meet this need. The XM1 will provide the "ground combat power" and the AAH the "air combat power." These complementary weapon systems represent a significant portion of the qualitative edge I mentioned earlier.

The AAH is being developed to integrate into our ground force team the most maneuverable and survivable aerial weapons platform yet developed to live with, fly with and fight with our forward ground combat elements. It will provide highly accurate anti-personnel and hard target firepower even during periods of reduced visibility with the combat-proved aerial Tube Launched, Optically Sighted, Wire Guided Missile System (TOW) and automatic weapons. As part of the combined arms team, the AAH will provide a formidable response to massive armor attacks and greatly enhance our ground force effectiveness.

The new XMI tank will possess greatly increased capabilities in all the areas of protection, firepower, mobility, and shock effect. Improved protection is expected to make the XMI 100% more survivable than the improved M60A1. Improved firepower through advanced munitions and fire control will permit the XMI to effectively engage a wider range of targets than the M60A1. We believe this tank will be much more maneuverable and nearly 50% more mobile than the improved M60A1 as a result of an advanced engine in conjunction with a high performance transmission and a new suspension system. The XM1 will be well suited to carry out its vital role in the combat arms team of the future.

We perceive the air threat to our forces in the 1980's to consist of large quantities of versatile, well-equipped aircraft which will be fast, maneuverable, possess electronic devices to neutralize defensive systems, and deliver ordnance with extreme accuracy. Experience in the recent Mideast War has shown the effectiveness of surface-to-air missiles in offsetting this threat.

SAM-D

SAM-D is being designed to provide a high kill probability, thereby inflicting an unacceptable attrition rate on the enemy. One SAM-D fire unit will engage

several targets simultaneously with a high rate of firepower. Application of the latest advances in electronic technology will provide us with a system which will defeat the enemy while reducing significantly our manpower and maintenance requirements.

As you know, Secretary Schlesinger has directed that the SAM–D Program be restructured, in keeping with the philosophy of conducting rigorous development programs to concentrate on achievement of performance standards while allowing Initial Operational Capability dates to become more flexible. We want to be as near certain as we can that we have a good product before we invest in production and deployment. The SAM–D Program possesses a very powerful new technology which we will demonstrate prior to commitment of funds for production or deployment.

Our fiscal year 1975 effort will concentrate on testing the SAM–D guidance concept by demonstrating the system in live flight. Concurrent with this effort, a new cost and operational effectiveness analysis is being conducted. An austere version of SAM–D will be one of the prime candidates examined. The analysis will be conducted by OSD and the Army with consultation with Congressional and GAO staffs to insure from the outset that the study is responsive to Congressional directives and based upon agreed assumptions. We may have both the study results and the recommended revised program available as early as April. When this program has been approved in detail by DOD, the Army will be prepared to answer additional questions.

Austere SAM–D

Chairman McClellan. You mention an austere version of the SAM–D missile as a candidate being examined in a new cost and operational effectiveness analysis. What are the characteristics of this system compared with the regular SAM–D? What can the original missile system do which the austere version cannot?

Secretary Callaway. The austere version of SAM–D being used as a candidate in the cost and operational effectiveness analysis is representative but is not the final version of an austere SAM–D. Studies are continuing within the Army to better define the characteristics of the final austere version for Army andDefense decisions. This final version will retain the basic technology developed in SAM–D: Phased Array Radar, digital computer control, and track-via-missile guidance. The emphasis in defining this austere SAM–D is on reduction of unit cost while maintaining acceptable performance capability.

The austere SAM–D being played in the cost and operational effectiveness analysis utilizes the aforementioned basic technology and has the key SAM–D characteristics of multiple simultaneous engagement capability and high single-shot kill probability in countermeasure environments, but has lesser capability in the areas of long range search, total track handling capacity and electronic counter counter-measures.

(Prepared statement resumes.)

The opportunity exists, I believe, to produce a superb air defense system for the field Army. We appreciate the interest and concern you have shown in this program to date and look forward to your continued cooperation.

Strategic Weapons

The strategic weapons are embodied in our Ballistic Missile Defense program which is comprised of SAFEGUARD, Site Defense and our Advanced Ballistic Missile Defense Technology Program.

As a result of the ABM Treaty and the recent Strategic Arms Limitation Talks (SALT) our Ballistic Missile Defense (BMD) programs have been reoriented to emphasize concerted research and development efforts. In the past year, the Soviets have demonstrated their intent to improve their offensive capabilities to the maximum extent allowable under the SAL Agreements. They have demonstrated major technological achievements and thus increased their capability to threaten the survivability of our strategic retaliatory forces. Our RDT&E efforts will help to offset these advances by demonstrating our intent to insure the survivability of our land based deterrent force, by developing the capability to deploy additional ballistic missile defense if necessary in the future. Further, it minimizes the possibility of technological surprise.

Moving to the particular programs in BMD—first, the SAFEGUARD. Procurement of equipment for SAFEGUARD, with the exception of replenishment spare parts, has all been previously funded and the deployment progress of the

first site at Grand Forks is excellent. Installation and testing of the radars is essentially complete and subsystem testing is underway. The achievement of an equipment readiness date of October 1974 appears attainable. The completed deployment of this site will strengthen our deterrent posture, and provide invaluable experience in the installation, testing and operation of BMD systems.

SAFEGUARDING AND SITE DEFENSE

Chairman McCLELLAN. When do you expect to attain an operational capability at the SAFEGUARD site at Grand Forks, North Dakota?

Secretary CALLAWAY. All major subsystems will be available at Equipment Readiness Date (ERD), scheduled for October 1974, with the exception of tactical missiles. At Initial Operational Capability (IOC), scheduled for [deleted], the SAFEGUARD System will be operational with some missiles installed and trained personnel present. Missile installation is scheduled to be completed in [deleted]. In case of emergency, after [deleted], the SAFEGUARD site at Grand Forks could achieve an operational capability within [deleted] after notification.

Chairman McCLELLAN. What is the total cost of the SAFEGUARD system to date?

Secretary CALLAWAY. As of 31 Jan 74 $5.434 billion had been obligated for the SAFEGUARD system. Of this amount $4.798 billion had been expended.

Chairman McCLELLAN. In view of the enormous cost of development and deployment of SAFEGUARD, has it been cost effective?

Secretary CALLAWAY. Yes. When viewed in the light of the limitations imposed by the Interim Offensive Arms Agreement, the SAFEGUARD System is effective against the threat it was designed to handle, the threat which exists today. While the deployment at only one site with an inventory of only 100 interceptors does significantly limit the level of defense that the system can provide, there is real value to the SAFEGUARD system deployment. The SAFEGUARD System will provide a limited defense of retaliatory forces in the Grand Forks area as well as protection of a portion of the central US against accidental or light ICBM attacks. The limited deployment at the Grand Forks site will complicate the attack planners task and can create uncertainties in his confidence of destroying US retaliatory forces. Additionally, this deployment will provide for the first time experience in operating a complex ABM system to include installation and test, normal operations, and command, control and communications. The installation and operation of the system will provide additional experience in testing and operating the tactical and support equipment of the site which cannot be obtained by an R&D only program. This experience base will assist in the design and installation of future systems.

Our technology has expanded and we are applying this expanded technology in the design of Site Defense, the follow-on to the SAFEGUARD System, to make it a more effective, less costly system for the MINUTEMAN defense mission and one which can best adapt to an expanding threat.

(Prepared statement resumes.)

The Site Defense program is critically needed. We must demonstrate our capability to upgrade active defense of MINUTEMAN, or we weaken our position in the strategic arms limitation negotiations. In attempting to manage this program efficiently and at minimum cost, we established a multiyear effort with a contracted funding plan; therefore, there is no room to absorb appreciable cuts without major contract modification and resulting inefficiencies. Only with Congressional support of this program can we maintain a highly competent BMD contractor/government team. Your support of the program is also essential to minimize delays and to avoid much higher development costs. For these reasons, in addition to the real need to be able to defend MINUTEMAN, the full $160 million requested is needed. It has already been scrubbed to a minimum.

Chairman McCLELLAN. Mr. Secretary, you state that the Site Defense Antiballistic missile system is critically needed. Why isn't it better to harden or deploy additional MINUTEMAN silos or develop a mobile ICBM?

Secretary CALLAWAY. Hardening or deploying additional MINUTEMAN silos cannot provide a definitive long term solution to MINUTEMAN vulnerability. Additional hardening of MINUTEMAN silos could be offset by the accurate delivery we predict that the Soviets can achieve, since sufficient hardening is eventually limited by physical construction capabilities. Deploying more silos for additional MINUTEMAN missiles could be effectively offset by deployment of Soviet MIRVed ICBM's with technically achievable improved accuracies. Research and development efforts are being conducted on mobile ICBM options. Such options for ICBM survivability deserve study and are being investigated.

However, at this time the SITE DEFENSE option is considerably further along in development. It is a cost effective measure for MINUTEMAN survivability, and, therefore, the SITE DEFENSE Prototype Demonstration program should be continued.

Chairman McCLELLAN. What is the total program cost to date of the Site Defense program? How much would it cost to terminate?

Secretary CALLAWAY. The total amount of RDTE funds obligated in the Site Defense program as of 31 January 1974 is $268M. The Site Defense expenditures were $201M as of 31 January 1974 and are projected at about $223M as of 15 March 1974. The cost to terminate the program as of 30 June 1974, if direction to terminate is received not later than 15 May 1974, is about $6M.

(Prepared statement resumes.)

The Site Defense system specifications and requirements have been defined, the design of prototype components is well under way and the fabrication of the basic prototype hardware has begun. With tight scheduling, careful pruning of the Prototype Demonstration Program and adequate funding in the interim, we can and must be prepared to start the demonstration of the integrated Site Defense prototype system when the five year Interim Offensive Agreement expires in October 1977.

ADVANCED BMD TECHNOLOGY PROGRAM

Finally, in the strategic field we are taking steps to preclude technological surprise through extensive research in our Advanced BMD Technology Program. Much of the effort in Advance BMD is breaking new ground to insure the United States maintains a viable strategic technology base. I will not discuss any specifics of this program. Instead, I will comment on the desirability of sustaining a prudent level of research effort in this area. Full funding of our planned program is essential or we may lose important blocks of our technology base. The visibility of our vigorous pursuit and accomplishment of advanced BMD capabilities in conjunction with our SAFEGUARD deployment has had an important influence in negotiations with the Soviets. We believe the budget for the ballistic missile defense research must be restored to a viable level if our resolve to maintain strategic parity with the Soviets is to be meaningful.

PROCUREMENT

Our procurement portion of the budget request also shows a substantial investment for the Army in FY 1975. This year's procurement responds to four general objectives:

MATERIEL READINESS AND FORCE MODERNIZATION

First we are intent upon gaining and maintaining full materiel readiness for our 13⅓ active divisions, and improving the readiness of our Reserve Component units. This modernization is necessitated by the growing disparity in manpower levels between our forces and those of our potential enemies and the correspondingly increased reliance placed upon our Reserve Components.

AMMUNITION PRODUCTION BASE MODERNIZATION

The second basic objective is to continue modernizing our conventional ammunition production base at Government-owned, contractor operated (GOCO) plants. A modernized production base, to be completed in the mid-1980's at a cost of $4.1 billion, will provide a reliable and responsive production capability to replace the current facilities which are antiquated, inefficient and environmentally unsatisfactory. This base is vitally important to our overall defense program, to include our ability to meet commitments to allies.

Chairman McCLELLAN. You indicated that a modernized production base for ammunition is to be completed in the mid-1980's at a cost of $4.1 billion. Would you provide the annual modernization funding for this specific purpose since the program started, through completion?

Secretary CALLAWAY. The modernization to which I referred includes funds identified to the Congress for Modernization and Expansion. Funding for these purposes since inception of our formal Modernization and Expansion in Fiscal Year 1970 as we currently reflect in our program and projected funding to

completion are given in the table which I shall provide for the record. (The table follows:)

Fiscal year:	*Funding (in millions)*
1970	$201.2
1971	122.4
1972	110.0
1973	111.5
1974	105.8
1975	189.4
1976	270.0
1977	280.6
1978	292.2
1979	292.7
1980–86 (per year)	300.0

(Prepared statement resumes.)

INSURE ECONOMIC INTEGRATION OF OUT-YEAR REQUIREMENTS

Secretary CALLAWAY. The development of the Big Five weapons systems represents a composite capability that the Army of the future must have to assure the qualitative edge in the battlefield. However, since financial constraints will always be with us, I have directed that we insure that our out-year requirements for these weapons, as well as other items, are economically integrated into our procurement programs. This planning approach should preclude sudden increases in procurement dollar submissions in the future.

IMPLEMENT THE COMMERCIAL DESIGN SUBSTITUTE PROGRAMS—(WHEELS STUDY)

Finally, we are continuing to implement the recommendations of the WHEELS Study. This effort could result in savings of $1.1 billion in acquisition costs during the period FY 1974–1979 and $4.7 billion in life-cycle costs over a 12-year period. Implementing the recommendations in this study will reduce our wheeled vehicle requirements by 29%, or about 112,000 vehicles. The percentage of military design vehicles will be reduced from 80% to 57% of the inventory by converting to the less complex and less expensive commercial design vehicles.

Chairman MCCLELLAN. Would you describe the WHEELS study to us, and indicate what its principal conclusions and recommendations were? Did the study address combat vehicles, or only support type vehicles? Where was the study conducted? Is this a continuing study effort? When will the recommendations of the study be fully implemented?

Secretary CALLAWAY. The WHEELS study was an Army in-house effort to determine the minimum essential qualitative and quantitative levels for wheeled vehicles. The study was conducted from February 1972 to June 1973. The recommendations were approved and are being implemented. The principal conclusions and recommendations included reductions in wheeled vehicle requirements of over 100,000 vehicles; substitution of over 40,000 commercial vehicles replacing military design vehicles; and the establishment of a vehicle program oriented toward three levels of mobility, tactical high, tactical standard and tactical support, with commercial vehicles considered as candidates in any analysis of tactical vehicle requirements. Implementation of the study recommendations is already included in program and budget actions through reductions of more than $1 billion in planned buys of vehicles for the years FY 73 through FY 78 and the procurement of more than 36,000 commercial design vehicles replacing military design vehicles in those same years. The larger implementation effort, that of changing the thousands of requirements and authorization documents for units in the field and accomplishing the attendant logistic actions of turning in and redistributing vehicles has commenced and will continue.

(Prepared statement resumes.)

Similarly, we are continuing our Commercial Construction Equipment Program to capitalize on the commercial research and development efforts in this field by avoiding military design costs when the same or an improved capability is available off the shelf. We are currently procuring commercial design scoop loaders, cranes, and asphalt distributors.

Our procurement budget request of $3.3 billion is needed to meet the broad objectives I have just outlined. Other Army spokesmen will provide full details of the program formulated around these objectives. We welcome your examination of these programs.

Conservation Measures

The Army has sought to meet the energy shortage by taking stringent conservation measures. We have imposed a 15% reduction in the use of fuel, compared with our FY 1973 consumption. Training exercises have been reduced in number and modified in scope to conserve fuel. In many instances, soldiers who rode to training now walk. We have cancelled demonstrations, reduced flying hours, minimized the use of motor transport, shifted from line haul to commercial rail and eliminated all but the most essential administrative travel. We have reduced temperature control settings, turned off unnecessary lights and adjusted working hours. These measures could result in our consuming approximately 2 million fewer barrels of oil than were used for the same purposes last fiscal year

Petroleum Consumption

Chairman McClellan. Provide the petroleum consumption for FY 73 and projection for FY 74 and FY 75.

Secretary Callaway. Petroleum consumption by the Army in FY 73 was approximately 24.9 million barrels. Projected consumption in FY 74 is 19.8 million barrels and for FY 75 21.1 million barrels.

(Prepared statement resumes.)

It is important to note that the Army's petroleum consumption is relatively low: only about 60,000 barrels per day. This is approximately 9.6% of DOD requirements which in turn are only about 3.6% of the national consumption.

It has not been easy to meet the energy shortage head on. Although we have been able to take a number of energy conserving steps without an unacceptable decline in readiness, a continuation of these measures, which reduce training, could have a cumulative and adverse impact on readiness.

Although conservation of our energy resources is an urgent concern, we are taking other economy measures to meet the challenge of obtaining more for the budget dollar.

Condition and Backlog of Army Stocks

The condition and backlog of Army stocks, particularly in overseas depots, is a matter of special interest and will receive intensive management. This program is aimed at improvement in the storage and preservation of these existing stocks. We are also heavily involved in economy measures in CONUS storage as we purge obsolete materiel from our inventory. Of significance is the completion of the mustard agent disposal, the ongoing disposal of agent GB and the planned disposition of over 1000 tons of obsolete phosgene at Rocky Mountain Arsenal, Colorado. Concurrent with this disposal effort at Rocky Mountain Arsenal, an additional quantity of the United States chemical deterrent stockpile, 2250 tons of GB nerve agent, is planned for disposal. Barring unforeseen problems, we expect the project to be completed by the fall of 1976. My policy is to insure appropriate notifications to the Congress and the press prior to the initiation of disposal operations. We will continue our established policy of full disclosure in this sensitive program, limited only by absolutely essential national security requirements.

We have made significant reductions in the size of our headquarters, particularly in the Headquarters, Department of the Army. Continuing scrutiny of all headquarters will probably result in additional savings in our operations and maintenance account through manning reductions. You may have read recently where one of our depots in Illinois, by purchasing labor-saving equipment at a cost of less than $500,000, has experienced a return in excess of $1.8 million by reducing manpower costs. Though we are not "profit" oriented, in the strict sense of the word, we are certainly deeply concerned with fostering efficiency at all levels of the Army.

Labor-Saving Equipment

Chairman McClellan. Provide a description of the operation where labor-saving equipment costing less than $500 thousand reduced manpower costs in excess of $1.8 million. Provide the number of personnel eliminated by this equipment.

Secretary Callaway. The savings are as a result of twenty-four pieces of equipment purchased with a project that was administered by the Ammunition Procurement and Supply Agency at Joliet, Illinois. The description and list are included on the attached tabulation.

[The information follows:]

Plant [1]	Description	1st yr savings [2]	Operators eliminated
Lone Star	Sealant dispenser: Apply sealant to threaded portion of fuze body	$24.5	3
Indiana	Laundry clothes dryer: Additional clothes dryer for laundry	50.1	5
Twin Cities	Scrap material compactor: Compaction of scrap brass cuttings and turnings into 15-in cubes.	47.5	0
Twin Cities	Automatic carton feed: Automatically insert 20-round cartons in carton packing machine.	22.3	2
Twin Cities	Point protector, applicator and conveyor: 10-round ball clips of 5.56 mm are automatically inserted into the point protector.	453.5	42
Milan	Firing pin seat and gage machine M525 fuze: Automatically seats and gages firing pin in the M525 fuze.	55.8	9
Lake City	Ultrasonic test equipment: Inspection of 5.56 mm cartridge cases for flaws.	116.7	0
Milan	Automatically tape lead charge in M525 fuze: To apply tape over lead charge in M525 fuze.	29.7	5
Lone Star	X-ray film processor: To process paper base film in lieu of polyester base film.	59.1	0
Cornhusker	Heavy duty nailing machine: Assemble pallets in nailing jig, and automatically nail together simultaneously.	241.1	20
Cornhusker	Paint machine for M117 casing: To apply red primer coat in the same paint booth that the o.d. paint coat is applied.	70.7	8
Kansas	Auto addressing machine: Purchase an addressing machine for employees mailing list.	4.0	0
Joliet	Relocation of melt-mix group 3: Modify feed hopper and supply and exhaust system also to relocate melt-mix kettles.	49.4	4
Badger	Final mix bag and weigh: To install vibrating feeder automatically feed and weigh canvas bag with fibrous rocket paste.	43.0	3
Radford	TNT trailer holding yard	124.0	0
Lake City	Brass turning compactor: To compress brass turnings and scrap to 15-in cubes.	111.1	0
Milan	BLU/24 bomb stencil: Automatically stencil markings on bomb	16.8	2
Lake City	Grain size inspection equipment: To automatically file, polish, and etch samples for micrographex comparison.	5.8	0
Kansas	Radio power units: Conversion of radio units to be used either by battery or electric power.	2.4	0
Milan	Corrugated paper baler: To bale corrugated box materials for recycling.	27.5	−6
Lone Star	Automation of jungle wrap: To automatically wax-dip 81 mm fiber containers for jungle protection.	36.0	8
Milan	Press to load spitback M433: To install continuous motion machine to load M433 spitback.	176.2	19
Indiana	Threadcutter-charge counters for bag manufacturing: To automatically cut the thread between bags after the number of bags required has been reached.	51.6	5
Lone Star	Funnel puller M-67: To hydraulically break funnels loose from M-67 grenade.	17.6	2
Total		1,836.4	[3] 131

[1] Plants are army ammunition plants.
[2] Thousands of dollars.
[3] Net.

(Prepared statement resumes.)

Reserve Components

Secretary Calloway. The Army's third challenge, to make full use of our Reserve Components, is no less demanding of our managerial talents and relates directly to recruiting and retaining good people and obtaining the highest return possible on every budget dollar. Almost half of our combat forces are manned by these citizen soldiers. Therefore, we must continue to develop a modern, combat ready Reserve Component structure to augment our active force to meet our national security requirements.

Recruiting sufficient Guardsmen and Reservists continues to be a principal concern, even though our recruiting programs have produced heartening results. Our Reserve recruiters are doing a good job, but they need the additional assistance that our proposed budget request would provide. Reserve service must be worthwhile if we are to recruit and retain quality personnel in the numbers we need.

The Army's command and administrative structure in the Continental United States (CONUS) has been streamlined to enhance the increasingly important role of the Reserve Components to our Total Force. The primary mission of our three remaining Army Headquarters in the Continental United States is readiness and support of the Reserve Components. CONUS Army Areas have been subdivided into Readiness Regions and headed by a carefully selected active Army Major General and a small staff oriented to Reserve Component training requirements and assistance. The active Army advisors previously associated with Reserve Component units now work for these Readiness Region Commanders.

This permits a more flexible, but concentrated, effort to be focused on the varied training requirements of the Reserve Component units. Mobile training teams, tailored to provide particular expertise, can now assist these units.

Programs to integrate the efforts of Reserve Components and active units are continuing. The 25th Infantry Division in Hawaii will be joined in time of emergency by a National Guard brigade and a USAR battalion. As an expansion of this "Roundout" concept, the Reserve Component Affiliation Plan is emerging as a program with potential for improving unit training readiness. Selected separate brigades, separate battalions, and armored cavalry regiments are being designated for affiliation with active Army divisions for training, with the mission of deploying in emergencies as part of the division. The Mutual Support Program encourages a close-working relationship between Reserve Component units and active Army counterparts. The program will provide Reserve Component units with access to modern equipment for improved training proficiency. It will also foster a close-working relationship with full-time professional soldiers, and an opportunity in many instances to share in facilities and techniques available to the active forces that can provide meaningful training experiences.

We also have made significant progress in the modernization of our Reserve Components. Equipment issues exceeded $680 million in FY 1973 although necessary diversions of equipment to Southeast Asia caused a shortfall from our programmed objective of $800 million. During the first half of FY 1974, approximately $45 milllon worth of equipment scheduled for the Reserve Components was diverted to Israel. However, by the end of FY 1974, it is anticipated that levels of authorized equipment in both Reserve and National Guard units will be substantially improved for both training and mobilization purposes.

There still exists shortages of key items. However, the increased levels of equipment which we have realized will impact favorably on readiness, by increasing the amount of combat ready materiel available for deployment and improving training. Soldiers, whether active or Reserve Component, find training more meaningful when the actual equipment is available.

We are continuing to seek new ways to improve the reinforcement capability of our Reserve Components. We are currently participating with OSD and the other Services in a major study that will analyze every feasible possibility for enhancing Guard and Reserve effectiveness under the Total Force Policy.

Study of National Guard and Reserve in Total Force

Chairman McClellan. Would you describe the major study to examine possibilities for enhancing Guard and Reserve effectiveness? When will this study be completed? What types of options are being examined in this study? Will the study seek to evaluate the effectiveness of some of the programs to integrate the efforts of reserve components and active units that you described on page 37?

Secretary Callaway. On October 30, 1973, I was provided the Study Plan, OSD Study of Guard and Reserve in the Total Force as approved by Secretary Schlesinger. The stated purpose of the study is:

> A comprehensive study of the Guard and Reserve forces which will include but not be limited to the availability, force mix, limitations and potential of the Selected Reserve in a national emergency; and an in-depth analysis of all factors which limit or enhance Guard and Reserve use under the Total Force Policy. The study will treat organization, manning, recruiting, retention, equipment, training, readiness, deployment objectives, management, programming, budgeting and funding procedures, and possible trade-offs between Active Army and Guard/Reserve forces.

An examination of just two of the twenty issues posed to the Total Force Study Group indicates the breadth of the study ordered by Dr. Schlesinger:

(*a*) What are the practicable and economical alternatives of force mix between Active and Reserve Forces without impairing national defense?

(*b*) What Active force missions and/or activities can be accomplished by Guard or Reserve Forces at lesser costs and at a prudent risk?

The final report is due to Secretary Schlesinger on August 1, 1974.

(Prepared statement resumes.)

Other steps are also being taken to upgrade Reserve Component readiness. During Calendar Year 1974, the Army will complete an extensive test and evaluation program of readiness improvement concepts. The results of this test program will be carefully analyzed, and where indicated, changes will be integrated into our training and operational procedures. Additionally, we will complete a comprehensive study during the second quarter of the calendar year which will analyze the requirements for post-mobilization administrative and training time

for Reserve Component units. The primary purpose of this study is to reduce the deployment objective time for division forces. We are also placing increased emphasis at all levels on training procedures and techniques. Our objective is to insure that service in a Reserve Component unit is an interesting and meaningful experience. The increased levels of readiness which our Reserve Components must attain to meet the requirements of the Total Force Policy dictate that the limited training time available be used effectively.

Readiness of Reserves—Concepts for Improvement

Chairman McClellan. What specific readiness improvement concepts will be tested and evaluated during 1974 in the study you mentioned on page 38 of your statement?

Secretary Callaway. The concept remaining for test and evaluation during Calendar Year 1974 is that of Full-Time Reserve Cadre Headquarters. We seek to determine what readiness gains are achievable by staffing Reserve Component units with full-time Reserve Component personnel to perform selected command, staff and administrative functions. The cadre was hired last year. During summer training this August, any improvements from one year's work will be measured. The additional study, scheduled for completion during the second quarter of the calendar year, consists of an analysis of mobilization procedures, to include training, for selected units and will not involve testing.

(Prepared statement resumes.)

We are also improving and upgrading training facilities. Our National Guard and Reserve construction program will provide adequate home station facilities for all Reserve Component units by end FY 1980. The availability of adequate weekend training areas still presents a problem for most units, but we are making steady progress in reducing the shortfall.

Reserve Component Facilities

Chairman McClellan. Are existing military installations within close proximity surveyed for available facilities prior to construction of Reserve Component facilities? Are these installations used wherever possible for weekend training areas?

Secretary Callaway. Yes. During the site selection process, the feasibility of colocating Reserve Component activities on either active military installations or other Federally-controlled property is considered. In addition, all property excessing actions are carefully screened for possible Reserve Component use. Within each state a Department of Defense "State Reserve Forces Facilities Board" with representation from all services has been established with the mission of reviewing all Reserve Construction Projects and to make recommendation which in part are to include possible utilization of available space in any existing nearby Guard/Reserve or active Force Facilities as may be practicable. Thus, not only are we, in the Army, attempting to insure the best and most economical facilities are made available for the Army National Guard and Army Reserve, but this program is closely monitored by Department of Defense. In response to your second question, active military installations, due to their existing facilities, are considered prime weekend training areas when within acceptable travel time and distance.

(Prepared statement resumes.)

Through these programs and studies I have just mentioned, we feel that our third challenge will be met and overcome. These, however, are just our first steps in more effectively capitalizing on the enthusiasm and competence of our Reserve Components. Our efforts along these lines, incorporating innovative but practical concepts, will continue.

Conclusion

I have touched on "Why an Army" and have elaborated on the three challenges that form the basis of our FY 1975 budget request. These themes—people, economy, and Reserve Components—are intertwined closely and have been referred to continuously throughout my discussion of the programs that support our Army of today. My goal and—I am sure—yours is to continue to have an Army that can serve this Nation well, can meet all its commitments and fight effectively if it must.

HEARING PROCEDURE

Senator YOUNG. Are you ready to testify, General?

General ABRAMS. Yes, Mr. Chairman. I have a prepared statement which has been submitted to the committee, and I would like to respectfully request that it be made a part of the record, sir.

Senator YOUNG. That will be done, General.

We will follow the same procedure as was previously outlined in connection with the Secretary's statement. Senator McClellan and I have some prepared questions which will be included in the proper places in your statement along with the responses. Your statement will appear at the conclusion of your remarks.

Before we go to you, General, I have two or three questions I think I will ask now.

RECRUITING

Inasmuch as Army strength has been reducing for the most part since the end of the draft, has the Army been able to accept a lower number of recruits and still meet strength objectives? Can you say that was accomplished because of the reduction in force?

Secretary CALLAWAY. Yes, sir, that is right. We are now at full authorized strength, but I don't mean to imply that we would have recruited as many as we would have liked to. In November and December we made our goal and we almost made it in January and February, and we are ahead of our goal thus far in March. As we went into the first months after the draft authority expired we experienced some rather substantial shortfalls, as many as 2,000 per month at times. That period seems to be over. We all think that as we increase our interest in the recruiting command, as we do a better job there, as we do a better job of informing young men and women throughout America of the challenge of the Army and not just the pay, as things become known by the American people, we will meet or very nearly meet our goals.

ROLE OF RESERVES AND NATIONAL GUARD

Senator YOUNG. What part will the Reserves and especially the National Guard play in the Army's defense posture?

Secretary CALLAWAY. Mr. Chairman, the Reserve is understrength. The National Guard has just come up to full strength which we think is a very proud moment. Both the National Guard and the Reserve will be integrated even more closely with the Active Forces than ever before. A reorganization which took place a little over a year ago created a new command called "Forces Command". It is in charge of all the Active Forces within the continental United States and is also in charge of supervising the Reserve components through the continental armies. Under the armies are nine readiness regions, each commanded by an active Army major general. These major generals have responsibility for the readiness, the training and the coordination of both the Reserve and the National Guard. They do not command them. The Guard is commanded by the State Governor through their Guard commanders. The active major generals coordinate and work with them to see that they get the kind of material and the training they need. I think it has really contributed to increased readiness to

let these Reserve component units know that there is a major general fighting for them and working for them, and not looking over their shoulder but working jointly with them trying to see that they do have the standard of training and readiness that we in the Active Army think is necessary.

PROGRAMS TO REDUCE THE SIZE OF THE NATIONAL GUARD

Senator YOUNG. Do you have a program such as the Air Force has of deactivating the Air National Guard units? Do you have any programs that reduce the size of the National Guard?

Secretary CALLAWAY. Yes, sir. We are in the process of inactivating a number of air defense units, and General Kjellstrom may have some details on that if you like.

General KJELLSTROM. Yes. As part of the appropriations bill for last year initiated by the House we were directed to phase out the air defense within the United States. Our 48 batteries, 21 batteries are Active Army and 27 batteries are Army National Guard, are being phased out by the end of the second quarter fiscal year 1975 together with the elimination of Headquarters ARADCOM in Colorado Springs by the end of fiscal year 1975.

Senator YOUNG. That was a directive of Congress?

General KJELLSTROM. Yes, sir. The House Appropriations Committee initiated the action.

Senator YOUNG. The reason I have asked the question is that the Air Force has been directed to deactivate a number of their Air National Guard units. There seems to be a different concept. Secretary Schlesinger seems to have ideas similar to those entertained by Secretary McNamara a few years ago. They are deactivating one of the six interceptor squadrons at Grand Forks Air Force Base. I didn't object to that, but now they plan to deactivate the Air National Guard fighter squadron at Fargo, N. Dak. This is the one that won the William Tell contest twice against the best the Air Force and the Canadians had to offer. They are not going to be deactivated if I can help it. I hope we can provide language to stop this foolish business. This is a unit that is among the best and operates at a minimum cost. Why they want to deactivate them I cannot understand.

1974 SUPPLEMENTAL BUDGET REQUEST FOR READINESS

In the supplemental request for readiness, what items other than ammunition is the Army most concerned about?

General ABRAMS. We have POL price increases. I think we are all familiar with what has happened on fuel costs and that certainly is a very urgent item. We have to take steps, Mr. Chairman, to increase our production of certain items like ammunition, the TOW, both the missile and the launcher and personnel carriers and howitzers, and so on, because of the drawdown we had to make in these areas in order to supply the needs of the Israel forces. Some of these items had to come out of units. We were not able to take it all out of stocks. We didn't have sufficient reserve stocks. In the case of the TOW launcher we had to take some of them away from the units that are in Europe, and we had to take some of the tanks out of the stocks in Europe.

Quite frankly, sir, this gives us a very uncomfortable feeling about our own readiness, especially the readiness of our deployed forces.

So we have really felt very strong about replacing items taken from our Active units and Reserve stocks. The reason we put it in the supplemental was so that we could get production started as soon as possible. You know, there is a delay in getting the production going, there always is, and the extent of that drawdown just requires us to try to do something about it. We have requested, of course, the supplemental to try to get it started. It is still going to take us some time to recover. It won't be until the products come off the end of the production line that we will actually gain it, but we should start as soon as we can.

Senator YOUNG. To some extent we fought the Vietnam war by making sacrifices in maintenance. About how much Army money is in the supplemental bill to replace equipment taken away from your stocks?

General ABRAMS. That is about $800 million, I think—$766.2 million—to replace equipment and otherwise improve readiness.

Senator YOUNG. How much of that was in tanks?

General ABRAMS. $47 million is in tanks.

Senator YOUNG. What was the figure?

General ABRAMS. Ammunition is the biggest item and that is almost $268 million.

LOGISTICS AND TRAINING SUPPORT FOR SAFEGUARD PROGRAM

Senator YOUNG. Has the army finalized the logistics and training support requirement for the Safeguard program?

General ABRAMS. Well, yes, I think we can say that we finalized that part, but we have not yet finalized the whole superstructure in the ABM area. You know, we are trying to continue the technological system development and advanced exploratory work and that sort of thing in case the negotiated SALT I or its follow-on breaks down. We are keeping up the technology but we have worked out a plan which has not been finally approved for substantial reductions in the supervisory headquarters in the whole ABM business.

Senator YOUNG. Off the record.

[Discussion off the record.]

SAFEGUARD, SITE DEFENSE AND ABM TECHNOLOGY

General Abrams. We plan to have the one Safeguard site at Grand Forks achieve its equipment readiness date (ERD) this October. I know in talking with General Leber that we are confident of meeting that date.

Senator YOUNG. It performs a worthwhile service?

General ABRAMS. Yes, sir, it will perform a worthwhile service at this time.

[The information follows:]

We do not consider the Safeguard system as obsolete. However, the ABM Treaty has forced the site into a role that it was not originally designed to fulfill. This of course is because deployment at only one site with an inventory of only 100 interceptors does significantly limit the level of defense that the system can provide. It does have definite value in its ability to provide a limited defense of the retaliatory forces in the vicinity of Grand Forks and protection of a portion of the central U.S. against accidental or light ICBM attacks. Although we now have more advanced technology available for any future BMD deployments, the present components are the best in the world available in a deployed BMD

system and allow us to gain much-needed experience in the installation, test and operational functioning of such a complicated weapon system.

Senator YOUNG. Inasmuch as site defense cannot be deployed under the present conditions, what is the urgency to maintain the funding level of $150 to $200 million per year?

General ABRAMS. That is about the amount of money that will permit us to continue the development and integration of system technology, the investigation of applying technology in this whole area. I know it is expensive, but it will cost us if we ever fall behind. We are not talking about production. We are talking about the science and engineering of the whole business, and that is what we are trying to keep alive. You know, sir, the men who work on this in this kind of area are specialists. They are highly educated. They are highly skilled. It is a civilian work force, and if we stop there and scatter that team and let those people go, it is just a difficult task to ever try to pull it back together and get those kinds of people together and get them working again on the kinds of programs that the country might need.

So I just feel very strongly that system technology is part of the insurance premium that our country just can't afford not to be paying at this time.

Senator YOUNG. Does not the technology that was learned from the ABM apply to the site defense program?

General ABRAMS. Oh, yes, but this is a very lively field both for us and the Soviets. Yes, you are quite correct, but it keeps getting deeper and deeper and further and further, and new things are discovered, and we just have to be up to speed on what the Soviets are doing.

In this area of ABM system and advanced technology, sir, we have had a technological and engineering edge on the Soviets. We are quite confident of that, and I think they know that. I think this is part of how you got SALT I. They are kind of anxious to catch up.

Senator YOUNG. The technology advantage you speak of is one of the few advantages that we have over the Soviets at the present time.

General ABRAMS. Well, in military terms that is probably a fair statement, sir, but there are so many other things where we have a tremendous advantage over the Soviets.

Senator YOUNG. I think you are right.

General ABRAMS. But there is no point in me trying to get philosophical about that. No, we have assets, freedom and all those things. In human terms we have assets that really no one else has.

Senator YOUNG. They do come up with some new and surprisingly good weapons.

General ABRAMS. Yes.

Senator YOUNG. Off the record.

[Discussion off the record.]

Senator YOUNG. Back on the record.

You have provided your regular statement. I have no more questions at this time.

General ABRAMS. All right, sir. I wanted to make a few remarks extemporaneously if you will, sir.

Senator YOUNG. Yes.

General ABRAMS. This is my second appearance before this committee. Last year when I was here I was really new at the job and I was really playing catch up because I had been away so long. In developing this year's budget and the strength that we are asking for and the structure we are asking for, we have spent a lot of time analyzing all of this. What drives it? Well, the thing that drives this, Mr. Chairman, is the military strength and the policies of the Soviet Union. Our country, in order to stay healthy, needs freedom to get things in this world; move about in the world; trade with the world; exchange with the world. And to have the freedom to do that, and to have the strength to negotiate, as we are doing with the Soviets, we need as part of our national strength, military strength; otherwise, political strength, psychological strength, economic strength, diplomatic strength, are illusions.

So we as a country have to have a firm and recognizable military strength. Now ours is reckoned in terms of the strength of our allies, too. We don't see ourselves alone and the structure that we try to get is not just that—we see it as a part of the team with our allies in the world and our friends. I know it goes up and down, and somedays they are friends and somedays it looks like they are not, by what somebody says, but basically they are.

Then within the Department of Defense we don't look at it as the Army really. You have to have Army strength, but Army strength can't do it by itself. You have to have the Air Force and you have to have the Navy, and you have to have the Marines. So what we seek in the Army strength, we have thought out in terms of all of that.

Now money—the budget, the appropriation—we know that it is expensive. We are in a period after a war when historically we have always as a people reduced our military strength—that is when we feel the strongest about not having war and not contemplating war. So we know that is there too.

What we have tried to do in this budget is take account in our own way, but of course also in the Department of Defense way because they have reviewed it all including the Secretary of Defense himself. In order to maintain the fighting strength in the Army we have tried to economize and save in every way that we can. For example, in this budget there is a significant reduction in some of our headquarters and support areas.

I might say also that we have taken the steps to consolidate schools, consolidate our training—our basic and advanced training—so that it is at fewer places and takes fewer cadre and that sort of thing to accomplish the training. All of this is being done so that we can make the combat end of the Army as strong as possible within the 785,000 end strength we have requested in this budget.

In doing this I must point out with candor that the military spaces that we save we want to apply in this budget—and this budget does it—to the combat end of the Army. The money that would have gone to the civilian part of that reduction is also in there to provide the investment, the construction, and the equipment which would be required. The force that is in this 785,000, and in this budget is 13⅓ divisions, which is one-third of a division more than last year's budget. But this is the beginning, and we have not finished reducing

the support area in the Army. It is ongoing, and there is going to be more. We want to apply that to the combat end.

It is my hope and our hope that by the end of fiscal year 1975, the year of this budget, we will have found the spaces and the means by cutting out other things to get us to 14 divisions. Next year I would like to get to 15 by the same method, and within the same end strength of 785,000.

GOAL OF 16 ARMY DIVISIONS

Our goal is really 16 divisions, which is what we believe is required by this Nation of its Army for its part in the security system of our country. I want to do that still within the same end strength of 785,000 and in part by the use of roundout units from the Guard and the Reserve. Our goal is to make those Guard and Reserve units deployable in the same time frame as the active Army division which they round out. Now maybe that is a simplistic statement, but it is a straightforward statement of what this budget heads toward.

DEFENSE POSTURE IN A POST-WAR ERA

Senator YOUNG. General Abrams, I want to commend you for your desire to have the most effective Army possible within the budget. I like your ideas. I hope you will be successful.

I think you have made a statement of important significance. The United States has had a habit after every war of letting down its strength and not providing modern weapons. This was true after World War II and the Korean war. I remember discussions in the Appropriations Committee when the military appropriation came up at the start of each conflict. One Senator after the other kept asking witnesses: "Can you use more money? Do you need more money?" Large appropriations at the outbreak of hostilities doesn't do much good when you cannot build the necessary weapons in so short a time. This we must guard against.

In Germany under Hitler they went all out, researching and developing new weapons. As a result they conquered most of Europe, and probably would have conquered all of Europe if it had not been for our assistance. Now we have the Russians doing much the same thing in research and development. That seems to be one of their major roles, and it is a bit difficult for people of the United States to work almost alone with no help from our allies to counteract this effort. We could not even use allied bases to transport equipment to the Mideast war; we had to utilize bases in the Azores. We don't seem to get the cooperation out of our allies when we need it most.

It is questionable whether we can do it alone or not. I agree with you that we cannot afford to let ourselves become a second-rate power.

Senator Case?

A "LEAN" VOLUNTEER ARMY

Senator CASE. Mr. Chairman, I am sorry I was not here earlier for the committee meeting. I am trying to spread myself very much thinner than I should.

It is very good to see you gentlemen.

I just had a rather general question, agreeing with the chairman. This effort of yours to get the most for the least is altogether desirable. Would the direction in which things are going have any effect as you see it on the ability to maintain a volunteer Army, and in your judgment is that desirable? I mean you are making things very lean. Are you making them so lean they won't be attractive?

General ABRAMS. No, sir. Now I have to say this and tell you it is my sense from visiting, and just last week I was out visiting and the week before that. Chaplain Hyatt spent 3 weeks out in the Pacific area and he came in and talked to me about feelings. What we are doing has been really greeted with enthusiasm especially by the officer corps who understand it more clearly, but it is also true with non-commissioned officers. It is a perception of theirs that we have been a little old-fashioned, and they think this is good.

Off the record, if I may.

[Discussion off the record.]

General ABRAMS. I don't want to overstate this, Senator, but my sensing is that the Army and the people in it, and especially the ones out in the field see this as a good move, and they are for it, and they are not concerned about it getting too lean. You see, their view especially in CONUS is that there are too damn many people in Washington anyway. They think you could get by with two or three at most. I felt that way when I was out there.

Senator CASE. You still feel like that too now that you are here.

General ABRAMS. Well, we have done a lot in reducing our staff, Senator, and I think it is going to be a better staff this coming fiscal year. I think it will be a more effective one, and I think the people that work in it are going to be happier.

MAINTAINING A LARGE ARMY IN PEACETIME

Senator CASE. It is easy to see how it is more difficult for the Army than for the other services to maintain a high degree of morale and esprit and the rest in peacetime. After all, what are you going to do with a fairly large number of men? In the Air Force they can fly planes, and it gives them a sense of activity, and they can sail ships and repair them in the Navy. For the most part the activities of one important guy in a way, this foot soldier, is pretty damn dull in peacetime. What is the philosophy about providing something for them to do and/or something useful? How do you maintain a large army in peacetime?

General ABRAMS. I think there are three things.

Senator CASE. You have some philosophy.

General ABRAMS. Right.

Three important things. One is capable, enlightened, enthusiastic and devoted leadership. Now you need that because that is the kind of people who find the ways to do the other two things that I am going to mention, and that is both officers and non-commissioned officers. Both. You can't have an army without good non-commissioned officers, and you cannot have an army without good officers. You have to have them both.

The second point I would make is the kind of training that these men receive. Now you have men, say maintenance men, and their work practically never ends, so that is a little different thing. But the people that are in the infantry and in the tanks and in the artillery and in the cavalry and all of that need good demanding training. As an example, in the 18th Airborne Corps now, with no notice, they pick up a rifle company in an airplane, fly over Fort Campbell, and parachute in for a 5-day exercise in the field. The Company Commander has his company—his men, his officers—and it is his problem. The plane lands at Fort Campbell, picks up a rifle company, again airborne, flies over Fort Bragg, and it parachutes in, the company again run by the Company Commander and his non-commissioned officers. When the 5 days are up they just do it in reverse. Pick the company up and take it back. They do the same thing up to Camp Drum, or they take them down to Panama in the jungle or to Fort Lewis.

The 9th Division at Fort Lewis has this same capability. They have a wonderful training area, so they can do meaningful training.

Third, it should be our goal, and it is our goal, that every man in the Army while he is there will improve the station in life which he can attain. That is an educational program including on-duty education and off-duty education—some of it is vocational, some of it is scholastic, some of it is basic.

So the combination of these three things is basically how we are trying to drive it. You are right, it is difficult in peacetime to maintain esprit, attitude, morale, and it is old-fashioned. But devotion to the service, and one of the things I think is helpful in this is the vast majority of men that join the Army join it because they want to make a success of it. Although their father may not have been in it, their view of the Army is that it is tough, so if they can succeed they have made a mark.

You never have trouble getting people to volunteer for parachute training and belonging to the 82d Airborne Division. It is one of our parachute units. This is because when they finish their training their view is that they are able to do something which most men don't have the guts to do. It is the same thing in Alaska. To go out there and live on a glacier. Now that is a team thing, and they have to play their part. You cannot have anybody that is not carrying his share or they might all lose. But when they get through with that it is the same idea as parachuting. They are able to do something which they know most men don't have the guts to do. That is their perception of it.

The same thing is true down in the jungle, eating snakes or all those things that they do and staying out there and living out there in the night and all of that.

Senator CASE. It is a kind of an Outward Bound you mean?

General ABRAMS. Yes.

Senator CASE. You know that operation attempts to meet the same thing for individuals.

General ABRAMS. Right.

Senator CASE. But that really can—well, you are doing it so you must believe it can be done.

General ABRAMS. Yes, sir.

Senator CASE. It has always seemed to me that this is one of the most difficult things we can do. One of the reasons we have had a conception in this country that you didn't have an Army except in wartime is the belief that men ought to be doing something else.

General ABRAMS. We are trying to turn that around and make them feel the other way.

ADEQUACY OF 16 ARMY DIVISIONS

Senator CASE. What would your ideal be—you spoke of 16 divisions, and with the ability to fill them out from the Reserves and the National Guard. Would this meet your conception within the realms of possibility of our needs at the moment.

General ABRAMS. That is correct, sir.

Senator CASE. And you think you can attain that under the present program with the funding requested for this year?

General ABRAMS. Yes, sir.

Senator CASE. Thank you, Mr. Chairman.

Senator YOUNG. I don't know that I have any more questions.

You are very enthusiastic, General, and you have had a lot of experience, more than most, and I like your philosophy. I hope it works.

I think Senator Case had a little difficulty in figuring out how you can maintain a ready Army in peace-time. You make it look fairly easy, but it is not quite that easy, is it?

General ABRAMS. No, sir, it is not. It is not easy and I will be the first to tell you it is very difficult and we have a lot of things that we have not yet straightened out. I know that, and I am not trying to mislead anybody here on this score, but I also want to say that the way to have the kind of Army that the country needs and has to have and we want is for me to back things like this and to talk like this and be that way everywhere I go in the Army—intolerant of slothful fellow, intolerant of the officer that won't step up there and play his part fully and accept his responsibility, intolerant of the noncommissioned officer who won't do it and make them feel you don't get anywhere by lowering your sights. The only place you get anywhere is to have your sights high and then give it everything you have and you will get there. It is the same thing in battle.

Senator CASE. The same thing everywhere, General. I think you are absolutely right.

IMPACT OF SHORTAGES OF MATERIEL CAUSED BY THE MIDDLE EAST WAR

Senator YOUNG. You mentioned certain shortages that you have because of the Middle East war. Is that hampering you?

General ABRAMS. Yes, sir. It has postponed some combat battalion activations that we had planned to begin about this time, so that they will take place now during fiscal year 1975. Some of these [deleted].

LEADTIME REQUIRED TO GET NEEDED EQUIPMENT AFTER FISCAL YEAR BY SUPPLEMENTAL BUDGET APPROVED

Senator YOUNG. If the Congress appropriates the money in the supplemental bill, how long a timelag would there be before you recieve of this more important equipment, like tanks?

General ABRAMS. Eighteen months. About 18 months from the time we get the authorization and the money until we get a tank from that money.

Senator YOUNG. Do you have to have an authorization? Is there money for that purpose in the supplemental bill?

General ABRAMS. Yes. The supplemental has to go the same route as the budget.

Senator YOUNG. These items are in the supplemental?

General ABRAMS. Just equipment items.

Senator YOUNG. Tanks?

General KJELLSTROM. Tanks, personnel carriers, the TOW missiles. That is being addressed by the Armed Services Committees this week, sir.

Senator YOUNG. That would entail the authorizing legislation.

General KJELLSTROM. Yes, sir, there is a meeting right now in the Armed Services Committee with our representatives present on the supplemental.

Senator YOUNG. Your idea is that you would save about 6 months by handling the procurement in the supplemental bill?

General ABRAMS. Yes, sir.

Senator CASE. Where is it on the House side?

General KJELLSTROM. The House is having a committee meeting on Thursday, sir.

Senator CASE. Armed Services?

General KJELLSTROM. Yes; and the House Appropriations Committee is having a meeting tomorrow at 10'clock.

Senator YOUNG. Do you have anything further?

Senator CASE. No, sir.

ESPRIT DE CORPS OF A LEAN, VOLUNTEER ARMY

Secretary CALLAWAY. Mr. Chairman, if I may, Senator Case asked a question that is so fundamental to the Volunteer Army that I would like in just a moment to address that. Not only is the esprit that you see in General Abrams precisely what is needed for today's Army, we need to get this across to the public at large. Now it is getting across to the Army because the Chief of Staff has a way of getting it across to the Army, and he is using all of the ways at his command, and you now find noncommissioned officers, you now find privates, you now find officers who have this same esprit which he has given to you today, but in the public domain there is still a fairly substantial feeling among Members of Congress, among those constituents which you have that somehow a Volunteer Army is a permissive Army, not a lean Army.

Senator Case, you used the words, how can you have a lean Army with a Volunteer Army? I would submit the kind of Army we all want in this period, which is a new kind of Army for America, is an Army that is big enough to have large global commitments, it is big enough that we want it broadly representative of America. We don't want a mercenary Army representing some different class from America. It is big enough we want all of our best young men and women coming into it so that we have that close relationship with the civilian community rather than getting out of touch, and it has large enough missions that we have got to appeal broadly to a great many people.

The only way that I know we can appeal broadly to a great many people is in the area of challenge. If we appeal only on the money, and we support the higher pay which is only equitable to pay what a person is worth, if we appeal only on allowances, which is only equitable, and the better barracks and all of these things that we think are appropriate for a young man or woman in order to have a standard of living with what is comparable in civilian life. But if we appeal only on that basis we are appealing mostly to people who cannot get another job, and this is now a special segment of America, a rather special segment.

The only way is to get them is with the kinds of appeals that General Abrams has been talking about, and I hope that the American people soon begin to understand that that is the only way we can run an Army.

Senator Case, I would submit that only by having a lean Army can we do it that way. A permissive Army would not appeal broadly to America.

Senator CASE. I think you are quite right.

Secretary CALLAWAY. If you look at our advertising a year ago, we had a picture of going through Europe, and we had pictures of girls and fountains and all of that in Europe. Today we have pictures of tanks and heavy pieces of equipment and infantry. This is what the Army really is, and we are fooling people if they think they are going to Europe just to be with pretty girls. Sure, but they will have an exciting challenging mission that will be a challenge, and in Alaska they will be out on the glaciers for long periods of time. As I saw them within the past 6 weeks catching snowshoe rabbits and enjoying it because it is the kind of challenge that a lot of people may not have the guts to do.

The only point I want to emphasize, Senator Case, is that, in my view, the lean Army is not a detriment but is rather very much a necessity so that we get the type of people that we want to serve in the Army.

Senator CASE. I could not agree with you more. You can't do it by anything else but by a challenge which has validity, which is real.

General ABRAMS. It has to be real in the eyes of the man.

Senator CASE. I think from that purpose it has to relate to a fairly well understood mission of the armed services, and carrying that one step further, of the role of the United States in the world. They have all got to be tied in together in a logical, valid, credible kind of way, and it is quite a challenge. At times, when many people think it is falling apart, it is difficult not to be a Calamity Jane.

Thank you, Mr. Secretary.

Secretary CALLAWAY. We agree with you, Senator Case. The jury is still out on the Volunteer Army.

Senator CASE. In my mind, you have no ideological view.

Secretary CALLAWAY. We are extremely optimistic and, in my view and the Chief of Staff's view, we are going to make the Volunteer Army work, and for the good of the country.

Senator CASE. If you can, I think it is the best.

REHABILITATION OF BARRACKS IN EUROPE

Senator YOUNG. What have we done about housing in Europe? It was pretty bad 1 year ago.

General ABRAMS. Yes, sir, but you know that we have had the German financing that has rehabilitated barracks and it looks like we are about to get what will be the third step of German financing for the rehabilitation of the barracks. That has gone along very well. It is good work. It is well done, and it has made a big difference.

Senator CASE. They do the whole thing?

General ABRAMS. They do, sir. As a matter of fact, 2 or 3 weeks ago, when I was over there, I happened to be at Buedigen at one point, and they are in the process of rehabilitating some barracks there. There were three civilians, and I stopped to talk to them. One of them was the contractor. One of them was from one of the ministries in the Federal Government. One of them was a U.S. civilian out of the Engineer Office in Houston. They were there for a meeting. The Federal Government representative is a resident for this particular project. So, in quality, it is the best rehabilitation that has been done to the barracks in Europe since World War II, and the supervision by the Federal Government, whose money it is, has been very good.

Senator YOUNG. Do we own any of the barracks or are they all German-owned?

General ABRAMS. No, sir. That is sort of basic to why they are doing it. In political terms, it is the salable thing in the Bundestag because the ultimate ownership of all those barracks is theirs. There are some things that they can't get through their legislature that maybe we would like to have done, but it is because the barracks are not theirs yet.

Senator YOUNG. Has the drug problem improved any?

General ABRAMS. Yes, sir, it has. I think they have a good program. It is a comprehensive program, and I think they are making progress. It is still a severe problem but the entire command is focused on it. Commanders and the chain of command are in it every day. I think that, as a problem, it has decreased in magnitude, certainly over the last 10 months in Europe. It is not finished, but they are making progress. They have a sound program.

Senator YOUNG. Off the record.

[Discussion off the record.]

BIOGRAPHICAL SKETCH, STATEMENT AND QUESTIONS AND ANSWERS

Senator YOUNG. As I previously stated, the prepared statement of General Abrams and his biographical sketch will appear in the record at this point together with the questions and answers that the Chairman and I have prepared.

[The information follows:]

BIOGRAPHY OF GENERAL CREIGHTON W. ABRAMS, CHIEF OF STAFF, U.S. ARMY

Creighton Williams Abrams was born in Springfield, Massachusetts, September 15, 1914. He graduated from Agawam High School, Agawam, Massachusetts, in 1932, from the US Military Academy in 1936, and was commissioned a Second Lieutenant in the US Cavalry.

General Abrams' first four years in the Army were spent as a troop officer in the 1st Cavalry Division. In 1940 he joined the 1st Armored Division, and in 1941 joined the newly-formed 4th Armored Division. As a member of the 4th Armored Division from its activation in 1941 until V-E Day in 1945, General Abrams took part as a battalion or combat command commander in every campaign the Division fought.

Following V-E Day, General Abrams was assigned to the War Department General Staff. Assignments at the Armored School and attendance at the Command and General Staff College followed, and in 1949 he assumed command of the 63d Tank Battalion of the 1st Infantry Division and later the 2d Armored Cavalry Regiment.

After graduating from the Army War College, he was assigned to Korea, where he served in several key staff positions. Returning to the States in 1955, he served as Chief of Staff of the Armored Center at Fort Knox.

In 1956 General Abrams was promoted to Brigadier General and assigned to the Department of the Army General Staff as the Deputy Assistant Chief of Staff for Reserve Components.

General Abrams returned to Europe in 1959 as Assistant Division Commander of the 3d Armored Division. In June 1960 he was promoted to Major General and assumed command of the 3d Armored Division in October 1960. Returning to Washington in May 1962, he became the Assistant Deputy Chief of Staff for Military Operations for Civil Affairs. After filling several important Staff positions in Washington, he became Commanding General of V Corps in Germany 15 July 1963 and was promoted to Lieutenant General 1 August 1963.

General Abrams was promoted to the rank of General 4 September 1964 and on the same date was sworn in as Vice Chief of Staff, US Army. General Abrams became the Deputy Commander, US Military Assistance Command, Vietnam 6 April 1967 and assumed command of the Assistance Command in July 1968. On 12 October 1972 General Abrams became the twenty-sixth Chief of Staff of the United States Army.

General Abrams has been awarded the Distinguished Service Cross with Oak Leaf Cluster, the Defense Distinguished Service Medal, the Distinguished Service Medal with three Oak Leaf Clusters, the Silver Star Medal with Oak Leaf Cluster, the Bronze Star Medal with Valor Device, and numerous other U.S. and foreign decorations.

Statement of General Abrams

Mr. Chairman and Members of the Committee: I thank you for the opportunity to present a statement to the Committee. From the outset, let me assure you that I believe our interests run parallel: The Nation and its well-being must be kept foremost, and must not be hazarded by purely parochial concerns. To that end, I intend to be as plain-spoken and as direct as possible, so that we can see the issues clearly, in order that you may make reasoned judgments in the difficult decisions before you. I cannot emphasize too strongly that I view our proceedings here as a means of executing our shared responsibility for the Nation's security and defense.

This is my second appearance before this Committee as Chief of Staff of the Army. Over the last year I have gained a clearer understanding of your concerns and the need for us to respond to them clearly and thoroughly.

We have all seen the world change, and change with an intensity and rapidity that an earlier generation might not have believed. This change has brought us challenges and opportunities. As a nation, we must grasp these challenges and seize these opportunities.

Many of these challenges and opportunities are linked to international situations and events, so let me say just a few words about how they are related to the Army.

International Environment

It isn't easy to explain how the international environment affects the Army, because that environment itself isn't easy to understand. At least I find it very, very complex. But there can be no doubt that the world situation, and our Nation's place in it, complicates our efforts to provide for the country's security. There are two sides to the picture—and both pose problems for the Army. First is the real, or actual, situation; second is the perceived environment.

Perhaps there are more dangers in the perceived world than in the real one. Detente may last—but on the other hand it can fade overnight. It can easily lull us into a false sense of security. American strength made detente attainable, and it is hard to see it continuing unless we maintain that strength.

The Threat

No one needs to emphasize to this Committee the nature of the threat we face. You have heard witnesses before me give a clear and sobering assessment of Soviet capabilities, and you are aware that it is a global threat which is more

than just tanks and ships or planes and missiles—though our relative strength in such an accounting gives little cause for satisfaction. It includes the momentum of growing military capabilities on the other side contrasted to declining military strength on ours.

Chairman McClellan. You mention the "momentum of growing military capabilities of the other side contrasted to declining military strength on ours." Would you tell us specifically if and where the military strength of the Army will be declining?

General Abrams. Mr. Chairman, I sincerely hope that the decline has stopped and that we can now begin to improve the military capability of the Army. The statement to which you refer is based on the trend of recent years, that is our military strength declining with the end of our involvement in Vietnam, while that of the Soviet Union was increasing. We are requesting an end strength of 785,000 men and I feel that this is a modest and reasonable level. It is my goal to attain the maximum amount of combat capability possible out of this size Army. We are working on this right now. As Secretary Schlesinger indicated in his testimony before the House Armed Services Committee in February, we feel that we'll be able to attain a 14 division Army force within this end strength by the end of FY 75. This increased combat capability is being attained by reducing the sizes of headquarters, eliminating units that are not absolutely essential and using these space savings to build up our combat forces. If we are able to continue in this direction I am confident that we will be able to attain a lean, austere, but viable Army. I think this is what both the Congress and the Nation would like to see.

[Prepared statement resumes.]

It includes the will to use power, which both sides have displayed in the past, but which some statesmen around the world now call into question—they wonder whether America will honor her commitments in the future. And it includes the subtle array of economic, political, social, and psychological pressures which the closed societies opposing us can concentrate so powerfully. Oil, for instance, may be only the first of many vital resources used as strategic weapons against us. The threat is multi-dimensional—and very real.

The Role of the Army

In this international arena, what is the role of the Army? Put another way, what ends does the United States wish to achieve with its Army. In very broad terms, it seems to me, the Army exists to serve just two ends. First, is the Defense of our Land. That is an irreducible imperative. Second is the preservation of freedom of action, which might be defined as immunity from coercion.

Ironically, "Defense of our Land," this clear-cut, unambiguous vital interest, has rarely been directly threatened. Instead, the conflicts in which the United States has been involved have begun, for the most part, as threats against our freedom of action. As you well know, debates raged from 1914 until our entry into World War I, from 1939 to Pearl Harbor, from 1950 to 1953, and from the Gulf of Tonkin Resolution in 1964 to the mining of Haiphong Harbor in 1972. The underlying question was not national survival, but whether or not American freedom of action was seriously enough threatened to warrant the use of military force.

Over the years we have emphasized our warfighting ability, which, when all is said and done, is our primary purpose for being. But we also have the peacetime mission of supporting national goals and implementing national policy. For instance, in today's world two of the more pressing aims of national strategy are to deter war and to preserve our freedom of action. Both, by definition, are peacetime roles. Putting the warfighting and peacekeeping missions together, the Army sees itself with three distinct yet related functions: the prevention, control, and termination of conflict.

In the first we seek to keep the peace without the direct use of military force. This function is based on the principles of deterring our enemies and assuring our friends. Deterrence is the perception that a potential adversary derives from the sum of many things—strategic arms, theater and tactical nuclear systems, conventional forces, economic power, statesmanship, and national will. Assurance is a complementary dimension of deterrence. It is aimed at convincing our allies that we remain a strong dependable friend.

In the event we are unable to prevent the outbreak of a war, we must have the capability to control it, that is, to limit its size, area, and intensity in order to bring it to a negotiated settlement. Our ability to maintain a military balance

in the Middle East last October through our resupply effort to Israel is a good case in point.

Finally, if we are unable to control the conflict we must help apply sufficient force to end it under conditions advantageous to the United States.

Force Structure

In this year's Army budget we are asking for 785,000 military men and women in a structure of 13⅓ active divisions and their supporting echelons. By economies elsewhere, mostly in administrative adjustments and headquarters reductions, we think we can squeeze that number of divisions out of the end strength we are requesting.

Chairman McClellan. You indicate that by making economies in administrative adjustments and headquarters reductions, you can increase the number of Army divisions to 13⅓ in FY 75. Why has the Army not been able to achieve these kinds of economies in the past in order to provide increased combat capabilities, especially since headquarters staffing has been seriously questioned for a number of years?

General Abrams. We have, but our goal of increasing the Army's combat power in a period of dwindling resources can only be realized by the application of savings in other areas. Unfortunately, in most cases savings realized by improvements in efficiency were incorporated in overall directed Army end-strength reductions, precluding reprograming the assets to improve combat effectiveness. For example, savings associated with the CONUS Reorganization—1973 were lost to directed Army end-strength reductions. With regard to headquarters, we have made significant reductions in these activities.The FY 1975 Budget now being considered by the Congress reflects a programed end-strength of 28,720 spaces for headquarters, including their staff support activities.

Relating this number to a comparable figure in FY 69, when headquarters staffing peaked at about 47,500 people, we have reduced headquarters strength by almost 19,000 military and civilian personnel. On-going actions will eliminate six headquarters and another 3,600 spaces from the budgeted level by end FY 75. In sum, this represents a 48% reduction in headquarters activities since FY 69. Again, the bulk of reductions reported in the FY 75 Budget and previous budgets has been lost to directed end-strength reductions. On the positive side, we were able to add additional combat units and improve our overall combat power in Europe by using spaces saved in a realignment and reduction of headquarters and support elements in US Army, Europe. We added two new tank battalions, two new attack helicopter companies, one Chaparral/Vulcan air defense battalion and an airborne battalion combat team. And as I stated earlier, we plan to reprogram the 3,600 headquarters spaces to be eliminated from the FY 75 budget level to further improve our combat capability. Improved readiness is, and will continue to be, a primary objective of the Army. We will continue to search for ways to reduce our support forces even further in order to build up our combat divisions.

[Prepared statement resumes.]

The supporting echelons are comprised of combat elements, such as separate brigades, cavalry regiments, engineer units, and corps artillery, as well as logistical organizations. However, that structure is not enough. To execute our strategy with a negligible risk of failure we need more. It would be wrong for me to sit here and say we must have some set number of divisions or so many men or any given amount of equipment. I can tell you how much we need to assure a high probability of accomplishing our national strategy without using nuclear weapons—which would be on the order of 30 divisions—and I can also point out a level below which we would have no better than a marginal chance of succeeding.

Requirement for 30 Divisions

Chairman McClellan. You indicate that about 30 divisions would be required to assure a high probability of accomplishing our national strategy without using nuclear weapons. What is the basis for that estimate? How does an Army planner determine the number of divisions required to accomplish a particular mission?

General Abrams. The 30 Army division requirement to control the initial phases of a conventional global war with the Soviet Union and the Warsaw Pact and simultaneously protect American interests elsewhere has been developed in consideration of the threat posed by the capabilities and deployments of a total of [deleted] Soviet and non-Soviet Warsaw Pact divisions. [Deleted.] It assumes that

the People's Republic of China would be neutral but noncooperative. More forces would be required if the war were to be prolonged, the PRC were to initiate hostilities in Asia or the Soviet Union were to expand the war and open a major theater of operations in an area other than Central Europe.

To determine the number of divisions required to accomplish a particular mission, an Army planner draws on many sources. He requests estimates of the number of divisions required from field commanders and study agencies. After receiving these estimates, which include automated war-gaming analysis, he integrates them with the contributions of the Navy, Air Force and Marine Corps and determines the number of Army divisions required in the total force to accomplish the mission.

[Prepared statement resumes.]

The end strength we have asked for—13⅓ active divisions and 8 Reserve Component divisions—permits us to field a force which gives us that chance and allows us to sustain it, but will leave virtually no room for error. In the years ahead, it is my hope to gradually build up the number of combat divisions as we trim down in other areas.

Goal of 16 Army Divisions

Chairman McClellan. You indicated that in the years ahead it is your hope to gradually build up the number of combat divisions as the Army trims down in other areas. How many divisions would you like to build up to, assuming that international conditions remain about the same during the time of the buildup? Why do you feel these additional divisions are necessary?

General Abrams. We would like to build up to a force of 16 Active and 8 Reserve Component divisions, an increase of two and two-thirds Active divisions.

The additional divisions would provide a force that would give us a reasonable probability of success in the early stages of a conventional war with the Soviet Union and the Warsaw Pact in Central Europe while simultaneously protecting American interests elsewhere. If the war were prolonged or the Soviet Union opened a major theater of operations in an area other than Central Europe, more forces would be required.

[Prepared statement resumes.]

In that regard, there was much debate last year on what is popularly known as the teeth-to-tail ratio, that is, the ratio of combat to support forces. First of all, we should not confuse "fat" with "tail." To equate a support structure with "fat" is misleading. "Fat," as I see it, smacks of inefficiency or unnecessary redundancy. It can appear at any level—combat elements themselves are not immune from it. The real issue is how much support does a combat force need? Everyone agrees it needs some—the man with a rifle must be fed and clothed and paid and kept healthy and transported and so on. But we find disagreement when we ask just how much is enough. The answer is influenced by scores of factors, and has never been answered to the complete satisfaction of anyone. However, we must try. My job is to produce an efficient Army. I sincerely applaud efforts to ferret out unnecessary functions or redundant staffing, and I assure you the process is far from finished.

Ratio of Combat to Support Forces

Chairman McClellan. What was the ratio of combat to support forces (teeth-to-tail) as of end FY 73 and projected for FY 75 and FY 76?

General Abrams. The Army-wide combat to support distribution or ratio of combat to support forces for FY 73 through FY 76 is displayed below.

[In percent]

	Fiscal year—			
	1973	1974	1975	1976
Combat	43	45	47	[Deleted]
Support	57	55	53	[Deleted]

[Prepared statement resumes.]

To get a handle on the teeth-to-tail problem it helps me to take a fundamental look at how the Army is put together. It has three interrelated parts. First are those forces, both combat and support, which are earmarked to implement the

Army's assigned missions. We have some disputes on the composition of this part although our terms of reference or understanding are relatively straightforward; it relates specific forces to specific tasks.

Relationship of Division Structure to Specific Tasks

Chairman McClellan. You indicate that forces earmarked to implement the Army's assigned missions are based on terms of reference that relate specific forces to specific tasks. Could you describe the relationship of the Army's present division structure to the specific tasks they perform? What specific tasks will the additional divisions you want to create relate to? Are they projected future tasks, or tasks that need to be met right now?

General Abrams. The 13⅓ Active and 8 Reserve Component Army divisions are structured primarily to meet the early stages of a war in Central Europe. Such a war would require a heavy preponderance of armored and mechanized divisions. The Army's active force, which includes 4 armored and 4 mechanized divisions, is structured accordingly. Fiscal constraints, the requirement to deploy forces rapidly from CONUS, and the location of other potential contingencies dictate that the Army's structure include light divisions (infantry, airborne, and airmobile).

The additional divisions are necessary to provide a reasonable probability of success in the early stages of a conventional war with the Soviet Union and the Warsaw Pact in Central Europe while simultaneously protecting American interests elsewhere. These additional divisions will be infantry for the reasons previously discussed. Ideally, forces earmarked for Europe should be either armored or mechanized. However, an infantry division is a very effective substitute.

These additional divisions are needed right now to increase the force structure to 16 Active and 8 Reserve Component divisions, the minimum number to provide a reasonable probability of success. Fiscal constraints preclude achieving this level immediately although [deleted].

[Prepared statement resumes.]

If we were to be ordered to carry out our various missions right now, at once and be done with it, most of our teeth-to-tail debates would be eliminated. But, though we must always have a warfighting capability, our primary role is deterrence. Which means we have to support the fighting army in peacetime while it is standing ready to fight. And that requires a second part which is needed to sustain the first one. An army devoted to deterring war rather than fighting one imposes additional supporting requirements. Family housing and dependent medical care, for example. An army on campaign has no need for family facilities, but one engaged in a deterrent role maintained over a period of years obviously does. Similarly, we must keep the industrial base warm so it can shift quickly in event of mobilization. Without a sustaining capability the fighting army would rapidly wither. Yet the sustaining army is all tail. The third part of the Army is not too often thought of, but it is a most important part. Regardless of whether today's Military Establishment is at war or standing ready for war, we cannot fail in our responsibility to pass on to the next generation of Americans a professional and able Army. Therefore, we must continue to attract good people who will develop into the leaders of the future; we must continue to operate our educational system; and we must continue to invest resources into research and development activities. And we must continue to do these things even though they will have no immediate pay-off if we are called upon to fight today. This future-oriented part of the Army is also all tail.

Summing all of that up, we need forces ready to do whatever has to be done, other forces to sustain them while they are waiting to do it, and still others devoted to preparing for the future. In terms of teeth and tail, the only place you will find teeth is in a portion of the first part, the fighting army. But we would have a poor excuse for an Army if it weren't for the other two parts. We must always strive to become more effective by removing "fat," but that is not the same as saying the Army can be made better merely by cutting its non-combat elements. The fact is, ill-considered cuts in the support forces are paid for with the lives of fighting men during the early stages of a conflict.

Structure Springs From Stategy

Structure springs directly from strategy. National strategy calls for major ground combat forces to be deployed in Europe and Asia. Accordingly, we have 4⅓ divisions based in Europe and one in Korea.

Chairman McCLELLAN. You state that "structure springs directly from strategy", and that since national strategy calls for ground combat forces deployed in Europe and Asia, you have 4⅓ divisions in Europe and one in Korea. Why is this number of divisions deployed in each area? Would not 3⅓ divisions fulfill the national strategy for major ground combat forces in Europe? Why wouldn't a brigade be sufficient in Korea?

General ABRAMS. The number of forward deployed divisions in Europe is a function of the total number of divisions necessary to provide a reasonable probability of success in the early stages of a conventional war with the Soviet Union and Warsaw Pact, actual dates these forces are required in Europe, and the strategic mobility assets available to move these forces to Europe. [Deleted.]

Any change in the above parameters could result in a decrease in the number of deployed divisions. The logical vehicle for such a decrease would be the mutual and balanced force reductions. To retain this option it is important that the US not make force reductions in Europe unilaterally.

The forward deployed division in Korea provides a visible military force in the Pacific to deter aggression, initial US assistance to Asian allies in collective defense, and flexibility to the NCA to respond promptly to Asian contingencies. It is felt that one forward deployed Army division is the minimum necessary in the context of the overall security situation on the Peninsula and in Asia.

[Prepared statement resumes.]

Except for Special Mission forces—like the brigades in Berlin, Alaska and Panama—all other elements in our structure must stand ready to be deployed to reinforce in either of those theaters or to uphold United States interests in some other part of the world. Those forces are packaged for deployment according to the threat and with an eye to what they may be expected to do upon commitment. War on a global scale will require mobilization.

RATIO OF COMBAT TO SUPPORT FORCES IN EUROPE AND KOREA

Chairman McCLELLAN. Provide the ratio of combat to support forces in Europe and Korea for fiscal years 73, 74 and 75. Compare with same ratio for our CONUS based forces.

General ABRAMS. I will supply that for the record.

[The information follows:]

COMBAT PERCENTAGES BY LOCATION AND FISCAL YEARS

[In percent]

	Fiscal year—		
	1973	1974	1975
Europe	55	55	[1] 56
Korea	54	54	55
Conus	37	39	42

[1] Based upon authorized strength of all Army units in Europe; USAREUR percentages are 5 percent higher than figure shown, because certain communications, intelligence and other support activities are not under control of USAREUR and are excluded from computations.

[Prepared statement resumes.]

However, lesser demands can be met from our flexible structure by choosing from a wide range of packages—for example, a corps tailored for the specific area of deployment, single divisions, separate brigades, or special detachments designed to accomplish some highly specialized task. In developing our force structure, we are also looking at a wide variety of organizations to increase the flexibility and usability of our forces. Ranger-type battalions are one example. We want to have a structure varied enough and large enough to give the Nation the widest range of options to choose from.

ACTIVATION OF RANGER BATTALIONS

Chairman McCLELLAN. Do we have any ranger-type battalions in the Active Army? Do FY 1975 and/or future year plans include the activation of ranger-type units?

General ABRAMS. Yes. There is presently one battalion, 1st Battalion (Ranger), 75th Infantry, which was activated in January 1974 at Fort Stewart, Georgia.

Two additional battalions are planned for activation in FY 1975.

[Prepared statement resumes.]

Within the limitations of strength under which we operate, a very careful balance must be kept between combat and supporting forces. We must have fighting forces able to do the job if they are employed, and supporting forces able to keep them fighting. Without either part the force would not be completely usable—and could be deployed only with appreciable risk. Moreover, not every commitment of U.S. forces is a commitment of combat troops. Some of our more notable successes have resulted from the dispatch of units with no combat potential at all. Under certain circumstances, a field hospital, a mobile training team, or a military assistance advisory group can further national policies more effectively than a combat division. These are only some examples of the ways the Army's structure is designed to implement our peacekeeping missions as well as to handle our warfighting role.

Emergency Assistance to Other Nations

Chairman McClellan. Field hospitals and similar type units have been sent to assist other nations where catastrophes such as earthquakes and floods have occurred. Will you please provide a brief summary for the record of Army responses to such occurrences in the past several years?

General Abrams. Since September of 1971, the Army has provided emergency assistance to other nations on six occasions. This assistance was provided at the request of the United States Agency for International Development (AID) of the Department of State. AID reimburses the Army and the Department of Defense for incremental costs incurred during foreign disaster relief operations. The Army assistance (only a portion of the entire DOD assistance rendered) was provided during the flooding in Pakistan in 1971; the Philippine Islands flooding, Fiji Island hurricane, and Nicaraguan earthquake of 1972; and the Costa Rican earthquake and Pakistan floods of 1973. The assistance given ranged from a 100 bed evacuation hospital with medical staff to special disaster assistance teams, trucks, helicopters, communications equipment, and boats. Emergency innoculations, search and rescue and transportation of relief supplies to isolated locations were typical missions performed by the US Army during the disaster relief operations. The Army has also signed support agreements with AID whereby we provide warehousing services and facilities in the Panama Canal Zone and at Camp Darby, Italy for AID owned emergency disaster relief supplies.

[Prepared statement resumes.]

The divisions in the United States must complement those based in foreign lands, and must be available and deployable to meet foreseeable requirements. We consider the total force structure, both Active and Reserve Components, in developing requirements for initial reinforcement and for mobilization. Obviously, we rely heavily on Reserve Component forces. We can make no plans to fight in a major conflict without considering their early mobilization and commitment. Generally, if forward deployed forces were to be reduced, our strength in the United States would have to be increased and we would also need improvements in our strategic mobility capability. If events—the Mutual Balanced Force Reductions talks, for instance—should lead to a reduction of our European forces, we would then require a much greater amount of strategic lift.

The Army's Posture

When viewed in the broadest light, all the Army's missions and responsibilities can be boiled down to just three basic tasks—two pertaining to the present and one pointing to the future. The first is to accomplish specific and usually localize assignments. Guarding the Panama Canal and garrisoning Berlin are examples. Secondly, we must be prepared at all times to deal immediately with whatever emergencies might arise. Those emergencies could be anything from an all-out war in Europe to helping control a flood somewhere in the United States. Third, we must take positive steps to propagate a dependable Army, to preserve for our descendants an able and reliable military establishment. Just as our professional land force of today is the result of the foresight of our predecessors, so must we in our own turn prepare for the future. Our training and education system is a basic tool for accomplishing this, as are Research and Development activities. The Army's every action is predicated on doing some of those three tasks—to handle our specific missions, to prepare for whatever crisis might come our way, and to build for the future.

But, to be more specific, what sort of military strategy ought we to have to support current United States national policy? What should be our posture to meet the requirements of defending the country and safeguarding our freedom of action?

The Challenge of Soviet Air and Sea Lift

In one sentence, we must have the capability of outmaneuvering potential enemies when and where it is in our national interest to do so. We must never allow our adversaries to have what they might see as a low-risk option, a chance to increase their relative advantage with negligible risks or costs to themselves. The Soviet Union remains our primary global competitor. Not only do the Russions have sizeable conventional forces in-being, but they have also achieved approximate nuclear parity with us. Moscow has clearly demonstrated the intention and the capability to challenge the United States militarily in areas where we have major interests but little apparent force. Soviet air and sea lift into the Middle East last fall is an example.

Chairman McClellan. You cited Soviet air and sea lift into the Middle East last fall as an example where the US was being challenged by the Soviet Union "in areas where we have major interest but little apparent force." Could you explain this statement, in view of the significant amount of US equipment and airlift sent to the Middle East during a very short period of time?

General Abrams. Mr. Chairman, as you know the United States does not have combat units forward deployed in the Middle East. As such, the Soviet military challenge was staged in an area with no US combat forces and therefore little apparent US force. I will certainly agree that we sent a significant amount of US equipment and airlift in a very short period of time. Furthermore, this deployment potential is a very important element in our strategy of Realistic Deterrence. While we do not envisage forward deployed units in the Middle East, we must be prepared to move responsively and decisively to counter challenges whenever and wherever they might arise.

[Prepared statement resumes.]

Forward Deployments

I recognize that keeping troops overseas is a controversial policy. However, I am convinced that our forward deployed forces deter aggression on the part of adversaries; that they contribute the immediate strength necessary to control conflicts which might erupt; and that they provide assurance to our allies. In this era of nuclear balance, deployed and immediately usable conventional forces assume a much increased weight in the equation of deterrence and assurance. Especially land forces. Troops on the ground are the most believable expression of a nation's intent. In their very presence they deter war by giving would-be aggressors pause and they assure by giving concerned allies confidence. And, having immediately usable force at the lower end of the spectrum of violence, ground forces can respond to minor episodes without escalating the affair to major crisis level. This is an important aspect of deterring war. Moreover, with their limited offensive reach and relatively short-range weapons, they do not pose a strategic threat to a potential adversary's homeland. At the same time, these forward deployed forces contribute to the solidarity of regional alliances and provide leverage in negotiations with friends as well as foes.

Strategic Reserve Forces

The strategic reserve, consisting of both Active and Reserve Component forces, must be prepared to move responsively and decisively, within the limitations of the War Powers Act, to counter challenges wherever they might arise. This base in the United States is the heart of the American Army. Unless it is strong, ready, and capable of being projected, our entire strategy is endangered. Our establishment here at home also provides the rotational and training base for our forward deployed elements. Without a proper balance between the two, it would be exceedingly difficult to sustain the forces overseas.

Chairman McClellan. Please provide for the record the numbers, strengths, types, and geographical deployment of Army Reserve Component forces which were activated during the Southeast Asia conflict.

General Abrams. I will supply the material for the record.

[The information follows:]

RECAPITULATION

Reserve components	Number of units	Total strength of units	Individuals from individual ready reserve	Total component strength
USAR	42	5,181	2,459	7,640
ARNG	34	12,234		12,234
Grand total	76	17,415	2,459	19,874

UNIT	CALLUP STRENGTH	CALLUP DATE	RELEASE DATE	DATES OF U.S. DUTY	DATES OF OVERSEA DUTY	RELEASED FROM ACTIVE DUTY AT HOME STATION
650th Medical Det (DS), ARNG, AL	32	May 68	Jul 69	May-Aug 68	Aug 68-Jul 69	Birmingham, AL
231st Trans Co (Med Boat), USAR	196	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	St Petersburg, FL
978th Army Postal Unit, USAR	14	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	Ft Smith, AR
116th Engr Bn (Cbt), ARNG, ID	815	May 68	Sep 69	May-Sep 68	Sep 68-Aug 69	Idaho Falls, ID
950th Army Postal Unit, USAR	7	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	Lexington, KY
630th Trans Co (Med Trk, Cargo), USAR	159	May 68	Aug 69	May-Nov 68	Nov 68-Aug 69	Washington, PA
305th Med Det (Orthopedic), USAR	5	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	Philadelphia, PA
737th Trans Co (Med Trk, Petrl), USAR	146	May 68	Aug 69	May-Nov 68	Nov 68-Aug 69	Yakima, WA
126th Sup & Svc Co (DS), ARNG, IL	185	May 68	Aug 69	May-Oct 68	Oct 68-Aug 69	Quincy, IL
316th Med Det (Blood Dist), USAR	4	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	New York, NY
378th Med Det (Neurosurg), USAR	6	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	Memphis, TN

UNIT	CALLUP STRENGTH	CALLUP DATE	RELEASE DATE	DATES OF U.S. DUTY	DATES OF OVERSEA DUTY	RELEASED FROM ACTIVE DUTY AT HOME STATION
3d Bn, 197th Arty (155 How Twd), ARNG, NH	506	May 68	Sep 69	May-Sep 68	Sep 68-Sep 69	Portsmouth, NH
131st Engr Co (Lt Equip), ARNG, VT	179	May 68	Sep 69	May-Sep 68	Sep 68-Sep 69	Burlington, VT
1011th Sup & Svc Co (DS), USAR	213	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	Independence, KS
312th Med Evac Hosp (Semi-mbl), USAR	227	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	Winston Salem, NC
472d Med Det (Amb) USAR	15	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	Rockville, MD
482d Med Det (Equip Maint), USAR	12	May 68	Sep 69	May-Sep 68	Sep 68-Sep 69	Aurora, IL
319th Trans Co (Lt Trk), USAR	147	May 68	Aug 69	May-Oct 68	Oct 68-Aug 69	Augusta, GA
HHC, 336th Ord Bn (Ammo DS), USAR	89	May 68	Aug 69	May-Oct 68	Oct 68-Aug 69	Little Rock, AR
452d Gen Sup Co (GS), USAR	212	May 68	Aug 69	May-Oct 68	Oct 68-Aug 69	Worthington, MN
HHC, 259th QM Bn (Petrl), USAR	77	May 68	Sep 69	May-Sep 68	Sep 68-Sep 69	Pleasant Grove, VT
173d QM Co (Petrl), USAR	162	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	Greenwood, MS

UNIT	CALLUP STRENGTH	CALLUP DATE	RELEASE DATE	DATES OF U.S. DUTY	DATES OF OVERSEA DUTY	RELEASED FROM ACTIVE DUTY AT HOME STATION
313th Med Det (Surg), USAR	4	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	Richmond, VA
889th Med Det (Surg), USAR	7	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	Richmond, VA
172d Trans Co (Med Trk, Cargo), USAR	164	May 68	Oct 69	May-Oct 68	Oct 68-Sep 69	Omaha, NB
74th Med Hosp (Fld), USAR	57	May 68	Aug 69	May-Oct 68	Oct 68-Aug 69	New York, NY
311th Med Hosp (Fld) USAR	144	May 68	Aug 69	May-Sep 68	Sep 68-Aug 69	Sharonville, OH
357th Trans Co (Acft Maint) (DS), USAR	191	May 68	Oct 69	May-Oct 68	Oct 68-Sep 69	Greencastle, PA
842d QM Co (Petrl, Sup Fwd), USAR	182	May 68	Oct 69	May-Oct 68	Oct 68-Sep 69	Kansas City, KS
826th Ord Co (Ammo, DS/GS), USAR	239	May 68	Oct 69	May-Oct 68	Oct 68-Oct 69	Madison, WI
HHC, 513th Maint Bn (Spt), USAR	249	May 68	Oct 69	May-Oct 68	Oct 68-Oct 69	Boston, MA
1002d Sup & Svc Co (DS), USAR	291	May 68	Oct 69	May-Oct 68	Oct 68-Oct 69	Cleveland, OH

UNIT	CALLUP STRENGTH	CALLUP DATE	RELEASE DATE	DATES OF U.S. DUTY	DATES OF OVERSEA DUTY	RELEASED FROM ACTIVE DUTY AT HOME STATION
424th Pers Svc Co (Type B) USAR	98	May 68	Oct 69	May-Oct 68	Oct 68-Oct 69	Livonia, MI
295th Ord Co (Ammo, DS/GS), USAR	228	May 68	Oct 69	May-Oct 68	Oct 68-Oct 69	Hastings, NB
107th Sig Co (Spt), ARNG, RI	260	May 68	Oct 69	May-Oct 68	Oct 68-Oct 69	E. Greenwich, RI
237th Maint Co (Div Spt), USAR	122	May 68	Oct 69	May-Oct 68	Oct 68-Oct 69	Ft Hamilton, NY
238th Maint Co (Div Spt) USAR	108	May 68	Sep 69	May-Oct 68	Oct 68-Sep 69	San Antonio, TX
413th Fin Det (Actg), USAR	33	May 68	Oct 69	May-Oct 68	Oct 68-Oct 69	Atlanta, GA
2d Bn, 138th Arty (155 How SP), ARNG, KY	545	May 68	Oct 69	May-Oct 68	Oct 68-Oct 69	Louisville, KY
1018th Sup & Svc Co (DS), USAR	187	May 68	Oct 69	May-Oct 68	Oct 68-Oct 69	Schenectady, NY
448th Army Postal Unit, USAR	17	May 68	Oct 69	May-Oct 68	Oct 68-Oct 69	Hempstead, NY
377th Maint Co (Lt), USAR	124	May 68	Nov 69	May-Nov 68	Nov 68-Nov 69	Manitowoc, WI
Co D, 151st Inf (LRP), ARNG, IN	207	May 68	Nov 69	May-Dec 68	Dec 68-Nov 69	Greenfield, IN

UNIT	CALLUP STRENGTH	CALLUP DATE	RELEASE DATE	DATES OF U.S. DUTY	DATES OF OVERSEA DUTY	RELEASED FROM ACTIVE DUTY AT HOME STATION
HHC, 29th Inf Bde, ARNG, HI	188	May 68	Dec 69	May 68-Dec 69	None	Honolulu, HI
1st Bn, 299th Inf ARNG, HI	663	May 68	Dec 69	May 68-Dec 69	None	Wailuku, HI
2d Bn, 299th Inf ARNG, HI	693	May 68	Dec 69	May 68-Dec 69	None	Hilo, HI
100th Bn, 442d Inf USAR	517	May 68	Dec 69	May 68-Dec 69	None	Ft Derussy, HI
1st Bn, 487th Arty (105 How Twd), ARNG, HI	440	May 68	Dec 69	May 68-Dec 69	None	Honolulu, HI
Trp E, 19th Cav, ARNG, HI	152	May 68	Dec 69	May 68-Dec 69	None	Wahiawa, HI
227th Engr Co, ARNG, HI	178	May 68	Dec 69	May 68-Dec 69	None	Honolulu, HI
29th Spt Bn, ARNG, HI	638	May 68	Dec 69	May 68-Dec 69	None	Honolulu, HI
40th Avn Co, ARNG, CA	112	May 68	Dec 69	May 68-Dec 69	None	Long Beach, CA
GS Plat, 29th Avn Co, ARNG, HI	26	May 68	Dec 69	May 68-Dec 69	None	Honolulu, HI
277th MI Det (Inf Bde), USAR	28	May 68	Dec 69	May 68-Dec 69	None	Phoenix, AZ

UNIT	CALLUP STRENGTH	CALLUP DATE	RELEASE DATE	DATES OF U.S. DUTY	DATES OF OVERSEA DUTY	RELEASED FROM ACTIVE DUTY AT HOME STATION
HHC, 69th Inf Bde ARNG, KS	218	May 68	Dec 69	May 68-Dec 69	None	Topeka, KS
2d Bn, 133d Inf (Mech), ARNG, IA	819	May 68	Dec 69	May 68-Dec 69	None	Sioux City, IA
1st Bn, 137th Inf ARNG, KS	793	May 68	Dec 69	May 68-Dec 69	None	Wichita, KS
2d Bn, 137th Inf ARNG, KS	773	May 68	Dec 69	May 68-Dec 69	None	Kansas City, KS
2d Bn, 130th Arty (105 How Twd), ARNG, KS	472	May 68	Dec 69	May 68-Dec 69	None	Hiawatha, KS
Trp E, 114th Cav ARNG, KS	174	May 68	Dec 69	May 68-Dec 69	None	McPherson, KS
169th Engr Co, ARNG, KS	203	May 68	Dec 69	May 68-Dec 69	None	Emporia, KS
169th Spt Bn ARNG, KS	677	May 68	Dec 69	May 68-Dec 69	None	Kansas City, KS
169th Avn Co, ARNG, KS	114	May 68	Dec 69	May 68-Dec 69	None	Kansas City, KS
241st MI Det (Inf Bde) USAR	29	May 68	Dec 69	May 68-Dec 69	None	Boston, MA
1st Sqdn, 18th Armd Cav Regt, ARNG, CA	855	May 68	Dec 69	May 68-Dec 69	None	Burbank, CA

UNIT	CALLUP STRENGTH	CALLUP DATE	RELEASE DATE	DATES OF U.S. DUTY	DATES OF OVERSEA DUTY	RELEASED FROM ACTIVE DUTY AT HOME STATION
1st Bn, 211th Arty (155 How Twd), ARNG, MA	537	May 68	Dec 69	May 68-Dec 69	None	New Bedford, MA
208th Engr Co (Panel Bridge), ARNG, MO	117	May 68	Dec 69	May 68-Dec 69	None	Festus, MO
113th Maint Co (Lt)(DS), ARNG, TX	124	May 68	Dec 69	May 68-Dec 69	None	Gatesville, TX
995th Maint Co (Div DS), ARNG, KS	165	May 68	Dec 69	May 68-Dec 69	None	Hays, KS
35th Mbl Surg Hosp ARNG, FL	86	May 68	Dec 69	May 68-Dec 69	None	Miami, FL
304th Med Det (Equip Maint), USAR	9	May 68	Dec 69	May 68-Dec 69	None	Richmond, VA
115th Mil Police Co, ARNG, RI	126	May 68	Dec 69	May 68-Dec 69	None	Pawtucket, RI
141st Trans Co (Lt Trk 5T) ARNG, NJ	162	May 68	Dec 69	May 68-Dec 69	None	Orange, NJ
203d Trans Co (Lt Trk 5T) USAR	123	May 68	Dec 69	May 68-Dec 69	None	Hempstead, NY
724th Trans Co (Mdm Trk Petrl), USAR	188	May 68	Dec 69	May 68-Dec 69	None	Forest Park, IL
890th Trans Co (Mdm Trk) USAR	151	May 68	Dec 69	May 68-Dec 69	None	Ft Wayne, IN

[Prepared statement resumes.]

General ABRAMS. One of my major concerns is to try to ensure that every appropriate unit in the United States is usable, that we can promptly send each one wherever it is needed and can expect it to be able to function effectively once it gets there. A second concern is to achieve the optimum balance between forces deployed overseas and those based in the United States. That permits us to meet our overseas requirements while maintaining deployment flexibility.

REDEPLOYMENT OF FORCES FROM EUROPE TO KOREA OR SOUTHEAST ASIA

Chairman MCCLELLAN. You say that balance between forces deployed overseas and those based in the US helps permit us to meet our overseas requirements while maintaining deployment flexibility. How long would it take to redeploy a unit from Europe to Korea or Southeast Asia? Would additional lift capability designed to decrease redeployment times permit a reduction in Army divisions stationed in the US?

General ABRAMS. [Deleted.] Additionally, the heavy divisions based in Europe are not well suited for employment to all regions of the world, i.e., Korea and Southeast Asia. CONUS based forces are considered satisfactory and better configured to meet any contingency involving Korea or Southeast Asia. However, if there were such a requirement, and the present strategic lift capability were used, a European based division (Mechanized Infantry) could be airlifted to Korea in approximately [deleted] days or to Southeast Asia in approximately [deleted] days. The same division could be sea lifted in approximately [deleted] days respectively. Additional lift capability would not permit a reduction in Army divisions stationed in US. The requirement to support a conflict in [deleted].

[Prepared statement resumes.]

In sum, the Army's essential strategic requirements are two: establish and support overseas deployments wherever prescribed by national policy; and maintain a base in the United States capable of responding to such emergencies as might arise. That is how the Army is postured in peacetime to help deter war and to assist in retaining our freedom of action. This is why we need the structure I have described earlier; it is why we need an Army of 13⅓ divisions.

PROGRAMS

Our various programs are derived directly from the requirements placed upon the Army. They are designed to achieve and maintain a structure of 13⅓ combat divisions postured so as to execute the national strategy. I will address only four today: Readiness; personnel management; logistic management; and modernization.

READINESS

Last year when I reported on the readiness condition of the Army's Active divisions, the situation was far from good. We were in the midst of rebuilding after the Vietnam War. But neither was the situation bleak; we were on the road to recovery. I stated that it was my intent to continue, and accelerate if possible, the improvement in our combat readiness. We are not yet where we would like to be, but considerable progress has been made during the past year.

In the Pacific area, the division in Hawaii has completed its reorganization following withdrawal from Vietnam, and is substantially ready. The division in Korea, augmented with Korean Army troops, is fully capable of executing its mission on the Korean Peninsula.

KATUSA PROGRAM

Chairman MCCLELLAN. Describe the augmentation of the US Army division in Korea by Korean Army troops.

General ABRAMS. The Korean Augmentation to US Army (KATUSA) program was initiated 1 July 1950, based on a verbal agreement between Syngman Rhee, the US Ambassador, and General MacArthur. In August 1950, General MacArthur ordered Korean Augmentation of Eighth US Army to meet replacement requirements in depleted American ground forces. KATUSA's have been part of our Army forces in the Republic of Korea (ROK) ever since.

Eighth US Army is currently authorized 7,240 KATUSA personnel of which 2,665 are allocated to the 2d Infantry Division. KATUSA's are also assigned to other tactical units (4th Missile Command, 38th Air Defense Brigade, helicopter units) based on skills and language capabilities. Within the Division, KATUSA's represent about 15–20% of the units authorized strength which is about optimum.

They serve in a wide range of jobs: weapons crewman (mortar, armor vehicle, artillery, recoilless rifle, machine gun); rifleman; driver; combat support and combat service support functions (e.g., engineer, signal, mechanic, medic).

KATUSA personnel are selected by the Republic of Korea Army (ROKA). They receive basic training and three weeks of language training and orientation on US customs before being assigned to US units. They are tough, motivated soldiers, well disciplined, and glad to serve in US units. They normally serve 33/34 months with our forces.

Problems that arise generally are due to language and cultural differences and the disparity in pay and materiel assets of US and ROK soldiers.

The KATUSA program has been of mutual benefit to the US and the ROK Government. KATUSA's provide a desired degree of continuity in our units manned by US soldiers on one year tours. They further serve as a tie between the US and ROK. Annual cost of the program is approximately $6.2 million. Cost of maintaining a comparable number of US soldiers in South Korea is about $53.2 million. Thus, the US gains augmented combat readiness at relatively small comparative cost and the ROK benefit by gaining well-trained specialists and skilled technicians.

The program is reviewed periodically to insure it continues as an effective means for augmenting US Army units in South Korea.

[Prepared statement resumes.]

Although the divisions in Europe are experiencing some personnel problems, they are capable of performing their assigned mission. We are working to correct their deficiencies before the summer is out.

Personnel Problems of Divisions in Europe

Chairman McClellan. You indicated that there are deficiencies in U.S. divisions in Europe primarily resulting from personnel problems, but that these divisions are still capable of performing their assigned mission. Would you describe the specific deficiencies to us? If a shooting war were to break out today in Europe, how would these divisions perform initially, and how long do you estimate it would take before they were able to fulfill their combat objectives?

General Abrams. The specific deficiencies in the European divisions result from a small shortage in operating strength, and in one division, a shortage of job qualified people. The problem is not serious and is temporary in nature. The percentage range of strength deficiency is no greater than 3% in any division and the shortage of qualified people is only 1% of authorized. These deficiencies should be corrected by the end of FY 74. If the Army were required to wage war in Europe today, the divisions would perform as effective, combat ready units and would immediately be able to fulfill assigned missions.

[Prepared statement resumes.]

Readiness of Conus Divisions

The divisions in the continental United States have shown significant improvement in recent months. All are fully or substantially ready except one, which has just completed a reorganization. We expect it to be ready in the near future, but that is contingent upon how quickly we can solve the personnel problems in Europe.

Chairman McClellan. Where is the division located in the CONUS that has recently completed a reorganization? How was it reorganized? When will this unit be combat ready?

General Abrams. The division is the 9th Infantry Division located at Fort Lewis, Washington. The division began reactivation in April 1972 as part of the rebuilding of the Army's active divisions after the Vietnam War. From that time, incremental activations/reorganizations were accomplished to bring it to a full division of three brigades and nine battalions. The last reorganization was completed in October 1973. It is planned that the unit will be combat ready by June 1974 provided there are no unforeseen asset diversions.

[Prepared statement resumes.]

Barring unforeseen events, we expect to enter Fiscal Year 1975 with the Army essentially combat ready. Obviously, there will be the normal ups and downs stemming from day to day problems and shifting priorities. When the last of the draftees leave this fall, for instance, we will experience a sudden dip in trained strength which will reduce our readiness status for a while. Our goal of a year ago has not changed: it is to have every division ready for prompt commitment to combat.

When we consider combat readiness, we are just as concerned with the Reserve Components as we are with the Active forces. Readiness there is also on the upswing, but, again, we are still far from satisfied.

Secretary Callaway has already described how the unprogramed support to Israel last fall adversely affected our overall readiness posture. I would only emphasize the importance of refurbishing our stocks as soon as we can. That war demonstrated once again the rapid rate at which equipment and munitions can be consumed during a high intensity conventional environment—which underscores the prudence of having them stockpiled beforehand.

Impact of the Energy Crisis on Readiness

Finally, the energy crisis has hampered our efforts to improve readiness. Both training and operations have been curtailed. The Army expects to feel the pinch of fuel shortages for some time to come. Maintaining readiness in the face of those shortages is a definite challenge for which we have no easy or simple answers. We must do our part to conserve energy, yet we must remain ready. We are working hard on this, as Secretary Callaway described. The many energy conservation programs which have been instituted during this past year are expected to become a way of life. Moreover, they will probably have to be expanded if we are to meet the needs of the Army in the future. In addition, new sources of energy and methods of energy conversion must be found and developed. Present funding levels limit the amount of initial research the Army will be able to do in this area, but we will certainly be vigorous in doing everything that we possibly can.

Energy Research Program

Chairman McClellan. How much is the Army requesting in FY 75 for research into finding new energy sources and methods of energy conversion? How does this compare with FY 73 and 74 funding in these areas? Since the Army is already participating with other governmental and civilian agencies in this research area, could you compare the Army's funding level with that being provided by these other groups in cooperative areas of research?

General Abrams. The Army is requesting $2.6 million in FY 75 for energy research in these two areas. In FY 1973 we spent $1.8 million in these areas, and in FY 74 are spending $2.1 million. The Army's participation with other governmental and civilian agencies in these two areas of Energy R&D is primarily a monitor and share information arrangement at the present time, with the exception of our work with Advanced Research Projects Agency (ARPA). In FY 74, ARPA funded 3 projects for $320 thousand in which our Corps of Engineers are either monitoring or conducting the project. One of these projects, a Total Energy/Total Utility Demonstration system is a five year program jointly funded by ARPA and Housing and Urban Development (HUD).

[Prepared statement resumes]

We are already participating with other governmental and civilian agencies in investigating the uses of solar energy, nuclear energy, and new internal combustion engines.

Chairman McClellan. Do you feel that this is an area where the Army should be involved, or should this type of research be principally funded by other governmental and civilian agencies?

General Abrams. Recent Department of Defense guidance to the services on participation in Energy R&D indicates that in the areas of alternative fuel systems and the development of advanced energy sources, the role of the services will primarily be to monitor the research of other governmental and civilian agencies. Army funding in these technology areas would be limited to research into applications which are unique to military requirements. The Army would also provide facilities for demonstration projects for other federal agencies.

[Prepared statement resumes.]

Personnel Management

In the Army, the management of human resources is our single most important function, for the Army *is* people. Unless we run our people programs well, the Army itself will not be well.

The past year—our first without a draft—saw improvements, and pointed out large problems. The Secretary has already covered our aims and efforts in the recruiting field; I wholeheartedly endorse everything he has said and can only add that he has the complete support and backing of the Army's uniformed leadership.

In our attempts to reduce turbulence, we have enjoyed some success—but not yet enough. We are able to keep a man at his post longer; there are fewer moves. Fortunately, we were greatly assisted by the fact that our end strength held relatively steady. We made strides in lowering the numbers of men who had to be assigned to duties for which they were not qualified, and we continued to eliminate or civilianize tasks which are not strictly military in nature. By July we will have converted some 10,000 positions from military to civilian occupants, and we will convert an additional 4,000 positions in FY 75. In like manner, women have moved into more and more jobs.

Utilization of Women

Chairman McClellan. The training of female personnel in the vast majority of non-combat related positions is impressive. Do you feel that these women are being used in the fields for which trained? What percentage of WAC personnel are not being used in the position for which trained? How have commanders and the troops accepted women in what were formerly male-type jobs?

General Abrams. Women in most instances are being used in the fields for which trained. To a degree they have the same mismatch problems that men experience. About 11% of the total operating strength of the Army is not properly assigned. The percent for WAC only is about 9%. There has been favorable acceptance of women by commanders and troops in what were formerly male-type jobs. The degree of acceptance varies from unit to unit and post to post, but there have been very few unfavorable exceptions.

[Prepared statement resumes.]

Now, more than ever before, the needs of the individual soldier must be considered. Commanders must be concerned, and must communicate their concern to the people serving under them. The old Army adage of "looking out for the welfare of your men" has taken on renewed importance. We are striving to move the Army forward under troop leadership which insists on proud and professional performance, and, at the same time, is sincerely and actively concerned with the morale and welfare of the men and women in our ranks.

Considering those things Congress can do, I can only express my deepest appreciation for the support we have already received. Comparable pay rates, a variety of incentive programs, a broad array of educational opportunities, and other positive factors have done much to help. But there is more yet to be done. Our budget seeks funds for several programs which will have a direct impact on morale, such as the expanded legal assistance program, housing for families and bachelors, better base facilities, and the modernization of old structures. Taking care of our people includes taking care of the places where they live and work.

Expanded Legal Assistance Program

Chairman McClellan. Explain the expanded legal assistance program.

General Abrams. In 1973, after experimental efforts commencing in 1970, Secretary of Defense Laird directed all of the Services to provide increased legal aid to low ranking enlisted members and their dependents who faced severe economic hardship and could not afford the costs of civil litigation. Secretary Laird's action was prompted in part by enactment of the Economic Opportunity Act of 1964, as amended in 1969 (see particularly 42 U.S.C. 2809(a)(3) (which tasked OEO with this mission, absent DOD performance, plus billing of DOD for costs). Prior to expansion, the legal assistance program was restricted largely to legal advice and counseling; appearance in civil courts by Judge Advocate lawyers was excluded. In coordination with appropriate bar associations and State authorities, and with varying degrees of authorized participation, Army JA lawyers may now appear before civil courts in six States on behalf of soldiers and dependents who face economic hardship. The program has received enthusiastic endorsement by commanders, soldiers and dependents because of its very positive morale impact and resulting enhancement of discipline.

Chairman McClellan. Will this not require additional lawyers?

General Abrams. The Army's program has added new responsibilities for Judge Advocates, but this has been accomplished using existing resources, with no increase of personnel or budgetary requirements. The work effort has been performed by active duty Judge Advocate lawyers with substantial and enthusiastic support from Reserve Judge Advocate lawyers.

Chairman McClellan. Is this not in conflict with the fact that retention of lawyers is relatively small?

General ABRAMS. To the contrary, the expanded Legal Assistance Program may favorably impact upon heretofore very poor lawyer retention. Job satisfaction is one key to retention. The ability to carry professional missions through to completion, as opposed to simply offering office counseling followed by referral to the civilian bar for effective action, while adding a substantial burden, has been a source of professional satisfaction for Army lawyers.

[Prepared statement resumes.]

With your support in these areas, and with good leaders who really care about the welfare of the troops, today's soldier can be the skilled, disciplined, and proud soldier we all want and our country needs.

GRADE GROWTH

We have been criticized for having too many chiefs and too few Indians, for allowing the average rank or grade to creep higher over the years. Some of the criticism about grade growth is deserved—and we are doing something about it. The fact is that the actual number of officers in senior grades is dropping. The Army has eliminated some 1,300 colonels since 1969, while lieutenant colonels have been reduced by nearly 4,800 during the same period. There has also been a significant reduction in the number of general officers, and the total will be even lower this year. And there has been the same sort of decline recorded in the senior enlisted ranks. Rapid reductions in end strengths have combined with legal restrictions to hamper the latitude we have had in achieving grade reductions, but the trend is definitely down.

REDUCTIONS IN FORCE

Planned and gradual strength changes eliminate many of the hectic adjustments such as we have had to make in the past. Congress' general recognition of this fact as reflected in the FY 74 budget was one of the major reasons why our personnel management programs operated so much better last year than they have in recent years. Unplanned and precipitous reductions cannot be accomplished without paying a price in terms of readiness, turmoil, and morale, not to mention excessive cost. In cutting the Army in half over the past few years, we had to let many good people go who had served well and who didn't want to leave. And, to meet our commitments, we had to assign others to jobs they didn't want and weren't trained for. The Army loses an immeasurable degree of credibility when we are forced to break promises to our soldiers—which in turn makes it harder to attract and retain the number of volunteers we need. During emergencies we make commitments to attract soldiers; we must honor them when the crisis is past.

HEADQUARTERS REDUCTIONS

Closely related to personnel management are our current efforts to cut our headquarters staffing to the bone. This is not a new program. Last year we reshaped the headquarters structure here in the United States. And, after studying requirements for command and control at echelons above division, we concluded that we could streamline the headquarters structure in overseas theaters. Accordingly, this year we plan to eliminate certain Army headquarters overseas. Here in Washington the Department of the Army Headquarters—including the Secretariat, the Army Staff, and its Staff Support Agencies—will eliminate in FY 74 718 spaces (9.8%) over and above the initial FY 74 budget estimate.

Chairman MCCLELLAN. You indicated that 718 spaces in Department of the Army Headquarters will be eliminated in FY 74. Are these spaces being transferred to combat units, or will they result in a real reduction in people? What is the number of Army "headquarters" personnel throughout the world? How many are civilians and how many military?

General ABRAMS. The 718 spaces referred to are all job eliminations. Army-wide, we will eliminate over 5,900 spaces from headquarters activities by end FY 75. Of this total, nearly 2,400 are already included in the headquarters reductions reflected in the FY 75 Budget. None of the spaces cut from the budget are available for reallocation to combat units, since they were incorporated in overall directed Army end strength reductions. However, I plan to apply the balance of the 5,900 spaces (approximately 3,600) to improving Army's combat capability.

The following table shows the manpower projected for Army headquarters in the FY 1975 Budget:

PRESIDENT'S BUDGET, FISCAL YEARS 1974 AND 1975

	Military	Civilian	Total
Fiscal year 1974	12,100	17,228	29,328
Fiscal year 1975	11,768	16,952	28,720

[Prepared statement resumes.]

This is just one of a number of headquarters reductions taking place throughout the Army in Fiscal Year 1974. In conjunction with the Department of Defense, we will make even further cuts. We anticipate making these space savings by combining headquarters and functions, by dropping headquarters which have only a marginal usefulness, and by reorganization. By the end of FY 75 we will eliminate about 5,900 spaces in our worldwide headquarters accounts from the 74 Budget Base—a reduction of 18%. By way of example, we are right now in the process of realigning the Department of the Army Staff. That move will make the Staff even smaller by combining some functions and more responsive at the same time by shifting other functions to subordinate headquarters.

Chairman McClellan. What are the Army plans for its Southern Command Headquarters in Panama? Provide the officer, enlisted and civilian authorized strength as of end FY 73 and projected for end FY 74 and 75.

General Abrams. The Army Southern Command headquarters, that is, Headquarters, US Army Forces, Southern Command (USARSO) will be discontinued by end FY 1975. The US Army Forces Command, located in Atlanta, Georgia, will assume command and control of US Army Forces in Panama. The 193d Bde in Panama will be augmented to assume certain service component functions now performed by Hq, USARSO. The following table shows the FY 73 authorized strength and budgeted FY 74 and FY 75 strength for Hq, USARSO.

	Fiscal year—		
	1973	1974	1975
Officers	103	106	106
Enlisted	103	112	112
Civilians	173	182	182
Total	379	400	400

The strengths reflected here are those presently in the FY 75 Budget. When Hq, USARSO is disestablished, prior to end FY 75, a number of these FY 75 manpower spaces will be eliminated from our headquarters structure. As indicated earlier, manpower and funds saved by this—and other—headquarters reductions will be reprogramed to improve Army's combat capability.

[Prepared statement resumes.]

We hope to be well into the new organization by late summer. In today's austere environment, I realize that we cannot afford a single headquarters which fails to pass the dual tests of military necessity and operational effectiveness. I plan to reallocate these manpower savings we generate in all these actions to bolster the strength of the fighting edge of the Army, to fill out or to organize more battalions and brigades.

Logistics Management

Let me say a word for our efforts to build a more effective logistical system. Compared to the Army of 20 or 30 years ago—or even 10—today's Army is quite complex; so its logistic support requirements are necessarily more sophisticated and complex. However, the logisticians have kept pace with the changes and in some cases are ahead of them. The Army's primary emphasis in this area is on the development of standard systems and procedures which will permit better support at a lower cost in money and manpower. We are planning to take full advantage of modern techniques and technology to continue improving our effectiveness.

The extensive resupply of equipment to Israel last fall is an example of the responsiveness of our logistical system, and provides a good indication of our capabilities for emergency air and sea lift. However, because logistical support is seldom as dramatic as it was in that case, we tend too often to take it for granted. That is unfortunate, because some very interesting things are happening there. A revised direct support system, a new method for selecting aircraft for depot maintenance, or the modernization of ammunition production lines may not sound very romantic, but they are programs which can save millions of dollars and thousands of men. By such programs we hope to trim the tail, but, more importantly, to sharpen the teeth.

On Condition Maintenance (OCM)

Chairman McClellan. Describe the new method of selecting aircraft for depot maintenance.

General Abrams. On Condition Maintenance (OCM) is the new Army concept for the selection of Army aircraft for depot overhaul based on actual condition of each aircraft by serial number. This new concept replaces depot maintenance overhaul criteria based on accumulated flying hours or calendar time since new or last overhaul. It involves an annual condition evaluation of designated parts of the aircraft airframe, overall condition and status of major modification work orders (MWO) by an Aircraft Condition Evaluation (ACE) team to establish an Aircraft Condition Profile (ACP). The Aircraft Condition Profile, reflecting the condition of the aircraft, is the basis for calling aircraft into depot maintenance on a "worst first" basis by aircraft serial number. During CY 1973 all aircraft for which we have depot maintenance programs were evaluated by condition evaluation teams operating world-wide. The FY 1974 and 1975 aircraft depot maintenance programs were developed at the June 1973 World-Wide Aviation Logistics Conference (WWALC) based on OCM data and aircraft are being inducted by serial number into depot overhaul during FY 1974 based on the condition profile. Condition evaluation teams are currently evaluating Army aircraft to determine the FY 1975 depot maintenance candidates by serial number.

The principal objectives of the OCM concept are: to bring into depot overhaul only those aircraft that have been identified as absolute candidates and to bring these aircraft in "worst first."

[Prepared statement resumes.]

Modernization

The final item I would like to emphasize today is our continuing program of equipment modernization. If we once lag in this field, it is difficult to catch up. The rate of change in technology is too rapid ever to permit coasting.

When I entered the Service, only 38 years ago, it was largely a horsedrawn Army. The battlefield has changed. Since that time we have had to assimilate radar, jet aircraft, nuclear weapons, helicopters, missiles, computers, satellites—to mention only a few. Knowing that the future promises even greater changes gives us powerful incentive to keep up.

Secretary Callaway discussed the progress of our "Big Five" program. Let me add that every lesson we have been able thus far to dig out of the Mid-East War fully reinforces our faith that we are heading in the right direction. The proliferation of antitank weapons means that new tanks must have a lower silhouette, improved agility, and better armor protection. For its part, infantry must possess a degree of mobility comparable to tanks, must have protection from small arms and artillery fire and must be able to fight mounted when required. Air defense weapons must provide a protective umbrella over the fluid battlefield. Mobility, firepower, and teamwork are still the keys to victory. These five systems represent a sound, balanced program which the Army must have for modernization. We must assure that American soldiers are not surprised on some future battlefield by a technologically superior enemy.

SAM–D

Chairman McClellan. Do you feel that the SAM–D air defense system is an integral necessity in order to provide a protective umbrella over a fluid battlefield? Why?

General Abrams. Yes, I do.

The protective umbrella is composed of several parts, none of which is completely sufficient in itself. Air Force interceptors provide the capability of massing

defense to nullify attacks in any area, however, they cannot remain on station continually and environments like Western Europe allow little time to react. Low altitude, short range Army air defense weapon systems provide immediate close in protection from low level attackers who attempt to use the terrain to their advantage. Medium to high altitude systems provide an ever present immediate responsive protective umbrella from low to high altitude over our friendly forces and installations. SAM–D is an integral necessity to replace our current medium to high altitude systems NIKE HERCULES and Improved HAWK in order to provide the required firepower to nullify or deter saturation raids and maintain effectiveness in severe electronic and tactical countermeasure environments. Our success against the Soviet SA–2 systems in Vietnam has taught us that our air defense systems for the future must have a substantial immunity to countermeasures if they are to remain effective in defense against an intelligent enemy.

SAM–D is essential to the composite capability of the Army of the future and will accompany it whenever and wherever it is deployed. It is central to the performance of the Army's combat mission and its availability will increase the assurance that the Army of the future will have the qualitative edge on the battlefield.

[Prepared statement resumes.]

Soviet Advances in Equipment Development

That war also provided an opportunity to compare our materiel modernization progress with that of the Soviet Union. We had a unique view of Soviet weapons systems in action, and an occasion to examine some of their equipment in detail. We must now assess the impact of Soviet advances upon our own development programs. The Soviets have made significant progress in a very short period of time.

Chairman McClellan. What do you consider some of the most significant advances which the Soviet ground forces have made in a very short period of time?

General Abrams. The advances observed in Soviet general purpose ground forces over the past few years have been extensive both in quality and quantity.

[Deleted.]

[Prepared statement resumes.]

What we have learned about the impact of new weapons and about the state of Soviet technology has helped us refine the requirements for modernization, especially of the forces deployed to Europe. Clearly, we want to continue improving our antitank capabilities and to continue refining our tactical air defense system. We need, as a matter of urgent priority, an improved family of tactical nuclear artillery weapons to provide the field commander the precise ability to inflict damage on his enemy with greatly decreased collateral damage to non-military targets. And, in what is perhaps the least understood aspect of modern conflict, we must strive to increase our electronic warfare and night fighting capability.

Tactical Nuclear Weapons Improvements

Chairman McClellan. What improvements do we need in our tactical nuclear artillery weapons?

General Abrams. Existing cannon artillery systems provide the battlefield commanders with a potent tactical nuclear capability. These systems are readily available and can survive conventional conflict and be ready for use at any time.

[Deleted.] We need these projectiles.

Regarding Army artillery surface-to-surface missiles, the LANCE system is programed to completely replace both HONEST JOHN and SERGEANT in the active Army by the end of [deleted]. This program is progressing well. The PERSHING II system will satisfy a national need for a field artillery missile system to provide a high confidence capability for rapid and decisive attacks against military targets. The capability requires an all-weather, day/night system with precision accuracy and low yield warheads to achieve improved military effectiveness and political acceptability. The PERSHING II system will provide the required capability through modular improvement of the PERSHING Ia.

[Prepared statement resumes.]

The "Big Five" and other weapons systems under development represent a whole new generation of applied technology. This technology would not have been possible without a strong, concentrated, and deliberate research and development effort during the 1960's. For example, research on the rocket propellant for the SAM–D missile began eight years ago. Today's efforts to develop improved metals, new textiles, lightweight plastic structures, more efficient propulsion systems, a

range of electronic sensors, and higher firepower weapons will show up in equipment used by the Army in the late 1970's and early 1980's.

Balance

Not a separate program as such, but a necessary ingredient in building and maintaining a healthy Army, is the factor of balance. All of the Army's programs must be developed in the realization of the need to achieve a force able to implement its part of the national strategy, in peace as well as in war. To do that, it must have appropriate forces overseas backed by ready and deployable units here in the United States. Further, it must have the right structure, the correct amount of strategic lift, a high degree of readiness, professional and dedicated people, an effective logistical system and modern equipment. If we have an imbalance in these programs, the Army itself is bound to be weakened—and the risk of failing to attain the objectives of national strategy increases. We cannot take that chance with the security of our country—or with its future.

Summary

Mention of the future brings me to the conclusion of my prepared remarks. The topics I have discussed today are designed to achieve the same purpose—to build and maintain a conventional force capable of deterring war in the first place, but also of fighting if we must.

The size and shape of that force are determined by the threat, by our national strategy, and by the combination of various outside constraints. It must be properly balanced between those elements deployed forward and those stationed in the United States. It must be tailored to project timely and credible military power. Its people must be thoroughly professional and completely dedicated.

This is a smaller Army than any the United States has had since the days before the Korean War. It must strive to get the maximum performance from each person and organization and to meet the demanding requirements of national strategy within the existing austere environment. We believe the programs we have are properly designed to produce the Army the country needs at an expenditure of resources the country can and must afford.

Drug Problem in Europe

Chairman McClellan. The news media has reported that the Army still experiences a drug problem in Europe. Please enlighten the committee of the magnitude of the problem and what is being done to solve the problem?

General Abrams. As you know, alcohol and drug abuse are not confined to the Army or to the United States, nor are they new problems. However, their impact on the United States Army, Europe (USAREUR), has been of greater concern due to the critical mission and readiness requirement of USAREUR. As the problem became more pronounced in the fall of 1972, the Commander in Chief, USAREUR, General Michael S. Davison, intensified his alcohol and drug abuse prevention and control program to minimize the effects of these problems.

The program in Europe is similar to that throughout the Army. The four primary functional areas are *Prevention* through education, law enforcement, and community action; *Identification* through voluntary self referral, biochemical testing, or referral by command, police, or medical authorities; *Detoxification and Treatment* in a medical facility when necessary; and *Rehabilitation* with command supervision and participation. It is a command program and is decentralized to provide treatment and rehabilitation as close to the soldier's duty unit as possible.

The most current evaluation of the scope of the problem and the effect of the USAREUR program on that problem was given by General Davison on 25 February 1974 when he testified before a subcommittee of the House Armed Services Committee. General Davison stated that the rapid rise in positive urinalysis test results which was noted in late 1972 leveled off in early 1973 and generally moved downward through December 1973. The clinically confirmed rate for hard drug use of 2.9 percent in December 1972 dropped to just over one percent in December 1973 with a more pronounced decline since September 1973 than earlier in the year. The number of personnel in active rehabilitation programs was over 5,200 (or 2.9 percent of the command) in August 1973; this figure was down to 3,400 (or 1.9 percent) in December 1973. These trends are encouraging signs that the intensified efforts since late 1972 have been effective in reducing the drug abuse problem in USAREUR.

Unauthorized Absence Rates

Chairman McClellan. Does the Army still have a problem with unauthorized absences? If so, how many per day?

General Abrams. AWOL rates for the most recent quarter (2d Qtr FY 74) were lower than for any quarter since 1968, and the trend looks encouraging. In December 1973, there was an average of 190 AWOL incidents per day. In terms of rates, there were 8.8 AWOL incidents for every 1,000 enlisted men.

Equipment for the Active and Reserve Component Forces

Chairman McClellan. Will the Army be required to equip some active units with older, less modern equipment than others? How about the National Guard?

General Abrams. Because the most modern equipment enters the inventory on a phased basis and is issued to units according to their assigned priority, at any given point in time some units, including the National Guard, may not have the preferred model.

Impact of Congressional Restrictions on Recruiting

Chairman McClellan. Has the Congressional restriction on the recruiting of non-high school graduates and Mental Group IV personnel had an adverse effect on the Army?

General Abrams. While the constraints make our recruiting job more difficult, we are confident that we can meet the limitations with no adverse effect on the Army, other than a temporary shortfall in new enlistments in the next few months.

Chairman McClellan. What has been the Army's experience with non-high school graduates being trouble makers or conversely good soldiers?

General Abrams. Past data indicate that non-high school graduates (NHSG) tend to have a propensity for disciplinary problems four times greater than high school graduates. At the same time, it is important to note that 4 out of 5 NHSG make effective soldiers.

Chairman McClellan. Can mental group IV personnel perform well, good or poorly in the less technical fields?

General Abrams. Our experience shows that most mental group IV personnel are assigned to less technical fields. While these personnel have a higher loss rate, just as non-high school graduates do, the majority still make good soldiers. This evaluation is based upon the commander's observation of job performance without regard to mental category. Mental category is not used for management purposes after entry into the service.

Chairman McClellan. What has been the Army's experience concerning the promotion of non-high school graduates and mental group IV personnel?

General Abrams. Our experience shows that many soldiers, who at time of entry into the Army were non-high school graduates or mental group IV personnel, are promoted to the highest enlisted grade. In-service education programs provide personnel in these categories with an opportunity for improvement.

QUESTIONS BY SENATOR THURMOND

Senator Young. Senator Thurmond was unable to be here today. However, he has some prepared questions that he would like answered for the record. The questions and answers will appear in the record at this point.

[The information follows:]

Questions Addressed to Secretary Callaway

Societal Representation of All-Volunteer Army

Senator Thurmond. Secretary Callaway, can you provide for the Record evidence to show that the all-volunteer Army will be representative of our society?

Secretary Callaway. The Army does not now reflect in exact percentages a cross section of the nation, but we do have a steady flow of men and women entering the service who come from all segments of our society. Many of them join to serve their nation—a sense of patriotism, if you will. About 40 percent of the enlisted men and women are the career force of the Army. The others return to civilian pursuits, frequently with a service-acquired vocation, expanded

education, and almost always with greater maturity. They have benefited themselves, the nation and their community.

It is difficult to forecast the makeup of the Army of the future. One known factor is that there will be a greater number of women in the service. Also, we have instituted such programs as Stripes for Skills and Junior College enlistment options which can influence the representation within the Army. Our entire recruiting program is targeted on appealing to the broad spectrum of diverse economic, social and racial backgrounds of the people of our nation; and our advertising presents an Army that is challenging, exciting and professional. We would hope that eventually the college-bound youth of America will see the Army as an interesting, challenging and maturing interval between high school and college. If that idea took hold, we would be much more representative.

Although it is desirable for the Army to be representative of the broad cross section of the country, fluctuating social and economic barometers are variables which inhibit our ability to predict the future makeup of the Army. However, our standards for enlistment plus our systems for screening out personnel after entry will insure a ready force regardless of the background of those who select the Army for military service.

Economic Background of Volunteers

Senator Thurmond. What is the general economic background of those coming into the All-Volunteer Army and how does it compare with our society as a whole?

Secretary Callaway. An Army survey was conducted in November 1973. One of the questions asked was, "What was the approximate income of the family in which you grew up, at the time you entered the Army?" The question was asked of enlisted personnel of all grades. I will give you the survey results of enlisted personnel in grade E–1 only, since they are the most representative group now in the Army who were not influenced by the draft. The comparison with society as a whole is drawn from the statistical abstract of the United States—1973—showing family income by income level.

Family income (yearly)	Percentage	
	Soldiers (E–1)	U.S. families
$5,000 or less	28.7	18.5
$5,000 to $10,000	27.5	29.7
$10,000 to $15,000	23.6	26.9
$15,000 to $20,000	11.9	
$15,000 to $25,000 [1]		19.5
Over $20,000	8.3	
Over $25,000 [1]		5.3

[1] Variance from other income levels caused by different distribution range used in the Statistical Abstract of the United States—1973, as compared to the distribution range used in the Army survey, November 1973.

Senator Thurmond. How do the education levels of those enlisting compare with education levels of our society as a whole?

Secretary Callaway. The statistics that I will give you for purposes of comparison are from two sources: the non-prior service male and female enlistees for the period July 1973 to January 1974 (February data for the educational level of females are not yet available), and the Statistical Abstract of the United States—1973, for citizens of the United States, 25 years old and over.

Education level	Percentages	
	Enlistees	All persons (25 yrs and older)
Non-high school graduate	46.4	41.8
High school graduate	48.7	35.2
1 to 3 yr college	4.0	10.9
4 or more years college	.9	12.0

Racial Comparison

Senator Thurmond. What are the racial comparisons and are members of minority races ending up in greater percentages in combat units?

Secretary CALLAWAY. Statistics as of December 1973 indicate that the number of Black soldiers with an Infantry military occupational specialty (MOS) was 24.7%; Armor, 12.3%; Combat Engineers, 20.9%; and Field Artillery, 18.5%. The percentage of Black soldiers in the Army was 19.9%. This averages out to 21.2% Black personnel in combat specialties. Racial comparison data for other minority groups are not available.

Senator THURMOND. Are minority groups now in combat units in greater numbers than was the case in Vietnam?

Secretary CALLAWAY. Racial distribution data by unit were not available during most of the Vietnam period. During the peak year (1968) of military strength during the Vietnam conflict, the Army-wide racial content in combat military occupational specialties (MOS) was 15.7% Black. As of December 1973, Blacks comprised 21.2% of those serving in combat specialties.

Senator THURMOND. How did the Army answer the complaints of minority leaders during Vietnam and how do you answer them today?

Secretary CALLAWAY. The minority leaders' concern during the Vietnam conflict was related to the number of casualties. Today their concern centers around the number of Blacks serving in combat related duties. Of the total Vietnam deaths due to hostile action, 13.1% were Black. During the peak Army strength of 1968, Blacks comprised 15.7% of those serving in combat specialties (Infantry, Armor, Field Artillery and Combat Engineers) and 12.6% of the total enlisted force. As of December 1973, Blacks comprised 21.2% of the soldiers serving in combat specialties and 19.9% of the total enlisted force.

INCENTIVES FOR ARMY RESERVE FORCES

Senator THURMOND. Why has the Army not requested incentives for Army Reserve forces?

Secretary CALLAWAY. The Army has requested incentives for the Reserve Components. Bonus authority was requested twice, but Congressional approval was not given. Full-time Servicemen's Group Life Insurance at no cost to the government was recommended twice; the second submission was approved by the House in early 1973, but has not been considered by the Senate. Expanded medical, dental and death benefits have been recommended but have yet been enacted. Among other proposals now being staffed for submission to the Congress are:

A new and improved retirement system.
Shorter mandatory initial active duty for training.
Frontloaded pay (a form of no-interest loan).
Tuition assistance.

DISCIPLINE

Senator THURMOND. Mr. Secretary, what is being done to improve discipline in the Army?

Secretary CALLAWAY. The Trainee Discharge Program, whereby substandard performers and indiscipline prone soldiers are weeded out during the first 179 days of their active duty, has been helpful in reducing crime and desertion in the Army. Concerned leadership at the lower levels of command has contributed to the reduced AWOL and desertion rates in the second quarter of FY 74 which were significantly lower than previous quarters.

Keys to further reduction in indiscipline in FY 74 and FY 75 are listed below:

(*a*) Programs which provide soldiers with the opportunity to experience growth, recognition, and pride.

(*b*) Training which provides soldiers with challenging and meaningful job experiences.

(*c*) Viable educational development programs.

(*d*) Motivational development programs which improve organizational effectiveness by increasing the motivation, morale, esprit and teamwork of personnel.

(*e*) Training and counseling programs for company commanders and key noncommissioned officers.

(*f*) Timely and fair application of justice.

MILITARY JUSTICE SYSTEM

Senator THURMOND. What is being done to strengthen the military justice system?

Secretary CALLAWAY. The military justice system is under constant review to insure that it operates with optimum efficiency and fairness. Primary efforts are

being devoted to improving the system itself, to training properly those who must operate the system, and to insuring that those who are under the system understand it.

The Uniform Code of Military Justice and the *Manual for Courts-Martial, United States, 1969 (Revised edition)*, as well as implementing Army regulations, form a quality system for the dispensation of justice and the maintenance of discipline in the Army. However, like all judicial systems, they must be constantly reviewed to insure their currency with society and to improve their weaknesses. This is being accomplished on a continuing basis. Desirable changes to the *Manual for Courts-Martial* are now in the latter stages of preparation. Army regulations have been, and will continue to be, amended to improve the system. Major emphasis has been directed toward improvement within the framework of current law; for example, a method to randomly select court-martial members is being tested at Fort Riley, Kansas. Under the Uniform Code of Military Justice, the convening authority is required to select those members of the command whom he determines to be best suited for the duty, based upon age, experience, length of service, and several other factors. This is now being accomplished by selection of named individuals. A perception exists, however misguided, that courts are handpicked to accomplish the desires of the convening authority. The modified random selection technique being tested should reduce this misconception without the necessity of changing the Uniform Code of Military Justice. Another example of improvement within the framework of current law is the testing of the Legal Center concept, which concluded in August 1973. The legal center supervises the processing of all legal actions, including administrative discharges, within a specific geographical area, rather than solely within a particular general court-martial jurisdiction. Special court-martial jurisdictions are consolidated at the brigade or comparable level. Individual judge advocates at the legal center are usually designated to advise brigade level commanders. In this fashion, more efficient processing of military justice matters can be achieved. The results of these tests are currently being evaluated, and a decision on Army-wide implementation will soon be made.

Instructional Publications

The military justice system itself is not sufficient. Those who implement the system must be well trained and knowledgeable. Those upon whom the system impacts must understand it and recognize its basic fairness. Efforts have been directed toward greater education of officers and senior noncommissioned officers by increased formal instruction in service schools and organizational training. Additionally, several new instructional publications were written and have been distributed. Department of the Army Pamphlet 27–19, *Legal Guide for Commanders*, is a handbook of military law for use by officers and noncommissioned officers responsible for leadership and discipline at the company level. Department of the Army Pamphlet 27–20, *Lessons in Military Law*, was developed for use in classes with company grade officers, providing discussion problems geared, in large part, to the contents of the *Legal Guide for Commanders*. Regarding those upon whom the system impacts, increased emphasis is being placed upon instruction as to how military justice functions. Publications have also been developed in this area which, it is believed, will significantly benefit the educational process. For example, Department of the Army Pamphlet 27–14, *Legal Guide for the Soldier*, illustrates that military law deals with more than just military justice and attempts to set forth basic matters such as those dealing with income tax and claims, that may be of interest and use to the young soldier. Department of the Army Pamphlet 27–23, *What's It All About—The Special Court-Martial*, now being printed, will be a simple, easily comprehended pamphlet, in comic book form, to educate the troops as to special court-martial procedures. A special course, entitled "Communication With Enlisted Men," was designed to be taught jointly by the company commander and a judge advocate defense counsel, to company-sized units. It is hoped that the lesson plan will, among other things, explain why a commander gives different punishments for apparently similar offenses.

The DOD Task Force on the Administration of Military Justice concluded that although the military justice system is fair, it is not perceived as such by many enlisted personnel. The perception of unfairness on the part of enlisted personnel results in decreased morale and distrust of the system, which in turn impacts adversely upon the system itself. Certain changes in Army regulations have been accomplished to insure fairness, both actual and perceived. For example, in the area of military justice, nonjudicial punishment procedures have been amended to require that an accused be given the opportunity for full presentation of his

case in the presence of the commander, to include the right to call witnesses, present evidence, and to be accompanied by a representative to speak on his behalf. The execution of any punishment, other than reduction in grade and forfeiture or detention of pay, is to be stayed pending action on any appeal filed. Upon request of the accused, the proceedings are to be open and public, barring any military exigencies or security interests. Since there are over eight Article 15's for every court-martial, these changes should have a tremendous impact on the morale of the individual soldier, and the effectiveness of the system, thereby strengthening military justice within the Army.

Questions Addressed to General Abrams

Role of Reserve Components

Senator Thurmond. How do the Army Reserve and Guard forces fit into your active forces overall?

General Abrams. The Reserve Components mission is to provide trained units and qualified individuals in time of war or national emergency to augment the active Army. This augmentation takes four forms:

(1) Units to complete the support required for active Army divisions.

(2) RC divisions and units required for their support.

(3) Units required to augment the active Army for Special Mission and non-deployable General Support mission.

(4) Individuals to fill existing shortage in both active Army and RC units.

Senator Thurmond. What attention have you personally given these Reserve and Guard forces inasmuch as they are a large portion of your total force?

General Abrams. My personal attention is directed to the total Army—Active, Guard and Reserve. Last summer I visited a number of the Guard and Reserve units during their annual training sessions and intend to visit some again this summer. I have been keenly interested in the recommendations of the Army Reserve Forces Policy Committee, which as you are well aware consists of Guard and Reserve general officers as well as Active Army officers.

I have been personally involved in the affiliation program, which associates specific Reserve Component units with their Active Army counterparts. This program has great promise and should result in significant improvement in the readiness capability of the affiliated units.

Recent actions which demonstrate the importance I attach to the Reserve Components as an integral part of the Army are the reorganization of the field structure within the Continental United States and the forthcoming realignment of the Army Staff. The reorganization of last year assigned the new Forces Command responsibility for readiness of all deployable forces, active and reserve. Under the Forces Command, the Continental Armies and their subordinate readiness regions manned by Active Army personnel are dedicated solely to be of assistance to the Reserve Components. General Kerwin, Forces Commander, reports to me at frequent intervals on his efforts to improve the Reserve Components readiness.

The realignment of the Army Staff, to take place this spring, will spread the responsibility for the Reserve Components across the staff within functional areas, rather than concentrating that effort in one staff office as we have done in the past. This move should improve their visibility and provide equal consideration of Reserve Component matters in all aspects of staff actions.

Soviet RPG

Senator Thurmond. General Abrams, has the Army considered mass producing a weapon like the Soviet RPG's which were used so effectively in the Mid-East War?

General Abrams. Yes. In 1968 the Army determined, through reverse engineering, that a weapon like the RPG–7 could be mass produced in this country. However, a military potential test conducted on the RPG–7 during the same time frame determined that the RPG–7 did not meet the Army requirement for either the light or medium antitank weapon system. The RPG–7 weighs nearly four times more than the LAW (20 lbs vs 5.2 lbs) and is a crew served weapon as compared to the LAW which is issued as a round of ammunition to be employed by one man. The DRAGON, which is the Army medium antitank weapon system, is far superior to the RPG–7 in terms of accuracy, lethality and range. The Army has validated its concept of a family of antitank weapons which includes the LAW for short ranges, DRAGON for medium range and TOW for long range and sees no advantage in reproducing the RPG–7.

Senator THURMOND. General Abrams, what is the difference between the RPG's and the LAW?

General ABRAMS. The RPG–7 weapon system consists of four major components: a grenade launcher, optical sight, antitank grenade and propelling charge. The launcher is a reuseable, muzzle-loading, shoulder fired, recoilless weapon. In operation the gunner assembles the 85mm grenade and propelling charge and loads the assembled round into the launcher muzzle. The loaded weapon weighs approximately 20 pounds and has a 500 meter effective range. The LAW is a 66mm rocket, self-contained, antitank system. The rocket is packed within its own launcher which serves as a watertight packing container. When the launcher is extended into the firing position, the firing system is cocked and when fired the launcher serves to guide the rocket on its initial flight toward the target. The 2.2 pound high explosive rocket packaged in the 3 pound shoulder-fired disposable rocket launcher has a 200 meter effective range. The LAW is issued as an item of ammunition to the soldier in addition to his basic combat arm.

DRUG ABUSE IN EUROPE

Senator THURMOND. General Abrams, are all the nations of Europe cooperating with the Army in NATO relative to efforts to control the drug problem?

General ABRAMS. The North Atlantic Treaty Organization (NATO) has not been a major forum for dealing with problems of drug abuse. Since the majority of our forces are stationed in the Federal Republic of Germany, Army officials have been working closely with officials of that country. In December 1971, a Joint United States-Federal Republic of Germany Narcotics Task Force was created and has since served to focus and direct intergovernmental efforts to counter drug trafficking activities. Military commands and their law enforcement agencies continue to pursue drug abuse countermeasures in close cooperation with local law enforcement agencies when appropriate.

PHASE-OUT OF NIKE-HERCULES BATTERIES IN CONUS

Senator THURMOND. General Abrams, what are your views on the closing down of the NIKE-HERCULES bases in this country?

General ABRAMS. I support the decision by the Secretary of Defense. It was based on a change in mission, reducing emphasis on defense against strategic bomber attack and redirecting our efforts to missions of warning of bomber attack and peacetime airspace surveillance and control. During the dialogue leading to the decision the Army's views which opposed the change in mission were fully considered. I reiterate that I fully support the decision of the Secretary of Defense; however, it should be noted that the decision does not close all NIKE-HERCULES sites in CONUS. The Army has air defense forces, which include four NIKE-HERCULES batteries, tactically deployed in Florida actively participating in the air defense of CONUS and concurrently prepared for overseas contingency deployment.

The rationale for this decision is that the USSR strategic bomber threat is small in comparison to the ICBM threat. SALT precludes an effective anti-missile defense, therefore, defense against the lesser bomber threat is of little value. A capability to maintain airspace sovereignty and defend against limited threats will be retained. The emphasis is on area rather than point defense. Point defense must still be maintained in specific locations against a manifest threat. Improved point defense (SAM–D) of critical targets such as MINUTEMAN fields must also be considered. The strategic air defense forces will be augmented with mobile tactical forces, to include SAMs, to meet contingency situations requiring air defense.

Senator THURMOND. What active NIKE-HERCULES bases do we have, and where are they located?

General ABRAMS. We have a total of [deleted] NIKE-HERCULES batteries tactically deployed worldwide. Of these, [deleted] batteries are overseas, with [deleted] in Europe, [deleted] in Korea and 3 in Alaska. In the continental United States we have 52 NIKE-HERCULES batteries on air defense sites, 48 of which are to be inactivated. 17 batteries began inactivation on March 1, and the remaining 31 batteries will begin inactivation by May 1. The inactivation of these 48 batteries will be complete by Dec. 31, 1974. The four remaining batteries are in Florida and will remain tactically deployed in Florida with a dual mission of

providing air defense for CONUS and to be prepared for rapid deployment in support of contingency plans involving STRAF units. The CONUS units are at the following locations.

[The information follows:]

WASHINGTON-BALTIMORE-NORFOLK DEFENSE

Btry A, 4th Bn, 1st AD Arty, Rockville, Md.
Btry B, 4th Bn, 1st AD Arty, Fort Story, Va.
Btry C, 4th Bn, 1st AD Arty, Edgewood Arsenal, Md.
Btry D, 4th Bn, 1st AD Arty, Tolchester Beach, Md.
Btry A, 1st Bn, 70th AD Arty, Davidsonville, Md.
Btry B, 1st Bn, 70th AD Arty, Granite, Md.
Btry D, 1st Bn, 70th AD Arty, Phoenix, Md.
Btry A, 4th Bn, 111th AD Arty, Lorton, Va.
Btry B, 4th Bn, 111th AD Arty, Portsmouth, Va.
Btry C, 4th Bn, 111th AD Arty, Denbigh, Va.

NEW ENGLAND DEFENSE

Btry C, 1st Bn, 5th AD Arty, Bristol, R.I.
Btry D, 1st Bn, 5th AD Arty, Danvers, Mass.
Btry A, 1st Bn, 241st AD Arty, Lincoln, Mass.
Btry B, 1st Bn, 241st AD Arty, Hull, Mass.

NEW YORK-PHILADELPHIA DEFENSE

Btry A, 3d, Bn, 43d AD Arty, Clementon, N.J.
Btry B, 3d Bn, 43d AD Arty, Swedesbord, N.J.
Btry D, 3d Bn, 43d AD Arty, Fort Tilden, N.Y.
Btry C, 3d Bn, 43d AD Arty, (Double Battery), Fort Hancock, N.J.
Btry A, 7th Bn, 112th AD Arty, Lumberton, N.J.
Btry B, 7th Bn, 112th AD Arty, Livingston, N.J.
Btry A, 1st Bn, 244th AD Arty, Farmingdale, NY..
Btry B, 1st Bn, 244th AD Arty, Rocky Point, N.Y.
Btry C, 1st Bn, 244th AD Arty, Orangeburg, N.Y.

CHICAGO DEFENSE

Btry B, 1st Bn, 60th AD Arty, Porter, Ind.
Btry A, 1st Bn, 202d AD Arty, Homewood, Ill.
Btry B, 1st Bn, 202d AD Arty, Addison, Ill.
Btry D, 1st Bn, 202d AD Arty, Northfield, Ill.

DETROIT DEFENSE

Btry A, 1st Bn, 177th AD Arty, Utica, Mich.
Btry C, 1st Bn, 177th AD Arty, Carlton, Mich.
Btry C, 2nd Bn, 3rd AD Arty, Union Lake, Mich.

PITTSBURGH DEFENSE

Btry B, 3d Bn,1 st AD Arty, Herminie, Pa.
Btry D, 3d Bn,1 st AD Arty, Elrama, Pa.
Btry B, 2d Bn, 176th AD Arty, Coraopolis, Pa.
Btry C, 2d Bn, 176th AD Arty, Indianola, Pa.

LOS ANGELES DEFENSE

Btry A, 2d Bn, 65th AD Arty, Palmdale, Calif.
Btry B, 2d Bn, 65th AD Arty, Malibu, Calif.
Btry C, 2d Bn, 65th AD Arty, Chatsworth, Calif.
Btry A, 4th Bn, 251st AD Arty, Stanton, Calif.
Btry B, 4th Bn, 251st AD Arty, Point Vicente, Calif.
Btry D, 4th Bn, 251st AD Arty, Fort MacArthur, Calif.

SAN FRANCISCO DEFENSE

Btry A, 1st Bn, 61st AD Arty, Travis AFB, Calif.
Btry B, 1st Bn, 61st AD Arty, Fort Barry, Calif.
Btry A, 1st Bn, 250th AD Arty, Pacifica, Calif.
Btry B, 1st Bn, 250th AD Arty, Berkeley, Calif.

SEATTLE DEFENSE

Btry C, 1st Bn, 4th AD Arty, Kingston, Wash.
Btry A, 2d Bn, 205th AD Arty, Redmond, Wash.
Btry B, 2d Bn, 205th AD Arty, Vashon Island, Wash.

HOMESTEAD-MIAMI DEFENSE

Btry A, 2d Bn, 52d AD Arty, Homestead AFB, Fla.
Btry B, 2d Bn, 52d AD Arty, Homestead AFB, Fla.
Btry C, 2d Bn, 52d AD Arty, Homestead AFB, Fla.
Btry D, 2d Bn, 52d AD Arty, Homestead AFB, Fla.

WEAPONS PROGRAM CHANGES AS A RESULT OF MIDDLE EAST WAR

Senator THURMOND. General Abrams, list for the record the weapons program changes which have taken place as a direct result of the Middle East War.

General ABRAMS. All of our developing weapons systems are periodically evaluated, and their potential performance in situations similar to those which prevailed in the Middle East is considered, however, to date no major changes in weapon's programs have been initiated as a direct result of the war. Our analysis of the information we received from the war is not yet complete. If weapons programs changes are indicated on the basis of these analyses, they will be implemented.

SUBCOMMITTEE RECESS

Senator YOUNG. If there is nothing further, the subcommittee will stand in recess until 10 tomorrow to hear the Secretary of the Navy, The Chief of Naval Operations, and the Commandant of the Marine Corps.

[Whereupon, at 11:08 a.m., Tuesday March 12, the subcommittee was recessed to reconvene at 10 a.m., Wednesday, March 13.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

WEDNESDAY, APRIL 3, 1974

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

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

Present: Senators McClellan, Young, and Hruska.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

STATEMENT OF LT. GEN. BERNARD W. ROGERS, DEPUTY CHIEF OF STAFF FOR PERSONNEL

ACCOMPANIED BY:

MAJ. GEN. JOHN A. KJELLSTROM, DIRECTOR OF ARMY BUDGET, OFFICE OF THE COMPTROLLER OF THE ARMY

MAJ. A. G. BURBANK, PLANS AND SYSTEMS DIVISION, OFFICE, DEPUTY CHIEF OF STAFF FOR PERSONNEL

J. M. SCHARSTEIN, CHIEF, MILITARY PERSONNEL ACTIVITIES BRANCH, BUDGET DIVISION, OFFICE, DEPUTY CHIEF OF STAFF FOR PERSONNEL

EXAMINATION OF INDIVIDUAL APPROPRIATION ACCOUNTS

Chairman MCCLELLAN. The subcommittee will come to order.

On March 12 the subcommittee received testimony from the Secretary of the Army and Chief of Staff on the broad overview of the Army's role in our national defense posture. This morning we begin an examination of each appropriation account within the Army budget request.

The first witness will be Maj. Gen. John A. Kjellstrom, Director of Army Budget, who will present a brief summary of the Army's total budget for fiscal year 1975. You may proceed, General.

General KJELLSTROM. I have a long statement and I intend to follow through the short version.

PREPARED STATEMENT

Chairman MCCLELLAN. General, your statement will be printed in the record together with questions submitted by the subcommittee to which responses will be supplied.

[The statement follows:]

Budget Priorities

Mr. Chairman and members of the Committee; this is the fifth consecutive year that I have had the privilege of appearing before this committee to present the budget request. I am indeed pleased to be back again, and I look forward to working with the committee as the budget request is reviewed.

You may note that we have limited the number of additional backup personnel present today. However, if detailed information desired by the committee is not available from those present, we can provide expert witnesses from the Army Staff in a very short time.

In developing the budget request we established certain goals or priorities which were used to provide the framework around which the budget is structured. Each decision concerning the requirement for application of constrained resources was then weighed in light of the accomplishment of these goals. Four priorities were considered: *readiness of forces; maintenance of the volunteer force; modernization of equipment; and maintenance of an active research program.* The request before the committee, coupled with the funding provided in the approved FY 1974 program and supplemental requests provides the means for making significant progress in each of these areas.

Budget Summary

The total budget request for FY 1975 is $22.9 billion compared to a revised FY 1974 level of $22.1 billion. This increase of $800 million or 4 percent over the 1974 level; however, does not represent a true increase in purchasing power since it is more than offset by the annualization of approved military and civilian pay raises, and by increases in the purchase price of goods and services.

Comparison of Fiscal Year 1974 and 1975 Budgets

Chairman McClellan. Compare the FY 1974 budget as appropriated by Congress with the FY 1975 budget request in terms of current and constant dollars.

General Kjellstrom. The FY 1974 budget as appropriated by Congress in current dollars is $20.2 billion. In Constant FY 1975 dollars it is $21.7 billion compared to the FY 1975 request of $22.9 billion.

Chairman McClellan. Proceed.

General Kjellstrom. Projected inflation in weapons systems and construction projects through FY 1975 amounts to $374 million, increases that have already occurred in the cost of goods and services in the operating accounts absorbs an additional $718 million, and annualization of the full year cost of the 1 October 1973 pay raise requires $190 million. These total $1.3 billion; therefore, the apparent increase of $800 million over FY 1974 is in fact a decrease of $700 million or 2% in real buying power.

Rates of Inflation

Chairman McClellan. Compare rates of inflation being experienced in the Army with the consumer price index.

General Kjellstrom. The Army has experienced the effects of inflation as an integral part of the economy. Increases from Fall CY 1972 to Fall CY 1973 range from 5 percent in RDT&E activities to 9 percent in Construction activities, and 6 percent in the Operation and Maintenance Army appropriation. Overall the Army is experiencing an estimated 7 percent inflation.

Chairman McClellan. Proceed.

General Kjellstrom. The following chart graphically displays the Army budget over the past decade showing the long term impact of pay raises and cost growth.

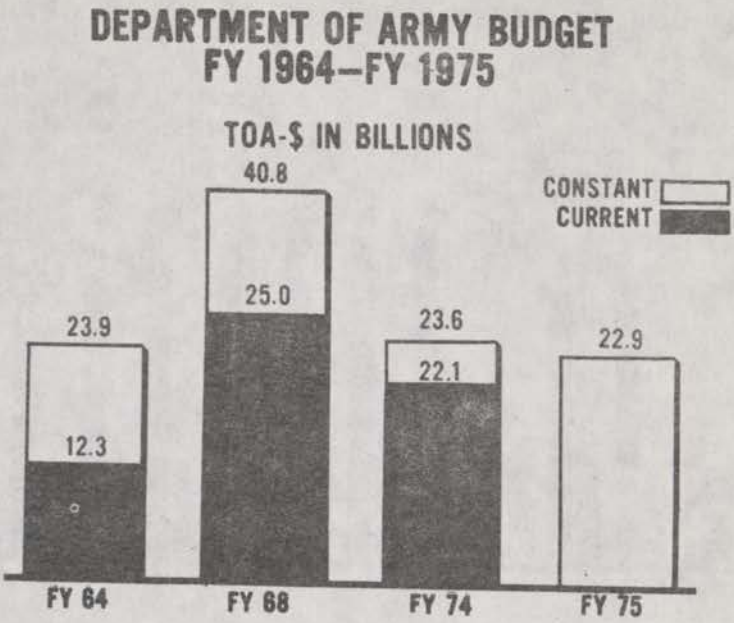

CHART 1.

General KJELLSTROM. The shaded portion of the chart shows the actual total obligational authority (TOA) for each year, while the upper portion of each bar reflects the amount that would be required to accomplish that same program at current price levels. In terms of real purchasing power the FY 1975 request is at a lower level than at any time in the past 10 years.

ARMY OUTLAYS AS A PERCENT OF THE FEDERAL AND DEFENSE BUDGET

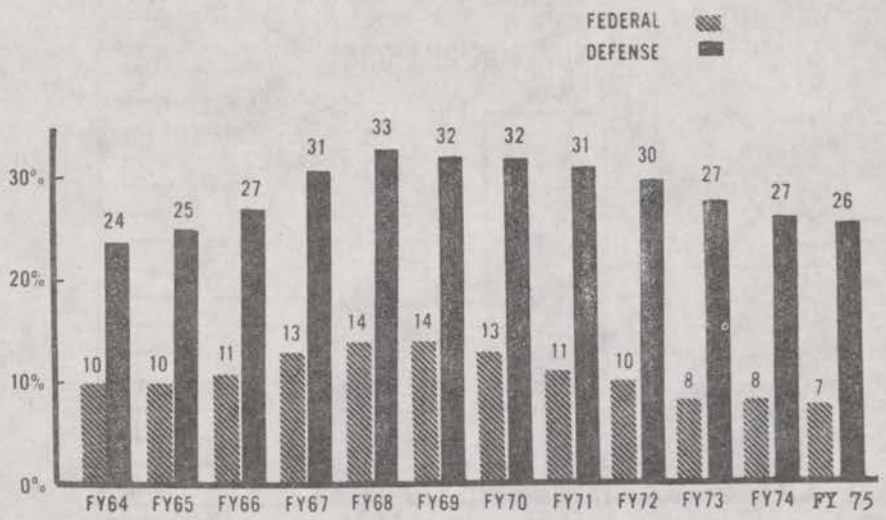

CHART 2.

General KJELLSTROM. This chart depicts the trend of Army outlays over the past 10 years as a portion of the DOD and Federal Budgets. In peacetime the Army receives about one fourth of the total Defense budget. During the peak war years the portion allocated to the Army increased since the bulk of the manpower assigned to Southeast Asia was in the Army. Since 1968 the Army's share has declined proportionately with declining manpower. We anticipate that the percentage will now remain relatively stable.

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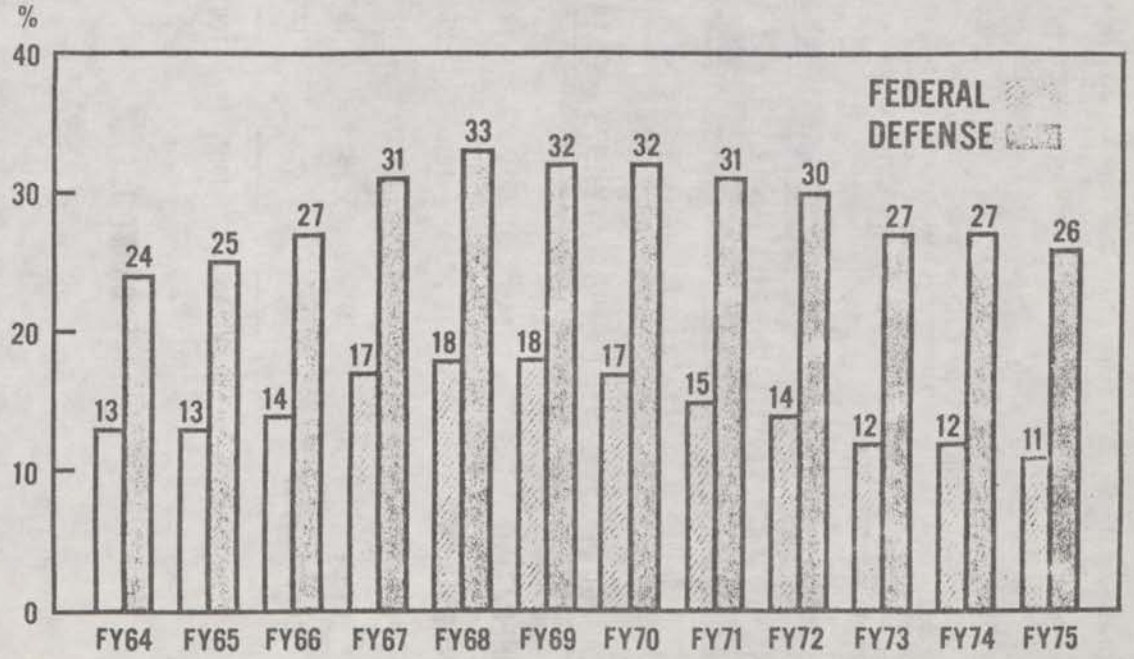
ARMY OUTLAYS AS A PERCENT OF THE FEDERAL AND DEFENSE BUDGET



Chairman McClellan. Does Chart 2, Army Outlays as a Percent of the Federal and Defense Budget, include the various trust funds? Provide a table showing similar data but excluding trust funds and proprietary receipts from the public.

General Kjellstrom. Army outlays as a Percent of the Federal and Defense Budget Outlays include the various trust funds and proprietary receipts from the public. Since trust funds and proprietary receipts account for only about two-tenths of one percent of total outlays in the Army and Defense budgets, the percentage relationships portrayed on Chart 2 would be unchanged. After elimination of trust funds disbursements from the total Federal Budget, the Army percentage of expenditures would increase about four percent as shown by the revised Chart 2.

OPERATING VS. INVESTMENT COSTS

(BASED ON TOA)

CATEGORY	FY 1964	FY 1973	FY 1974	FY 1975
OPERATING	64%	74%	74%	73%
INVESTMENT	36%	26%	26%	27%
PROCUREMENT	(23%)	(14%)	(13%)	(14%)
RDT & E	(11%)	(9%)	(9%)	(9%)
CONSTRUCTION	(2%)	(3%)	(4%)	(4%)
	100%	100%	100%	100%

CHART 3.

General KJELLSTROM. Another view of the distribution of funds in the budget is the distribution between operating and investment accounts as reflected in the following table:

DEPARTMENT OF THE ARMY
COMPARISON OF FISCAL YEARS

(TOA $ MILLIONS)

APPROPRIATIONS	FY 1973	FY 1974	FY 1975
MILITARY PERSONNEL, ARMY	$7,685	$7,762	$7,915
OPERATION & MAINTENANCE ARMY	6,782	6,695	6,837
PROCUREMENT APPROPRIATIONS	2,987	2,951	3,315
RESEARCH, DEVELOPMENT, TEST & EVALUATION, ARMY	1,885	1,971	1,986
MILITARY CONSTRUCTION, ARMY	593	697	744
RESERVE COMPONENTS	1,724	1,993	2,104
TOTAL	21,655	22,069	22,901
FAMILY HOUSING	394	495	524

CHART 4.

General KJELLSTROM. It is important to recognize that there is no specific distribution of funds between operating and investment costs which should be considered as the "optimum". The requirements for all appropriations are determined through independent analysis of requirements without regard to what the resultant percentage might be.

THREE-YEAR APPROPRIATION COMPARISONS

General KJELLSTROM. Chart 4 gives appropriation comparisons of the three years considered in the budget request. Since each appropriation is summarized later in my statement, and will be addressed in detail by the appropriation directors in subsequent hearings, I will only point out the major changes here.

The military personnel account increases due to annualization of pay raises, increased mileage allowances for PCS moves, and extension of travel and transportation entitlements to lower grade enlisted men (below E–4).

The operation and maintenance increase is a reflection of annualized civilian pay raises, price level increases for goods and services, and a major funding increase for maintenance and repair of real property.

Procurement increases by $364 million and reflects our continuing effort toward equipment modernization to improve combat readiness especially in tank/antitank weapons systems and in aircraft.

The Research and development program is essentially level.

Although not reviewed by this committee, I have included the Military Construction (MCA) Program in order to show the complete budget. The FY 1975 MCA program increases $47 million over FY 1974 primarily as a result of increased funding for medical facilities.

Reserve Component funding reflects our continuing emphasis on achieving and maintaining readiness. The reserve component appropriations include funding for the 8 combat divisions and over half of the division support required for augmentation to the active army in the event of mobilization. Although the budget is based on programed end strengths of 372,000 for the National Guard and 201,000 for the Army Reserve, it is the Army's intention to fully support higher strengths if they can be attained by the recruiting programs.

Funding requested in the Family Housing account will provide for a $25 million reduction in the backlog of deferred maintenance, and for an increase of 5,000 leased units of housing—primarily in Germany.

RECRUITING DATA

Chairman MCCLELLAN. Give the latest recruiting data for the Guard and Reserve, as well as the Guard and Reserve strengths. How much higher strengths would the Army like to support in this area if they can be sustained by the Guard and Reserve recruiting programs?

General KJELLSTROM. ARNG paid drill strengths has increased from 385,600 as of 30 June 1973 to 404,944 as of 31 March 1974. USAR paid drill strength has decreased from 235,499 as of 30 June 1973 to 226,623 as of 31 March 1974. The National Guard Bureau perfers the average strength of the ARNG be expressed as a floor of not less than 400,000 while the Chief, Army Reserve prefers a floor of 225,000.

Chairman MCCLELLAN. Proceed.

CHART 5.

BUDGET TRACK FROM FY 1974 ENACTMENT
(In Millions of Dollars)

	FY 1974 Enactment	Supplemental Requests	Transfers & Adjustments	FY 1974 Revised Program
Military Personnel, Army	7,110.0	651.9	-	7,761.8
Reserve Personnel, Army	452.4	41.7	-	494.1
National Guard Personnel, Army	555.9	51.6	-	607.5
Operation and Maintenance, Army	6,214.7	483.2	-3.3	6,694.6
Operation and Maintenance, Army Reserve	253.9	10.8	-	264.7
Operation and Maintenance, Army National Guard	524.4	25.1	-	549.5
National Board for the Promotion of Rifle Practice	.2	-	-	.2
Aircraft Procurement, Army	164.8	22.0	-	186.8
Missile Procurement, Army	557.1	84.4	-	641.5
Weapons and Tracked Combat Vehicles, Army	229.3	121.8	-	351.1
Procurement of Ammunition, Army	940.4	268.0	-	1,208.4
Other Procurement, Army	506.2	56.7	-	562.9
Research, Development, Test and Evaluation, Army	1,915.6	55.0	-.2	1,970.5
TOTAL	19,424.8	1,872.2	-3.5	21,293.5

General KJELLSTROM. Chart 5 shows a reconciliation from enactment of the Department of Defense Appropriation Act, 1974 (P.L. 93-238) to the FY 1974 program as presented in the FY 1975 budget. Supplemental requests amount to $1,872.2 million—$1,047.0 million for pay raises, $26.7 million for postal rate increases, $766.2 million for improved readiness and $32.2 million for Basic Allowance for Subsistence. Decreases of $3.5 million are due to the following:

Operation and Maintenance, Army—$3.3 million: Transfer of $0.5 million to O&M, Defense Agencies in connection with functional transfers and $2.8 million to the General Services Administration for leases.

FUNCTIONAL TRANSFERS TO DEFENSE AGENCIES

Chairman MCCLELLAN. What are the functional transfers to Defense Agencies which necessitate the transfer of $0.5 million?

General KJELLSTROM. $456,000 was transferred to Defense Agencies for civilianization of Army military positions in those Agencies. The $456,000 was for positions in the Defense Investigative Service ($185,000), the Defense Intelligence Agency ($72,000) and the National Security Agency ($199,000).

Chairman MCCLELLAN. Proceed.

General KJELLSTROM. Research, Development, Test and Evaluation, Army—$.2 million: Transfer of lease costs to General Services Administration.

REPROGRAMING

The Army has submitted to Congress three reprograming actions requiring Prior Approval and three for notification.

Briefly, the three actions submitted for prior approval include a requirement for increased Special Duty Assignment Proficiency Pay for recruiters in the Military Personnel, Army appropriation; an increase in the Operation and Maintenance, Army appropriation for added financial support of the Recruiting and Examining Program; and a Section 735 transfer from Reserve Personnel, Army to the National Guard Personnel, Army appropriation to cover increased paid drill strength.

The three items submitted for notification involve changes in requirements within the Procurement of Ammunition, Army appropriation, a Section 735 transfer for the Civilianization Program from Operation and Maintenance, Army to Defense Agencies and an omnibus reprograming action in the Research, Development, Test and Evaluation, Army appropriation.

All reprogramings will be funded within the existing resources in each appropriation except for the transfer into National Guard Personnel, Army. This will be accomplished by transfer from the Reserve Personnel, Army appropriation.

These reprogramings are for changes that have occurred since preparation of the FY 1974 budget request over one year ago.

The early approval of these reprograming actions is requested. This is essential to enable the Army to execute its programs in an orderly and efficient manner. To delay approval of these actions could conceivably require additional program adjustments over and above those currently being requested.

Consistent with the Committee's request, the Army is keeping its reprograming actions to the minimum necessary to fund urgent requirements that cannot otherwise be accommodated. A summary of the number of reprograming actions since FY 1972 is shown on Chart 6.

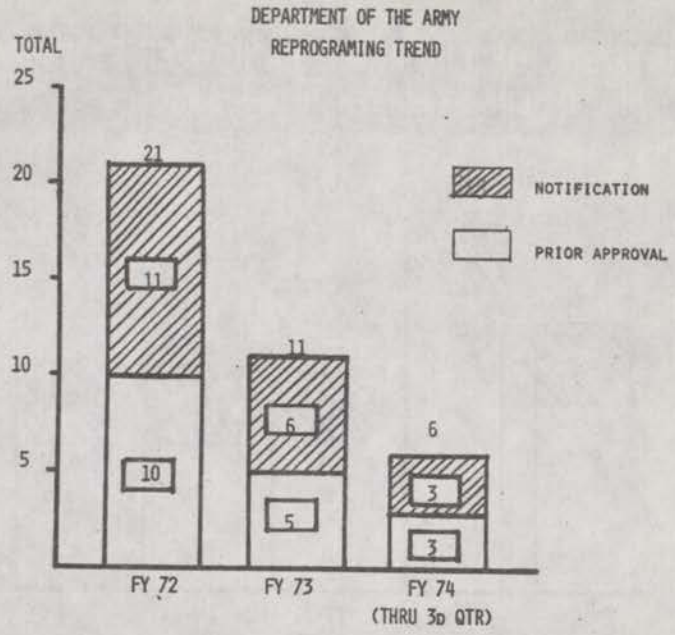


CHART 6.

III. MANPOWER AND FORCE STRUCTURE

Trends

I will address the components of both the civilian and military structure in more detail later, but before doing that I want to point out some significant facts about the overall strength.

The following chart shows total Army manpower, active military and civilian, both direct and indirect, for selected years from FY 1964–75.

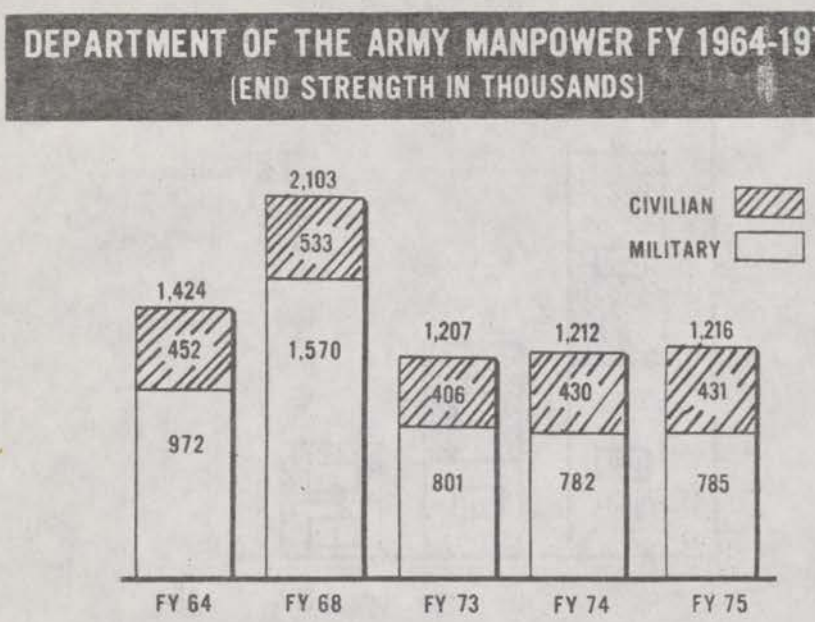


CHART 7.

Chairman McCLELLAN. Provide Department of the Army Manpower data (civilian and military end strengths in thousands) for the period FY 1960–FY 1975.

General KJELLSTROM. Department of the Army Manpower military and direct hire civilian FY 1975 is displayed in the following table:

	Military	Civilian	Aggregate
1960	873	381	1,254
1961	859	382	1,241
1962	1,066	385	1,451
1963	976	368	1,344
1964	972	360	1,333
1965	969	351	1,320
1966	1,200	387	1,587
1967	1,442	461	1,906
1968	1,570	455	2,025
1969	1,512	456	1,968
1970	1,323	411	1,734
1971	1,124	388	1,512
1972	811	367	1,178
1973	801	333	1,134
1974	782	356	1,138
1975	785	359	1,144

Note: Civilian strength from 1960 through 1968 adjusted to include National Guard technicians for comparability purposes.

Chairman McCLELLAN. Proceed.

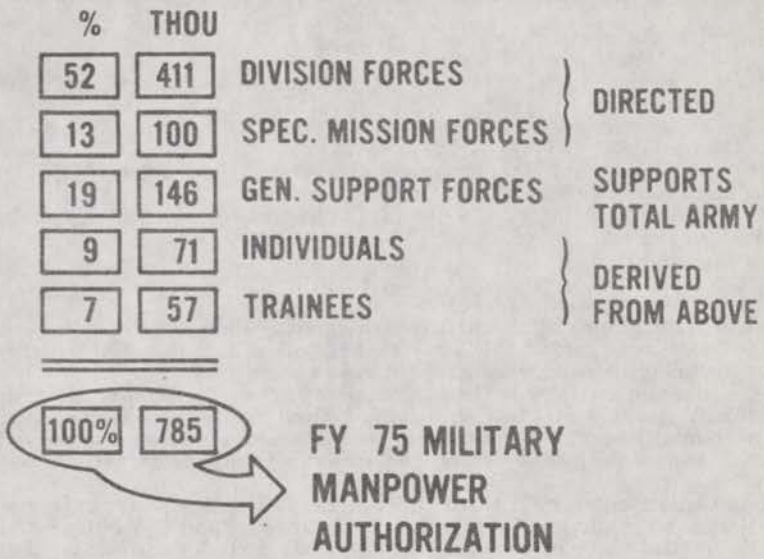
General KJELLSTROM. The FY 1975 total strength is 208,000 or 15 percent below the FY 1964 level and is remaining relatively stable after the major reductions following the Vietnam War. Although civilian manpower is programed to increase by about 25,000 from the FY 73 actual end strength, we are still below the civilian strength level of FY 1964.

The following series of charts describe how the Army's 785,000 active military personnel are distributed into mission categories known as the Land Forces Classification System (LFCS).

Chart 8 shows total military manpower in LFCS terms.

CHART 8.

ARMY COMPOSITION...FY 75



Types of Training

Chairman McClellan. Explain the 7 percent of the total force (57,000) personnel in training by type of training (basic combat, advanced individual, professional military, degree seeking).

General Kjellstrom. The 57,000 personnel in training includes those enlisted personnel in initial entry training at Army Training Centers and on-the-job training at the end of the fiscal year plus returnees from desertion/AWOL. The people in other training (professional, degree seeking, etc.) are not included in the trainee strength.

Chairman McClellan. Proceed.

General Kjellstrom. I will briefly describe the components of each of these categories. First, Division Forces which make up the majority of the Army's manpower and include all of the divisions and tactical combat support units required within a theater of operations to conduct combat operations. Since the size and shape of our Division Forces are derived from contingency missions that we are assigned, we say these forces are "mission derived."

The second grouping are those that we title Special Mission Forces. This is a relatively small part of the Army and is made up of units and activities that are based on specific mission requirements. For example, we are tasked to provide certain forces for the land defense of Alaska, the Panama Canal Zone, and Berlin. For this mission, we have organized three special mission defense brigades. Likewise, we have forces that are organized, trained and deployed to provide missile support to our overseas theaters. Also, in this category are Army units that support the Department of Defense, the Joint Chiefs of Staff and other services.

SUPPORT UNITS TO DOD AND JCS

Chairman MCCLELLAN. Describe which units support the Department of Defense and Joint Chiefs of Staff.

General KJELLSTROM. The units referred to are the Army elements of Defense and Joint Activities which are jointly staffed by all Services. These activities include:

Office of the Secretary of Defense

Office of the Joint Chiefs of Staff

Defense Agencies such as Defense Communications Agency and Defense Intelligence Agency.

Unified Commands such as US European Command, Southern Command and Pacific Command.

Allied Commands and Boards such as Supreme Headquarters Allied Powers Europe and Inter-American Defense Board.

MAAGS/Missions/Military Groups in Latin America, Middle East, Europe and Western Pacific.

Joint Colleges

Defense Schools

Chairman MCCLELLAN. Proceed.

General KJELLSTROM. These first two categories, when taken together, constitute the operational part of the Army that is designed and trained to carry out our assigned deterrence or war fighting missions as required.

The third major grouping is General Support Forces. These units and activities are primarily located in the Continental United States and are organized to provide training, command and control, logistics, and administrative support for the total Army—the active forces, the Reserve Components and the civilian population.

The last major category is titled Individuals. It is a manpower category only and includes those individuals in the Army who are over and above the authorized strengths of the units in the force structure. It includes transients, patients, prisoners, US Military Academy cadets, students and trainees. With the exception of trainees and cadets, these individuals are all trained personnel. The purpose of this manpower account is to provide sufficient individuals so that a unit is not under strength while personnel are moving from station to station, in training, a prisoner, or a patient. The number of trained individuals is calculated based on the sum of the requirements of all the personnel required to maintain the units at full strength.

Trainees account for soldiers while they are undergoing individual training and are derived from the total requirement for soldiers in the Army. This specific number represents the new men and women that are undergoing training at the end of the fiscal year.

Chart 9 depicts how the various accounts have changed since the FY 1974 budget request was presented to you last year. The left columns represent our Budget Submission last year, the middle columns indicate the actions that were taken as a result of the decisions made by Congress and Secretary of Defense for FY 74. The right columns represent the distribution of manpower that we are submitting to you this year for FY 75. You will note there is a significant rise in the manpower authorized for our Division Forces and a decrease in that allocated to Special Mission and General Support Forces and Individuals. I will discuss each of the accounts separately.

COMPARISON OF
MILITARY AUTH. FY 74-75
THOUSANDS

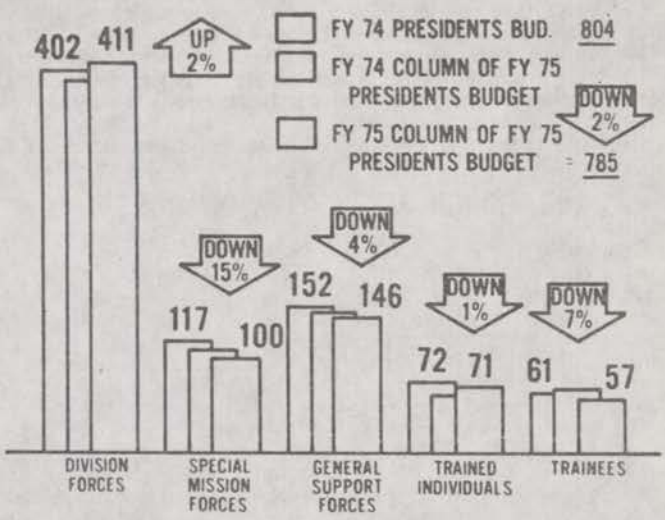


CHART 9.

DIVISION FORCES AS A PERCENT OF ACTIVE ARMY

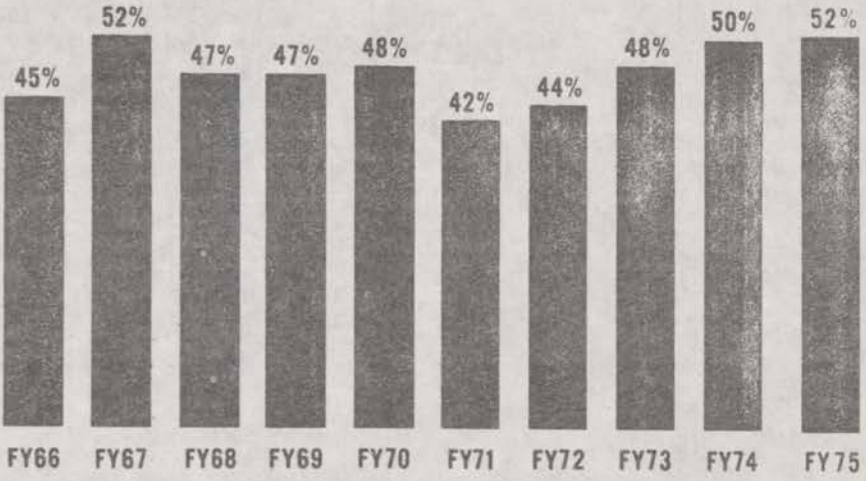


CHART 10.

General KJELSTROM. Chart 10 shows the continuing trend toward increasing the proportion of the Army that is devoted to Division Forces. This is a direct consequence of our efforts to maximize initial combat capability. It is important to recognize that the continued manning of Division Forces is being accomplished in the face of declining total strength through reallocation of manpower savings realized from economies in headquarters and support activities. The impact of actions already programed is reflected in the addition of at least one-third of a division in FY 75 above the level for FY 74. As the Chief of Staff of the Army pointed out in his earlier appearance before this committee, we have still not attained the number of divisions we should have to provide greater assurance of fulfilling the Army's role in the national strategy. As we continue to review our requirements in other areas we expect to further increase the combat power of the Army in Division Forces in the future.

Chart 11 shows where our divisions will be located at the end of FY 75.

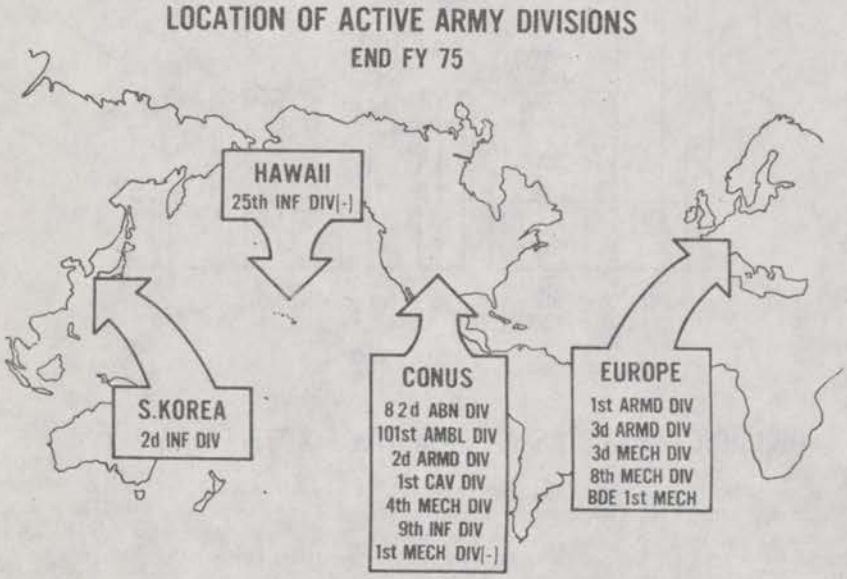


CHART 11.

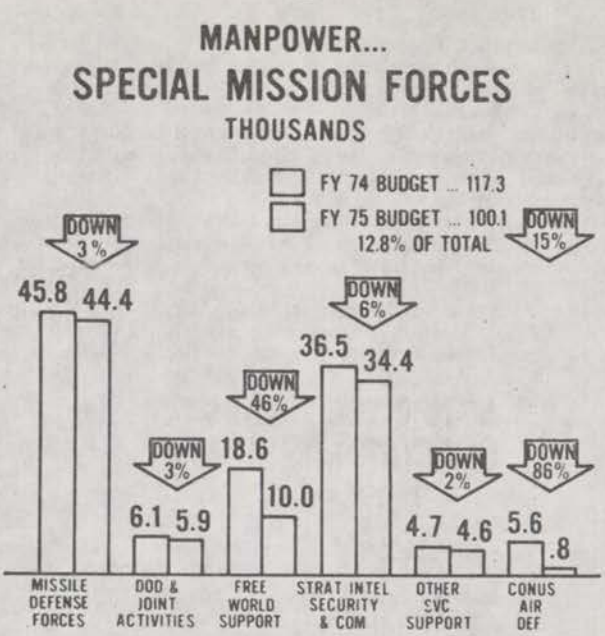


CHART 12.

General KJELSTROM. Chart 12 displays Special Mission Forces in six major aggregations. The missile forces and the defense brigades for Alaska, Panama, and Berlin are the teeth in our Special Mission Forces and are units that provide direct combat power. The 3 percent decrease between FY 74 and FY 75 does not represent any reduction in combat units, but results from reclassifying the Pershing Battalion at Fort Sill as a school troops unit in recognition of its training mission.

The next grouping are those Army units and activities or individuals assigned to satisfy requirements for the Department of Defense and Joint activities. You note there is a decline in this account for FY 75.

Free World Support forces drop sharply because of our final withdrawal from Vietnam.

The next group indicates those Army units and activities that are part of the Department of Defense centrally managed strategic intelligence, security and communications programs. There is a 6% decline in this category for FY 75 attributable to Southeast Asia withdrawals and reduced Defense Intelligence programs.

Chairman MCCLELLAN. Provide the numbers associated with the FY 1975 Southeast Asia withdrawals and reduced Defense Intelligence Programs.

General KJELLSTROM. The withdrawals from Vietnam occured after the FY 74 Presidents Budget was submitted thereby reflecting a reduction in military manpower as follows:

Free world support	8,100
Strategic Intelligence Security and Communication	1,100
DOD and joint activities	100
General support forces	100
Individuals (Conus located)	2,500
Total	11,900

The remaining 1,000 reductions in Strategic Intelligence and Security and Communications are composed of 700 spaces due to reduced Defense Intelligence Programs and 300 spaces associated with world wide Strategic Communications reductions.

Chairman McCLELLAN. Proceed.

General KJELLSTROM. Other Service Support consists of Engineer Construction Battalions required for Air Force support. A minor reduction here results from a reduced effort in Thailand.

The last grouping depicts the Army continental air defense. A reanalysis of the bomber and missile threat to the United States resulted in the decision that the NIKE/HERCULES air defense units in the continental United States would be inactivated by the end of FY 75.

This chart shows the trend in Special Mission manpower for selected years since FY 1961. The peak requirement for Vietnam operations was reached in FY 1969, and since then we have had a continuing decrease for the reasons I discussed.

The percentage figures in the lower part of the FY 73 to FY 75 graph represent the portion of Special Mission Forces that are combat units such as missile, Air Defense, Special Forces and the brigades in Berlin, Panama, and Alaska.

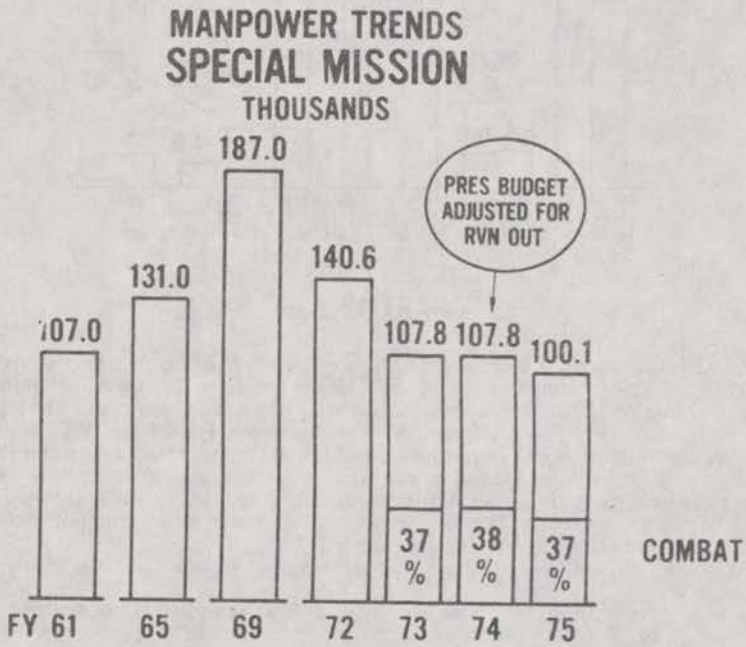


CHART 13.

General KJELLSTROM. General Support Forces shown on Chart 14 provide CONUS based central support for the total Army—Active, Reserve Components and the civilian population. Since this account is 70% civilianized, I will discuss these forces in two parts—military and civilian.

The military personnel in this account are required to accomplish military peculiar duties, provide military command and control, and provide a rotation base for certain skills to properly utilize trained individuals returning from or going overseas. As you can see, the trend is downward in most accounts, particularly the first two on the left. In particular, I would like to point out that we have reduced headquarters and personnel services by 1600 but have increased Reserve Component Support by 700 for a net reduction of 900 spaces or 3 percent in that overall category.

The slight rise in Medical Services is attributed to our continuing consolidation of functions under the Health Service Command that were previously carried in other sub-accounts.

You will note across the bottom of the chart our plan for the FY 75 civilianization program which represents about 3500 military spaces converted to civilian spaces in these accounts. I will address this in more detail later.

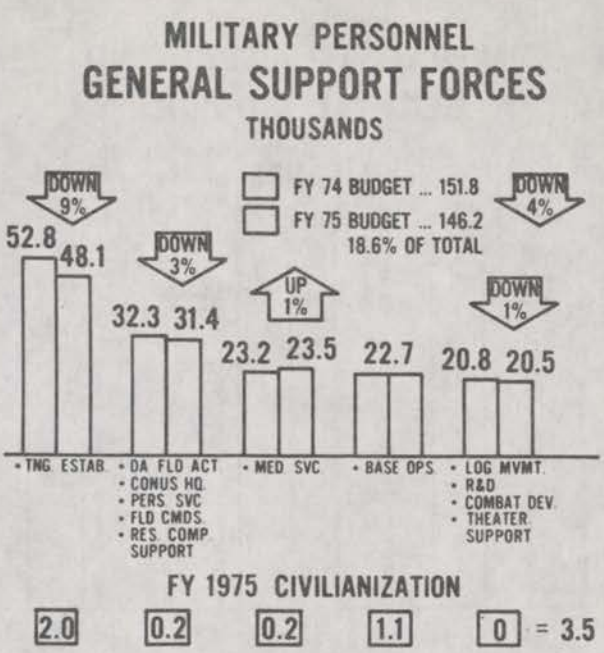


CHART 14.

Chairman McClellan. Describe the types of support jobs and positions that cannot be civilianized, and indicate the number in the General Support Forces that fall in this category.

General Kjellstrom. The Army cannot civilianize positions in the support area which are required to provide a rotation base for oversea assignments or those which require military incumbents for reasons of law, security, maintenance of morale and discipline, combat readiness and training. Upon completion of the current civilianization program, which includes the conversion of 10,000 positions by end FY 74 and an additional 4,078 positions by end FY 75, civilians will have been placed in all support positions considered suitable for civilianization. The remaining 146,200 military positions in the General Support Force fall into one of these restricted categories and as such are not available for civilianization.

Chairman McClellan. Does the Army have an ongoing program to identify additional jobs that can be civilianized, and what do you anticipate is possible in this area in the next two or three years?

General Kjellstrom. The Army continually reviews its manpower requirements as they are influenced by mission adjustments, command reorganizations, deployments, and rotation base considerations to determine additional military positions suitable for civilization. Organizational documents and on-site manpower survey reports are also reviewed at every echelon of command to identify positions which should be civilianized. These actions will identify on a case-by-case basis not only positions which can be converted to civilian occupancy but others which, because of changing circumstances, might be more suitable to be filled by a military incumbent. The Army does not anticipate any significant civilianization after conclusion of the FY 75 program.

Chairman McClellan. Proceed.

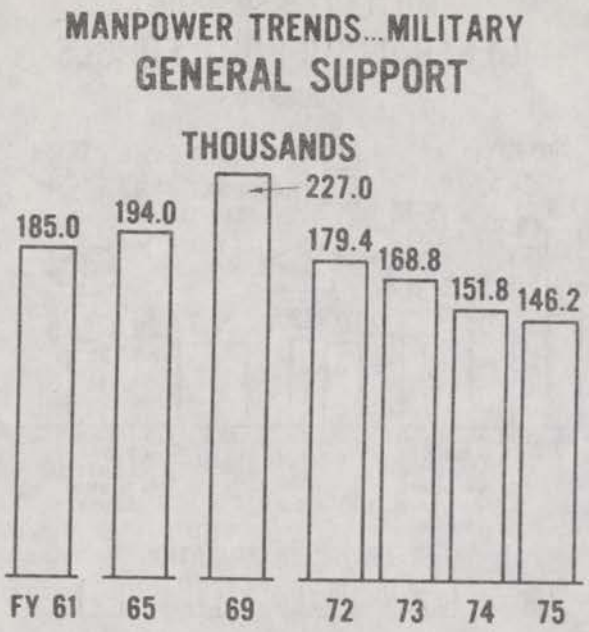


CHART 15.

General KJELLSTROM. Chart 15 shows the overall trend in general support manpower for military strength. You can see that we are at a lower level of general support manpower than at any time in the past 15 years.

General KJELLSTROM. Chart 16 shows general support civilian personnel in the same categories as I discussed for military. With the exception of the training base and base operations we have programed reductions in civilians in this account similar to those in military personnel.

The training establishment is up because of civilianization although the total of military and civilian personnel in this account is down.

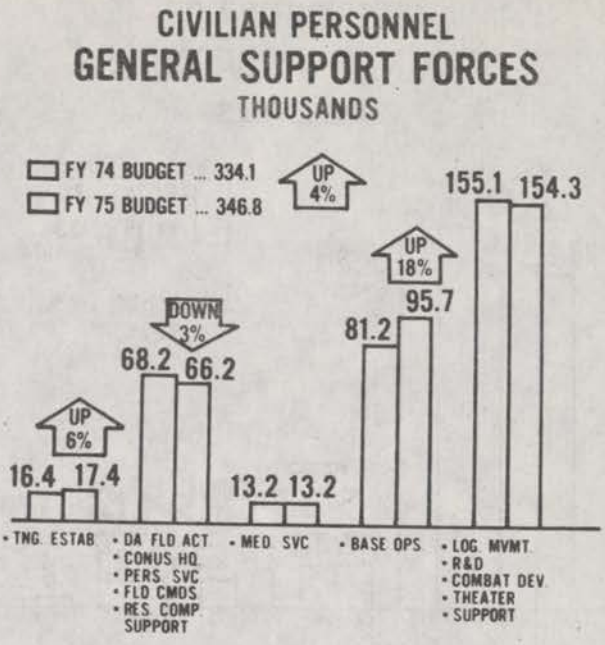


CHART 16.

General KJELLSTROM. The second sub-account is down primarily because of headquarters and personnel services reductions as was the case for the military.

The base operation account increase reflects the sum of two major actions. First, we have civilianized about 1100 positions—replacing a military space with a civilian space.

The other action is that we have increased the civilian manpower authorization by about 13,500 in order to accomplish two things. First, this increases the manning of recognized requirements, thereby providing an increased capability to support our CONUS forces in this critical account. Secondly, it allows us to return about 4500 military personnel that are borrowed daily, on the average, from STRAF units to do jobs that are not skill related.

UNDERMANNING

Chairman MCCLELLAN. What is the total undermanning considering recognized requirements in base operations?

General KJELLSTROM. The total undermanning considering recognized requirements in base operations is 27,000 spaces.

REPLACEMENT OF STRAF TROPPS WITH CIVILIAN PERSONNEL

Chairman MCCLELLAN. Why are 4,500 STRAF troops being replaced with 13,500 newly hired civilians?

General KJELLSTROM. We are requesting only 4,500 civilians to replace the 4,500 STRAF personnel who are performing essential installation functions which do not contribute to unit training or the individual soldier's military occupational skill development. The additional 9,000 civilian positions we are requesting are to reduce the manpower shortfall in base operations support, thereby improving the standard of living of soldiers and their families.

Chairman MCCLELLAN. Proceed.

General KJELLSTROM. The following chart displays the portion of our military manpower which is carried in the Trained Individuals account. These are all overhead in the sense that they are not part of the unit strengths.

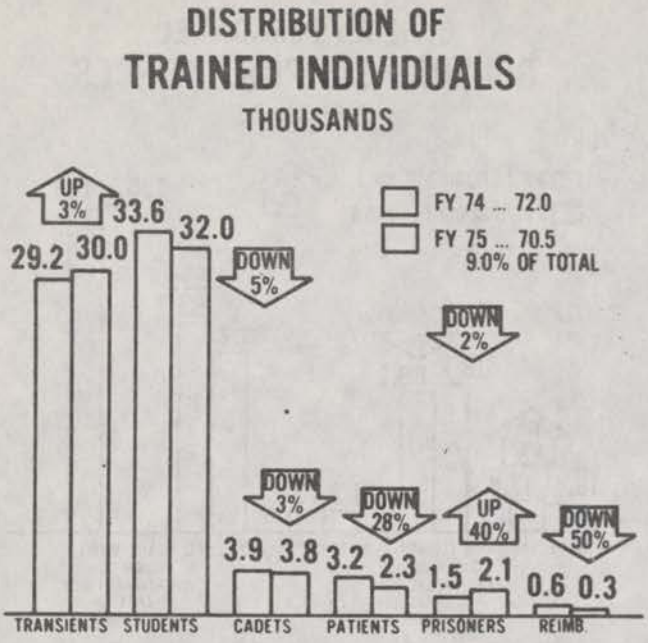


CHART 17.

General KJELLSTROM. Overall, Trained Individuals are down. The Transient account is up slightly because of the high losses expected in Europe near the end of FY 75. These losses result from the increasing input of replacements to Europe with 14 to 18 months left to serve. These actions are required to keep Europe up to strength.

INCREASED INPUT OF REPLACEMENTS TO EUROPE

Chairman MCCLELLAN. Explain why there is an increased input of replacements to Europe with 14–18 months left to serve. What is the normal duty tour in Europe?

General KJELLSTROM. The prescribed tour of duty in Europe is 36 months for bachelors and personnel accompanied by their command sponsored dependents and 24 mouths for all other personnel. The number of replacements assigned to Europe with 14–18 months left to serve has increased because (1) sufficient personnel have not enlisted for the Europe option and (2) there are insufficient uncommitted personnel, i.e., those without enlistment options for CONUS or other oversea areas, to meet Europe reuqirements. Therefore, to maintain the authorized strength of Europe, it has been necessary to assign to Europe first-term enlistees who have completed their enlistment option stabilization in a CONUS unit of choice. These personnel have approximately 14–18 months remaining on their 3-year enlistment upon arrival in Europe. As a result, the average tour length in Europe has been 18.7 months for first-term enlisted personnel as compared with 28.4 months for career NCO's and 30.5 months for officers.

Chairman MCCLELLAN. Proceed.

General KJELLSTROM. The number of prisoners is expected to increase because of the expanded use of the Rehabilitation Center at Fort Riley. This results from a tightening of the administrative discharge policies.

Change in Administrative Discharge Policies

Chairman McClellan. Explain how the administrative discharge policies have been changed, and why this results in an increase in prisoners.

General Kjellstrom. Mr. Chairman, the administrative discharge policies were not changed, but clarified and amplified. It has become necessary to establish controls to ensure that a soldier is not discharged until every reasonable and proper effort has been expended in his behalf. Based on the clarified Army policy, commanders are taking a more positive insight into the causal factors and problems, and, where warranted, preferring court martial charges in lieu of discharge. An assignment to a Retraining Brigade would follow. Here a soldier would get closer supervision and expert professional guidance. He then can return to duty as a more motivated and responsible man.

Chairman McClellan. Proceed.

General Kjellstrom. Chart 18 shows the trend in trained individuals since FY 1961. The proportion of the force included in this account is relatively constant at about 9 percent. During the Vietnam War it rose to slightly over 12 percent due to the frequency of PCS moves to and from Vietnam. We expect the level to decrease only slightly in the future as we continue our stabilization policies.

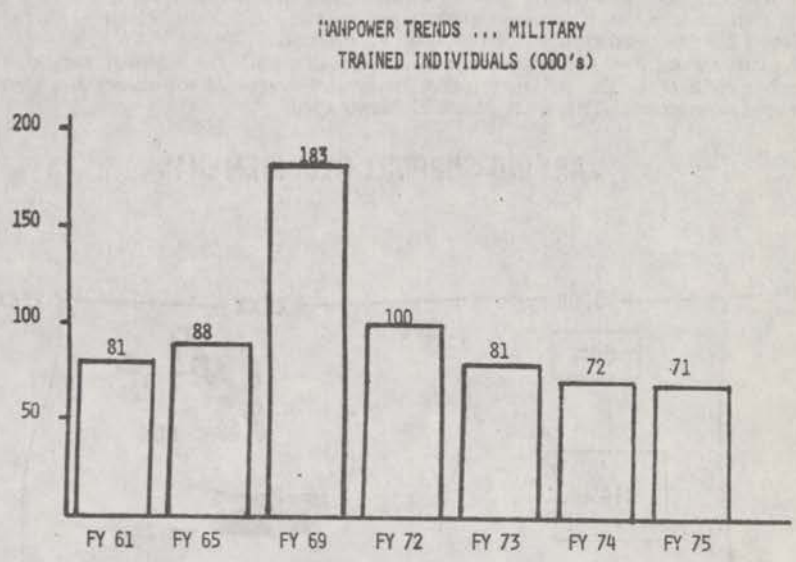


CHART 18.

Combat to Support Ratios

General Kjellstrom. I would now like to address a subject area which has often been misunderstood—the combat to support ratio, or as it is sometimes referred to, the "Teeth to Tail" ratio.

First I want to emphasize that there is no single definition of these two categories which is fully accepted by all. For example, if we define combat forces as being those assigned to divisions and similar fire and maneuver units over half of the Army would be in combat units. On the other end of the scale if we restrict the definition to only those personnel with combat Military Occupational Specialties (MOS) such as riflemen, tank crewman and artillery gunners we would probably have less than one-fourth of the Army in the combat category.

We believe that the Army is best viewed in light of total force requirements for the employment of combined arms teams, rather than being compartmentalized into arbitrary definitions as combat or support units. The Army fights as combat arms teams. That is, we deploy and fight a unit in combination of infantrymen, tankers, engineers and artillerymen; tactically supported by medics, mechanics, cooks, signaleers; and controlled by combat commanders. Our tank crewmen and infantrymen engage the enemy. However, behind that line of squads and platoons must be a commander who is coordinating their fire and maneuver and all the supporting activities that enable them to continue to fight. They must have medical support to treat and evacuate the wounded. They must have communications in order to talk to their supporting artillery, helicopters, and the Air Force. They must have someone who is bringing them food, ammunition, replacement weapons and soldiers, spare parts, petroleum, and maps. They have to have someone who is repairing and evacuating their damaged equipment. This combined arms concept was effectively revalidated during the Yom Kippur War. When tanks and infantry, air defense and artillery, and tactical support necessary to keep troops moving, shooting and communicating were operating together, the forces were successful. When one or more of these ingredients were missing, the force was unsuccessful.

The point is that a force must be built with a balance among the combatants. Thus, there is no optimum combat-to-support distribution. Each type force is tailored for the performance of its assigned mission.

As these combined arms teams are built the demands for support vary due to a number of factors. The primary factor being the degree of sophistication of weapons and equipment. This next chart illustrates this.

VARYING SUPPORT REQUIREMENTS

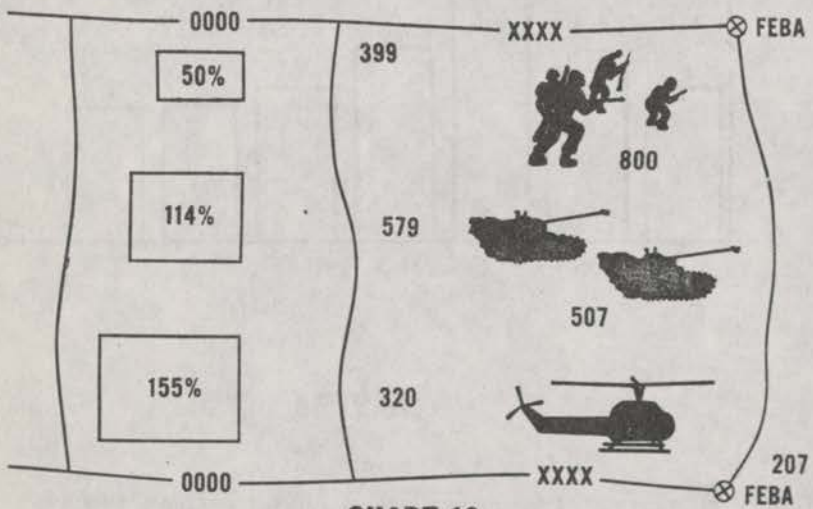


CHART 19.

General KJELLSTROM. An infantry battalion consisting of about 800 men deployed in combat requires an additional 399 personnel, or about 50 percent of its strength in support roles. An artillery battalion about 114 percent. Finally an attack helicopter company, with significantly greater sophistication in weapons systems and fewer soldiers directly exposed to enemy fire, requires over one and one-half times its own strength in support.

Skill Comparisons of Support Personnel

Chairman McClellan. Provide some skill comparisons of the personnel who support an infantry battalion, an artillery battalion and an attack helicopter company.

General Kjellstrom. An infantry battalion is supported by almost all of the skills identified in the Military Occupational Speciality (MOS) system. These would include:

31B Field Radio Mechanic
36K Field Wireman
54D Chemical Equipment Repairman
43L Shoe Repairman
45B Small Arms Repairman
71L Administrative Specialist
75B Unit Clerk
73C Finance Specialist
76X Subsistence Storage Specialist
91A Medical Corpsman
94Z Food Service Supervisor

These skills include many of those that are found in units providing specialized support to artillery battalions and attack helicopter companies. Skills that can be considered "specialized" for support of artillery battalions or attack helicopter companies, either because of unique requirements of the supported unit or large numbers of personnel involved, are as follows:

Artillery Battalion:

13E Field Artillery Cannon Operations/Fire Direction Assistant
13Z Field Artillery Cannon Senior Sergeant
35B Electronic Instrument Repairman
44E Machinist
45L Artillery Repairman
45Z Armament Maintenance Foreman—Inspector
55B Ammunition Storage and Operations Specialist
55X Ammunition Inspector
55Z Ammunition Foreman
82C Artillery Surveyor

Attack Helicopter Company:

35L Avionic Communications Equipment Repairman
55B Ammunition Storage and Operations Specialist
64C Motor Transport Operator
67W Helicopter Technical Inspector
67Z Aircraft Maintenance Senior Sergeant
68B Aircraft Turbine Engine Repairman
68F Aircraft Electrician
68H Aircraft Hyraulics Repairman
76W Petroleum Storage Specialist

Support Personnel Required by Units

Chairman McClellan. What is the basic number of support personnel required to support each of these units, not considering its specialized equipment support requirements?

General Kjellstrom. The basic number of support personnel required to support each of these units is based on the identification and deletion of personnel assigned to units providing specialized support. Support is designated as specialized because of the unique requirements of the supported unit. The basic number of support personnel required for these units are:

Infantry Battalion—315
Artillery Battalion—249
Attack Helicopter Company—142

Chairman McClellan. Proceed.

General Kjellstrom. This discussion is not intended to imply that we in the Army believe that we have attained a total force mix which cannot be improved. As the Chief of Staff of the Army pointed out in his statement, we are constantly reviewing the force composition with a view toward improving our combat effectiveness. Chart 20 shows our track record in this area for FY 1973–75.

DISTRIBUTION...
COMBAT TO SUPPORT

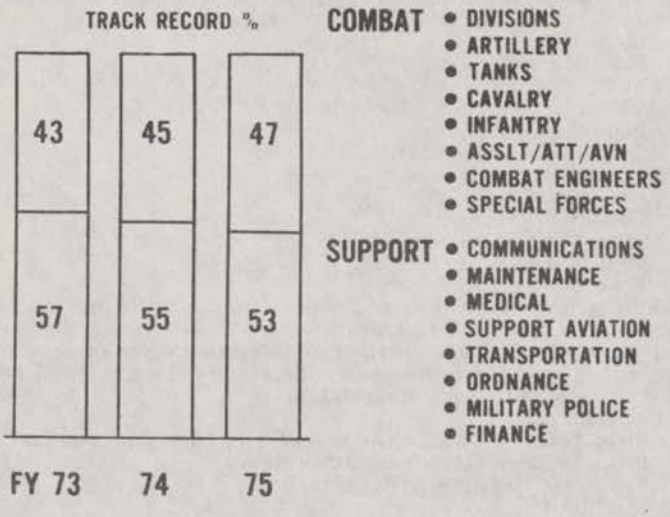
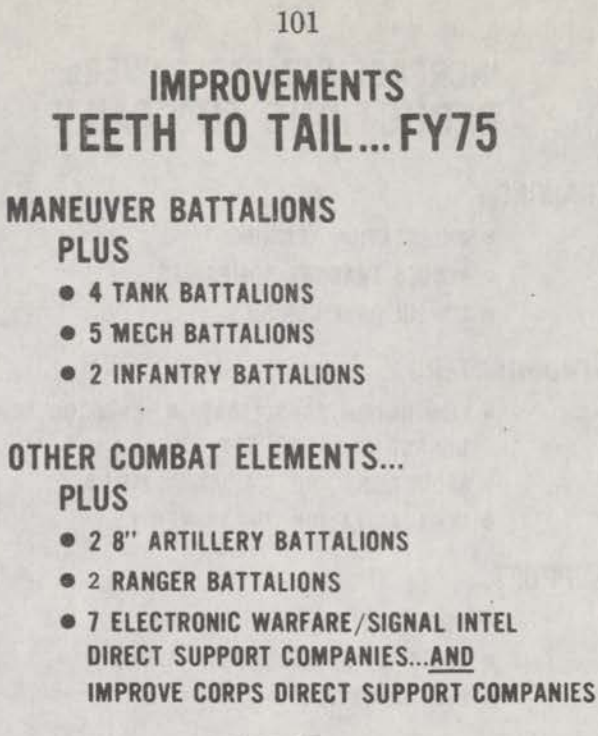


CHART 20.

General KJELLSTROM. The percentages on this chart were developed by comparing manpower assigned to units. The portion denoted as combat includes division forces and the combat units in special mission forces. Individuals are not included.

The important point illustrated by this chart is not the specific percentage of the force in the types of units shown. Instead, it is that the trend is in the right direction—toward getting more teeth into the ratio. This trend results from two actions, the addition of combat units and reductions in the support tail.

Chart 20A lists those programed additions in maneuver battalions and other combat elements included in the FY 75 budget. These force structure increases result directly from the decreases in General Support manpower addressed on the previous chart.



DECREASE IN SUPPORT ESTABLISHMENT

Chairman MCCLELLAN. Assume that the additional combat forces the Army is seeking to create in FY 75 are not added to the combat structure. How much of a decrease in the support establishment could be made since fewer combat forces are being supported?

General KJELLSTROM. There are many factors which complicate the answer to this question. The manner in which these reductions were assessed would have a great bearing, i.e., if the reductions were assessed in one location, it is likely that a base could be closed and all support at that base would no longer be required. On the other hand, if the reductions were assessed at various locations, the savings would be relatively minor. In practice, there are no fixed ratios between all categories of manpower and end strength. Patients and prisoners, which are determined by factors, are directly related to end strength; however, the other categories of individuals, transients, trainees and students, are a composite of end strength, recruiting capability and policy, thus, as other elements of the force structure, they require examination on a case-by-case basis.

Chairman MCCLELLAN. Proceed.

General KJELLSTROM. Chart 21 shows the areas where we reduced military spaces in order to constitute additional combat forces which allowed us to begin the increase in combat power above the 13 division level without increasing the overall military end strength. The most significant of these are training base reductions, headquarters reductions and civilianization.

INCREASE COMBAT POWER...
REDUCTIONS TO "TAIL"

TRAINING...

- ONE STATION TRAINING
- REDUCE TRAINING COMPANIES
- CONSOLIDATE SCHOOLS

HEADQUARTERS...

- ELIMINATION/CONSOLIDATION...ARADCOM/USARAL/USARSO/USARPAC...ETC
- REDUCTIONS...MOST ARMY MG'MT HQS.
- REORGANIZATION...DEPARTMENTAL

SUPPORT...

- ADP REDUCED
- LOGISTICS ESTABLISHMENT REDUCED
- CIVILIANIZATION

CHART 21.

General KJELLSTROM. In the training establishment we are instituting what we call the professional home concept illustrated in Chart 22.

INTEGRATION OF TRAINING POSTS

General KJELLSTROM. Under the traditional approach to initial training for individuals entering service they would undergo training at up to three separate locations prior to being assigned to a unit. We are now realigning our system to provide for basic, advanced and skill training at the same post. We believe that this approach provides significant advantages in the effectiveness of training as well as reducing overhead and travel time currently used for movement between station. I will address this in more detail later.

Chart 23 shows the overall reductions of about 9 percent that we have programed for the training establishment in this year's budget.

A second area where we have been able to develop significant manpower savings for reapplication to combat structure is in headquarters operation. When I presented the Army's budget request before this committee last year I reported that in an effort to gain better management of headquarters operations we were implementing revised reporting and accounting procedures. The figures concerning headquarters strength in the current request are consistent with those revisions. I point this out since under our revised accounting we include some 6000 spaces as headquarters which were not previously designated as such.

INITIAL ENTRY TRAINING

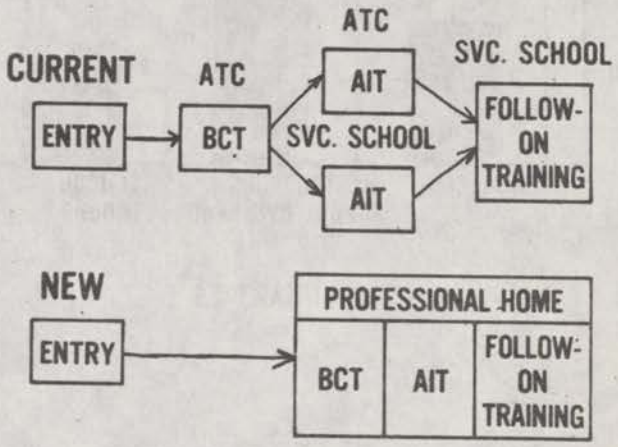


CHART 22.

MANPOWER REDUCTIONS

General KJELLSTROM. This chart shows that the FY 75 budget includes programed reductions of over 18,000 spaces since FY 1969 when we began our major efforts to reduce headquarters manpower. Almost 5,000 of these are between FY 1974 and FY 1975, and we have as an objective a further reduction of 4,000 spaces beyond that.

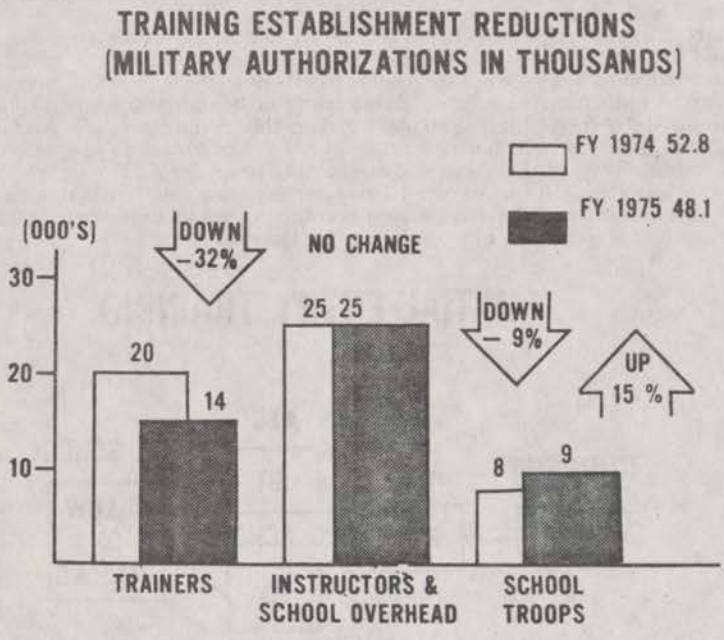


CHART 23.

HEADQUARTERS CHANGES

General KJELLSTROM. Chart 25 shows those headquarters where major changes are programed.

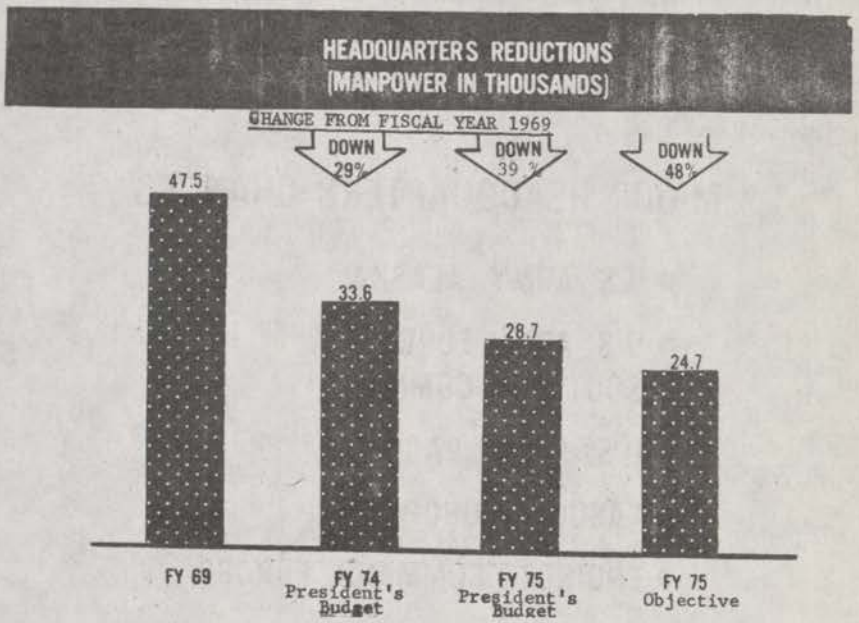


CHART 24.

CHANGES IN MANPOWER

Chairman MCCLELLAN. List the changes in manpower by each headquarters shown on chart 25.

General KJELLSTROM. The table below shows the major changes programed for the headquarters on chart 25. Subsequent to submission of the FY 75 President's Budget and completion of a headquarters review which resulted in further FY 75 reductions in all Army management headquarters, decisions were made to eliminate all 7 major headquarters listed on chart 25. Except for the US Army Intelligence Command which is to be discontinued by 30 June 1974, all others will be at zero strength by end FY 75. The actual savings cannot be determined at this time because of the functional realignment associated with these actions, however, they will in no event be less than the total of those reductions shown below. Detailed implementation plans due in May 1974 will identify the potential savings derived from the elimination of these headquarters.

	End fiscal year 1974 (fiscal year 1974 budget)	Changes	End fiscal year 1975 (fiscal year 1975 budget)	Headquarters review	Objective, end fiscal year 1975
USARAL	383	−40	343	−37	306
USARSO	406	−6	400	−96	304
USARPAC	1,479	−111	1,368	−423	945
TASCOM, EUR	988	−32	956	−455	501
ENG COM, EUR	364	−23	341	−110	231
ARADCOM	569	−430	139	−33	106
INTEL CMD	212	−38	174	−174	0

Chairman MCCLELLAN. Proceed.

CIVILIAN SUBSTITUTION PROGRAMS

General KJELLSTROM. Finally, as a means of further increasing the availability of military manpower for combat units we are continuing with the civilian substitution program. You may recall that in the FY 1974 budget we included a plan for the civilianization of 10,000 military positions. That program is proceeding generally as planned although we have not been able to fill all the positions in accordance with our initial schedule primarily due to the major reorganization and realignment taking place.

The FY 1975 program for conversion of additional spaces is shown on Chart 26. With the completion of that program we will have converted over 40,000 military positions since FY 1966.

MAJOR HEADQUARTERS CHANGES

- U.S. ARMY, ALASKA
- U.S. ARMY FORCES, SOUTHERN COMMAND
- U.S. ARMY, PACIFIC
- TASCOM, EUROPE
- ENGINEER COMMAND, EUROPE
- ARADCOM
- U.S. ARMY INTELLIGENCE COMMAND

CHART 25

MILITARY STRENGTH AND GRADE STRUCTURE

General KJELLSTROM. We have provided for a military end strength of 785,000 in FY 1975 compared to 782,000 at the end of FY 74. The increase is entirely in enlisted personnel since there is a decrease of 4% in the total number of officers. Chart 27 shows the total strength picture from the end of FY 1972.

ARMY CIVILIANIZATION PROGRAM
FY 1975 BUDGET IMPACT

REDUCTIONS	END STRENGTH	MAN YEARS	BUDGET ADJUSTMENT ($ IN MILLIONS)
MILITARY PERSONNEL	4,938	2,469	$20.683
O&M SUPPORT	–	–	3.013
TOTAL REDUCTIONS	4,938	2,469	23.696
INCREASES			
CIVILIAN PAY	4,078	2,039	18.887
NET SAVINGS	–	–	4.809

CHART 26.

General KJELLSTROM. The high mid-year total strength in FY 1973 was a result of the last use of the draft. However, the FY 1973 end strength of 801,000 was approximately 23,000 below the FY 1974 President's Budget and included some Army forces remaining in Vietnam. Our FY 1973 end strength was adjusted downward to 815,000 once the Vietnam withdrawal was completed. However, recruiting shortfall still caused the end strength to be approximately 14,000 below the adjusted FY 1973 end strength. During FY 1974, our actual strength has been lowered by recruiting shortfall, but our goal for end FY 74 is an end strength of 782,000 which we expect to be reasonably close to. We further expect that improvements in our recruiting will provide the required FY 1975 end strength of 785,000.

RATES OF OFFICERS TO ENLISTED MEN

Both the Army and this Committee have expressed concern over the past several years as to the ratio of officers to enlisted men. We have applied positive, and sometimes harsh, measures to reduce the officer strength, as you can see on this chart.

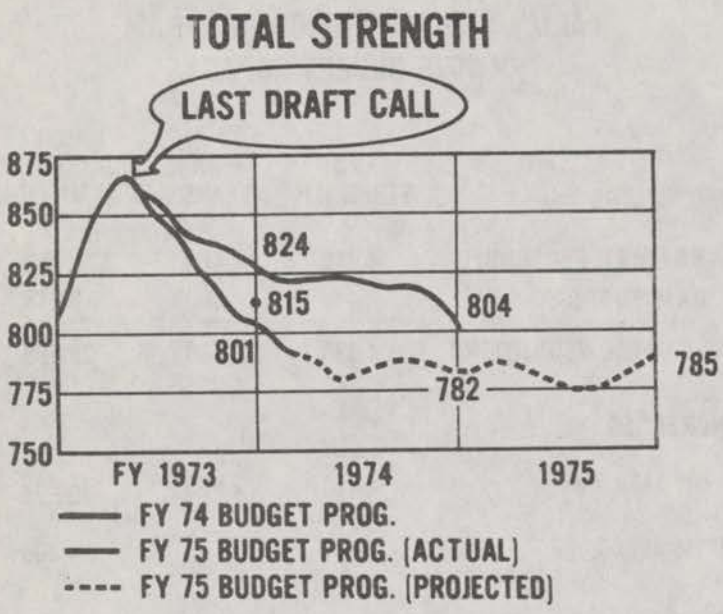


CHART 27.

General KJELLSTROM. The officer profile reflected on Chart 28 shows that the number of officers is projected to decline in FY 1975 whereas the total Army strength is increasing slightly. Rigorous action has been taken to accomplish this decline. The percentage reduction has been accomplished despite the Army's increased officer needs in Aviation, Medical Data Processing and the legal field since FY 64. Decreasing the officer content is difficult because of the inherent stability of the officer force. Most are career soldiers and normal retention to 30 years is high.

To reach the FY 75 officer figure, we show a 2.2 thousand involuntary release. We need your help on pending legislation to enable us to apply this release to Regular Officers as well as career Reservists. Otherwise, gross inequities will arise.

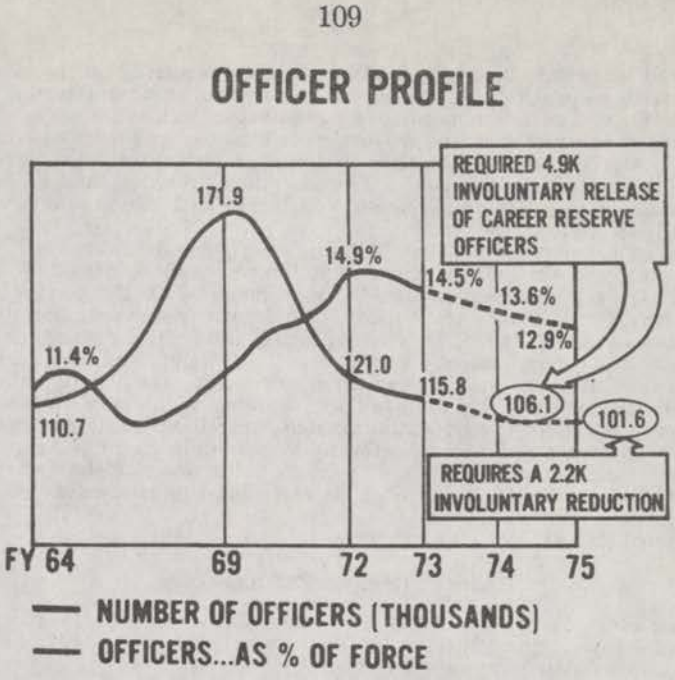


CHART 28.

GENERAL OFFICER STRENGTH

General KJELLSTROM. Another area where much attention has been focused is on the number of general officers in the structure. Chart 29 shows the relationship between general officer strength and total strength. Those who maintain that the number of generals has not declined consistent with the decline in total Army strength often compare the change since the peak Vietnam period. While it is true that general officer strength declined only 9% while total strength declined. 50% since FY 1968, one must go back earlier to be able to view the overall trend The above chart shows that from FY 1964 to FY 1968 total strength increased by 61% but general officer strength by only 3%. Thus, the significant point is that general officer positions do not have a direct relationship to overall strength and should not be expected to vary in direct proportion.

ESTABLISHMENT OF GENERAL OFFICER REQUIREMENTS

Chairman MCCLELLAN. If general officers do not have a direct relationship to overall strength, how are general officer requirements established?

General KJELLSTROM. The number of general officers who may serve on active duty is prescribed by Section 3202, Title 10, US Code (the Officer Grade Limitation Act—OGLA) and is based on commissioned officer strength. For example:

Total commissioned strength authorized	*Authorized general officers*
70,000	425
80,000	450
90,000	475
100,000	495

The need for senior officers in the Army is based primarily on the missions and the executive responsibilities that it must carry out, rather than on the gross size of the force. Just as the number of top managers in civilian corporations does not expand or contract in direct proportion to increases and decreases in the work force, OGLA recognizes the principle that rapid increases of senior executives to meet requirements is not feasible. The law thus provides that general officer strengths do not fluctuate by a constant percentage of the fluctuations in the total force or the strength of the Army.

General officer requirements are the number of general officers required by the missions and commitments of the Army. There are both "inside" Army and "outside" Army requirements. "Inside" requirements are those directly related to the Army force structure; "outside" requirements are not directly related, e.g., positions in OSD, OJCS, Defense Agencies, and unified commands.

"Inside" Army requirements are reported by major field commanders and Department of the Army staff agency heads as requiring the assignment of general officers. These reports are submitted and validated annually. General officer requirements normally exceed authorizations; therefore, positions approved for support are those deemed most essential to the accomplishment of Army missions.

"Outside" Army requirements are positions determined by the Department of Defense and the Joint Chiefs of Staff as requiring the assignment of an Army general officer.

Chairman McClellan. Proceed.

General Officer Requirements

General Kjellstrom. The Army continuously reviews general officer requirements, and we are taking all necessary measures to insure that only those positions that are fully validated are filled by generals.

Another indication of our determination to hold the officer grade structure to minimum requirements is the number of senior field grade officers—Colonels and Lieutenant Colonels.

General Kjellstrom. Chart 30 provides information on the total number of officers in the top two field grades. Note that in these two grades we are below the allowance permitted by the Officer Grade Limitation Act (OGLA) and that the number of officers in both grades is decreasing although the total Army strength will increase slightly.

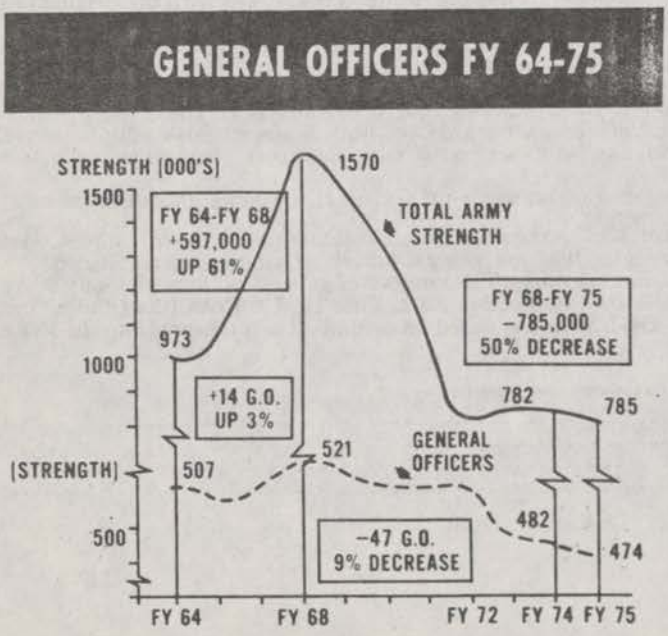


CHART 29.

ENLISTED GRADE TREND

General KJELLSTROM. Looking now at the enlisted grade structure for the top six grades, the same favorable trend is evident on Chart 31. The 62.9 percent of the enlisted force projected to be in the top six grades probably represents the approximate level at which we will stabilize.

SENIOR COMMISSIONED OFFICERS BY GRADE

(PARENTHESES INDICATE OGLA ALLOWANCE)

	FY 64 (ACTUAL)	FY 73 (ACTUAL)	FY 74 BUDGET	FY 75 BUDGET
COLONEL				
NUMBER	5,119	5,381	5,082 (5357)	5,085 (5225)
% OF TOTAL	4.6	4.6	4.8 (5.1)	5.0 (5.1)
LIEUTENANT COLONEL				
NUMBER	12,363	12,212	11293 (11,569)	11,261 (11,180)
% OF TOTAL	11.2	10.8	10.6 (10.9)	11.1 (11.0)

CHART 30.

ARMY TOP SIX STRENGTHS
PERCENTAGE OF ENLISTED FORCE

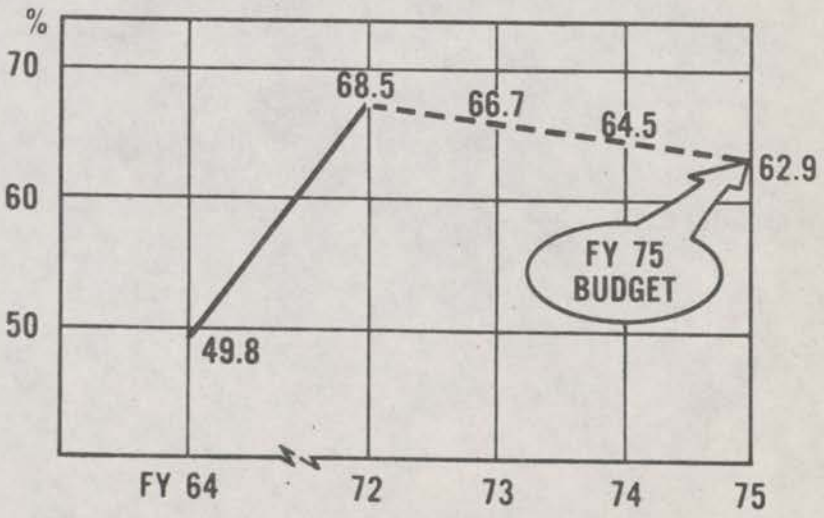


CHART 31.

General KJELLSTROM. In regard to the enlisted grade structure and the proportion of enlisted personnel in supervisory positions, we do not believe that the top six gives a true representation. At the present time 40 percent of the top six grades are Specialist E–4 who do not have command or leadership responsibilities. Chart 32, below, shows the ratio of the top 5 grades with specialist E–4 excluded.

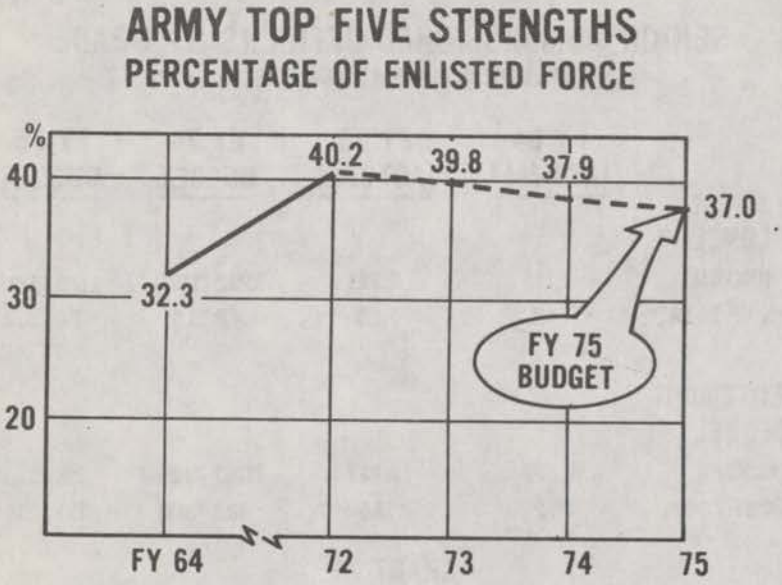


CHART 32.

SUPERVISOR-WORKER RATIO

General KJELLSTROM. This chart gives a better picture of the supervisor/worker ratio, although not an absolutely correct one since over 30 percent of the top 5 grades are also Specialists rather than Non Commissioned Officers.

Chart 33 displays total civilian employment including indirect hire foreign national personnel. The number of employees in FY 1975 will be 5 percent below the FY 1964 level, although we have completed significant program changes over the past 10 years. Examples of these changes include the substitution of about 42,000 civilians for military personnel and a program increase of over 10,000 Reserve Component Technicians. Adjustment of the FY 1964 base for these programs shows that in reality we have implemented reductions of about 73,000 spaces or 14 percent.

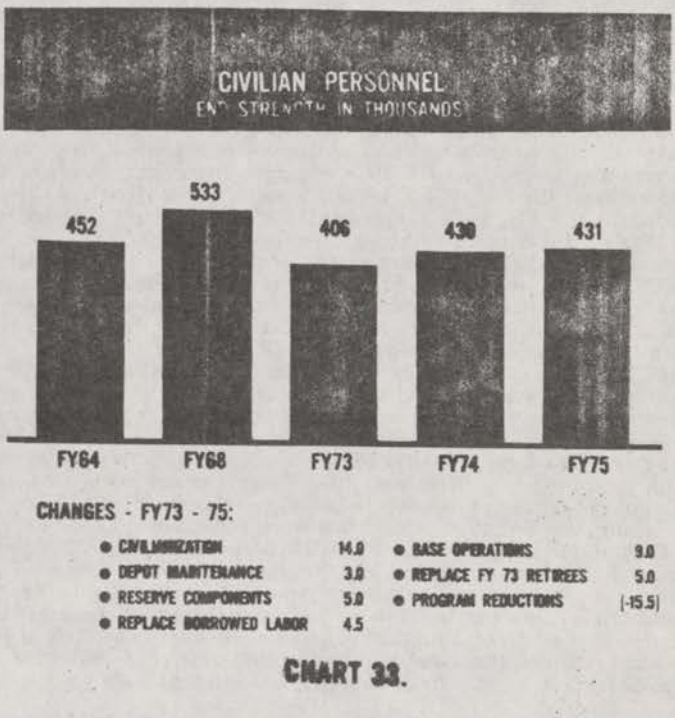


CHART 33.

Civilian Personnel Increases

Senator Young. Does the Army plan additional increases in civilian personnel?

General Kjellstrom. We are requesting an increase of approximately 2,400 direct hire civilians in FY 1975 over FY 1974. This increase is primarily attributable to the FY 1975 civilianization program of 4,100 with offsetting decreases of approximately 1,700 spaces.

Chairman McClellan. Why are indirect hire foreign national personnel included in chart 33?

General Kjellstrom. We have included the indirect hire foreign national personnel in this chart to portray our total civilian workforce.

"On Going Programs"

Chairman McClellan. Explain what is meant by "on going programs"?

General Kjellstrom. These are the day-to-day programs required to provide basic essential services to soldiers and their families. Some examples would be the operation of medical and dental care facilities, maintenance and repair of equipment and facilities and operation of supply functions.

Chairman McClellan. Proceed.

General Kjellstrom. Upon submission of the FY 1975 budget to the Congress in February of this year immediate concern was expressed over the apparent major increases in the revised FY 1974 employment program as compared to the actual strengths at the end of FY 1973. Although the majority of these positions are included in the FY 1974 supplemental request, which was addressed in a separate hearing, I will briefly address them here.

At the end of FY 1973 the Army had a total civilian employment level of 406 thousand. This level; however, did not fairly represent our requirements due to a number of significant factors. The first was the government wide civilian personnel reduction of 5 percent imposed by presidential order late in 1972 without regard to requirements. This caused us to reduce the FY 1973 program from the planned level of 440 thousand to a program of less than 420 thousand.

Stringent controls were imposed during execution of the FY 1973 program to insure the directed reductions were accomplished. These controls included some hiring freezes which, along with higher than normal attrition drove the on-board strength below our target. Finally, there were approximately 5,000 retirements effective on the last day of fiscal year 1973 which are not in the end strength for that year simply because replacements had not yet been hired.

In developing the FY 1974 budget we were constrained to a level no higher than the 420 thousand approved for FY 1973, despite the fact that we had a 9,000 space increase for civilianization and a 2,000 space increase for Reserve Component technicians. The requirement to absorb these increases within existing total employment levels caused us to have an increased shortfall between requirements and authorizations in general support functions. It is this shortfall in jobs which must be accomplished that has required commanders to divert or "borrow" STRAF military manpower from mission related functions to use in general support.

This diversion of personnel obviously has an adverse effect on force readiness, and it is for that reason that we urgently need the increased civilian employment.

Even after maximum use of borrowed labor there still remained a shortfall in essential base operations manpower which is seriously hampering our attempts to maintain our physical plant and preclude further deterioration of real property facilities. The spaces required to return our installations to a point where these essential functions can be accomplished are included in the FY 1973–1975 increase.

A recapitulation of the net change between the actual FY 1973 civilian end strength and the request for FY 1975 follows:

Civilianization of military positions	14, 000
Replacement of STRAF borrowed labor	4, 500
Depot maintenance backlog	3, 000
Reserve component support	5, 000
Base operations	9, 000
Replace Fiscal Year 1973 year-end retirees	5, 000
Decreases in other programs	15, 050
Congressional reductions	(6, 500)
Reorganization and realinement	(4, 500)
Central supply and maintenance	(2, 800)
Transfers to Defense agencies	(1, 700)

IV. THE VOLUNTEER ARMY

The Secretary of the Army has already discussed the progress and problems associated with our first year of transition to the all volunteer army, and has provided copies of his report to the President on that subject. In addition, witnesses who will appear subsequent to todays session will cover additional details as they apply to specific appropriations. In light of this I will restrict my comments here to a very brief overview.

Recruiting

Looking first at the recruiting picture, we have a requirement to recruit a total of 201,000 personnel in FY 1974 and 217,000 for FY 1975, including male and WAC enlistees and first term reenlistments. First term reenlistments are included in our recruiting goal since we do not consider a soldier to be career-committed until his first reenlistment.

The following chart shows our recruiting progress in FY 1974 with details on the most recent months.

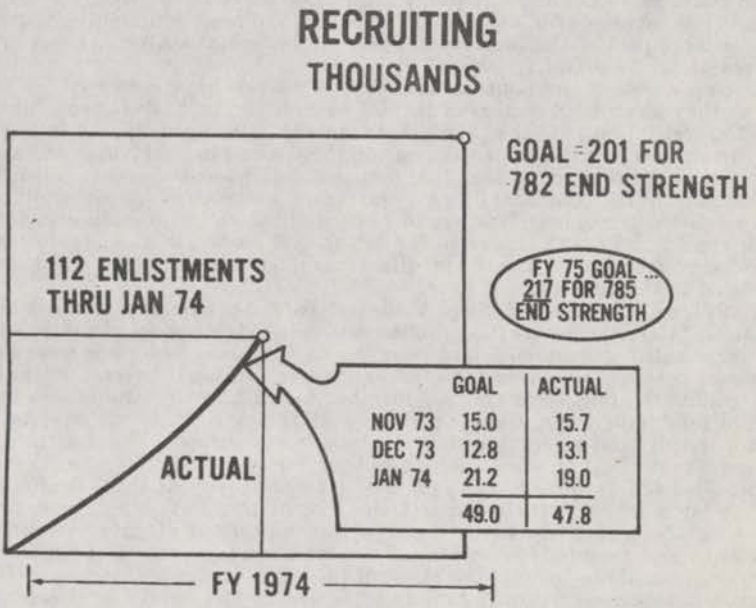


CHART 34.

General Kjellstrom. While we are still below our total objective for this year, the steady increase in the percent of the objective attained each month since July is very encouraging. We must keep in mind, however, that the months between now and June will probably be our most difficult recruiting months.

Quality Constraints

Both the Congress and the Army are concerned that we not sacrifice quality in our efforts to obtain a sufficient quantity of volunteers. In this respect, we will meet both the mental category constraint of not more than 18 percent of our accessions for the year in category IV and the educational constraint of not more than 45 percent non-high school graduates.

The Army has accepted these congressionally imposed constraints, but we do not believe that they are necessarily the best means of predicting the suitability of an enlistee. In line with this, we are using a combination of four factors in evaluating enlistees. These are: physical condition, moral background,

Army Classification Battery (ACB) test scores, and performance evaluation during the first 179 days of service.

Cost of the Volunteer Force

There has been a great deal of discussion about the cost of the volunteer Army. Some have suggested that we simply cannot afford to provide the pay and other benefits such as improved living conditions which will attract the required number of volunteers. This line of thinking infers that as long as we have the draft we are justified in paying the soldier less, and providing him with a standard of living below his civilian counterpart. Perhaps we in the Army have contributed to this misconception through our heavy emphasis on the cost of programs designed to enhance the quality of life for the soldier.

Examination of the programs which support the soldier's standard of living show that they are programs which are justifiable on equity alone; regarldess of whether they are also essential to the volunteer force concept. In fact, the incremental cost of the volunteer force is probably reflected in the increased cost of the recruiting effort alone since this is the one program essential to our success which could be significantly reduced if the draft were reinstated.

Since pay increases for lower grade personnel are most commonly referred to as being a large part of the incremental cost of the volunteer force, I would like to address these more fully.

There is no question about the fact that pay levels have increased in the Army just as they have in all sectors of the US economy. The basis for pay increases is found in legislation passed in 1967 that established the principle of full comparability between Federal civilian salaries and those found in the civilian sector. At the same time, a similar comparability measure was passed to cover military pay. Excluded from the comparability pay increases, however, were junior officers and junior enlisted personnel. This was in 1967, well before the all-volunteer force was under consideration. Thus, except for one special pay raise, the large increases in Army personnel pay costs are the direct result of comparability pay legislation, unrelated to the all-volunteer force.

In 1971, as part of the Project Volunteer package, Congress granted a special "catch-up" pay increase for junior officer and enlisted personnel. Prior to that time, first term enlisted personnel had received no increases, not even comparability increases, between 1952 and 1965, and only small raises between 1965 and 1971. As a result, the first term enlisted member found himself earning less than the Federal minimum wage, frequently living at the poverty level (especially if he were married), and in some instances actually on welfare. The first termer was earning about 60% of what his non-military friends could earn in the civilian sector. This simply meant that our first-termers—many of them draftees—were bearing far more than their share of the cost of the Nation's defense program. They were being heavily taxed through the imposition of poverty-level wages.

Thus in any reasonable analysis of the incremental costs of the all-volunteer force, one should not include the effect of the 1971 "catch-up" pay raise for first-termers. It was deserved in the interest of fairnees and equity, and was required whether we moved to an all-volunteer force or not.

Additionally, we find that the costs for recruiting advertising, scholarships, and special entitlements will be, to some extent, offset by substantial savings resulting from the volunteer force. These include savings in training, in reduced moves, and in increased productivity resulting from longer terms of service.

Savings From Longer Terms of Service

Chairman McClellan. Document the savings in training, reduced moves, and increased productivity resulting from longer terms of service. Where are they, how much of a saving is being made?

General Kjellstrom. The savings in training costs result directly from a reduction in the number of new accessions required to undergo initial entry training. The average amount of productive time on the job after formal training, under the draft, was 21 months, and that average time is expected to be over 32 months in the volunteer force. Thus, we will have fewer replacements undergoing initial entry training. We estimate that the cost of training a replacement, to include pay and allowances for instructors school support, personnel and students; supplies and equipment utilized in the conduct of training, and a pro-rata share of the base operations cost for the installation which supports the training

center averages approximately $2,500 for each new accession. By FY 1976 we estimate that we will require 35,000 to 40,000 fewer accessions to maintain the Army strength; therefore, the potential savings are $85 million to $100 million in FY 1976 and beyond.

With regard to the savings resulting from a reduction in moves, we are unable to identify the amount of reduction that will result specifically from longer tours of duty due to volunteers remaining in service longer than draftees, as opposed to longer tours of duty resulting from other management actions. In the aggregate; however, we will have reduced permanent change of station moves in the rotational and operational categories by 22,300 between FY 1973 and FY 1974 for a savings of $14 million. We anticipate a further reduction in these categories of about 4,300 moves between FY 1974 and FY 1975 for further savings of $2.4 million.

Concerning the increased productivity resulting from longer terms of enlistment, there is no practical way to quantify potential savings. Although it is logical to assume that an individual who remains in the Army longer becomes more proficient and efficient in his job; we cannot express this in dollars. Instead, the savings we refer to are the savings that result from being able to provide a higher level of readiness and combat effectiveness from a smaller Army than would be possible if the personnel turnover rate remained as high as was experienced under the draft.

Chairman McClellan. Proceed.

General Kjellstrom. The two-year term of service of the draft guaranteed a high rate of turnover in the Army. High turnover is costly in terms of recruiting and training, and it also reduces readiness. A dramatic example of increased efficiency brought about by the volunteer force can be found in the Army's combat arms—the infantry, armor, and artillery jobs that represent a significant portion of the Army's total manpower requirements. In 1971, with the draft operating, the average amount of productive time on the job after formal training was 21 months for those who did not re-enlist; and of course, few did re-enlist. Today, 87.7 percent of those going into the combat arms are serving for three years or more, and the average amount of productive time after training is over 32 months. The increase in productive time brought about by the volunteer force is about one year, a 57 percent increase over 1971. The resulting reduction in turnover and the higher level of experience in combat units contribute to greater readiness. Moreover, as a direct result of this increase in productive time, the Army's accession requirements for the combat arms in 1976 will be reduced by 15,000–20,000, a reduction of about 40 percent. This not only reduces recruiting goals for that year, but it also will save the Army an estimated $100 million in training costs. Thus the costs of the added recruiting effort are largely offset.

Savings in Training Costs

Chairman McClellan. Document the $100 million in training costs to be saved. This seems questionable in view of the relatively small decreases in Program 8 costs.

General Kjellstrom. The $100 million in training costs to be saved in FY 1976 refers to cost avoidance in total training costs. This includes the pay and allowances of the trainee plus instructor/overhead personnel costs. Also included is the cost of operating the training center and support costs to operate the installation where the training is conducted.

Total Training Costs

Chairman McClellan. Show the total cost of training as appropriated in FY 1974 and requested in FY 1975.

General Kjellstrom. Total training costs include portions of the Operation and Maintenance, Army; Military Personnel, Army; Reserve Personnel, Army; National Guard Personnel, Army; Procurement; and Military Construction, Army appropriations. The costs total $2.898 billion in fiscal year 1974 and $2.968 billion in fiscal year 1975.

Chairman McClellan. Proceed.

Outlook

General Kjellstrom. We in the Army do not view the question of the Volunteer Army in terms of "will it succeed?" We are demonstrating that it can succeed. This is not to say that we have found all the answers and can now sit back and

relax. Continuing success will require continuing effort. We must constantly review our programs and policies, and our recruiting methods to insure we are effective. Perhaps, above all we must present the Army as a challenge to our young men and women—a challenge which will attract and retain the type of individual we must have.

"SOLDIER ORIENTED" BUDGET

Senator YOUNG. Did the Army accomplish its goals in the FY 1974 "Soldier Oriented" budget?

General KJELLSTROM. Basically, yes. These goals, as you recall, were designed to assist us in achieving an all-volunteer force. With the funds provided, we have enhanced the professionalism of our force, improved living and working conditions and services provided to soldiers and their dependents and provided compensation geared to attracting and retraining well qualified and disciplined professionals.

As the Secretary of the Army and the Chief of Staff have stated, the all-volunteer force is working. Therefore, Senator Young, I would say that we have achieved the goals of the FY 1974 budget.

Chairman MCCLELLAN. Proceed.

General KJELLSTROM. We have included no major new programs in this budget with the express intent of attracting volunteers. In a broader sense, however, the entire budget is volunteer force oriented. Readiness, research, modernization, and standard of living all contribute to development of an efficient and effective force which will attract the volunteers required.

Although we have no new program specifically designated as volunteer force programs, we are continuing the momentum of those programs already established and approved which were designed for the primary purpose of attracting volunteers.

V. SPECIAL INTEREST ITEMS

At this point I would like to address some items which are of specific interest, and which are not covered elsewhere in my statement.

ENERGY CONSERVATION

The Army is feeling the pinch of the current energy shortage as are the other segments of society. We have implemented stringent controls, especially on petroleum products, to insure that consumption of energy is held to the minimum amounts consistent with force readiness.

Although the government wide energy reduction proposed by the President in June of 1973 was 7 percent, the Army has set a goal of a 14 percent reduction below the FY 1973 level. We have not yet collected enough data to be certain of the final results of the program, but initial reports indicate that we will be able to implement the reductions without serious impact on essential operations and training.

PETROLEUM CONSUMPTION

Senator MCCLELLAN. In support of your goal of a 14 percent reduction in energy, what was your petroleum consumption in FY 1973 and projected for FY 1974 and FY 1975?

General KJELLSTROM. The Army's petroleum consumption in FY 1973 was 24.9 million barrels and is projected to be 19.8 million barrels in FY 1974 and 21.1 million in FY 1975.

Chairman MCCLELLAN. Proceed.

General KJELLSTROM. Training exercises have been reduced in number and modified in scope to conserve fuel. In many instances, soldiers who rode to training now walk. We have canceled demonstrations, reduced flying hours, minimized the use of motor transport, shifted from line haul truck transport to commercial rail and eliminated all but the most essential administrative travel. We have lowered temperature control settings, reduced the use of lights and adjusted working hours. These measures could result in our consuming approximately 2 million fewer barrels of oil than were used for the same purposes last fiscal year.

The severe impact of petroleum price increases has, however, more than offset the savings we gain from reduced consumption. For example, JP4 aviation fuel has gone from 11.3 cents per gallon last June to 27.7 cents per gallon now, and prices for most ground fuels have increased from 25 to 40 percent. The net effect has been an increase in cost for POL of some $65 million.

Ground Fuels

Senator McClellan. What do you mean by "ground fuels"? Why is there such a disparity in price increases between the various types of fuel?

General Kjellstrom. The Department of the Army categorizes ground fuels as those used in wheeled and tracked vehicles and in stationary engines such as field generators. They are ordinary gasoline and diesel fuels.

The price disparity results from technical refining criteria for various fuels as well as Defense Supply Agency contract negotiation results. The 1 April 1974 price increases from DSA ranged from 27% for Navy Jet Fuel to 74% for diesel fuels.

Chairman McClellan. Proceed.

Army Reorganization and Realignment—1973

General Kjellstrom. In my appearance before this committee last year I addressed the Army reorganization in the United States. You may recall that we had identified four basic goals to be achieved by this reorganization. These were:

(1) Improve readiness of both Active and Reserve Component Forces.
(2) Harness schools and associated combat development activities.
(3) Improve the quality and responsiveness of Army management.
(4) Reinforce the role of the installation commander.

To date, all significant milestones for implementation of the reorganization have been met. By 1 July 1973, the new organizations were formally established. The overall objectives are being achieved, and by the end of FY 74 most of the major strength reductions and realignments will have been accomplished. We project that by the end of FY 74 in excess of 15,000 military and civilian spaces throughout CONUS will have been eliminated as a result of the CONUS Reorganization.

Continuing Realinement Actions

In addition to the major reorganizations begun last year, the Army has recently announced a number of other actions that are designed to support long term requirements for stationing of forces and management of resources. These include the development of one station training, elimination of selected major headquarters, and the disestablishment or relocation of certain activities.

One Station Training

One station training will permit a soldier to receive initial and skill development training at the same installation. This will shorten time in training, reduce the number of moves, and make better use of the professional expertise existing in the Army's branch schools.

When this program is fully implemented, all armor training, for instance, to include Basic Combat Training and Advanced Individual Training, will be conducted at Fort Knox, Kentucky, the professional home of the Armor. Other professional branch homes will be selected to operate in a similar manner. During and after implementation, which will extend over a number of years, one station training will generate significant savings by consolidating training assets.

Eventually about 75% of all soldiers entering the Army will participate in one station training. Retention of one or more Army general training centers will provide the Army with necessary additional training capability.

During the next several years, Fort Ord, California and Fort Polk, Louisiana, will gradually be converted from their current training mission to home stations for brigade-size combat units. As the one station training program is incorporated into the training base, Army training installations will have their missions modified to support the new program. Missions will change gradually with no significant employment change.

One-Station Training Plan

Chairman McClellan. Explain the long term one-station training plan. Where will each one-station training center ultimately be? What training bases will not be under this concept, and why?

General Kjellstrom. One Station Training (OST) 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 of an individual through training, usually at a single location, 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.

Because of the complexity of initial entry training requirements, the realignments of the training establishment under long range stationing plans, and the adjustments to be made in the processing of enlistees, OST will be implemented in phases from FY 74 through FY 78. During this period those installations currently housing service school facilities will be designated as branch professional homes, absorbing Army Training Center (ATC) structure from former ATC installations such as Ft. Polk and Ft. Ord which will become home stations for brigade size units. One or more ATC's will be retained to provide the Army with additional training capacity. Identification of all installations that will ultimately become a part of the OST program is a matter currently under study.

Chairman McCLELLAN. When will the goal of 75 percent of all recruits entering the Army and participating in one-station training be realized? What percentage of recruits is involved in one-station training today?

General KJELLSTROM. Seventy-five percent is not a goal but a reasonably attainable percentage of trainees receiving the benefits of One Station Training (OST) during a given time frame. The achievement of higher or lower percentages will be dependent upon annual training requirements, the number of installations and MOS in the OST structure, and the trainee mix between them. Total one-station training is planned to be in effect by the end of FY 78. It is at that point that we will have approximately 75% of all recruits in the OST system. No recruits are involved in OST today. We will begin OST implementation in June of FY 74 for 69 Military Occupational Specialties (MOS) at the six current Army Training Centers. Assuming the training program is met in each MOS, these MOS will account for approximately 50% of the total input to recruit training for FY 75.

Chairman McCLELLAN. Proceed.

HEADQUARTERS ELIMINATION

General KJELLSTROM. On 7 February the announcement was made that the Army would eliminate six headquarters. The six headquarters are:

US Army Alaska; US Army Forces, Southern Command; US Army, Pacific; Theater Army Support Command, Europe Engineer Command, Europe; and US Army Intelligence Command (Fort Meade, MD).

Note that five of the headquarters are outside the continental United States, which is consistent with the desires expressed by Congress in the committee reports on the FY 1974 appropriation.

I have already mentioned that it is through these headquarters eliminations that a portion of the spaces to constitute the increase in combat forces was obtained.

OTHER REALIGNMENTS

In accordance with the intent of Congress as expressed in the reports on the FY 1974 appropriations bill, the Army is phasing out the NIKE–HERCULES portion of CONUS air defense.

Specifically the phase-out of 48 NIKE–HERCULES batteries—21 of which are operated by Regular Army units and 27 by the Army National Guard—began in March 1974 and will be completed by the end of the 2nd quarter of FY 1975. The remaining five NIKE–HERCULES units and eight HAWK units in Florida will be retained for contingency and training missions. The Army National Guard technician spaces associated with the NIKE–HERCULES units to be phased out will be retained in the National Guard structure for use in other programs, and every effort will be made to provide positions for the technicians affected by this action.

NIKE–HERCULES Unit Phase-out

Chairman McClellan. What other programs will receive the spaces associated with the phasing-out of NIKE–HERCULES units?

General Kjellstrom. The 2,174 spaces associated with the phasing-out of NIKE–HERCULES units (BP 3721), plus the 138 spaces requested as an increase over the FY 1974 end strength, will be distributed to other essential ARNG activities as follows:

Activity	Fiscal year 1974 program	Fiscal year 1975 budget	Increase
Org hq	3,036	3,262	226
Co AST	5,214	5,214	0
Avn opns	564	731	167
Org maint	5,062	5,583	521
Support maint	4,132	4,699	567
Avn maint	2,554	3,517	963
USPFO	3,576	3,916	340
Org supply	524	542	18
Trng site opn	123	124	1
AG hq and cmd	965	1,012	47
MSCA	229	231	2
Subtotal	25,979	28,831	2,852
Air defense	2,714	0	(2,714)
Grand total	28,693	28,831	138

Elimination of Technician Positions

Chairman McClellan. Why is it not possible for many of the Army National Guard and Reserve technician positions to be eliminated as a result of the phase-out of the NIKE–HERCULES batteries?

General Kjellstrom. Inactivation of 11 Battalions and 27 Firing Batteries in the Air Defense Program will reduce technician requirements for this mission by an actual 2,786 positions. However, the approved program for FY 1974 provided an end strength of 2,714, or only 97.4 percent of this requirement. Only a slight increase, 138 spaces, has been requested for FY 1975 due to the fact that Air Defense technicians may be reassigned to other activities where increases in requirements since FY 1972 have exceeded increases in technician authorizations.

ARMY NATIONAL GUARD ACTIVITIES OTHER THAN AIR DEFENSE

	Actual		Program	
	Fiscal year 1972	Fiscal year 1973	Fiscal year 1974	Fiscal year 1975
EOY requirements	37,158	30,683	31,295	32,433
End strength	24,191	24,646	25,979	28,831
Unsupported requirements	2,967	6,037	5,316	3,602
Percent of support	89.1	80.3	83.0	88.9

The above chart shows the progress of recent years to regain the level of support in activities other than Air Defense to that provided in FY 72 as a result of P.L. 92–119.

This can be accomplished in FY 75 only by authority to reassign displaced Air Defense technicians to vacant positions in these other activities.

The Army continues to issue additional items of aircraft and surface equipment toward the objective of providing a full training allowance of equipment. This is essential if the Army National Guard is to improve training effectiveness and raise levels of training through battalion level and also perform training exercises of brigade or division level. It is directed that ARNG deployable equipment be maintained at combat readiness condition, as a realistic back-up to the Army.

The primary Federal mission of ARNG is readiness for mobilization and combat deployment. The ARNG role within the total force, as well as the Defense con-

clusion that reserve units may be required for deployment without additional equipage or training, generates a high priority in support of logistical requirements. Therefore, the technician personnel fo fill existing validated requirements in the Logistical Support area are urgently needed at the earliest practicable date.

Approximately 85 percent of Air Defense technicians are wage-grade employees. They adapt readily to the ARNG maintenance mission, especially for aviation weapons systems, avionics, and organizational or general support of signal units and/or communications components used with surface equipment. The increase in requirements from end FY 72 to that projected for end FY 75 is predominantly in the Logistical Support area, to which the majority of Air Defense technicians would be reassigned.

Chairman McClellan. Proceed.

General Kjellstrom. As a consequence of the NIKE-HERCULES firing battery inactivations, associated headquarters, support elements and four Army installations whose principal mission was air defense support will also be closed. The four installations are Fort MacArthur, California; Fort Lawton, Washington; Fort Tilden, New Jersey; and Fort Hancock, New Jersey.

Other continuing Army realignment actions which are ongoing or programed include:

a. Movement of Headquarters, Eastern Area, Military Traffic Management and Terminal Service (EAMTMTS) from Brooklyn, New York to Bayonne, New Jersey.

b. Disestablishment of the Coating and Chemical Laboratory at Aberdeen Proving Grounds, Maryland, and the Advanced Materiel Concepts Agency at Alexandria, Virginia.

c. Consolidation of Signal Training at Fort Gordon, Georgia, and movement of the Military Police School from Fort Gordon to Fort McClellan, Alabama.

The Army will continue to review its long range stationing requirements and the role of each installation under Army control. While no announcement of major realignments is anticipated in the near future, individual realignments may occur. These will be announced as decisions are made.

Medical Program Costs

For a number of years we have been concerned about the adequacy of funding for medical programs. The rapid increase in the total cost of medical programs resulting both from strong inflationary pressures and from increased utilization of CHAMPUS (Civilian Health and Medical Program, Uniformed Services) have made it difficult to program and budget for medical costs.

Last year I reported to the Congress that better statistical techniques were being applied in forecasting and budgeting which would enhance our ability to manage the medical program. We believe these techniques have proven to be effective, as evidenced by the fact that we have experienced no major funding problems in the current fiscal year.

Although the supported population has become more stable, medical costs have continued to rise—primarily as the result of inflation, the cost of technological improvements and the phased implementation of certain new health care programs and quality improvements. OMA costs are up for these reasons as well as because of a large civilianization program which was initiated in FY 1974 and will be expanded in FY 1975. While CHAMPUS costs continue to rise due to the spiraling costs charged by the civilian facilities which provide the care, the rate of increase is substantially below that of previous years, reflecting a trend of reduced CHAMPUS utilization by dependents and retired personnel in favor of increased use of Army facilities as recommended by the House Appropriations Committee Report on the FY 1974 Appropriation's Bill.

The following chart shows the total operation and maintenance costs associated with hospital operations and CHAMPUS.

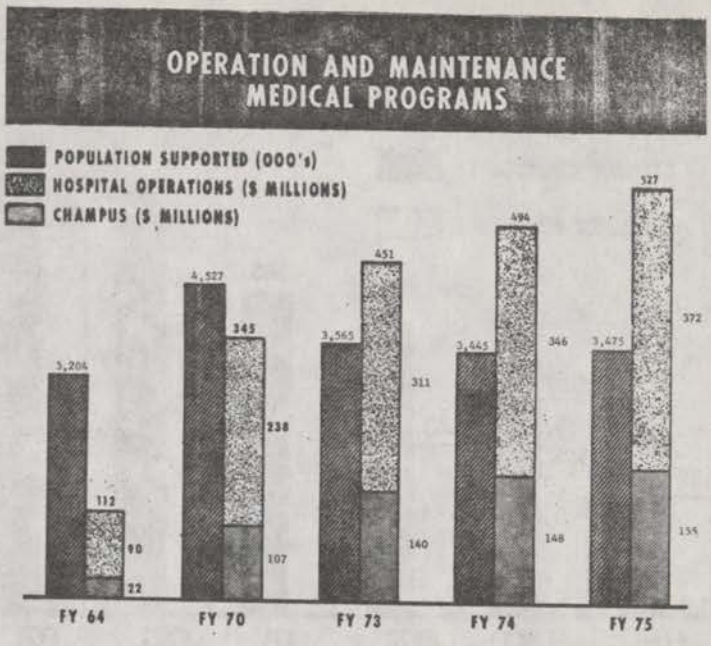


CHART 35.

General KJELLSTROM. The population supported will increase by about one percent over FY 1974 which is a composite increase resulting from a decrease of one percent in active duty personnel and their dependents, and an increase of some four percent in retirees and their dependents. Costs will increase by about 7 percent which is somewhat less than the rate of inflation which is about 10 to 12 percent per year. This indicates that a portion of the inflation is being absorbed in the program through better management of the program. It does not reflect a degradation of the quality of medical care.

Although Army medical program costs have continued to rise, and are expected to continue that same trend in the future. These costs are not out of line with costs in the civilian sector.

Chart 38 shows the average cost per patient day in Army hospitals and compares it with that cost in the civilian community. Since FY 1964, the average cost per patient day in Army hospitals has increased at about 12 percent annually which is the same rate as civilian hospital costs. However, Army costs, as shown on the chart include physicians while the civilian community costs do not. Civilian physician costs are not available. If they were added, the margin between the two sectors would definitely widen. The source of civilian community costs is the American Hospital Association.

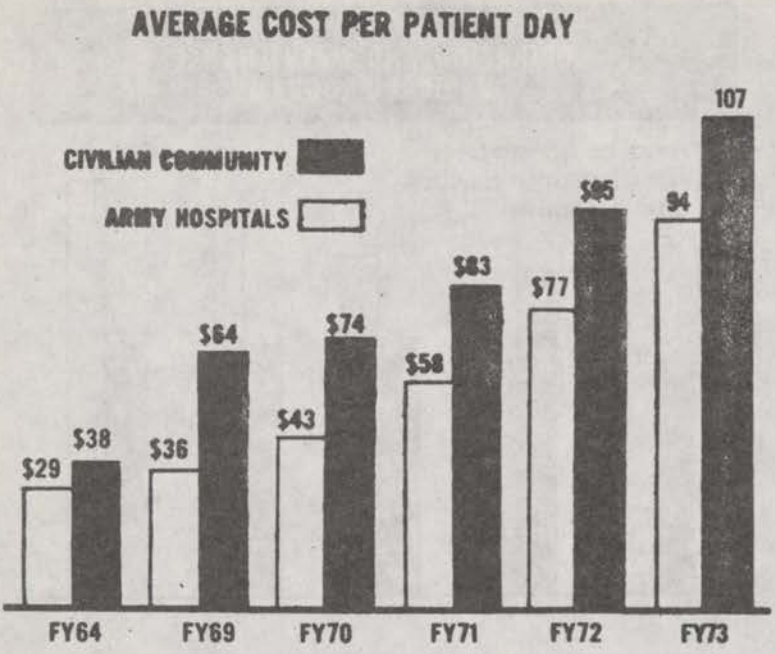


CHART 36.

VI. RESOURCE MANAGEMENT

General KJELLSTROM. In my statement before this committee last year, I highlighted a number of actions we had taken to promote more efficient utilization of resources. Those actions are continuing of course. In addition, I want to report on some selected management activities which are currently ongoing and which are reflected in the budget estimate.

FAST AMORTIZATION PROJECTS

A procedure which we have instituted within the procurement area wherein the Government Owned/Contractor Operated ammunition plants are permitted to procure equipment quickly results directly in increased productivity. These self-amortizing projects are part of an omnibus project which in FY 73 resulted in an expenditure of just under $500,000 and net annual savings of 1.3 million dollars. Very specific criteria for these projects include the requirement for payback in two years or less and a maximum cost of $75,000 per project. Fifty-four projects were submitted of which 24 met all requirements and were accepted and funded. The projects provided an average return of over $3.50 for every dollar invested. The project was continued into FY 74 and some 16 projects approved to date are returning about $2.00 for every $1.00 expended.

The self-amortizing project has been used as an example of government worker increased productivity by Mr. Staats, the Comptroller General, in his discussions with the Joint Economic Committee of Congress whose sub-committee held hearings in mid-December. It was well received by that committee and in fact, its chairman, Senator Proxmire, stated, "It is great to find a military program that has turned out to be a goldmine for the taxpayer."

Because of the success of this program, we are expanding the test into other areas of the Army, particularly in the industrial sectors such as the arsenals and depots within the US Army Materiel Command. Similar requirements and criteria for fast payback and low cost will be imposed on these other activities. To initiate the program it is planned to require a one year or less payback, and a maximum cost of $50,000. This criteria should allow purchase by local managers

of equipment which might be lost in the roll-up of the budget as it is summarized at various levels for approval. Some projects also lose their significance, as well as savings potential, during the current long and involved approval process. We are establishing fast approval channels and procedures which will allow us to maximize savings much sooner. In order to get maximum return on self-amortizing projects we are decentralizing the equipment approval process to the lowest possible echelon. The whole idea will be to permit the local manager to: *LOOK* for quick pay offs—*OBTAIN* fast approval—and, *GET* the savings through *INCREASED PRODUCTIVITY*.

Amortization Projects

Chairman McClellan. Provide specific examples of fast amortization projects, including the types of things bought and the savings achieved in the initial year.

General Kjellstrom. The following are some examples of fast amortization projects with savings achieved in the initial year:

Plant [1]	Description	1st year savings [2]	Operators eliminated
Indiana	Laundry clothes dryer: Additional clothes dryer for laundry	50.1	5
Twin Cities	Point protector, applicator, and conveyor: 10 round ball clips of 5.56 mm are automatically inserted into the point protector.	453.5	42
Milan	Firing pin seat and gage machine M525 fuze: Automatically seats and gages firing pin in the M525 fuze.	55.8	9
Cornhusker	Heavy duty nailing machine: Assemble pallets in nailing jig and automatically nail together.	241.1	20

[1] Plants are Army ammunition plants.
[2] Thousands of dollars.

Chairman McClellan. Proceed.

Project Army REFLEX (RESOURCES FLEXIBILITY)

General Kjellstrom. Department of the Army initiated action to extend Project REFLEX to one FORSCOM and one TRADOC installation (Fort Lewis and Fort Polk) and two Army Materiel Command installations (Picatinny Arsenal and Red River Army Depot). The objective is to determine if the test installation commanders can maintain or improve on current efficiency and effectiveness of resource management if permitted to operate without many of the existing manpower controls. The concept is to give the test commanders participating in the test their funds, and allow them to use their funds in the most efficient and effective manner. Indicators and plans for measuring the test results are presently being developed. The test will run uutil 30 June 1976.

Management Practices Training

Improving quality of leadership and management is of continuing concern in the Army. In late FY 74 we extended to military and civilian first-line supervisors in non-tactical units, the program we initiated in FY 72 which teaches management and motivational techniques to junior leaders in tactical units. This program is called MAP–TOE/TDA, Management Practices Training in table of organization and equipment (TO & E) and table of distribution allowances (TDA) units. The overall objective is to increase productivity and improve the quality of work, make optimum use of resources, and bring a higher degree of job satisfaction for military and civilian workers and their leaders.

Management Practices

Chairman McClellan. Describe the management practices training in table of organization and table of distribution and allowances units in great detail. Indicate how people are selected for the program, how long it lasts and what the cost is per person in the program as well as the overall cost.

General Kjellstrom. The Management Practices in TOE/Table of Organization and Equipment Units (MAP–TOE/TDA) program is an Armywide program designed to teach and assist first-line managers (junior officers, warrant officers, non-

commissioned officers and comparable civilian supervisors assigned to tactical and non-tactical units) in the use of selected modern management techniques so that they can accomplish their work more efficiently.

The program is essentially a management system for first-line managers in the Army. The program teaches selected management improvement techniques which first-line managers can use to improve production of their work center with little additional effort or supervision on their part.

All tactical and non-tactical units identify positions in the administrative, maintenance, and supply elements of their command that involve supervision of one or more persons. Based on the foregoing, persons assigned these positions and not previously trained are selected for attendance at unit or installation classes.

The course is 24 hours in length and includes blocks of instruction as follows:

The Army Management Program.—The student is introduced to the five functions of management (planning, organizing, directing, coordination, and controlling). Following this, the seven functions of a manager are discussed. (Establishing objectives, motivating, communicating, innovating, maintaining cooperation, developing subordinates, and decision making.) Having provided this framework and foundation for management, the remainder of the course is concerned with teaching management techniques.

Methods Improvement Techniques.—Initially, the first-line manager is taught to analyze his work center and personnel through the use of activity and task lists. He then collates this information on a work distribution chart. Through this process, this first-line manager can look at his work center with a discerning eye, since he questions *why* things are done in the present manner. The first-line manager is next taught how to use a flow process chart and a procedure chart which are quick ways to determine bottlenecks and duplication in both personnel and material operations. The first-line manager is then taught how to develop and use a layout chart, which gives him a pictorial display of how work flows through his work center in relation to its physical arrangement. This permits him to develop the most efficient workflow for his unit.

Work Measurement.—Once this training is accomplished, the first-line manager is ready for the next major area—work measurement—the establishment of time standards for doing various jobs. The program teaches the first-line manager how to develop these standards, based on historical data and experience. He then compares his actual work center performance against the standards he has established. Through this comparison, he identifies the variances (exceptions) and their causes (internal or external factors). Shop layout, personnel and malassignment or poor standards are examples of internal factors, while weather, unit policy or regulations would be examples of external factors. Normally the first-line manager can control the internal factors, and these should occupy his attention until corrected. The external factors, in many cases, are not controlled by the first-line manager, but by identification and investigation, he may be able to influence them in his favor.

Quality Assurance.—In the program, the first-line manager is also taught simple quality assurance techniques. High production is meaningless if there is also a high error rate resulting in excessive rework of scrap. Therefore, the first-line manager must be aware of the basic quality assurance procedures and how to use them to obtain the desired production with low error rates.

Motivation.—Personnel motivation is very important to the program. The first-line manager is taught techniques of motivation, along with the problem areas he may encounter in motivating personnel to reach or surpass work standards. Emphasis is placed on job satisfaction, rewarding high producers, eliminating "make work," job enrichment and positive reinforcement.

The course is conducted on an Armywide basis and includes an orientation for all personnel attending Army Service Schools and NCO specialist schools.

When it was originally introduced to the Army in 1970, a training team was dispatched worldwide to instruct the first group of students. This initial instruction provided the cadre for instructors in all major units of the Army. The initial cost of this effort was estimated to be $36,000.

Implementation of MAP–TOE/TDA is now accomplished essentially as "on-the-job" training at the local level with no appreciable identifiable incremental costs associated with the program.

Chairman McCLELLAN. Proceed.

Cost Reduction Actions

General Kjellstrom. In Fiscal Year 1973 the Army achieved $505.5 million in savings against a $268 million goal. The following are examples of the many cost reduction actions reported:

(*a*) Directorate for Maintenance Operations, US Army Base Command, Okinawa, developed and constructed a frame straightener for use on 2½ and 5 ton vehicles. This device increased the repair rate for vehicles with bent frames from .2% to 26.0%. The action resulted in FY 1973 savings of $2,119,800 and estimated FY 1974 savings of $4,233,700.

(*b*) The checkout and testing procedures for the newly installed Perimeter Acquisition Radar (PAR) at the US Army Safeguard System Command's site at Grank Forks, North Dakota, was time consuming and extremely costly. Data availability which provided required information was not tailored to test and check-out requirements. A VE study was initiated to find a more efficient means of conducting the test program. This study developed and implemented a computerized management information system called CLAIMS (Component Location Adjustment Identification Matrix System). CLAIMS arranged previously disjointed information in an orderly fashion and lists pertinent information in tabular form. Savings of approximately $3,625,000 have resulted in FY 1973 from time saved in completing checkout and tests of the PAR system. FY 1974 savings are estimated at $1,082,000.

(*c*) The US Army Safeguard Systems Commands, in planning for high performance targets for the Meck System Test Program, had programed funds for sufficient flight hardware and delivery vehicles to carry the Submarine Launched Ballistic Missile (SLBM) Safeguard System Test Target Program (SSTTP) through Mission M2–16 in FY 73. However, Value Engineering analysis of mission requirements revealed that eight missions (M2–9 through M2–16) could be deleted with no adverse effect to the test program. This cancellation of these missions resulted in FY 1973 savings of approximately $4,394,000.

(*d*) Ammunition shipped to CONUS from SEA in nearly all instances was received in discrepant and unsafe condition and required repackaging or some additional preparation before forwarding to final CONUS destination. HQ, Military Traffic Management and Terminal Service, upon becoming aware of this condition, alerted the various commands involved who initiated actions necessary to correct the faulty packaging of ammunition at overseas loading ports. Savings of approximately $1,445,000 have been realized in FY 1973 by elimination of the repackaging and additional preparation formerly required at CONUS ports of entry. FY 1974 savings are estimated at $762,000.

(*e*) A contractor's camp was required for the 1973 construction season on Shemya Island, Alaska, located at the end of Aleutian Island chain, to support the COBRA DANE project. Funds for actual construction costs had been obtained by USA Engineer District, Alaska, in 1968 and have been updated to reflect current construction costs since that time. A review of excess property listings revealed an existing two hundred man trailer camp on Amchitka Island that had been declared surplus by the Atomic Energy Commission. This trailer camp was transferred to Shemya in lieu of new construction at a FY 1973 savings of approximately $1,126,000.

(*f*) The Army has set out on a prudent course to substitute flight simulator training for portions of the flying hours in the training program. The philosophies which have guided our progress in this area are: to upgrade the quality of flight training, and to save money by substituting simulator training for actual flying hours where feasible.

Integration of the UH–1 helicopter with associated flight simulator (SFTS) into the instrument phase of the initial entry rotary wing course at Fort Rucker has resulted in the flight hours required to train Army aviators being reduced from 210 to 180 hours.

Helicopter Simulator Training

Chairman McClellan. Why is the savings through the use of simulators only about 15% in the case of UH–1 helicopter training?

General Kjellstrom. The Army has two basic goals in the utilization of the synthetic flight training system (SFTS): first, upgrade the quality of flight train-

ing and second, save money. We have reduced the initial entry flying hour program, through the integration of the UH–1 helicopter and utilizing the SFTS, from 210 hrs to 180 hrs, a 15% reduction. Our initial evaluation of this program indicates that these changes have resulted in a better trained aviator, however, we are continuing to evaluate the new program with emphasis in two areas, first the program effectiveness and second, areas where further reductions can be be made. We feel that, as of this time, this evaluation must be completed before further program decisions can be made.

Chairman McClellan. How many total hours on simulators do UH–1 pilots receive?

General Kjellstrom. UH–1 pilots presently receive 20 synthetic flight training hours in the initial entry flight course. On 9 Apr 74 a program of instruction change will be initiated wherein students receive 34.5 SFTS hrs during the Rotary Wing Instrument course resulting in a savings of 34 UH–1 flying hrs. Training time in this course will also be reduced by 2 weeks (from 8 weeks to 6 weeks). On 22 May 74 a comparable change will be initiated in the Rotary Wing Qualification Course, wherein the student will receive 27 hrs in the SFTS and 42 UH–1 flying hrs. This represents a change from the present program of 52 UH–1 hrs and 24 OH–58 hrs.

In addition to the significant reduction in flight hours realized in the initial entry course, reductions are also being made in graduate courses. The Rotary Wing Instrument Course is being reduced from 42 UH–1 flight hours to 8 UH–1 flight hours and 34.5 flight simulator (SFTS) hours. Training time in this course will also be reduced by 2 weeks (8 weeks to 6 weeks). The Rotary Wing Qualification Course which previously contained 52 UH–1 and 25 OH–58 flight hours is being restructured to a 42 UH–1 flight hours and 27 synthetic flight hour configuration.

As a result of this action, the use of flight simulators will result in a savings of $2,066,000 in FY 1975.

DIMES

Army Regulation 5–4, DA Management Review and Improvement Program (DAMRIP), published in September 1973, implements the new DAMRIP Program which includes the DA Defense Integrated Management Engineering System (DIMES) as a program element. The objectives of DIMES are to improve labor productivity through the application of management engineering principles and techniques and to provide a common base of work measurement and productivity data which can be used in the development of budget estimates and manpower requirements. The basic elements of DIMES are methods analysis, work measurement, and standards development.

Methods analysis is a systematic formalized study of an operation or work cycle conducted for the express purpose of establishing and recording, in detail, a proposed method of performance. The ultimate payoff is improved methods resulting from the identification and elimination of unnecessary elements of work without detracting from the accomplishment of required functions. After approval and implementation of proposed methods developed as a result of methods analysis, the relationship between work performed and man-hours expended can be determined through the application of established work measurement techniques such as time study, work sampling or standard time data. These time values, known as standards, represent the time (man-hours) it should take a qualified individual or group, working at a normal pace, to produce a described unit of work at an acceptable quality level in accordance with an established method.

Management Analyses

Department of the Army management analysis teams are used to achieve economy of operations by analyzing major Army commands and all Army activities within specified geographical areas. In FY 1973 these analyses resulted in cost benefits of 11.3 million. So far in FY 1974, an analysis of Army activities in the St. Louis metropolitan area identified potential benefits of $16,648,000. Similarly, a study of Chicago metropolitan area and Rock Island is currently being analyzed for potential benefits. We are increasing our in-house expertise to accomplish management studies which were previously let by contract. We will show a marked decrease in FY 75 management studies conducted under contract.

Cost of Management Studies

Chairman McClellan. What is the cost of management studies conducted under contract for FY's 1973 and 1974, and projected for FY 1975?

General Kjellstrom. OMA costs of managment studies conducted under contract for FY's 1973, 1974, and 1975 (projected) are as follows:

Fiscal year 1973	$1, 351, 300
Fiscal year 1974	1, 600, 000
Fiscal year 1975 (projected)	1, 400, 000

Chairman McClellan. Proceed.

Reports Management

General Kjellstrom. During FY 1974 the Army successfully completed a recurring reports review initiated in September 1972. Under this project (FAST-CUT—a fast cutback in reporting), 175 reports were rescinded or revised at HQDA and 709 reports generated by field commands were rescinded or revised. Cost benefits estimated at $21.6 million have been achieved, with an additional $13 million expected to be attained when corrective actions in process are accomplished.

Army Internal Audit Activities

The U.S. Army Audit Agency, in keeping with its objective of providing management at all levels with an independent evaluation of their implementation of the Army's management system to include economy of operations, identified the following areas as examples in which their objective was achieved:

Shipments of major items valued at $2.1 million for non-Army customers remained unbilled for periods up to 9 months, or were under priced. The audits concluded that (i) the unbilled status was not detected because data for the shipments was purged from financial records, and (ii) all costs were not included in unit prices. Based on the audit recommendations, the non-Army customers were billed $2.1 million.

The Army had rail cars in storage since the early 1950's. An audit concluded that these rail cars did not meet current standards for over-the-road use in CONUS or overseas, would cost over $20 million to make them suitable for limited use, and would require over $1.5 million for represervation. In response to the audit recommendation, disposal action was initiated, thus eliminating $550,000 in storage cost.

In 1968 the Army started an extensive program to update, retrofit, and modernize its marine craft fleet with particular attention given to communications and electronic equipment. At that time an urgent operational requirement existed in USARPAC for 79 AN/SPS 57 radars. The audit disclosed that since that time, the quantitative requirement had significantly decreased. The audit concluded that an immediate reevaluation of the quantities was needed because a contract for $486,000 was in the process of being definitized. In response to the audit, the quantitative requirement was reduced to 23 radars, at an estimated cost of $156,000.

VII. APPROPRIATION SUMMARIES

Military Personnel, Army

The FY 1975 budget request of $7.9 billion for Military Personnel, Army is $153 million higher than the revised FY 1974 program of $7.8 billion as shown on Chart 38.

MPA BUDGET REQUEST

($ IN MILLIONS)

	FY 1974	FY 1975
P&A OFFICERS	$1,954	$ 1,868
P&A, ENLISTED	4,885	5,016
P&A, CADETS	18	19
SUBSISTENCE	490	504
PCS TRAVEL	395	500
OTHER MILITARY PERSONNEL COSTS	20	8
TOTAL	$ 7,762	$ 7,915

CHART 38.

General Kjellstrom. The request supports funding requirements for an average active duty strength of 780,300 for Fiscal Year 1975, a decrease of 7,900 under the revised FY 1974 average strength of 788,200. The $86 million decrease in the pay and allowances of officers account results from a manyear reduction of 5,700 and decreased readjustment payments offset by FICA increases and annualization of the 1 October 1973 pay raise. The pay and allowances of enlisted personnel increases $131 million as a result of increases in FICA and the annualization of the 1 October 1973 pay raise which were partially offset by a decrease of 2,400 enlisted manyears. Subsistence of enlisted personnel increases by $14 million due to the annualization of the Basic Allowance for Subsistence rate increase offset by the decreased enlisted manyears and a reduction in "Support to Other Nations." Permanent change of station travel costs increase by $105 million despite decreased PCS moves, due to increased mileage allowance payments, rate increases, and the proposed extension of Travel and Transportation entitlements to all junior enlisted personnel and their dependents. The reduction in Other Military Personnel Costs results from halting the Uniformed Services Savings Deposit Program for all except those personnel carried as missing-in-action.

OPERATION AND MAINTENANCE, ARMY

The FY 1975 request of 6.8 billion is $142 million higher than the revised FY 1974 program as shown on Chart 39. It provides for attainment of readiness goals and for a level of overall support comparable to FY 1973.

FY 1975
OPERATION AND MAINTENANCE, ARMY
($ MILLION - TOA)

PROGRAM		REVISED FY 74	REQUESTED FY 75
1	STRATEGIC FORCES	101	97
2	GENERAL PURPOSE FORCES	1,746	1,902
3	INTELLIGENCE AND COMMUNICATIONS	327	393
7-S	CENTRAL SUPPLY	1,289	1,288
7-M	DEPOT MAINTENANCE	728	544
8	TRAINING AND OTHER PERS ACTIVITIES	1,169	1,137
8-M	MEDICAL	621	656
9	ADMINISTRATION AND ASSOCIATED ACTIVITIES	372	461
10	SUPPORT OF OTHER NATIONS	342	359
11	BASE OPERATIONS	(1,869)	(2,036)
	TOTAL	6,695	6,837

CHART 39.

General KJELLSTROM. The appropriation supports an average active military strength of 780,300 and 13⅓ active Army divisions. Civilian direct hire average strength of 212,145 is funded in FY 1975, an increase of 12,344 over the revised FY 1974 level, primarily due to full year strengths for the civilianization program initiated in FY 1973, the civilianization of an additional 4,062 positions in FY 1975, 4,500 civilians to reduce use of STRAF military personnel in non-skill related areas, and 9,000 positions to reduce long-standing staffing shortfalls in installation support activities.

These increases are offset by decreases in headquarters, Air Defense units as a result of inactivations, continued savings from the CONUS reorganization, transfers, and Congressional reductions.

This request reflects an increase of $134 million for maintenance and repair of facilities, providing for the initiation of a major effort to upgrade our physical plant and to prevent facility deterioration.

ARMY MAINTENANCE BACKLOGS

Senator YOUNG. What is the status of Army maintenance backlog in the following categories: Buildings and general base facilities; major combat equipments such as tanks, aircraft, personnel carriers and trucks?

General KJELLSTROM. The status of Army maintenance backlog in the following categories is:

[In thousands]

	End fiscal year—		
	1973	1974	1975
Buildings and general base facilities	$299,200	$384,000	$384,000
Tanks	32,079	21,035	18,648
Aircraft	13,778	14,827	29,320
Personnel carriers	16,767	8,694	13,524
Trucks	17,482	2,195	2,410
Other equipment	54,894	14,249	38,098

Chairman MCCLELLAN. Proceed.

Generl KJELLSTROM. New programs total $93 million, the most significant being the Public Law 92-313 requirement to reimburse the General Services Administration for Army occupied leased facilities.

Major actions have been taken to reduce energy consumption through petroleum and utility conservation actions and by reducing individual travel and temporary duty. However, petroleum and utility consumption reductions have been more than offset by price increases, with more to come.

The effect of pay raises, inflation, civilianization, new programs and transfers in the FY 1975 request results makes comparisons with prior year requests and funding difficult. Adjusting the prior years for these price and program changes indicates in Chart 40 that the FY 1975 request is $136 million less than FY 1974, and $895 million less than FY 1964, the last pre-war year.

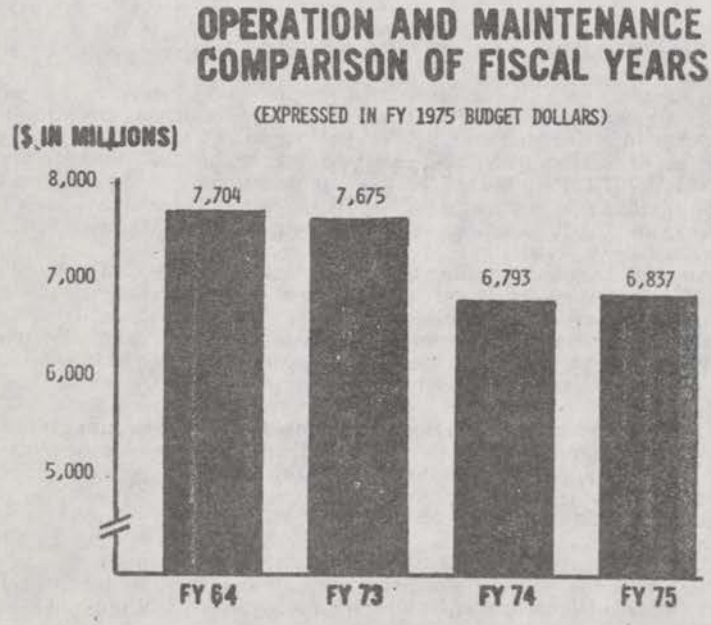


CHART 40.

General KJELLSTROM. Development of this request was based on two criteria provision of support at or near the FY 1973 bench mark level and the attainment of readiness goals.

The overall measurement indicator of funding adequacy in this appropriation is the variable dollars per manyear supported. The following chart indicates our success in satisfying these criteria. In relation to FY 1973, variable dollars per manyear overall are slightly down—indicating a comparable level of support; in combat forces, the variable dollars per manyear are higher—indicating an improved level of readiness funding.

OPERATION AND MAINTENANCE
($ IN MILLIONS)

ANALYSIS

(EXPRESSED IN FY 75 BUDGET DOLLARS)

	FY 1973	FY 1974	FY 1975	
TOTAL BUDGET	$7,675	$6,792	$6,837	
NON-FORCE RELATED	859	425	536	
FORCE RELATED BASE	6,815	6,367	6,301	
STATIC	(4,432)	(4,140)	(4,042)	
VARIABLE	(2,383)	(2,228)	(2,259)	
MILITARY MANYEARS – FORCE RELATED	807	773	767	
				FUTURE VALUE
VARIABLE DOLLARS/MANYEAR	$2,953	$2,883	$2,945	(2,860)
MISSION	(2,111)	(2,086)	(2,085)	(2,015)
BASE OPERATIONS	(842)	(797)	(860)	(845)

CHART 41.

DETERMINATION OF STATIC AND VARIABLE COMPONENTS

Chairman MCCLELLAN. Explain how static and variable components of the force related Operations and Maintenance base are determined.

General KJELLSTROM. Each Army Command makes an annual statistical analysis of its Operation and Maintenance, Army funding through a report called Command Analysis of Operation and Maintenance Funding. This analysis provides a distribution of total costs including static (those which do not change with a change in strength served) and variable (those which are directly related to military strength supported and change in response to changes in strength) through the application of statistical techniques, particularly regression analysis. The analyses for all Commands are integrated to develop a static/variable cost relationship for all the OMA programs. The Current Year report and up to nine years of prior year data are included in the statistical base.

Chairman MCCLELLAN. Proceed.

A significant point to consider is the effect of the decline in purchasing power between now and the year of execution, represented by the future value. If inflation continues at present rates, the amounts requested will provide less goods and services.

RESERVE COMPONENT APPROPRIATIONS

The Army National Guard and Army Reserve Appropriations continue to reflect the impact of policy decisions to place increased reliance on these Reserve Components as an integral part of the Total Force. The FY 1975 estimates provide for support of the Affiliation Program in which specific Guard and Reserve units are closely associated with their Active Army divisions for training with the mission of being deployed as part of the division. These estimates also provide for more advanced training as many of the units near their combat readiness goals.

RESERVE COMPONENT APPROPRIATIONS

($ IN MILLIONS)

APPROPRIATION	FY 1973	FY 1974	FY 1975
ARMY RESERVE	$678	$800	$814
RPA	(438)	(494)	(490)
O&MAR	(202)	(265)	(280)
MCAR	(38)	(41)	(44)
NATIONAL GUARD	$1,046	$1,192	$1,289
NGPA	(557)	(608)	(622)
O&MARNG	(449)	(549)	(608)
MCARNG	(40)	(35)	(59)
TOTAL	$1,724	$1,992	$2,104

CHART 42.

The estimates for the National Guard appropriations were prepared prior to the successful recruiting and retention campaign; consequently, personnel funds are understated and the Army will seek to adjust these estimates in the near future.

Chairman McCLELLAN. How does the Army plan to adjust National Guard appropriations to pay for the additional personnel funds required? Where will the funds come from—why wasn't this included in the FY 1974 supplemental request? Will reprograming be utilized?

General KJELLSTROM. The Army plans to reprogram funds from other appropriations to NGPA. A request for transfer of $10 million from RPA to NGPA was forwarded to the Congress 28 March 1974. Additional funds, if required, will come from other Army programs where amounts can be identified as available.

The FY 74 supplemental request was only computed for pay increases effective 1 Jan 73 and 1 Oct 73 based on the FY 74 strength plan in the FY 75 budget submission. At that time, in October 1973, the additional prior services accession trend that has caused the strength and average pay rate of the ARNG to rise was not identified as certain to continue, and, therefore, it was decided to defer appropriate financing actions until a later date.

Chairman McCLELLAN. Proceed.

General KJELLSTROM. Chart 43 shows the highlights of the Reserve Component appropriations as of the February budget submission.

RESERVE COMPONENT APPROPRIATIONS HIGHLIGHTS

PAID DRILL END STRENGTH: (000's)	FY 74	FY 75
NATIONAL GUARD	~~383~~ 400 +	~~372~~ ?
ARMY RESERVE	230	~~201~~ ?
TECHNICIAN END STRENGTH		
NATIONAL GUARD	28,693	28,831
ARMY RESERVE	8,234	8,146

EQUIPMENT INVENTORY

ROTC PROGRAM

FACILITIES CONSTRUCTION

RECRUITING PROGRAMS

CHART 43.

General KLEILSTROM. Chart 34 shows the current and projected average strengths for the Reserve Components as reflected in the January Budget Submission as I stated earlier, we feel that these projected average strengths are probably less than the ARNG and USAR will achieve and will require later adjustment.

RESERVE COMPONENT AVERAGE STRENGTH (IN THOUSANDS)

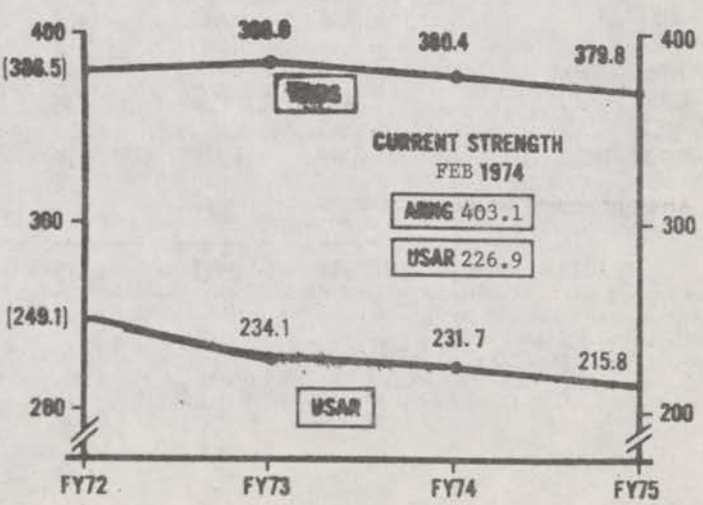


CHART 44.

Procurement Appropriations

General Kjellstrom. The FY 1975 requirement of $3.3 billion is $364 million more than the combined revised FY 1974 basic program and Supplemental Request as shown on Chart 45. The FY 1975 procurement request continues the maintenance of Army readiness as did the FY budget. The FY 1975 Procurement request will replenish equipment and ammunition required to support SEA combat operations, improve combat readiness, particularly in tank/anti-tank weapons systems, and aircraft, and provide for Army training requirements.

Chart 46 shows the highlights of the FY 1975 Procurement request.

M60A1 Tank Procurement

General Kjellstrom. The FY 1975 budget request of $168.8 million will procure 510 M60A1 tanks—our current standard main battle tank. This will enable the Army to continue its program of converting to tanks mounting the 105mm gun or larger. An additional $3.8 million is also requested to procure special tools required to support projected FY 1976 tank production.

Tank Production Rate

Chairman McClellan. What is the projected FY 76 tank production rate and why is it necessary to procure $3.8 million of special tools to support that rate?

General Kjellstrom. The Army anticipates a production rate of about 83 tanks/month during the FY 76 funded delivery period. Tank production will include tanks for the Army, United States Marine Corps, and Foreign Military Sales customers. The $3.8 million requested in the FY 75 Budget is not to support any projected increases in production rates. The $3.8 million is required to procure long leadtime tooling to support the manufacture of a new laser rangefinder and solid state computer (fire control) for inclusion in the FY 76 tank.

Chairman McClellan. Proceed.

PROCUREMENT
($ IN MILLIONS)

APPROPRIATION	FY 73 TOA	FY 74 TOA	FY 75 TOA
AIRCRAFT	114	187	340
MISSILES	700	642	459
WPNS & TRKD CMBT VEHICLES	243	351	385
AMMUNITION	1,319	1,208	1,345
OTHER	611	563	786
TOTAL	2,987	2,951	3,315

CHART 45.

PROCUREMENT HIGHLIGHTS

	QUANTITY	
	FY 74	FY 75
AH-1Q HELICOPTER (COBRA/TOW)	–	21
AH-1 HELICOPTER (COBRA/TOW) MOD	101	189
UH-1H HELICOPTER (IROQUOIS)	0	128
CH-47C HELICOPTER (CHINOOK)	0	19
IMPROVED HAWK	720	520
LANCE	360	194
TOW	18,000	24,000
DRAGON	7,000	15,200
M60A-1 TANK	493	510

CHART 46.

M60 Series Tank Product Improvement Program

General Kjellstrom. Eight million dollars will be used to procure modification kits to upgrade the reliability, maintainability, modility and hit probability of tanks now in use. This is a continuation of the Army's product improvement program to make our M60 Series tanks more combat effective and extend their useful life. Modification kits to be procured are improved air cleaners, gun stabilization kits, reliability improved engine kits, and improved electrical system kits. In the future the program will phase in additional product improvements in fire control, mobility, and night vision into our current M60A1 fleet as part of our rebuild program. These improvements will also be incorporated into new tanks as they are produced.

TOW (Tube Launched, Optically Tracked, Wire Guided Missile)

The TOW is our infantry heavy antitank/assault weapon. It can be fired from vehicles such as jeeps, personnel carriers, or mechanical mules or carried into a ground firing position by a four man crew. The TOW can also be fired from helicopters. The ground TOW system has been deployed to Europe and to the 82nd Airborne Division and will be deployed to the remainder of our forces as assets become available. The FY 1975 budget requests $107.1 million for the procurement of TOW missiles, launchers, and other ground support equipment.

Dragon

To complement the TOW antitank capability, $86.5 million is requested to procure DRAGON missiles, trackers and night sights. The DRAGON system is a lightweight, highly lethal and more mobile infantry weapon that weighs under 32 pounds and can be carried and fired by one man. DRAGON is scheduled for deployment to the Army in lieu of the 90mm recoiless rifle.

AH–1G Attack Helicopter Modification to AH–1Q COBRA/TOW

$86.8 million is requested to integrate the TOW missiles with COBRA helicopters in order to provide an interim heliborne antitank capability as soon as practicable. The XM–26 TOW system, already proven in Vietnam on the UH–1B helicopter, will be adapted and installed on the AH–1G COBRA.

AH–1Q Attack Helicopter (COBRA/TOW)

The FY 1975 request for $27.5 million will provide for 21 AH–1Q, COBRA/TOW Helicopters. Procurement of these aircraft will provide the Army with a heliborne antitank capability and partially alleviate a critical shortage of attack helicopters pending the introduction of a new Advanced Attack Helicopter.

Helicopter Procurement

Chairman McClellan. Why is it necessary to procure new AH–1Q COBRA/TOW helicopters? Is it not possible to continue the modification of AH–1G helicopter assets to accept the TOW missile? Provide an analysis of the total AH–1G helicopters and the projected TOW missile modification schedule—compare with the proposed delivery schedule for the 21 AH–1Q helicopters. Provide a comparison of the AH–1G and AH–1Q helicopters' operating capability.

General Kjellstrom. The Army has an attack helicopter authorized acquisition objective of 1335 aircraft. Currently, the Army has about 750 AH–1G COBRA's in it's inventory. The Army would, of course, prefer to procure the most capable attack helicopter to perform all of its aerial fire support missions and this would be the AAH. Because of the dollar constraints, however, our AAO must include a "Hi-Lo" mix of attack helicopters, AAH "Hi" and AH–1 COBRA "Lo". Therefore, we intend to modify a total of 290 of our existing AH–1G aircraft to the AH–1Q COBRA/TOW to meet an immediate anti-armor requirement in Europe and procure 305 new COBRA's to fill shortages in our requirement.

Delivery of the COBRA's modfied with TOW begins in June 1975 and builds to a maximum of 15 per month by April 1976 with the last aircraft delivery in July 1977. At that time the Army will have a total of approximately 414 COBRA's and 303 COBRA/TOW including the fiscal year 1975 new procurement helicopters. Delivery of the first new production AH–1Q is scheduled for January 1977 with the last aircraft from the fiscal year 75 program scheduled for June 1977. The remaining new aircraft in the program are scheduled for delivery at 5 per month through June 1980 and at 9 per month from July 1980 through June 1981.

A comparison of the AH–1G, AH–1Q, and AH–1Q (improved) helicopters' operating capability follows:

	AH–1G	AH–1Q	AH–1Q (improved)
Weight empty	5,809	6,282	6,363
Weight of fuel	1,716	1,716	1,716
Nondisposable useful load	2,417	2,464	2,464
Maximum gross weight	9,500	9,500	10,000
Weight to hover out of ground effect (HOGE) European day of 2,000 ft. altitude and 70° F	9,175	9,175	10,000
Weight to HOGE and climb 300 fpm, European day	8,800	8,800	9,740
Ordnance payload, HOGE climb 300 fpm European day	574	54	913
Weight to HOGE, hot day of 4,000 ft, altitude and 95° F	7,600	7,600	9,350
Weight to HOGE and climb 300 fpm hot day	7,225	7,225	9,090
Ordnance payload HOGE, hot day	None	None	523
Ordnance payload HOGE, climb 300 fpm hot day	None	None	263
Maximum cruise speed, knots	119	119	131
Lateral speed, knots	20	20	35
Endurance in hours	2.2	2.2	2.2
Engine shaft horsepower	1,400	1,400	1,800

Chairman McClellan. Proceed.

CH–47C and UH–1H Utility Helicopters

General Kjeelstrom. $85.0 million is requested to procure 19 CH–47C Cargo Helicopters and 128 UH–1H Utility Helicopters. These aircraft will replace those previously provided to the South Vietnamese Air Force. This request by the

Army is in compliance with Congressional direction; in prior years the Air Force requested the funds for this purpose. Procurement of these helicopters will allow us to reach 98% and 99% of the authorized acquisition objective for the CH–47C and UH–1H, respectively.

Ammunition

The FY 1975 program provides for worldwide Army consumption and losses in inventory through the FY 1975 funded delivery period. The request also provides for selected procurement of modern hardware, modest buildup of war reserves drawn down in prior years to meet SEA consumption requirements and maintains an active ammunition production base in FY 1975 for key ammunition items. The Army request also provides the sixth increment of a multi-year program to modernize existing production facilities and provide for production of new items coming into inventory.

Other Procurement

The Army's FY 1975 request of $786.2 million is approximately 40% above the FY 1974 revised program. Commercial vehicles account for a share of the increase, including those for administrative use and those used as substitutes for tactical vehicles. This requirement relates to the WHEELS Study recommendations to replace military design vehicles with less expensive commercial vehicles. In this and the continued procurement of commercial construction equipment, the Army will capitalize on industry's research and development effort and avoid the costs associated with the use of a military design when the same or improved capability is available commercially.

Research, Development, Test and Evaluation

The FY 1975 request of $1.9 billion is $16 million higher than the revised FY 1974 program as shown on Chart 47. Approximately 27% of the RDTE program supports the "technology base". This does not represent an increase in the "technology base" but a redefining of the base.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY BUDGET ACTIVITIES

($ IN MILLIONS)

	FY 73	FY 74	FY 75
MILITARY SCIENCES	113	117	112
AIRCRAFT	189	296	270
MISSILES	905	821	706
MILITARY ASTRONAUTICS	17	18	16
ORDNANCE, COMBAT VEHICLES	206	255	264
OTHER EQUIPMENT	395	402	562
PROGRAM-WIDE MANAGEMENT AND SUPPORT	56	62	56
TOTAL PROGRAM	1,881	1,971	1,986

CHART 47.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, ARMY BIG 5 PROGRAMS

($ IN MILLIONS)

	FY 73	FY 74	FY 75
ARMY ATTACK HELICOPTER	20	49	61
UTILITY TACTICAL TRANSPORT AIRCRAFT SYSTEM	50	103	54
XM-1 TANK	22	54	69
MECHANIZED INFANTRY COMBAT VEHICLE	8	12	8
SAM-D	171	194	111
TOTALS	271	412	303

CHART 48.

General KJELLSTROM. Chart 48 shows that the development of the "Big 5" priority programs of the Army continue in FY 1975 at a reduced funding level. The following are highlights of the FY 1975 Research and Development request:

ADVANCED ATTACK HELICOPTER

The development program for an advanced attack helicopter capable of defeating tanks, providing quick, responsive direct Aerial fire as an integral element of the ground forces and capable of performing its mission at night and under adverse weather conditions requires $60.8 million in FY 1975. Development contracts were awarded in June 1973 to Bell and Hughes after review and approval of the definitive programs by the four Congressional Committees. The funds requested for FY 1975 will support the design and fabrication of three prototypes per contractor, two of which will be flyable and one will be a ground test vehicle. First flight of the prototype is projected for March 1975 to be followed by contractor developmental flight testing. A government fly-off to select the winning design is scheduled for 2nd Qtr FY 76.

UTILITY TACTICAL TRANSPORT AIRCRAFT SYSTEM (UTTAS)

In FY 75 54.1 million is requested to continue the development of a new twin engine helicopter that will replace the UH–1H in the air assault, air cavalry and medical evacuation missions. This aircraft will be the first true squad assault helicopter. The UTTAS will be designed to transport troops and equipment into combat, resupply troops while in combat, and perform the associated functions of aeromedical evacuation, repositioning of reserves, and other essential combat support missions. Increased cost effectiveness will be achieved through substantially improved maintainability, reliability, survivability and performance. First flight is scheduled for November 1974 with the competitive flyoff starting in January 1976.

New Battle Tank (XM–1)

The Army has entered the initial or "validation" phase of a new tank development program which will provide competitive prototype hardware to verify current Army estimates of new tank performance, costs, and risk prior to a commitment to full scale development. This development will make maximum use of technological breakthroughs, the M60A1 improvement program, and quite possibly, foreign developments. Advances over current tank capabilities will be sought in the high payoff areas of better protection, greater mobility, and more lethal firepower. The Request for Proposal for the competitive development was offered to industry on 23 January 1973, returned to the government on 8 May 1973 and two CPIF contracts were awarded to Chrysler and GM on 28 June 1973 for 68.1 and 86 million dollars respectively. Funds are requested in FY 75 for $68.8 million to carry this project forward.

Surface-to-Air Missile Development (SAM–D)

$111.2 million is requested to continue austere engineering development as directed by the SECDEF. These funds will support 16 missile firings designed to thoroughly prove the SAM–D guidance concept before committing additional funds leading to eventual production and deployment. This advanced, mobile, surface-to-air missile system is being developed to replace the HERCULES and Improved HAWK. The SAM–D will provide an increased rate of fire by combining the ability to simultaneously engage and defeat multiple aircraft in an increased electronic countermeasures environment. A significant reduction in personnel and maintenance requirements will be achieved when compared to the current air defense systems it is designed to replace. The HERCULES and HAWK systems, although already modified and improved, will not be capable of defeating the anticipated threat of the 1980's and beyond.

Mechanized Infantry Combat Vehicle (MICV)

In FY 75 $7.8 million is requested to continue development of a fully tracked, squad carrying armored vehicle which will have firing ports from which personnel can fight while protected and cross-country mobility compatible with tanks. It will mount an automatic cannon to support the mechanized infantry squad in both mounted and dismounted combat. The MICV entered engineering development during FY 1973 and the contractor (FMC Corporation) has fabricated and delivered two test rigs and the first prototype vehicle.

Heavy Lift Helicopter (HLH)

In FY 75, $57.7 million is required to continue development of the Heavy Lift Helicopter (HLH). The HLH is a multi-engine, tandem rotor helicopter with a design payload of 22.5 tons. Considering fuel and range trade-offs, the HLH will be able to transport all of the Army's tactical and logistical cargo except tanks. The HLH is in the third year of an Advanced Technology Component program to advance the state-of-the-art on critical dynamic components (rotor, drive, flight control and cargo handling systems) from the 10–12 ton range to 22.5 tons. The Army initiated a single, austere prototype to demonstrate these components in a flight environment, with first flight scheduled for August 1975. A review of the program in mid-FY 74 concluded that the risks involved in a single prototype for testing were inordinate. Subsequently, a decision was made for a second prototype to reduce the risks and extend the testing for more complete data.

MILITARY CONSTRUCTION, ARMY

The FY 1975 budget request of $745 million for Military Construction, Army is $48 million higher than the revised FY 1974 program of $697 million as shown on shown on Chart 49.

MILITARY CONSTRUCTION, ARMY

($ IN MILLIONS)

FACILITY CATEGORY	APPROVED FY 74	FY 75 BUDGET
OPERATION AND TRAINING	$12	$40
MAINTENANCE AND PRODUCTION	16	43
RDT & E	4	17
SUPPLY AND ADMINISTRATION	22	42
HOSPITAL AND MEDICAL	38	87
TROOP HOUSING AND COMMUNITY SUPPORT	415	340
UTILITIES AND LAND IMPROVEMENTS	32	50
GENERAL AUTHORIZATION	57	52
NATO	102	73
TOTAL	$ 697	$ 744

CHART 49.

General KJELLSTROM. The budget includes $73 million for NATO Infrastructure and general authorization of $52 million for minor construction and planning activities. This leaves a balance of approximately $620 million for all other construction requirements. Over one-half of this amount (69%) or $427 million is allocated to projects to provide bachelor housing ($299 million), medical ($87 million) and community facilities ($41 million) which will enhance service attractiveness and further our efforts to achieve a volunteer Army. A bulk of this amount is for the continuing major thrust by the Army to improve its troop housing by replacing temporary barracks with new construction and modernizing existing permanent barracks. Highlights of the Military Construction program are shown on Chart 50 below.

MILITARY CONSTRUCTION, ARMY HIGHLIGHTS

	(SPACES)	
	FY 1974	FY 1975
BARRACKS MODERNIZATION	45,173	32,579
BARRACKS CONSTRUCTION	23,391	11,904
BOQ CONSTRUCTION	185	0
BOQ MODERNIZATION	528	0

- MEDICAL FACILITIES - $87 MILLION
- POLLUTION ABATEMENT - $18 MILLION
- ADMINISTRATIVE BUILDINGS - $19 MILLION
- COMMISSARIES - $8 MILLION
- REAL ESTATE - $7 MILLION
- AMMUNITION STORAGE - $14 MILLION

CHART 50.

General KJELLSTROM. The troop housing program includes 11,904 new enlisted barracks spaces and 32,579 modernized enlisted barracks spaces. Funds rquested are $162.1 million and $125.4 million, respectively. Also included its $11.3 million to provide for modernization of existing permanent dining facilities.

Medical facilities in this budget request include a new hospital at Redstone Arsenal ($10.3), hospital additions and alterations at four locations ($33.9), electrical, mechanical upgrade of hospitals at various locations ($24.6), medical and medical/dental clinics at three locations (5.3) and 11 dental clinics ($13.1 million).

Community Facilities includes 1 project for school at three locations in Germany ($8.7 million) and 4 commissary projects totalling $7.9 million planned for Forts Bliss, and Huachuca and two overseas (Germany and Panama).

Only $193 million is allocated for other facilities construction requirements worldwide. Included in the above is $40 million for operational and training facilities, $86 million for maintenance, production administrative and supply facilities, $17 million for R & D facilities, and $33 million for utilities and real estate and $17 million for air and water pollution requirements. Approximately $417 million for the total program is for replacement and modernization of over age and older facilities.

ARMY FAMILY HOUSING

The Army portion of the FY 1975 Family Housing, Defense Budget request is $524 million and is $29 million higher than the revised FY 1974 program of $495 million as shown on Chart 51.

ARMY FAMILY HOUSING

($ MILLIONS)

	FY 74	FY 75 BUDGET
CONSTRUCTION	$ 187	$ 159
DEBT PAYMENT	19	18
O&M	289	347
TOTAL	$ 495	$ 524

CHART 51.

General KJELLSTROM. The Army has developed a greatly expanded and accelerated housing plan covering the next four years to provide suitable family housing for married military personnel. It is a balanced plan which, in addition to reducing the housing deficit, would accomplish urgently needed improvements and repairs to the existing housing inventory. The program includes a significant increase in leases, the backlog of deferred maintenance will be reduced by $25 million and $20 million will be devoted to improving existing units.

FAMILY HOUSING HIGHLIGHTS

	FY 1974	FY 1975
CONSTRUCTION	5,369 UNITS	4,360 UNITS
LEASING	6,929 UNITS	11,928 UNITS
REDUCED MAINTENANCE BACKLOG	$0 MILLION	$25 MILLION
FURNITURE	$22 MILLION	$10 MILLION
MAXIMUM AVERAGE COST	$27,500	$30,000

CHART 52.

BALLISTIC MISSILE DEFENSE

General KJELLSTROM. Chart 53 shows the Army's Ballistic Missile Defense funding. The SAFEGUARD deployment at Grand Forks will continue. The Site Defense RDT&E program will continue in the Prototype Demonstration Phase. The ABMD program will continue technology base development.

SAFEGUARD/SITE DEFENSE
($ IN MILLIONS)

APPROPRIATION	FY1973	FY1974	FY1975
MILITARY PERSONNEL, ARMY	$11	$ 7	$7
OPERATION & MAINTENANCE, ARMY	60	68	75
PROCUREMENT	300	159	3
RESEARCH, DEVELOPMENT, TEST & EVALUATION, ARMY	299	182	61
MILITARY CONSTRUCTION, ARMY	0	–	–
MILITARY FAMILY HOUSING	0	–	–
TOTAL	$ 671	$416	$146
SITE DEFENSE (RDTE)	80	110	160
ABMD (RDTE)	93	62	91

CHART 53.

General KJELLSTROM. The FY 1975 SAFEGUARD effort is focused on finishing the sub-system and system testing leading toward final acceptance of the Grand Forks site and attainment of an initial operational capability. The major change in appropriation funding will be the assumption by OMA of increased requirements for the Contractor Logistics Maintenance, as a result of completion of installation and test activities currently funded with Procurement and RDTE funds.

The FY 1975 Site Defense effort is to continue the development leading to a prototype demonstration of the principal components of a system which can be carried to further development and responsive deployment if required to provide a stragegically significant terminal defense of ICBM forces.

The FY 1975 Advanced BMD program will pursue important non-system technology research. This is a level of effort program that must be restored to full funding in FY 1975 to enable us to properly evaluate (appriase) Soviet technical progress in BMD and to assure our technology base remains viable and superior to that of the Soviet Union or any other potential adversary.

CONCLUSION

The following chart summarizes the highlights of the Army's FY 1975 Budget.

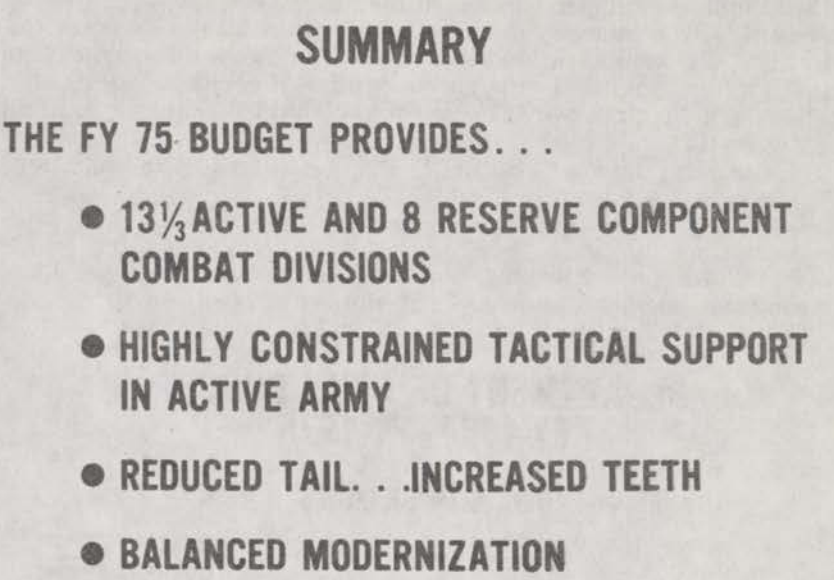


CHART 54.

General KJELLSTROM. Mr. Chairman this concludes my prepared statement. Additional details relating to the specific programs and activities included in the request will be addressed by other Army witnesses as each appropriation is reviewed.

ARMY PRIORITIES

General KJELLSTROM. Mr. Chairman and members of the committee, this is the fifth consecutive year that I have had the privilege of appearing before this committee to present a part of the budget.

You may note that we have limited the number of backup personnel present today. However, if detailed information desired by the committee is not available from those present, we can provide expert witnesses from the Army Staff in 20 to 30 minutes.

In developing the budget request we established certain goals or priorities which were used to provide the framework around which the budget is structured. Each decision concerning the requirement for application of constrained resources was carefully weighed in light of the accomplishment of these goals.

Four priorities were considered: readiness of forces; maintenance of the volunteer force; modernization of equipment; and maintenance of an active research program. The request before the committee, coupled with the funding provided in the approved fiscal year 1974 program and supplemental requests, provides the means for making significant progress in each of these areas.

The total budget request for fiscal year 1975 is $22.9 billion compared to a revised fiscal year 1974 level of $22.1 billion. This increase of $800 million or 4 percent above the 1974 level, however, does not represent a true increase in purchasing power since it is more than offset by the annualization of approved military and civilian pay raises, and by increases in the purchase price of goods and services.

Chairman McClellan. The army has an $800 million increase in fiscal year 1975?

General Kjellstrom. Yes, sir. That is pay increases and inflation.

CHART ON ARMY BUDGET

The following chart displays the Army budget over the past decade showing the long-term impact of pay raises and cost growth.

[The chart follows:]

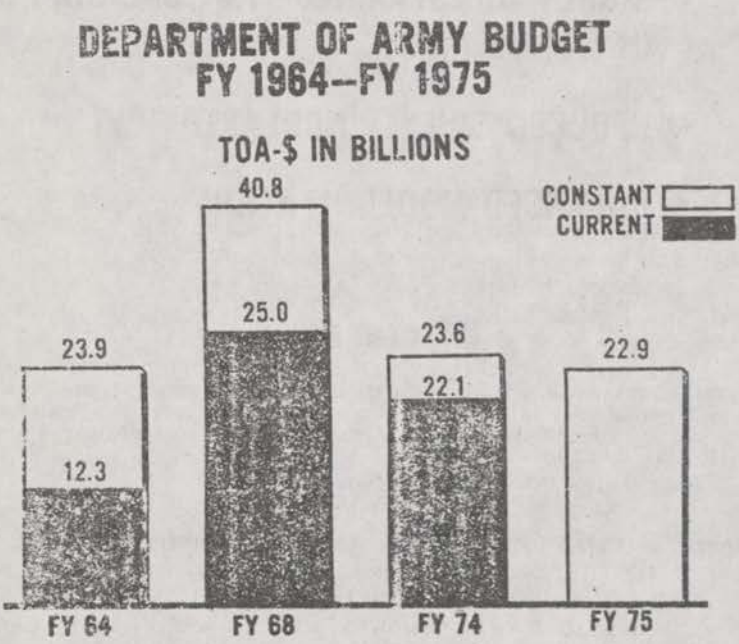


CHART 1.

FISCAL YEAR 1975 REQUEST BELOW PREVIOUS YEARS

General KJELLSTROM. The shaded portion of the chart shows the actual total obligational authority [TOA] for each year, while the upper portion of each bar reflects the amount that would be required to accomplish that same program at current price levels.

In terms of real purchasing power the fiscal year 1975 request is at a lower level than at any time in the past 10 years.

Chairman MCCLELLAN. What do the shaded areas indicate?

General KJELLSTROM. $22.1 billion in fiscal year 1974 is the amount approved by the Congress plus the amount in the supplementary requests.

Chairman MCCLELLAN. Does the gray on the top indicate what it would cost to fund the same budget today?

General KJELLSTROM. That is correct, sir.

Chairman MCCLELLAN. In other words, it would take a billion and a half dollars more now to purchase the same item that the $22.1 billion purchased in fiscal year 1974?

General KJELLSTROM. Yes, sir.

Chairman MCCLELLAN. What does the total gray area indicate?

General KJELLSTROM. That is where the current and the constant dollars are the same.

Senator YOUNG. Will that include any future pay raise?

General KJELLSTROM. No; the probable October 1974 pay raise, which is law now and will probably come about, is not included. It will be a supplemental.

Chairman MCCLELLAN. What is the approximate amount of the supplemental?

General KJELLSTROM. It has not been determined; it would appear to be in the neighborhood of $3 billion for defense alone.

Chairman MCCLELLAN. You are referring to the entire Defense Department's budget request?

General KJELLSTROM. That is correct, sir.

The apparent increase of $800 million over fiscal year 1974 is in fact a decrease of $500 million or 2 percent in real buying power.

OPERATION INVESTMENT COSTS

Another view of the distribution of funds in the budget is the distribution between operating and investment accounts as reflected in the following table:

[The table follows:]

(BASED ON TOA)

CATEGORY	FY 1964	FY 1973	FY 1974	FY 1975
OPERATING	64%	74%	74%	73%
INVESTMENT	36%	26%	26%	27%
PROCUREMENT	(23%)	(14%)	(13%)	(14%)
RDT & E	(11%)	(9%)	(9%)	(9%)
CONSTRUCTION	(2%)	(3%)	(4%)	(4%)
	100%	100%	100%	100%

WEAPONS PROCUREMENT

Chairman McClellan. If I understand that chart, that leaves 27 percent for procurement of weapons?

General Kjellstrom. That is correct, investments in weapons, that is the procurement account. R.D.T. & E. is the next line, and then construction. Construction is not reviewed by your committee.

Chairman McClellan. Is military construction not in this amount?

General Kjellstrom. It is included in the $22.9 billion.

Chairman McClellan. The construction is also included in the $22.9 billion, although we are not considering it in this bill.

General Kjellstrom. That is right.

It is important to recognize that there is no specific distribution of funds between operating and investment costs which should be considered as the optimum. The requirements for all appropriations are determined through independent analysis of requirements without regard to what the resultant percentage might be.

Chairman McClellan. Say that again.

General Kjellstrom. We don't come up and say we are going to spend 73 percent on military personnel and O. & M. and you can only have 27 percent for research and construction.

Chairman McClellan. What is the purpose of the chart?

General Kjellstrom. To show the overall analysis and what the distribution has been over a period of years. Some schools of thought suggested that we determine in advance we will spend 9, 10, or 11 percent of our budget for R. & D. and then determine what projects within that amount of money will be included. This is not the basis on which our budget is developed.

Chairman McClellan. Why not? What is a better basis?

General KJELLSTROM. Sir, we develop our budget from the grass roots up, determining what the requirements for individual projects, and then arrive at a total.

Chairman MCCLELLAN. In other words, you select your projects first and then conclude it is going to amount to 9 percent of the budget?

General KJELLSTROM. Yes, sir; that is correct.

Chairman MCCLELLAN. The other way would be to set 9 percent and then determine what you can do within that total budget figure?

General KJELLSTROM. Yes, sir.

Chairman MCCLELLAN. If you set 9 percent first, it becomes a ceiling?

General KJELLSTROM. Yes, sir. You might restrict some important projects, and the Secretary of the Army and the Chief of Staff, who make the final determination within the Army on what will be included in the Army's budget, might be precluded from considering important projects if fixed ceilings were established in advance.

We provide for a more balanced budget in this manner.

COMPARISON OF FISCAL YEARS

The next chart, chart 4, gives appropriation comparisons of the 3 years considered in the budget request.

Since each appropriation will be addressed in detail by the appropriation directors, I will only point out the major changes here.

[The chart follows:]

DEPARTMENT OF THE ARMY
COMPARISON OF FISCAL YEARS

(TOA $ MILLIONS)

APPROPRIATIONS	FY 1973	FY 1974	FY 1975
MILITARY PERSONNEL, ARMY	$7,685	$7,762	$7,915
OPERATION & MAINTENANCE ARMY	6,782	6,695	6,837
PROCUREMENT APPROPRIATIONS	2,987	2,951	3,315
RESEARCH, DEVELOPMENT, TEST & EVALUATION, ARMY	1,885	1,971	1,986
MILITARY CONSTRUCTION, ARMY	593	697	744
RESERVE COMPONENTS	1,724	1,993	2,104
TOTAL	21,655	22,069	22,901
FAMILY HOUSING	394	495	524

General KJELLSTROM. The military personnel appropriation increases due to pay raises, increased mileage allowances for PCS moves, and extension of travel entitlements to lower grade enlisted men [below E–4].

Chairman MCCLELLAN. That will only increase about $150 million?

General KJELLSTROM. That is correct, sir.

Chairman MCCLELLAN. You are referring only to military pay?

General KJELLSTROM. That is the military pay account and includes military pay, the permanent change of station of military personnel, and subsistence.

Chairman MCCLELLAN. If you have $3 billion in military pay in the entire Defense Department budget, $150 million for the Army seems like very little.

General KJELLSTROM. The figure I referred to was the October 1 pay rise which will be considered as a supplemental by the Defense Department.

Chairman MCCLELLAN. This is before the pay raise?

General KJELLSTROM. That is correct, sir.

Chairman MCCLELLAN. Proceed.

General KJELLSTROM. The "Operation and maintenance, Army" increase is a reflection of civilian pay raises, inflation, and a major increase for maintenance and repair of real property which will be described later this morning.

Procurement increases by $364 million and reflects our continuing effort toward equipment modernization to improve combat readiness, especially in tank/antitank weapons systems and in aircraft.

The research and development program is essentially level.

Although not reviewed by this committee, I have included a "Military construction, Army" (MCA) program in order to show the complete budget. The fiscal year 1975 MCA program increases $48 million over fiscal year 1974, primarily as a result of increased funding for medical facilities.

Chairman MCCLELLAN. Are you including the military construction in the supplemental?

General KJELLSTROM. No, sir, we do not have that.

Reserve component funding reflects our continuing emphasis on achieving and maintaining readiness. The Reserve component appropriations include funding for the eight combat divisions and over half of the division support required for augmentation to the Active Army in the event of mobilization.

Although the budget is based on programed end strengths of 372,000 for the National Guard and 201,000 for the Army Reserve, it is the Army's intention to fully support higher strengths if they can be attained by the recruiting programs of the Reserve components.

Funding requested in the family housing account will provide for a $25 million reduction in the backlog of deferred maintenance, and for an increase of 5,000 leased units of housing, primarily in Germany.

Senator YOUNG. You mentioned a minute ago that the Army is filling up the Regular Forces. Would that be enlistments from the Reserve components?

General KJELLSTROM. No, sir, the administration policy for the future is to utilize the Reserve components in the event of any future

mobilization. As you know, during the war in Southeast Asia, we did not mobilize a large number of Reserve components. We just called a few units to active duty, and a limited number of units served in Vietnam.

It is now policy that we will augment the Active Forces as soon as we have any major mobilization requirements.

Chairman McClellan. During the Vietnam war, the draft supplied the replacements, did it not?

General Kjellstrom. Yes, sir.

TABLE ON PERSONNEL STRENGTH

This is a table that really illustrates the end strengths in thousands for Army manpower between 1964 and 1975. Both military and civilian end strengths are indicated on this chart.

[Chart 7 follows:]

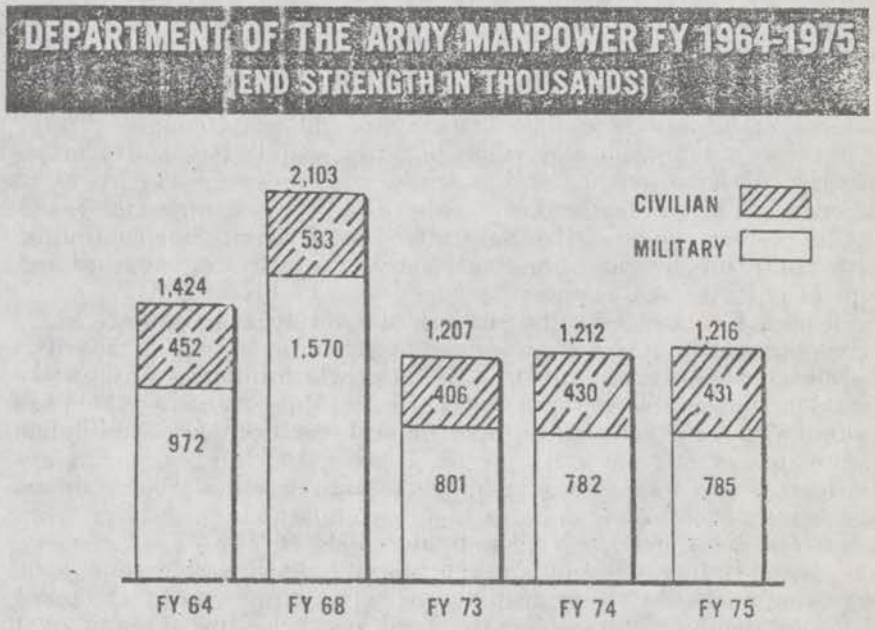


CHART 7.

PROGRESS OF NATIONAL GUARD

Senator Young. Aren't strengths low at this time?

General Kjellstrom. In the Army Reserve, but the National Guard is making great progress. They are over 400,000 at the present time. The Army Reserve, on the other hand, has not made as significant progress as the National Guard, but they have a recruiting program which is going into full swing, and they hope to improve their progress in the next few months.

Chairman McCLELLAN. You have not answered whether they are understrength.

General KJELLSTROM. The National Guard is not. The Army Reserve is understrength by about 30,000, sir.

Chairman McCLELLAN. Is it not true that present plans call for the Army Reserve and the National Guard to be used for immediate reinforcement in the event of emergency, especially since the draft has been terminated?

General KJELLSTROM. Yes, sir.

Chairman McCLELLAN. Are the people who enlist in the National Guard and Reserves made aware of this fact? Are they informed they are going to be called on first in a national emergency?

General KJELLSTROM. I would like to refer that to General Greenlief, the Chief of the National Guard Bureau, who will be here later this morning; and General Roberts.

Chairman McCLELLAN. I think we should be completely candid with the personnel who enlist in the Reserves and the National Guard. It should be emphasized they are in the military, subject to be called up.

General KJELLSTROM. I will insure that both General Greenlief and General Roberts address that.

READINESS CONDITION OF RESERVE UNITS

Senator YOUNG. Is the Army able to maintain comparable readiness of Reserve units to Regular units? Please provide the committee with the readiness conditions of Reserve units by the number and type of units in each category?

General KJELLSTROM. The authorized level of organization (ALO) for equipment in Reserve component (RC) units is ALO3 [approximately 80 percent of full T.O. & E.]. Reserve component (RC) units are only required to conduct 2 weeks of active duty training (ADT) annually. When the reduced equipment authorization and training requirements of RC units are measured against a full equipment authorization and year-round training of Regular units, the readiness progression of Reserve units is highly comparable to Active Army units. During the last year, well over half of our units achieved company level proficiency and for many—those not organic to a larger unit—that is their ultimate goal. The Army National Guard divisions reduced postmobilization training time an average of 3 weeks.

The average readiness condition (REDCON) for the 8 RC divisions, 21 separate brigades, and 4 armored cavalry regiments is [deleted]. A

shortage of equipment is the single factor most responsible for this readiness rating under the present reporting system. Significant shortages which impact on training and readiness are modern tanks, armored personnel carriers, self-propelled artillery signal equipment, and heavy engineer equipment. An improved equipment posture will unquestionably produce a similar enhancement of RC readiness.

Senator YOUNG. Do you have a problem keeping up the strength in the Regular Army?

General ROGERS. As you know, we are falling somewhat short in our recruiting achievements, but I would just say that at the end of February, Senator, the strength of the Army was 1,700 below what our objective for that strength was at the end of February. Only 1,700 below.

Now we are anticipating, as of yesterday, that we will end the fiscal year about 9,000 below the total end strength we would like to have on the 30th of June, which is 782,000. Five months ago that estimate was 17,000. So it is getting better.

That will give you some feel of the shortfall that we anticipate.

Senator Young. Will you get into the qualifications of an enlistee? Are you going to get into that?

General ROGERS. Yes, I am going to cover in my statement the approach to quality, how we measure quality, which is a little different than the legislation section.

TOTAL ACTIVE MILITARY AND CIVILIAN MANPOWER

General KJELLSTROM. The chart on page 153 shows total active military and civilian manpower for selected years from fiscal year 1964 to 1975.

PERSONNEL DISTRIBUTION IN MISSION CATEGORIES

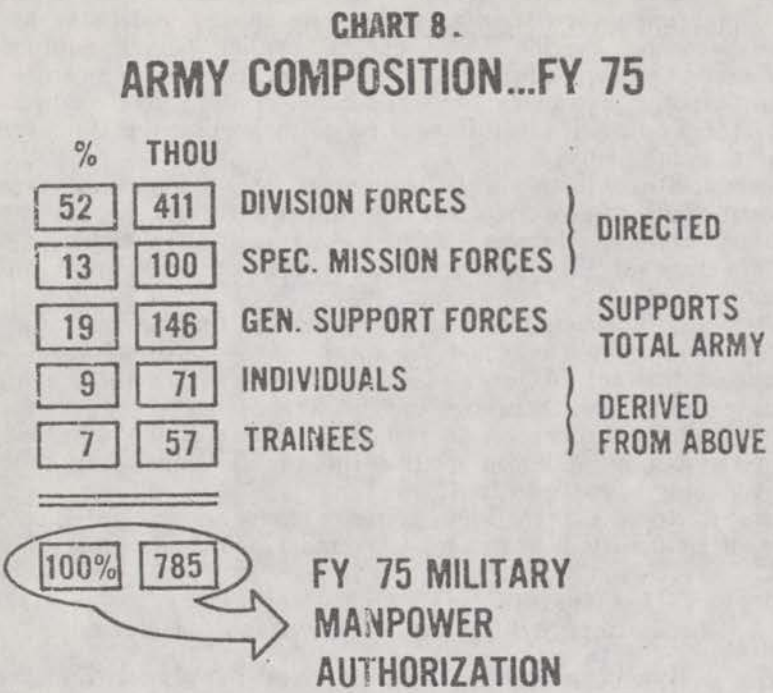
General KJELLSTROM. The fiscal year 1975 total strength is 208,000 or 15 percent below the fiscal year 1964 level and is remaining relatively stable after the major reductions following the Vietnam war.

Although civilian manpower is programed to increase by about 25,000 from the fiscal year 1973 actual end strength, we are still below the civilian strength level of fiscal year 1964.

And now I will discuss military personnel in greater detail.

The following chart on Army composition shows how the Active Army's 785,000 military personnel are distributed into mission categories.

[The chart follows:]



DIVISION FORCES AS PERCENT OF ACTIVE ARMY

General KJELLSTROM. I will highlight each of the major categories.

Senator YOUNG. Do you have one or two divisions that can be airlifted to any trouble spot immediately?

General KJELLSTROM. Yes, sir, we have the 82d Airborne Division that can be lifted on very short notice. We have elements of that division on alert, short-term alert, at all times. For example, they were alerted for potential utilization on several emergency situations in the past.

All of our divisions are now at a combat-ready position.

Chairman MCCLELLAN. Off the record.

[Brief discussion off the record.]

Chairman MCCLELLAN. Back on the record.

[Chart 10 follows:]

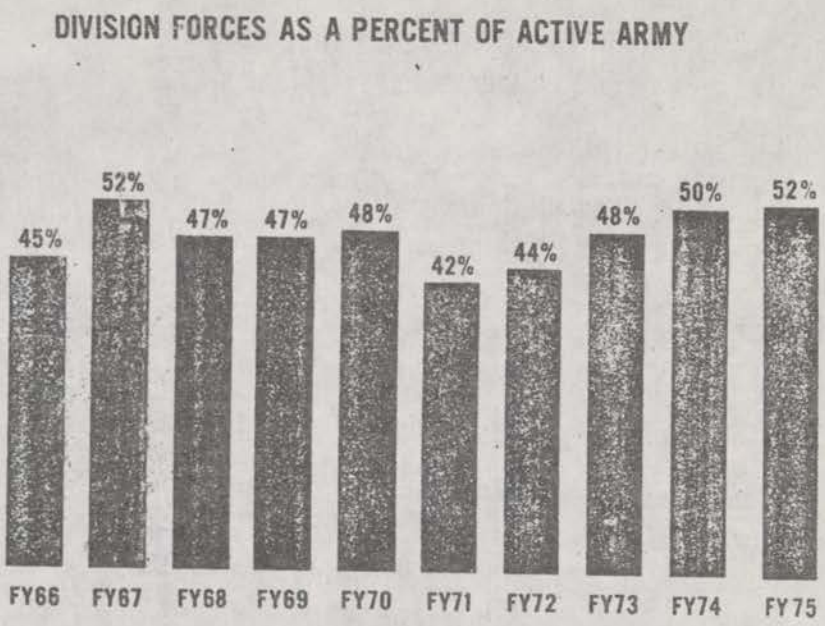


CHART 10.

DIVISION FORCES

General KJELLSTROM. Chart 10 shows the continuing trend toward increasing the proportion of the Army that is devoted to division forces. This is a direct consequence of our efforts to maximize initial combat capability.

It is important to recognize that the continued manning of division forces is being accomplished in the face of declining total strength through reallocation of manpower savings realized from economies in headquarters and support activities.

As the Chief of Staff pointed out in his earlier appearance before this committee, we have still not attained the number of divisions we should have to provide greater assurance of fulfilling the Army's role in the national strategy. As we continue to review our requirements in other areas, we expect to further increase the combat power of the Army in division forces in the future.

[Chart 11 follows:]

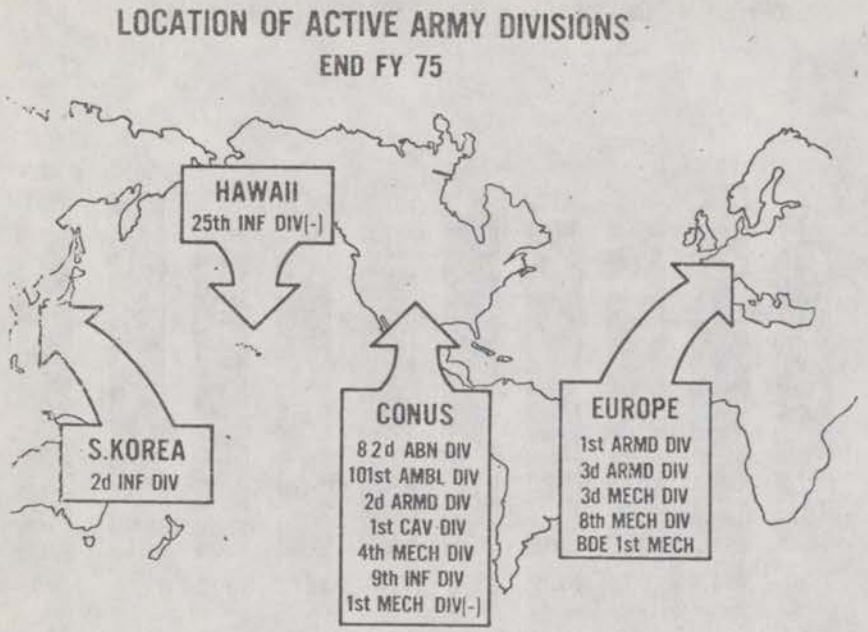


CHART 11.

General KJELLSTROM. Chart 11 shows where our divisions will be located at the end of fiscal year 1975. We will have the 2d Infantry Division in Korea; we will have the 25th Infantry Division in Hawaii.

Chairman MCCLELLAN. How many and what percentage of Army personnel are stationed abroad?

General KJELLSTROM. Approximately one-third. We have approximately 198,000 Army personnel in Europe.

Chairman MCCLELLAN. In addition, Air Force personnel are stationed in Europe?

General KJELLSTROM. There are about 300,000 military personnel of all services in Europe.

Chairman MCCLELLAN. These personnel are part of NATO?

General KJELLSTROM. That is correct, sir.

Chairman MCCLELLAN. This is, of course, an important issue for Congress: Whether we should continue to maintain forces in Europe or bring all or part of them home, General, will we have 300,000 active military personnel in Europe at the end of this fiscal year?

General KJELLSTROM. Yes, of which 198,000 will be Army.

Chairman MCCLELLAN. That leaves over 100,000 personnel in the Air Force?

General KJELLSTROM. Most are Air Force. There are some Navy and a few marines.

[Chart 13 follows:]

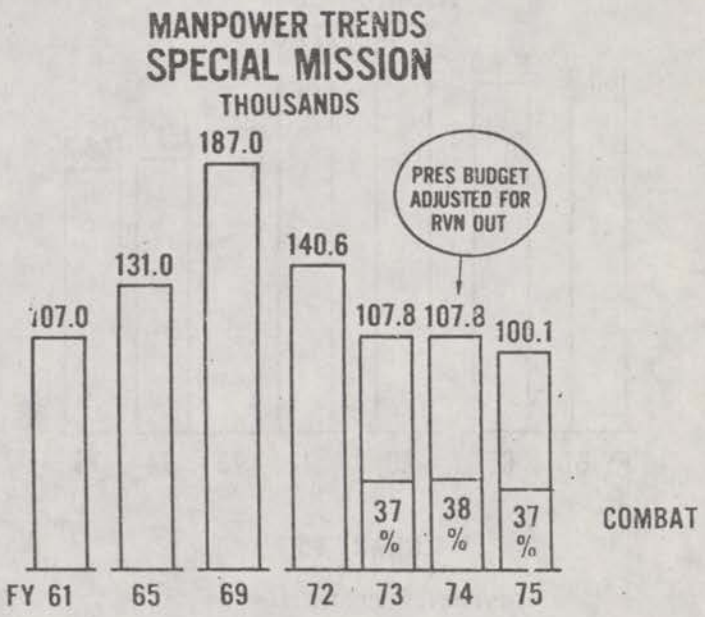


CHART 13.

SPECIAL MISSION MANPOWER

General KJELLSTROM. This chart No. 13 shows the trend in Special Mission manpower.

The peak requirement for Vietnam operations was reached in fiscal year 1969, and since then we have had a continuing decrease.

The percentage figures in the lower part of the fiscal year 1973 to fiscal year 1975 graph represent the portion of Special Mission Forces that are combat units, such as missile, air defense, special forces, and the brigades in Berlin, Panama, and Alaska.

In addition to these forces, the Special Mission category includes manpower for DOD and joint activities, intelligence and communications, and free world support.

[Chart 15 follows:]

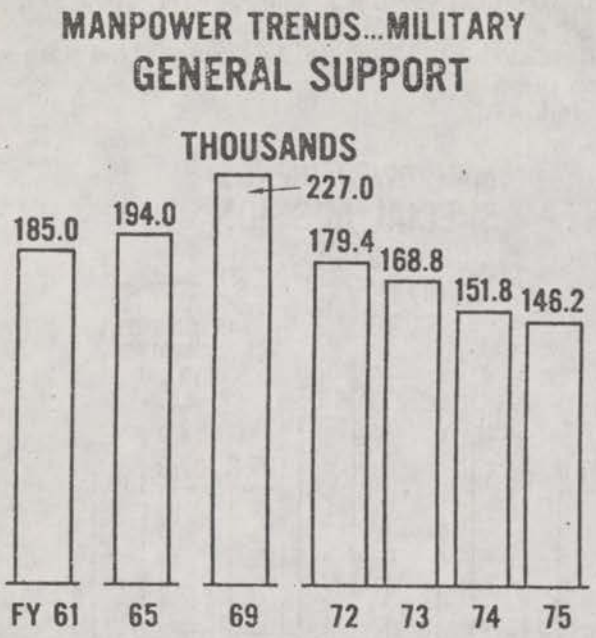


CHART 15.

GENERAL SUPPORT MANPOWER

General KJELLSTROM. Chart 15 shows the overall trend in general support manpower for military strength. You can see that we are at a lower level of general support manpower than at any time in the past 15 years.

Chairman MCCLELLAN. What do you mean by general support manpower?

General KJELLSTROM. This includes the training establishments in the United States; our base operations in the United States; our post, camp, and station support personnel; our logistics establishments throughout the Army Materiel Command; medical services, headquarters activities, and those active Army personnel that support Reserve components; all of the general support is in the United States.

[Chart 15A follows:]

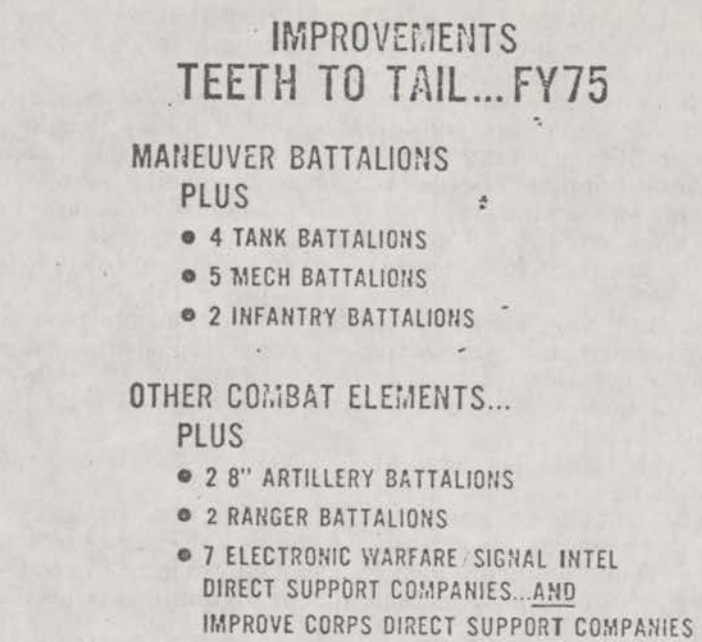


CHART 15. A

ADDITIONS TO COMBAT ELEMENTS

General KJELLSTROM. Chart 15A lists those programed additions in maneuver battalions and other combat elements included in the fiscal year 1975 budget. These force structure increases result directly from the decreases in general support manpower addressed on the previous chart.

As you can see, we are adding 11 maneuvers battalions—4 tank battalions, 5 mechanized battalions, and 2 infantry battalions—and other combat elements.

Chairman MCCLELLAN. What is the composition of a tank battalion?

General KJELLSTROM. A tank battalion would have roughly 550 men. It would be organized into three tank companies, a headquarters company, and a support company.

Chairman MCCLELLAN. How many tanks are in a battalion?

General KJELLSTROM. About 54 tanks.

Chairman MCCLELLAN. The necessity for tank weapons is primarily to meet any NATO situation, or any other land operation abroad, is it not? We don't anticipate any invasion of the continental United States that would require tank weaponry, do we?

General KJELLSTROM. Basically, no. We have not experienced any serious threat in the past.

Chairman MCCLELLAN. So this part of our military strength is necessitated primarily because of commitments abroad?

General KJELLSTROM. Commitments abroad to meet the combined Soviet-Chinese Communist threat, sir.

Chairman MCCLELLAN. I have been concerned that we are being required to provide a lot of our military strength for NATO and fighting wars abroad.

The American people's enthusiasm for fighting wars abroad, in my judgment, has diminished considerably, and I think we ought to insist upon our allies providing themselves with a lot of this defense equipment that is primarily essential to their requirements, not to ours.

I agree with a strong military, I agree with the defense posture that will serve as a deterrent, but I don't think that we ought to provide so much of the deterrent for allies who can and should provide it for themselves.

I am not complaining about the amount we are spending on the military, but I would rather the taxpayer's money be spent for some weapons that would serve primarily for the defense of our country; for example, on improved submarines and longe-range aircraft that we may need.

General KJELLSTROM. Yes, sir. And of course, this is a highly controversial and much debated point.

Chairman MCCLELLAN. I know. Maybe you don't need to get into the controversy, however, I want to keep the record clear as to what I am thinking. Don't be surprised if I expend efforts in trying to find ways to bring about some reductions of our commitments abroad.

Off the record.

[Brief discussion off the record.]

Chairman MCCLELLAN. Back on the record.

[Chart 21 follows:]

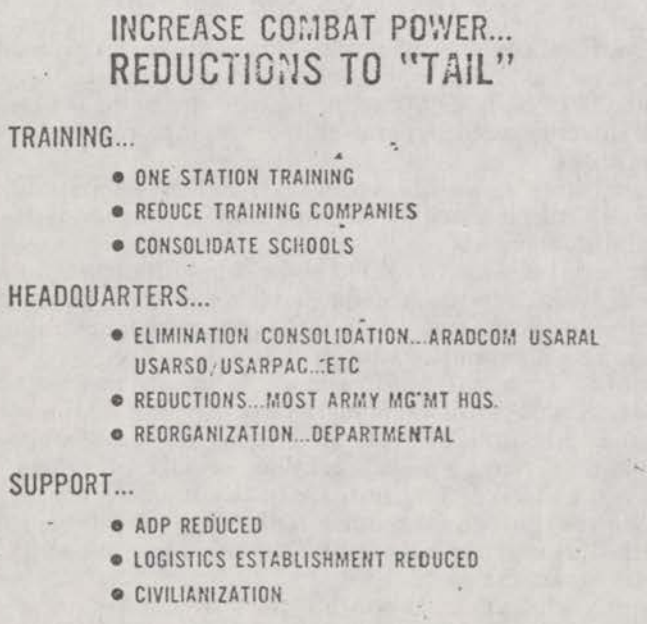


CHART 21.

General KJELLSTROM. Chart 21 shows the areas where we have reduced military spaces in order to constitute additional combat forces which allowed us to begin the increase in combat power above the 13-division level without increasing the overall military end strength.

The details of the specific actions in each of these areas are addressed in the longer version of my statement.

For example, for one station training, we are assembling all of the training for an individual soldier at one station. At Fort Knox, which has the armor school, we will have basic combat training and advanced individual training, with MOS producing courses at the end.

It will eliminate the requirement for the man to go to three different installations during his initial training for the Army.

At Fort Gordon we will have signal training and continuous training in signal specialties for the individual soldier.

Senator YOUNG. That makes a lot of sense.

General KJELLSTROM. The one station training is an action recommended by General DePuy, commander, U.S. Army Training Command, Chief of Staff and General Rogers.

Chairman MCCLELLAN. Is that a consolidation?

General KJELLSTROM. It is a consolidation of both the elements of the training process and a simplification.

The previous chart shows the current situation where a man entering goes into the Army training center for basic training, a service school for advanced training and then on to follow-on training.

In the future he will go to a professional home where he will take basic combat training, advanced individual training, and follow-on training.

Chairman MCCLELLAN. Will it reduce traveling time?

General KJELLSTROM. Yes, sir.

Chairman MCCLELLAN. How many of these training installations do you have? Are soldiers going to get all of this training at one insallation?

General KJELLSTROM. Yes. One for each type of skill.

Chairman MCCLELLAN. You will have to have more than one.

General KJELLSTROM. We will have one for each career field; that, is armor, artillery, air defense, infantry, engineers, communications quartermaster, ordnance, and transportation. In addition, there will be one or more training centers which will continue into the future to provide the Army with additional training capacity.

Chairman MCCLELLAN. Will this mean you are going to close some installations?

General KJELLSTROM. We are going to change some missions of some installations. That decision has been announced. Fort Polk's mission for the future has been announced and also Fort Ord's. The combat units that General Abrams has announced will be organized at the present training centers.

Chairman MCCLELLAN. I don't understand. A man enters and goes to a basic training camp.

General KJELLSTROM. Yes.

Chairman McCLELLAN. When he gets through there, is he sent to another post?

General KJELLSTROM. Yes.

Chairman McCLELLAN. You are proposing to provide all that training at one installation?

General KJELLSTROM. Yes.

Chairman McCLELLAN. Would you close some of the other stations?

General KJELLSTROM. They would be closed unless required for an additional mission. Some of the additional units which will be organized will be at some of the installations no longer required for individual training purposes.

Chairman McCLELLAN. The training is being consolidated into one installation?

General KJELLSTROM. Yes.

Chairman McCLELLAN. On the face of it, it sounds good.

General KJELLSTROM. It will save a large number of spaces, sir.

Another area where we have been able to develop significant manpower savings for reapplication to combat structure is in headquarters operation.

The following chart shows the reductions in military and civilian manpower included in the budget, and our goal for the end of fiscal year 1975.

This chart shows that the fiscal year 1975 budget includes programed reductions of over 18,000 spaces since fiscal year 1969 when we began our major efforts to reduce headquarters manpower. Almost 5,000 of these are between fiscal year 1974 and fiscal year 1975, and we have as an objective a further reduction of 4,000 spaces.

Senator YOUNG. How much is in Washington?

General KJELLSTROM. Fifteen to 20 percent. That is a significant reduction in the Army.

Chairman McCLELLAN. Is there a reduction in mission personnel?

General KJELLSTROM. General Rogers will discuss that in his statement, sir.

Chairman McCLELLAN. We receive complaints about the number of commissioned officers today in the service. People say we have a larger ratio than necessary. Is that involved here or will you discuss that separately?

General ROGERS. I will deal with that separately.

[The chart follows:]

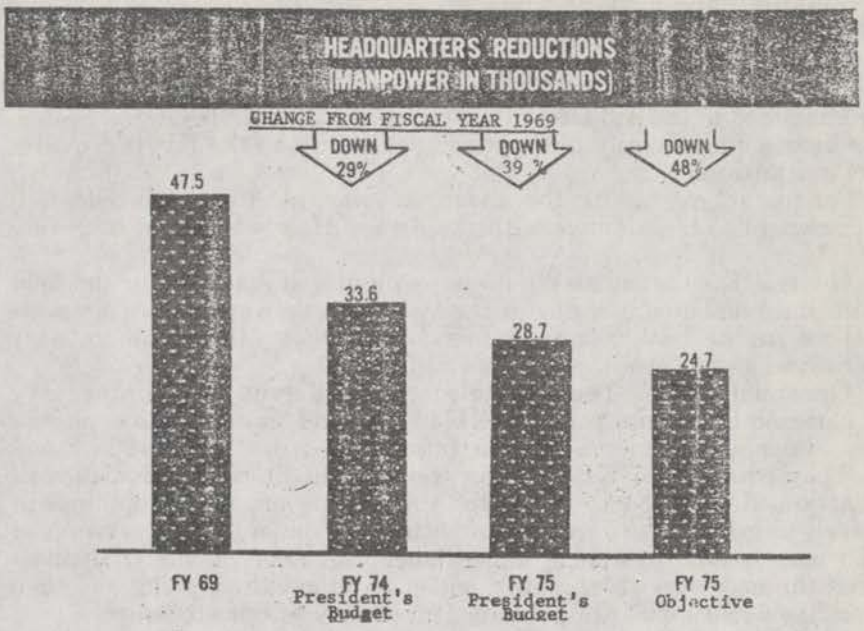


CHART 24.

TOTAL CIVILIAN EMPLOYMENT

General KJELLSTROM. Chart 33 displays total civilian employment including indirect hire foreign national personnel. The number of employees in fiscal year 1975 will be 5 percent below the fiscal year 1964 level, although we have completed significant program changes over the past 10 years.

Examples of these changes include the substitution of about 42,000 civilians for military personnel and a program increase of over 10,000 Reserve component technicians. Adjustment of the fiscal year 1964 base for these programs shows that in reality we have implemented reductions of about 73,000 spaces or 14 percent.

Chairman MCCLELLAN. Are the KP changes included?

General KJELLSTROM. No, sir; KP is a contractual effort which is included within the O. & M. appropriation.

Chairman MCCLELLAN. You don't include that under civilian personnel?

General KJELLSTROM. No, sir.

Chairman MCCLELLAN. Because they are contract personnel serving the military?

General KJELLSTROM. Yes.

Chairman MCCLELLAN. How many personnel are involved in that contractual service that could be included in the total civil personnel?

General KJELLSTROM. We have within the United States 6,750 man-years in contractual KP.

Chairman MCCLELLAN. So that would add about 6,000, a little over 6,000 personnel if they were included?

General KJELLSTROM. Yes.

Senator YOUNG. Do you have that same arrangement in Europe? For troops stationed in foreign countries, do we contract for KP duty?

General KJELLSTROM. It depends on the situation in each country. In Germany proper we have direct hire KP's. In other words, they are included in the end strength shown here. But in the United States, we have gone primarily to a contractual service on the KP, it provides greater flexibility.

Senator YOUNG. In the event of war in Europe, would KP personnel be able to move with the Army? How would you take care of it?

General KJELLSTROM. We do not take our KP's out into the field with our combat units, but in the two or three wars I have been involved in, we have normally found some way other than military personnel to perform the KP service for us.

General ROGERS. Your experience is different from mine. My experience is soldiers perform KP in the field under combat and we would expect to have that in the future.

They learn to do KP in basic training and it is the kind of skill that you don't need to spend too much time on, in my opinion, in developing because it consists of setting up under the supervision of the mess steward, who is a permanent member of the company's staff the necessary stoves, pots, and pans to get them going and then you have cooks who are permanent members of our structure.

Chairman MCCLELLAN. They are professionals?

General ROGERS. Yes. The KP is a cleanup man.

Chairman MCCLELLAN. It doesn't take a great deal of training to develop a KP, does it?

General ROGERS. No, sir.

[Chart 33 follows:]

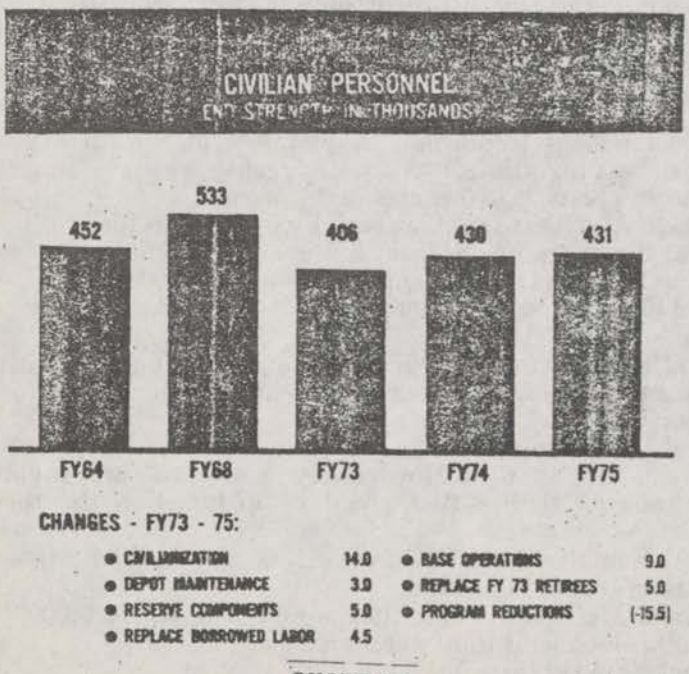


CHART 33.

HIGHLIGHT CHART

General KJELLSTROM. My last chart, No. 54, summarizes or highlights the 1975 budget.

[Chart 54 follows:]

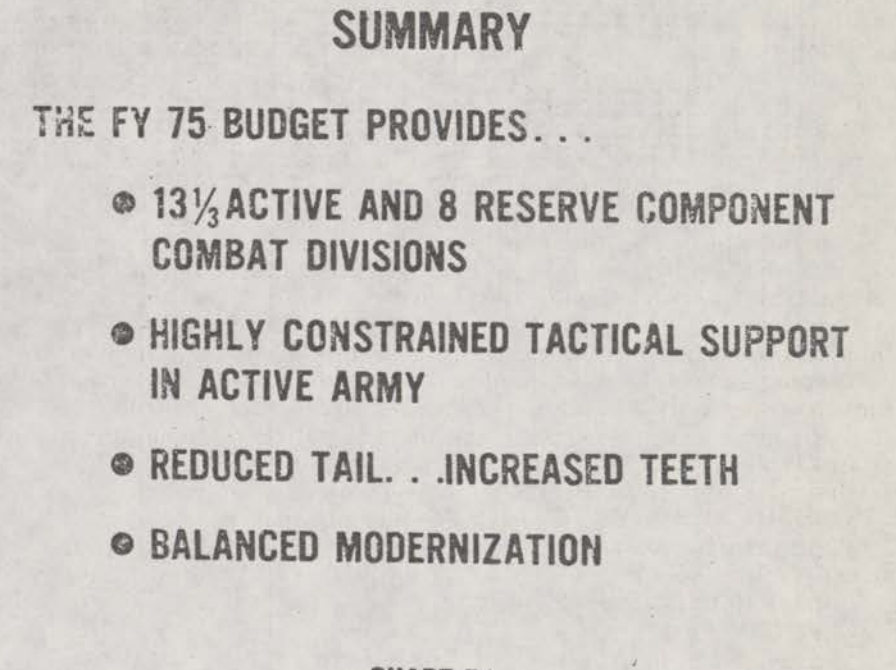


CHART 54.

General KJELLSTROM. Mr. Chairman, this concludes my prepared statement. Additional details relating to the specific programs and activities included in the request will be addressed by other Army witnesses as each appropriation is reviewed.

Chairman MCCLELLAN. Senator Young, do you have any questions?

Senator YOUNG. No, sir.

Chairman MCCLELLAN. Senator Hruska?

Senator HRUSKA. No, sir.

Military Personnel, Army

Chairman MCCLELLAN. We shall now take up the "Military Personnel, Army" appropriation.

JUSTIFICATION

At this point in the record there will appear certain program and financing information from the justification.

[The justification follows:]

Justification

MILITARY PERSONNEL, ARMY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 07-05-2010-0-1-051		1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:			
	DIRECT PROGRAM:			
	1. STRATEGIC FORCES	64,240	60,393	31,761
	2. GENERAL PURPOSE FORCES	3,863,337	4,206,901	4,369,099
	3. INTELLIGENCE AND COMMUNICATIONS	402,183	366,654	327,868
	4. AIRLIFT AND SEALIFT	7,528	8,051	7,956
	5. GUARD AND RESERVE	47,002	57,476	67,537
	6. RESEARCH AND DEVELOPMENT	84,656	88,823	88,263
	7. CENTRAL SUPPLY AND MAINTENANCE	124,578	118,156	115,226
	8. TRAINING, MEDICAL, AND OTHER GENERAL PERSONNEL ACTIVITIES	2,712,269	2,571,341	2,701,241
	9. ADMINISTRATION AND ASSOCIATED ACTIVITIES	161,918	143,715	120,394
	10. SUPPORT OF OTHER NATIONS	217,489	100,090	85,455
	TOTAL DIRECT PROGRAM	7,685,200	7,721,600	7,914,800
	REIMBURSABLE (TOTAL)	103,504	56,400	62,300
10	TOTAL OBLIGATIONS	7,788,704	7,778,000	7,977,100
	FINANCING:			
	RECEIPTS AND REIMBURSEMENTS FROM:			
11	FEDERAL FUNDS	-56,873	-29,067	-33,615
14	NON-FEDERAL SOURCES	-46,631	-27,333	-28,685
25	UNOBLIGATED BALANCE LAPSING	17,346	.....	.....
	BUDGET AUTHORITY	7,702,546	7,721,600	7,914,800
	BUDGET AUTHORITY:			
40	APPROPRIATION	7,703,651	7,109,950	7,914,800
41	TRANSFERRED TO OTHER ACCOUNTS	-1,105	.....	.....
43	APPROPRIATION (ADJUSTED)	7,702,546	7,109,950	7,914,800
44.30	PROPOSED SUPPLEMENTAL FOR MILITARY PAY RAISES	.....	611,650	.....
	RELATION OF OBLIGATIONS TO OUTLAYS:			
71	OBLIGATIONS INCURRED, NET	7,685,200	7,721,600	7,914,800
72	OBLIGATED BALANCE, START OF YEAR	91,878	210,636	265,336
74	OBLIGATED BALANCE, END OF YEAR	-210,636	-265,336	-348,136
77	ADJUSTMENTS IN EXPIRED ACCOUNTS	-689	.....	.....
90	OUTLAYS, EXCLUDING PAY RAISE SUPPLEMENTAL	7,565,753	7,061,550	7,825,700
91.30	OUTLAYS FROM MILITARY PAY RAISE SUPPLEMENTAL	.....	605,350	6,300

General ROGERS. I have a long version of my statement I would like to enter in the record and a short version I would like to read from today.

Chairman MCCLELLAN. The full version may be printed in the record and you may highlight it with your short version. Your biographical sketch may precede your statement.

General ROGERS. Thank you, Mr. Chairman.

[The biographical sketch and statement follow:]

BIOGRAPHICAL SKETCH

LIEUTENANT GENERAL BERNARD W. ROGERS, DEPUTY CHIEF OF STAFF FOR PERSONNEL

Bernard W. Rogers was born in Fairview, Kansas, in 1921. He graduated from high school in Fairview in 1939, attended Kansas State College for one year, and graduated from the United States Military Academy, West Point, New York, in 1943 as a second lieutenant of Infantry.

His early service included duty with the 70th Infantry Division at Camp Adair, Oregon; on the staff and faculty of the United States Military Academy; on the staff of the High Commissioner to Austria in Vienna, Austria; and with Headquarters, Sixth U.S. Army, Presidio of San Francisco.

From 1947 to 1950 he attended Oxford University, England, as a Rhodes Scholar, receiving a bachelor of arts and master of arts in Philosophy, Politics, and Economics. Upon his return from England, he served on the staff of the Commanding General, U.S. Army Field Forces, Fort Monroe, Virginia prior to attending the Infantry Officers' Advanced Course at Fort Benning, Georgia, 1951–52.

In June 1952, he joined the 2nd Infantry Division in Korea and commanded the 3rd Battalion, 9th Infantry Regiment, participating in the Summer-Fall Campaign of 1952 and the 3rd Korean Winter Campaign. At the end of 1952, he joined the Staff of the Commander in Chief, United Nations and Far East Commands in Tokyo, Japan.

Following attendance at the 1954–55 Regular Course of the Command and General Staff College, Fort Leavenworth, Kansas, he again joined the 2nd Infantry Division as commander of the 1st Battalion, 23rd Infantry, Fort Lewis, Washington.

In June 1956, he was assigned to the Office of the Chief of Staff, U.S. Army in Washington, D.C., serving for two years with the Coordination Group and one year as Executive and Senior Aide to the Chief of Staff.

He attended the U.S. Army War College, graduating with the Class of 1960. He then was assigned to the 24th Infantry Division in Augsburg, Germany, where he served for eight months as commander of the 1st Battle Group, 19th Infantry, and for fourteen months as the Chief of Staff of the Division.

In the summer of 1962, he was assigned for a short period as Chief of Troop Operations Branch, Operations Division, Headquarters USAREUR, before being reassigned to the Office of the Chairman, Joint Chiefs of Staff, the Pentagon, in September 1962. Until May 1963 he was a Military Assistant to the Chairman, Joint Chiefs of Staff, and then served as Executive Officer to the Chairman from May 1963 until October 1966.

He spent the period from November 1966 to 1967 as Assistant Division Commander of the 1st Infantry Division in the Republic of Vietnam. From September 1967 until September 1969 he was Commandant of Cadets at the United States Military Academy, West Point, New York. From September 1969 until December 1970 he was Commanding General of the 5th Infantry Division (Mechanized) and Fort Carson, Colorado. He served as Chief of Legislative Liaison in the Office of the Secretary of the Army from January 1971 until October 1972. He became the Deputy Chief of Staff for Personnel, Department of the Army, on 1 November 1972.

He has been awarded the Distinguished Service Cross, Silver Star, Legion of Merit with three oak leaf clusters, Distinguished Flying Cross with two oak leaf clusters, Bronze Star with "V" device and oak leaf cluster for merit, Air Medal with "V" device, Army Commendation Medal with oak leaf cluster, Vietnamese National Order, 5th Class, and Vietnamese Cross of Gallantry with palm (two awards).

PREPARED STATEMENT

General ROGERS. Mr. Chairman and members of the Committee, it is a privilege for me to appear before you to present the Army military personnel request for the coming year.

In my presentation, I will identify our force requirements, discuss recruitment for this force and then turn to other activities in support of our personnel goals established by the Army Personnel Plan.

THE ARMY PERSONNEL PLAN

This plan, developed since Congressional appearances last year, provides a common frame of reference for all concerned with the Army's personnel system. It has established goals, objectives, and milestones. The goals toward which we strive are to:

Maintain a tailored force whose manpower structure is based on force structure and effective personnel management considerations.

Attract and retain sufficient quality volunteers to satisfy requirements, drawing from all representative groups.

Promote a state of professionalism characterized by integrity, competence and dedication.

Maintain a standard of leadership and an environment which will instill a high state of morale and discipline; produce a motivated, effective, mission-oriented force; and provide an appropriate living environment for our people.

Promote racial awareness and harmony among all members of the Army.

Earn public respect for the Service, its mission and its people.

OBJECTIVES OF ARMY PERSONNEL PLAN

Chairman MCCLELLAN. Describe the objectives and specific milestones included in the Army Personnel Plan.

General ROGERS. There are currently 123 objectives in the Army Personnel Plan which support the six goals of the personnel system. The objectives, each of which is managed by a single individual, express either in qualitative or quantitative terms what we are trying to accomplish over the broad spectrum of personnel activities. The objectives may be categorized in three ways: Some are oriented toward routine but essential personnel functions such as procurement and reenlistment; others are problem solving by nature such as reducing the military occupational specialty (MOS) mismatch problem; while a third type of objective addresses personnel management innovations such as the Officer Personnel Management System. I will provide an extract from the plan which lists all the objectives. Detailed milestone schedules which spell out each objective manager's plan for accomplishing the objective, and the means for measuring progress are maintained in my office and reviewed periodically.

(The information follows:)

E. AMPERS Personnel Administration Objectives

1. Commissioned and Warrant Officers

a. Procurement

Objective Number	Objective
1000	Procure qualified commissioned officers from long lead time sources to satisfy the need for a constant flow of accessions to meet long lead time requirements and from short lead time sources to accommodate changes in force strength requirements.
1001	Distribute officers from USMA, ROTC, OCS, direct commission and recall sources to OPD branches giving consideration to branch strength requirements, year-group distribution, and RA content.
1002	Provide quality legal services within the Army by obtaining sufficient commissioned JAGC officers to meet annual procurement objectives and retention requirement.
1003	Procure and manage chaplains through a program tailored to meet the needs of the Army and the ecclesiastical requirements of American religious denominations.
1004	Procure sufficient health professionals to meet Army requirements.
1005	Procure qualified warrant officers to meet technical requirements of the Army.

b. Training and Education

1100	Develop professional officers with the proper qualifications and motivations according to the requirements of the Army.
1101	Develop officer skills and training which efficiently and economically support the Army.
1102	Provide graduate level education to selected career officers to support the Officer Personnel Management System (OPMS) and to meet valid requirements.

Objective Number	Objective
1103	Provide professional educational development to the officer corps in a manner which supports the Officer Personnel Management System (OPMS).
1104	Maintain an updated inventory of Service Schools MOS producing courses that provide training in skills and knowledges to meet current and future personnel requirements.
1105	Provide flight training for officers to qualify them to perform the tasks associated with an aeronautical rating.
1106	Provide warrant officer personnel with sufficient technical and managerial training to qualify them in their specialty.
	Enlisted Training Objective 2104 also applies to officers training.
	c. Utilization
1200	Develop a management system that provides probable future officer requirements with quality, quantity, and (DOPMS) experience.
1201	Develop and implement the Officer Personnel Management System (OPMS).
1202	Discipline the officer personnel management system to insure that officers are managed in accordance with Army needs, the officers' needs and the officers' desires.
1203	Distribute equitably officer quality and skills.
1204	Insure the quantitative and qualitative distribution of officers in accordance with stablished priorities.
1205	Insure that the by-grade distribution and total numbers of commissioned and warrant officers meets the Army's needs and provides viable promotion flow for the officer corps.
1206	Provide for the maximum stabilization of officers.

Objective Number	Objective
1207	Achieve a higher quality professional officer corps through optimum support of the DA officer selection board process.
1208	Develop improved methods/systems for officer evaluation.
1209	Management of the Officer Evaluation System Master Management Plan.
1210	Integrate WAC with other Branches of the Army.
1211	Optimize the use of female officers in the Army considering the needs of the female officer and giving proper consideration to Constitutional rights of women consistent with the needs of the Service.
1212	Establish a system of managed tenure for warrant officers.
1213	Operate and manage the Army Officer and Warrant Officer Military Occupational Specialty (MOS) system to establish standard grade authorization (SGA) and accurate descriptions of positions/ skill requirements.
	d. Separation and Retirement
1300	Develop and review policies pertaining to officer separation, discharge, resignation, and retirement.
1301	Determine early release and quantitative involuntary release requirements.
	2. Enlisted Personnel
	a. Procurement
2000	Procure sufficient numbers of quality NPS personnel to satisfy the immediate strength needs of the total force and permit the highest degree of selectivity to sustain the career force.
2001	Maximize procurement of personnel who possess a civilian acquired skill or an academic background which meets Army skill requirements.

Objective Number	Objective
2002	Process personnel into the Army in an orderly, dignified manner, inducing a favorable attitude toward Army service.
2003	Reenlist soldiers for varying periods of time to meet qualitative and quantitative requirements.
2004	Provide for payment of special pay to induce the level of reenlistment needed to attain and maintain a supply of necessary skills in the career force.
	b. Training and Education
2100	Provide Army Training Center (ATC) structure sufficient to satisfy the Army's Basic and Advanced Individual Training requirement.
2101	Provide a Professional Military Education System for noncommissioned officers.
2104	Insure that the World Wide Military Command and Control System (WWMCCS) ADP update program personnel receive appropriate initial training and retain their identity for subsequent assignments.
	Officer Training Objective 1104 also applies to Enlisted Training.
	c. Utilization
2200	Determine long range requirements for soldier grades on the basis of desired career force size and content, retention requirements, a visible grade progression pattern and established tenures for each grade.
2201	Develop assignment procedures to insure that maximum use is made of the enlisted soldier's experience, training, and education.
2202	Develop improved assignment procedures for enlisted personnel.
2203	Optimize the use of women in the Army Enlisted Force.
2204	Maintain maximum stability in career management field in personnel assignments while maintaining reasonable equity in the distribution of foreign duty assignments.

Objective Number	Objective
2205	Through a program of Intensive Management provide the environment necessary to keep qualified personnel motivated and at the same time furnish those individuals who exhibit ability with the necessary tools to become a viable personnel management asset to the Army.
2206	Operate and Manage the Army Enlisted Military Occupational Specialty (MOS) system to establish standard grade authorization (SGA) and accurate descriptions of positions/personnel skill requirements
2211	Maintain an efficient and effective system of personnel evaluations.
2212	Establish and maintain a visible competitive promotion system.
2213	Establish a system of centralized Military Personnel Selection and Classification test scoring and test score information.
2214	Provide a special pay to increase both professionalism on the job and job knowledge.
2215	Identify and continually evaluate the factors which contribute to MOS mismatch; manage the achievement of related TAPP objectives to expedite actions which will reduce MOS mismatch or impact on MOS balance.
2216	Increase authorizations for MOS 75 series personnel at unit level to reflect the administrative requirements.
	d. Separation and Retirement
2300	Manage enlisted separations and retirements to meet Army needs and standards.

F. AMPERS Human Resources Objectives

1. Leadership and Professionalism

3000	Develop and implement a system that insures the incorporation of motivational development and leadership concepts and principles which are applicable to the Army.

Objective Number	Objective
3001	Develop a system which assures that effective educational opportunities are available, adequate, and responsive to individual needs and the needs of the Army.
3002	Revitalize and expand the General Educational Development (GED) Program in response to modern volunteer Army requirements.
	2. Equal Opportunity/Race Relations
3100	Promote the principle of equal opportunity for each officer to advance on his individual merits, qualifications, and efforts regardless of sex, race, religion, or national origin.
3101	Provide equality of opportunity for all servicemen and women and eliminate discriminatory practices against military personnel and their dependents.
3102	Provide an educational program in Race Relations which will maintain the highest degree of organization and combat readiness through the creation of harmonious relations among all military personnel.
3103	Develop and maintain racial harmony in the Army.
	3. Personnel Services and Welfare
	a. Alcohol and Drugs
3200	Prevent the abuse of alcohol and other drugs from adversely affecting operations.
3201	Return to full and effective duty personnel whose performance is inhibited by the abuse of alcohol or other drugs.
	b. Personal Affairs
3300	Obtain initial death reports of retired members in a timely manner and render maximum assistance to NOK on a more responsive basis.
3301	Develop and implement an aggressive program to benefit Army members and dependents in personal commercial affairs and consumer protection (PCA/CP).

Objective Number	Objective
	c. Health Care Services
3400	Assist in developing and coordinating for the military community a comprehensive health information program to promote healthful living practices and provide for early recognition and prevention of disease and chronic conditions.
3404	Establish policies and programs for the control of diseases of public health importance to reduce the threat to military personnel and operations worldwide.
3408	Determine diseases occurring within the hospital environment in order to establish policies for their identification and prevention.
3412	Prevent hearing loss from hazardous noise levels.
3413	Establish and monitor nutrition standards and means of achieving standards to insure the maintenance of the nutritional health of military personnel.
	d. Religious Activities
3500	Provide every soldier with essential religious services.
3501	Provide a variety of traditional and contemporary worship opportunities on each military installation.
3502	Provide a full range of religious education opportunities for soldiers and their dependents.
3503	Improve the quality of pastoral care offered to soldiers and their dependents.
3504	Provide for the personal growth of soldiers through value education programs.
3505	Improve the management and coordination of religious programs at installation level.
3506	Develop and encourage a chaplain program of involvement in command/community social concerns which testifies to the spiritual and moral dimensions of living and sustains and enriches family life.
	e. Legal Services (To be developed)

Objective Number	Objective
	f. Law Enforcement and Crime Prevention
3700	Expand crime prevention program to assist commanders in identification and control of conditions conducive to crime and assist in eliminating or reducing such conditions.
3701	Reduce crime trends on military installations through aggressive interfacing of personnel, programs, and resources in coordination with other local, state, and Federal law enforcement activities.
3702	Develop and monitor programs and policies that contribute to a reduction of indiscipline in the Army.
3703	Return to military duty the maximum possible number of military prisoners whose sentences do not include punitive discharges and expeditiously release from the Army those who will not respond, or are incapable of responding, to Army correctional treatment, training, or discipline.
3704	Develop physical security guidance to provide commanders practical, cost effective means to reduce and eliminate losses.
	g. Other Services
3800	Develop personnel support policies which will improve the morale and welfare of soldiers and their dependents.
3801	Develop policies designed to improve pay and allowances for soldiers.
3802	Provide, for eligible dependents of DOD military and civilian personnel stationed in the European area, elementary and secondary education, including education of handicapped children, comparable to educational programs offered by better school systems in the United States.
3803	Provide recreation programs (at all Army installations) which meet the needs and preferences of the maximum number of military personnel and their dependents.
3804	Increase support service provided by PARD to Soldiers and the Army.
3805	Improve administrative procedures in specific TAG areas of responsibility to provide personnel administration support to military personnel in the most effective, efficient, and economical manner.

Objective Number	Objective
3806	(Objective to address consolidation of pay and personnel functions under development.)
3807	Reduce and keep to a minimum accidental manpower and montetary losses.

E. CIVPERS Personnel Administration Objectives

1. Staffing

Objective Number	Objective
4100	Meet continuing personnel needs in key civilian occupations with the highest quality employees. Operate career management programs in seventeen career fields that will attract, develop, and retain qualified careerists.
4101	Minimize civilian personnel turbulence and the loss of valued employees due to reorganizations and reductions in force.
4102	Fill civilian vacancies in a timely manner.

2. Pay

4200	Provide accurate job classification and pay for all Army civilian employees.
4201	Control unwarranted grade escalation of civilian positions in the general schedule.
4202	Implement new method for evaluation of general schedule positions.

3. Training

4300	Establish and maintain a program for the development of present and future Army civilian executives which is responsive to OMB and CSC guidance on this subject.

4. Employee Relations

4400	Coordinate HQDA review of all Army-wide personnel policies, regulations, and instructions to modify those that may be undesirably restricting the scope of bargaining with labor unions.

Objective Number	Objective
4401	Delegate authority to approve locally negotiated labor contracts.
4402	Maintain an Army Suggestion Program which will encourage civilian and military personnel to participate in improving the efficiency and economy of Army operations.

5. Program Administration

4900	Provide managers and supervisors of non-appropriated fund employees with the same quality of personnel management support now provided to managers of appropriated fund employees.

F. CIVPERS Human Resources Objectives

1. Special Employment Programs

5100	Support the Federal Government's Social Objectives through a balanced use of Special Employment Programs.

2. Equal Employment Opportunity

5200	Attain adequate representation of minority personnel at all civilian grade levels, based upon their availability in specific labor market areas appropriate for the occupation.
5201	Broaden the representation of women in occupational fields where they are under-represented and increase their representation at higher grade levels.
5202	Provide training and education programs designed to afford opportunity for lower level employees (including minorities and women) to advance to the highest levels they are capable and desirous of attaining.

B. APERS Management Objectives.

1. General. The following APERS management objectives are common to two or more sub-systems of APERS:

Objective Number	Objective
0100	Maintain a comprehensive planning function for the soliciting, developing and publishing of DCSPER approved qualitative and quantitative objectives for each element of APERS and support systems as required to effectively administer TAPP.
0101	Maintain a comprehensive review and analysis system to insure continued updating and coordination of all aspects of TAPP.
0102	Provide financial management (Program, Budget, and Execution) to insure a sufficient level of resources is determined, adequately defended, and properly administered for the Army Manpower Program.
0103	Develop the annual ODCSPER Studies and Research Programs to insure that individual projects are necessary and that the programs are integrated, support Army goals, and make optimal use of available resources; and that sound working relationships between study agencies and ODCSPER are maintained.
0104	Facilitate the implementation of valid recommendations of the Personnel Support Systems and Services (PS_3) Study as appropriate.
0105	Insure that information pertaining to the Army Personnel System is correctly provided to Congress.
0106	Insure that military and civilian personnel and budgetary implications pertaining to Installation and Activity Consolidation, Realignment, Reduction and Closure actions are properly evaluated and managed.
0107	Develop and coordinate sound Army Personnel planning related to preparation and implementation of DA and Joint plans. Develop, review and coordinate studies which contribute to the development of DA and Joint plans.
0108	Develop, coordinate and implement when necessary ODCSPER Emergency Plans for Emergency Operations.

2. Personnel Information System (PERSINS) Support Objectives:

Objective Number	Objective
0200	Improve support to the individual soldier and commander.
0201	Improve the quality of PERSINS data bases at HQ DA.
0202	Improve computer modeling support for Military Personnel Management.
0203	Achieve personnel allocation efficiencies.
0204	Reduce workload on the field.
0205	Improve standardization of data elements and codes, and documentation procedures for system design and programming techniques.
0206	Establish and maintain a management system to control the development of DCSPER automated personnel information systems, insure integration of all developmental efforts, optimize the use of available resources and support the DCSPER goals.

3. Army Military Personnel System (AMPERS). The following APERS management objectives are unique to AMPERS:

Objective Number	Objective
0300	Accurately program Army trained assets against projected requirements by integration of force structure with overhead accounts and by determining NPS requirements to fill trained strength losses.
0301	Analyze the effects on the Army Manpower Program of unprogrammed force structure changes and of unprogrammed personnel policy changes.

4. Civilian Personnel Systems (CIVPERS). The following APERS management objective is unique to CIVPERS.

Objective Number	Objective
0400	Improve and expand the Army's automated civilian personnel record keeping and reporting system.

5. Army Reserve Component Personnel System (ARCPERS). The following APERS management objectives are unique to ARCPERS:

Objective Number	Objective
0500	Develop and maintain a plan to show use of the Individual Ready Reserve (IRR) under full mobilization.
0501	Develop and document DCSPER's force mobilization personnel plans, policies and procedures, to insure minimum turbulence and optimum use of personnel during periods of mobilization.
0502	Manage a program for the selection and training during peacetime of Reserve officer and enlisted personnel for designated positions in mobilization TDA.

Chairman MCCLELLAN. Proceed.

General ROGERS. We expect that this plan will provide a focused, integrated and coordinated blueprint to insure that current or proposed personnel actions move us toward the kind of Army we want five or more years from now.

First, our manpower requirements.

The Army requests funds to support an active duty end strength of 785,000 and manyears of 780.305 in FY 75. This compares with the 782,000 end strength authorized for end FY 74.

As General Abrams pointed out in his posture statement, the Army views itself with three distinct but related functions: the prevention, control and termination of conflict. Conflict prevention is based upon deterrance to our enemies and assurance to our allies. Today's prevention requirements call for 4⅓ divisions in Europe, one division in Korea, theater and tactical nuclear weapons, and eight divisions in the states. The size of force required to terminate conflict which we have been unable to control cannot be easily predicted. Conflict control is the most meaningful measure of the three functions with which to size the Army.

General Abrams has indicated to you that we would need on the order of 30 divisions to assure a high probability of accomplishing our strategy without the use of nuclear weapons, and that our 13⅓ active divisions and 8 Reserve component divisions give us a marginal chance of succeeding. Any number of divisions greater than the 13⅓ plus 8 reduces the risk of failure in our ability to control conflict.

We believe that we can, through economies and adjustments elsewhere, not only maintain a 13⅓ division structure out of the end strength of 785,000 we are seeking, but also end FY 75 with 14 active Army divisions. The Army has committed itself to increase the number of combat divisions from that end strength over the next several years by further trimming.

Next let me portray our Active Army Military Manpower in terms of the Land Forces Classification System to show how we utilize the manpower in our forces. This system categorizes manpower by purpose:

Division forces—includes all of the divisions and tactical combat support units required within a theater of operations to conduct combat operations.

Special Mission Forces—units and activities based specific mission requirements for which the Army is tasked. (Such as defense of Berlin, Panama and Alaska; missile support to overseas theaters; Free World support.)

General Support Forces—primarily located in the states to provide training, command and control and support of the active forces, the Reserve Components, and the civilians in our force.

Individuals—transients, patients, prisoners, USMA cadets, students and trainees.

The next table shows the allocation of manpower to these various categories.

	Fiscal year 1974 President's budget	1974 column of 1975 budget	Fiscal year 1975	Percent
Division forces	402	399	411	52
Special mission forces	117	104	100	13
General support forces	152	149	146	19
Individuals	133	130	128	16
Total strength	804	782	785	

You will note that 65% of the Army is in the top two categories which represent the operating forces and are mission derived.

The share of total Army manpower in the Division Forces account has continued to increase since FY 1971:

Division Forces Strength as a Percent of Total Army

Fiscal year:	
1971	42
1972	44
1973	48
1974	51
1975	52

This increase in division force results from adding the one third of a division, its support increment, fully structuring our CONUS divisions, formation of a separate Brigade and satisfying some long standing artillery and target acquisition shortfalls. When these new units are fully organized and trained, we will have an improved capability in the United States to respond to contingencies which we might face. In addition, these combat improvements will materially assist our Volunteer Army efforts by adding to our unit/station of choice recruiting and providing a bigger rotation base for US Army enlisted personnel assigned overseas —currently about 44%.

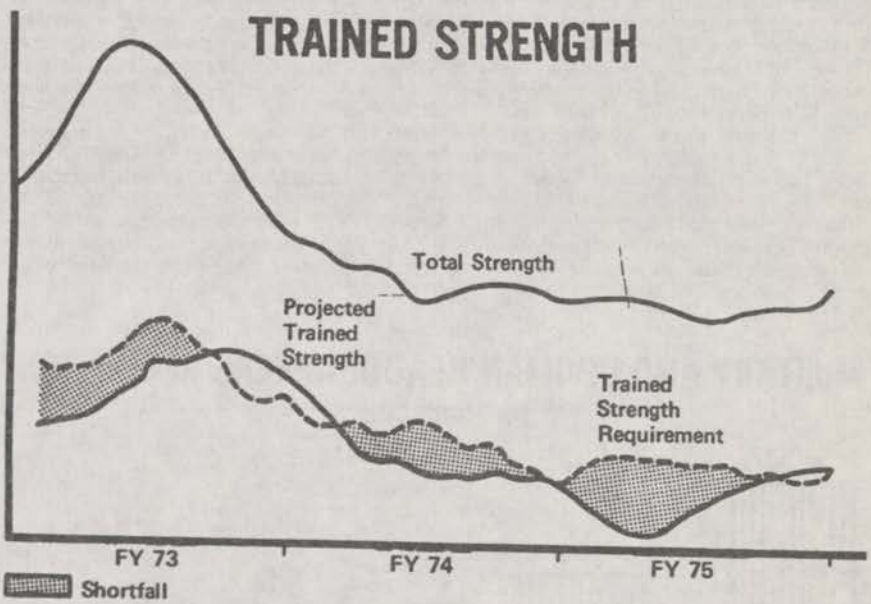
Special Mission forces decrease in FY 75 as a result of inactivation of Nike Hercules Air Defense Units, reductions in DOD and Joint activities, reduction in Free World support and other small changes. It should be noted that 37% of the Special Mission forces are actually combat forces when categorized as "combat" or "support." These combat forces include Army Brigades in Alaska, Panama, and Berlin.

The General Support forces category shows decreases in the training establishment, headquarters and logistics support.

The Individual account decreases, primarily as a result of reduced training requirements at year-end.

I believe the changes in our manpower program for FY 75 move us in the direction desired by both your committee and the Army.

With the support of Congress, I believe we will achieve the 785 thousand strength requested for end FY 1975. However, there will be an unavoidable, large trained strength shortfall during the first half of the fiscal year which can only gradually be overcome. This shortfall is portrayed below.



General ROGERS. This situation stems from the unusually high draftee and draft motivated two year accessions the Army experienced in the fall of 1972, as well as the large number of three year enlistees in the fall of 1971. Their terms of service end next fall and most will leave the Army. Unfortunately, these losses will occur at the same time that output from the training base is at the seasonal low. Requirements to replace these first half losses greatly exceed normal recruiting capability during the months of February through May, which are the recruiting feeder months for trained personnel coming out of the training base in July through October. Current projections show the trained strength returning to acceptable levels around February of fiscal year 1975. The Army has taken steps to reduce the shortfall in trained strength by encouraging qualified personnel who are due for separation during FY 1974 to extend their enlistment and by discontinuing early release policies for soldiers. This trained strength shortfall is a one time phenomenon associated with our losing the last vestiges of the draft. Some of the uninformed may claim it to be failure of the volunteer Army; it is not.

Earlier I mentioned combat force improvements we plan to make to our force. To achieve this increased combat power, we acquired the bulk of spaces by reductions in what is frequently referred to as "tail;" that is in the training establishment, headquarters, and the support establishment.

Training Base Improvements

An important initiative in our training establishment is what we term One Station Training. Many soldiers presently undergo basic, advanced, and skill training at separate posts. The One Station Training concept will realign our training system to conduct most basic, advanced, and skill training in a particular skill area at the same post, such as all armor training at Ft. Knox and all artillery training at Ft. Sill. Such training will result in longer term association with peers and leaders, stabilization during training, and, in the long term, possible reduction in the total time required for training. In FY 74 we have reduced our training base from 270 basic combat training companies to 207; our FY 75 program calls for a further reduction to 180 companies.

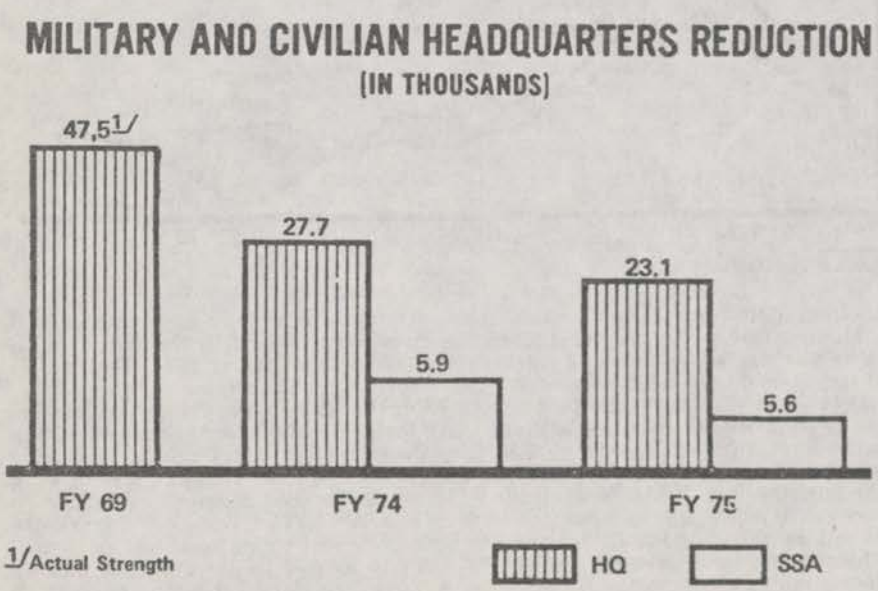
Impact of One-Station Training

Chairman McClellan. Describe the impact of one station training on permanent change of station moves. How much will be saved in FY 1975 and future years as a result of one station training? Have these savings been considered in determining your FY 1975 permanent change of station requirements?

General Rogers. The one station training concept was not designed to reduce PCS costs, but was designed to reduce the amount of movement connected with the training cycle and thereby improve efficiency by reducing the amount of time spent in the training cycle. One station training will not reduce the number of PCS accession moves shown in the budget request, but it will reduce the number of interim moves made during the training cycle prior to reaching the first permanent duty station. However, even though a trainee will move less often it doesn't necessarily follow that the cost of PCS travel will be less

For example, a man who enlists in Boston would normally travel by commercial means to Ft. Dix for BCT and then travel by charter aircraft to Ft. Polk for AIT under the current system. Under one station training the enlistee will normally travel by commercial means from Boston to Ft. Polk. In this example, the PCS cost under one station training is approximately $28 more than under the current system. It is estimated that savings for FY 75 and future years for some movement patterns will be offset by increased costs in others, thereby producing a negligible impact on overall PCS accession costs.

Chairman McClellan. Proceed.



Headquarters Reductions

General Rogers. In the Department of Defense FY 74 Military Manpower Requirements Report, headquarters were discussed in detail. Addressed were OSD and Service initiatives to develop directives, definitions, and controls for centralized management of headquarters manpower authorizations. The headquarters display in the FY 1975 Budget has been revised to reflect the definitions and criteria now prescribed by OSD. We are now counting as headquarters personnel not only those assigned to management headquarters (long range planning and policy headquarters) but also those assigned to staff support activities (exist only to support a particular headquarters). This next chart, which includes staff support activities, shows our progress in reducing headquarters manpower. The FY 75 column reflects the headquarters listed in the FY 75 budget. The FY 69 and FY 74 columns reflect comparable headquarters strengths.

General Rogers. Further reductions will result from the elimination of seven additional Army Management headquarters and major reorganization of the Army Staff. Headquarters planned for elimination are: US Army Alaska; US Army Forces, Southern Command; US Army Pacific; US Army Intelligence Command; US Army Air Defense Command; Theater Army Support Command, Europe; and US Army Engineer Command, Europe. The manpower spaces freed from these additional actions will be used to increase the strengths and readiness of Army combat forces.

Reduction in General Officers

Chairman McClellan. Describe the reduction in general officers resulting from the elimination of seven headquarters and the major reorganization of the Army staff.

General Rogers. Our FY 75 budget calls for a reduction of eight generals, from 467 at end FY 74 to 459 at end FY 75 (these figures do not include fifteen Army general officers who are paid from Civil Functions and National Guard Appropriations but do include six general officers reimbursable to MPA from other non-Army appropriations). The headquarters reductions and reorganization of the Army staff will enable us to achieve this reduction of eight generals and probably more. Currently, we have identified the elimination of jobs for one full general and four lieutenant generals. We know there will be additional general officer jobs eliminated but we do not yet have the specific numbers or grades. Additionally, decisions that will be forthcoming on the Unified Command Plan and the transfer of rotational general officer billets to other services will probably affect Army general officer strengths by the end of FY 75.

Assignment of Roles and Missions

Chairman McClellan. Who will pick up the roles and missions of these eliminated headquarters activities?

General Rogers. This has not yet been finalized. The planning is still ongoing. However, it is anticipated that US Army Forces Command will have the bulk of the responsibilities now performed by Headquarters, US Army, Alaska; Headquarters, US Army, Southern Command; Headquarters, US Army, Pacific in Hawaii; and the residual CONUS air defense responsibilities of US Army Air Defense Command. Headquarters, Training and Doctrine Command, and Headquarters, US Army Health Services Command will assume the combat development and medical activities respectively. In the Western Pacific, current planning projects Headquarters, US Army, Japan, and Headquarters, Eighth US Army, [delete] reporting directly to headquarters, Department of the Army. The future status of Headquarters, US Army Support Command, Thailand, is less firm, [delete].

The residual mission and roles of the US Army Intelligence Command will be assumed by a new field operating agency of the Assistant Chief of Staff for Intelligence to be known as the US Army Intelligence Agency.

It is planned that Headquarters, Theater Area Support Command (TASCOM) will be merged with HQ USAREUR. The area support roles of the TASCOM will be assumed by the V Corps, VII Corps and 1st Support Brigade. Other major elements of the TASCOM will report directly to Headquarters, USAREUR. The mission and roles of Headquarters, Engineer Command, will be divided between Headquarters, US Army Europe, and a new European Engineer Division, under the Chief of Engineers, Headquarters, Department of the Army.

Chairman McClellan. Proceed.

Support Ratio

When addressing the question of how much manpower the Army needs, attention usually focuses on the support portion of the Army. This has been referred to as the "teeth to tail" ratio. As General Abrams pointed out in his posture statement, we should not confuse "tail" with "fat." Combat troops require support—from engineer water purification units to finance units to ammunition supply companies. "Fat," on the other hand, is unnecessary and even counterproductive, be it in a combat unit, support unit or headquarters. Both the Congress and the Army are looking for ways to identify and eliminate fat.

To address the valid support manpower requirements, we must look at how the Army fights. The Army fights in terms of the Combined Arms Team. That is, we deploy and fight a combination of infantrymen, tankers, artillerymen and engineers who are tactically supported by medics, mechanics, cooks, signaleers, and controlled by combat commanders. Our tank crewmen and infantrymen engage the enemy. However, behind the line of squads and platoons must be a commander who is coordinating their fire and maneuver and all the supporting activities, combat as well as tactical, that enable them to continue to fight. They must have medical support to treat and evacuate the wounded. They must have communications in order to talk to their supporting artillery, helicopters and Air Force. They must have someone bringing them food, ammunition, replacement weapons and soldiers, spare parts, petroleum, and maps. Someone must repair and evacuate their damaged equipment. This combined arms concept was effectively confirmed by the lessons learned from the recent Mid-East War. When tanks and infantry, air defense and artillery, and the tactical support necessary to keep troops moving, shooting and communicating were operating together, the forces were successful.

The point is that a force must be built with a balance among the combatants, the fire supporter, and the tactical supporter. There is no overall optimum combat-to-support distribution. Each type force is tailored against the factors that demand support. An infantry battalion, for example, requires about the equivalent of 50% of its strength for support, whereas for an artillery battalion it is 114% and for an attack helicopter company it is 155%.

We believe we have properly balanced the support and combat strength requirements in the force for which we are requesting authorization. This has been done by use of management engineering techniques in those areas where appropriate, such as determining the number of ammunition companies required to support field artillery and tank units, or the number of maintenance units needed to support mechanized or helicopter units.

The next table shows our track record for the three year period in the distribution of authorized manpower between combat and support functions.

COMBAT TO SUPPORT DISTRIBUTION

	Fiscal year		
	1973	1974	1975
Percent combat (divisions, artillery, tanks, cavalry, infantry, assault or attack aviation, combat engineers, special forces)	43	45	47
Percent support (communications, maintenance, medical, support aviation, transportation, ordnance, military police, finance)	57	55	53

However, there are important points to keep in mind when considering the combat to support distribution other than just the percentages themselves. Over the years, our technology has provided us with the capability to place more and more combat power upon our enemy while exposing fewer and fewer soldiers to direct combat with opposing troops. Thus, instead of having masses of minutemen lined up with muskets and bayonets in eyeball to eyeball contact with enemy soldiers, we have fewer of our soldiers directly engaged with them. However, the greatly enhanced destructive power of our combat forces requires increased support requirements in the form of maintenance, communication, ammunition, vehicles, and supply. The key to success in combat is the proper balance of combat and support capabilities.

Estimates of Firepower Capability

Chairman McClellan. For the period 1960–1975, give quantitative estimates of the firepower capability of each type of Army division and special mission forces. How much of an increase in firepower has occurred between 1964 and 1975?

General Rogers. The Army does not record a single number representing the firepower of a division, because of the many factors that influence the effectiveness with which a combat force can bring its potential firepower to bear on an enemy. In the process of *simulating* combat for planning purposes, we do attempt to place relative values on the firepower of divisions. The following table gives an estimate of the relative conventional (non-nuclear) firepower of a type infantry, airborne, mechanized and armored division as existed in 1964 with those in 1975. For ease of comparison the firepower of a 1964 type infantry division was given a value of 1.0.

COMPARISON OF ESTIMATED FIREPOWER, 1975 VERSUS 1964

	Relative firepower	
	1975	1964
Type Army division:		
Infantry	1.19	1.0
Airborne	1.10	.90
Mechanized	1.68	1.41
Armored	1.88	1.64

With regard to that part of the query concerning Special Mission Forces it is very difficult to give a quantitative answer. In 1964 there were no forces identified as Special Mission. This categorization did not come into being until 1967. Furthermore, this category includes a variety of Army forces including CONUS air defense units; various types of brigades such as those currently stationed in Berlin, Panama and Alaska; and Special Forces units. Based on the increase in firepower of the 1975 type divisions over their counterpart in 1964, a reasonable estimate would be that the firepower of the Special Mission brigades would have increased in the same proportion as the divisions, i.e., 14 percent to 22 percent depending on the type of brigade. The use of firepower as a measure of effectiveness for CONUS air defense and Special Forces units is not appropriate because of their mission.

Chairman McClellan. Proceed.

Recruiting and the All Volunteer Force

I would now like to discuss our recruiting efforts.

To support the 785 thousand force requested, we estimate that 185,000 non-prior service male accessions will be required. This compares with the fiscal year 1974 requirement of 171,000 non-prior service males. In 1976, the requirement for NPS male enlistments to support a 785,000 force drops to 153,000 as a result of the longer terms of service for which we are enlisting soldiers.

The success of the Army in meeting the challenge of obtaining the requisite number of quality accessions is evidenced by the trend indicated in the following chart:

FISCAL YEAR 1974 RECRUITING STATISTICS (PERCENT OF OBJECTIVE)

	July	August	September	October	November	December	January	February
Male	76	81	82	84	102	97	87	87
WAC	93	105	118	120	116	136	94	84
Prior service	79	111	125	131	129	161	120	111
Total	77	84	86	88	105	102	90	89

This favorable trend in enlistments is the result of actions taken by the Army to revitalize recruiting concepts and mechanisms.

Over-Recruiting of Prior Service Personnel

Senator Young. Will the over recruiting of prior service personnel produce an imbalance in age, experience and rank?

General Rogers. No. The prior service enlistment program includes necessary controls to preclude undesirable personnel management effects. The target group for our program is made up of individuals separated within the last three years and with less than six years of total active service. Nearly all enter at grade E–5 or below and are in their early to mid-twenties. Program controls prevent return

in skills which are currently in an overstrength status. Accordingly, we anticipate no undesirable imbalance as a result of our prior service recruiting effort.

Chairman McClellan. Proceed.

New Approach to Quality

General Rogers. The Army has a major interest in the quality of volunteers. I would like to discuss this matter in some detail.

The traditional measures of quality of an enlistee have been the mental category score derived from the Armed Forces qualification test and whether or not the enlistee is a high school graduate. These are quality measures, but not necessarily the best ones. Failing to enlist non-high school graduates or Category IV personnel would result in a substantial number of potentially successful soldiers being rejected. Mental category primarily measures a man's knowledge of words, arithmetic reasoning and spatial perception, while the Army is interested in other abilities as well. We believe that results from the new Army Classification Battery of tests, whereby we can determine if a potential enlistee has an aptitude for a skill we need, is a better measure of trainability than a mental category score. Being a high school graduate generally means that a person can be expected to have greater motivation and self-discipline. However, we believe that scrutinizing a man in the training cycle while he is functioning in the environment of the soldier to determine if he has the attitude, self-discipline and motivation desired is a better discriminator than high school completion.

In the end, the true test of quality of a soldier is his performance on the job in his unit. Consequently, the Army has taken a new approach to the measure of quality of a soldier before he gets to his unit, trying to determine if he will give a quality performance when he is on the job in his outfit. There are four quality factors in our equation: physical condition; moral background; trainability as determined by results on the Army Classification Battery; and screening out during the first 179 days in training those soldiers who lack the qualities and characteristics we desire in all the soldiers we send to units from the training command. This latter screening is the Trainee Discharge Program.

Trainee Discharge Program

This program, initiated on 1 September 1973, provides for the continuing evaluation of all enlistees during the initial training period with the expeditious, honorable discharge of those who demonstrate they cannot adapt to Army life or meet our minimum standards of performance.

Determination of the success of this program must await the several months of data required for analysis. The enlistee losses must be tracked as they traverse the up to 179 days of training during which they are subject to this program as well as being tracked when they get to their unit. The subsequent adverse loss rates of these enlistees in their units will reveal if the Trainee Discharge Program has identified most of those enlistees who would normally have become adverse losses in units.

We are honorably discharging about 1,000 enlistees per month under this program. Initial data suggest:

About 70% of these, or 700 per month, are additional losses in training generated as a result of this program.

The average monthly loss rate for non-high school graduates is about 2.7 times that for high school graduates.

The average monthly loss rate for blacks is about 1.1 times that for caucasians.

A significant number of soldiers are being separated under the program who would otherwise probably become problem soldiers in units and be later separated for adverse reasons, often with less than an honorable discharge.

Our training commanders unanimously agree that this new discharge procedure in training is extremely effective and represents a major step toward insuring the quality of trainees sent to units.

Outlook

I realize that you are concerned as to whether we can enlist the type of soldier we need and want in the numbers required over the critical years ahead. So are all of us. However, the Army believes not only that the all-volunteer Army can work, but is working. To insure its ultimate success, the public perception of military service must improve; the recruiting command must be properly manned, deployed and offer attractive enlistment options; and our soldiers must have a

professionally satisfying environment which is conducive to reenlistment or, as a minimum, produces a satisfied alumni. I believe we are making progress in each of these areas.

Let me turn now to some facets of enlisted personnel management.

Enlisted Personnel Management

Reenlistments

Retention is the key to having a truly professional enlisted force. Reenlistment accomplishments so far in FY 74 have resulted in a 13% shortfall below our objective for first term soldiers; retention of eligible careerists is still on track.

We have taken some actions which we hope will enable us to reach our FY 74 reenlistment objective of 53,500, an increase of 7,000 over last year. Our reenlistment objective for FY 75 increases to 56,000.

Actions on Reenlistment Objective

Chairman McClellan. What actions have you taken to help reach the FY 1974 reenlistment objective of 53,500?

General Rogers. The following initiatives are ongoing to further enhance the reenlistment program.

a. Assigned as priority mission by Secretary of the Army in letters to general officers and command sergeants major.

b. Established DA reenlistment goal of 1 percent of each major commands' monthly operating strength.

c. Established DA Reenlistment Award.

d. Stimulated command competition through publication of monthly reenlistment accomplishments.

e. Designated enlisted retention as a key objective under The Army Personnel Plan (TAPP).

f. Expanded itinerary of the Retention Mobile Training Team.

g. Added units and improved stabilization for selected reenlistment options.

h. Conducted reenlistment survey of first term soldiers.

i. Encourage each major command to conduct local retention conferences and insure DA representation.

j. Initiated review of retention program at each monthly Recruiting/Retention Work Group Conference.

k. Distributed motivational film which emphasizes responsibility of officers and NCO in retention program.

l. Intensified reenlistment advertising, to include use of N.W. Ayer field representatives, in the reenlistment area.

m. Continuous review of the reenlistment options to improve attractiveness and use by career counselors.

n. Increase interest through use of the Weekly Summary, Army Personnel Letter and other publications.

o. Monitor Reenlistment Centralized Assignment Program (RECAP) to insure requests for assignment are expeditiously handled.

Chairman McClellan. Proceed.

Content

General Rogers. In the enlisted grade structure the percentage of the Army's TOP SIX enlisted grades authorized in the budget has shown a decline.

Fiscal year (percentage):

1972	67.0
1973	66.7
1974	64.5
1975	62.9

Approximately 40% of the TOP SIX grades are non-commissioned officers. The remaining 60% are specialists (or technicians) with few, if any, supervisory responsibilities.

Our career force—those with more than three years service—is relatively stable. At end FY 73 we had 257,000 career soldiers with the average from FY 67 to end FY 73 being 267,000. Our goal is to increase the number of career soldiers by increased first term and career retention so that by FY 81 career soldiers will comprise 47% of the enlisted force compared with the current 38%.

Utilization

The Army's long-range Enlisted Force Management Plan and its related Enlisted Personnel Management System, will provide the basis for long range improvement in the utilization of our soldiers. However, there are also some short

range actions necessary. Impacting heavily upon proper utilization are three factors: skill imbalance, space imbalance and skill mismatch.

Skill imbalance occurs when soldiers with a particular skill either exceed or fall short of the approved world-wide authorizations for that skill.

Skills with Overages and Understrength Positions

Chairman McClellan. Provide information showing which skills have overages and understrength positions.

General Rogers. This information changes monthly. I will provide you with our latest data.

The attached MOS list is for end January 1974. The Army has established a ±5% limit as part of its definition of a balanced skill. This list therefore, designates as understrength (U), all MOS with less than 95% fill of soldiers with that primary MOS and as overstrength (O) all MOS with over 105% fill. Only those MOS with between 96% and 104% fill are listed as balanced MOS.

(The information follows:)

AS OF JANUARY 1974

11B LGT WPN INF	B
11C INF IND FIRE CREWMAN	U
11D ARMOR RECON SPEC	B
11E ARMOR CREWMAN	B
11F INF OPR & INTELL SPEC	O
11G INF SEN SGT	O
11H INF DIR FIRE CREWMAN	U
12A PIONEER	O
12B COMBAT ENGINEER	U
12C BRIDGE SPECIALIST	U
12D POWERED BRIDGE SPECIALIST	U
12E ATOMIC DEMO MUNITIONS SPEC	U
12F COM ENG TRKD VEH CREWMAN	U
12Z COM ENG SEN SGT	U
13A FIELD ART BASIC	O
13B FIELD ART CREWMAN	U
13E Fld ART CAN OPER/FIRE DIR ASS	B
13Z FLD ART CAN SEN SGT	U
15B SGT MISSLE CREWMAN	O
15D LANCE MISSILE CREWMAN	U
15E PERSHING MISSILE CREWMAN	U
15F HON JOHN RKT CREWMAN	B
15J LANCE/HON JOHN OPER/FIRE DIR ASS	U
15Z FLD ART MIS/RKT SEN SGT	U
16B HERC MISSILE CREWMAN	U
16C HERC FIRE CONT CREWMAN	O
16D HAWK MISSILE CREWMAN	B
16E HAWK FIRE CON CREWMAN	B
16F LGT AIR DEF ART CREWMAN	O
16H ADA OPER & INTELL ASS	U
16J DEF ACQ RADAR CREWMAN	O
16K FIRE DIST SYSTEM CREWMAN	O
16P CHAPARRAL CREWMAN	U
16R VULCAN CREWMAN	U
16Z AIR DEF ART SEN SGT	U
17A COMB SURV & TARGET ACQ CREWMAN	U
17B CNTR/CNTR MORTAR RADAR CREWMAN	U
17C SND RANGING CREWMAN	B
17D FLASH RANGING CREWMAN	U
17E FIELD ILLUM CREWMAN	O
17K GRD SURV RADAR CREWMAN	U
17L AIRBORNE SENSOR SPECIALIST	O
17M UNATTENDED GROUND SENSOR SPECIALIST	O
17Z COM SURV & TARGET ACQ NCO	U
21G PERSHING ELEC MAT SPECIALIST	U
21L PERSHING ELECT REPRMAN	B
21R SGT FIRING SET REPRMAN	O
21S SGT MISSILE GUID REPRMAN	O
21T SGT TEST EQUP REPRMAN	U
21U SGT MAINT CHIEF	O
22G NIKE LAUNCHER SYST REPRMAN	B
22K HAWK MISSILE & LAUNCHER REPRMAN	B
22L NIKE TEST EQUP REPRMAN	U
22M NIKE MISSILE REPRMAN	O
23N NIKE TRACK RADAR REPRMAN	U
23Q HAWK FIRE CON REPRMAN	U
23S HAWK PULSE RADAR REPRMAN	O
23T HAWK CONT WAVE RADAR REPRMAN	O
23U NIKE HIGH PWR RADAR-SIM REPRMAN	U
23V HAWK MAINTENANCE CHIEF	U
23W NIKE MAINT CHIEF	O
24B HAWK CONT WAVE RADAR MECH	O
24C IMPR HAWK FIR SECT MECH	U
24D HAWK MISSILE-LAUNCHER MACH	O
24E IMPR HAWK FIRE CONT MECH	U
24F HAWK FIRE CON MECH	O
24G IMPR HAWK INF COOR CENT MECH	U
24H IMPR HAWK FIRE CON REPRMAN	O
24J IMPR HAWK PULSE RADAR REPRMAN	O
24K IMPR HAWK CONT WAVE RAD REPRMAN	O
24M VULCAN SYSTEM MECH	B

24N CHAPARRAL SYS MECH	U
24P DEF ACQ RADAR MECH	O
24Q NIKE HERC FIRE CON MECH	U
24U HERC ELECT MECH	U
24V IMPR HAWK MAINT CHIEF	U
25D BIRDIE REPRMAN	O
25G MOB ADCP MONITOR REPRMAN	B
25H RADAR DATA PROC EQUP REPRMAN	O
25J OC-CDG REPRMAN	B
25K AN/TSQ-51 SYS REPRMAN	O
25Z FIRE DIST SYS MAINT CHIEF	O
26B WEAP SUP RADAR REPRMAN	O
26C COMBAT AREA SURV RADAR REPRMAN	B
26D GRD CON APPROACH RAD REPRMAN	O
26H AIR DEF RADAR REPRMAN	O
26K ELEC WARFARE EQUP REPRMAN	O
26L TACTICAL MICRO SYSTEMS REPRMAN	O
26M AIRBORNE SURV RADAR REPRMAN	O
26N SUR INFR REPRMAN	O
26P RADIO PROPAGATION SPEC	U
26T TV EQUIP REPRMAN	O
26V STRAT MICRO SYS REPRMAN	O
26W RADAR MAINT SUP-INSPECTOR	O
26Y SAT COMM GRD STA EQUP REPRMAN	O
27B LAND COM SUP SYS TEST SPEC	U
27D LANCE MIS SYS REPRMAN	U
27E WIRE-GUIDED MIS SYS REPRMAN	U
27F CHAPARRAL/VULCAN AIR DEF SYS REPR	U
27G REDEYE MIS SYS REPRMAN	O
27H SHILLELAGH MIS SYS REPRMAN	U
27Z LCSS-MISSILE MAINT CHIEF	U
28M ANTI-BAL MIS MAINT SPEC	O
31B FIELD RAD MECH	B
31D PERSHING COMM SPEC	U
31E FIELD RADIO REPRMAN	O
31G TACTICAL COMM CHIEF	U
31J TELETYPEWRITER REPRMAN	O
31L FLD RAD RELAY EQUIP REPRMAN	O
31M RAD RELAY & CAR ATTENDANT	U
31N TACT CIRCUIT CONTROLLER	U
31R TARGET AIRCRAFT CONT SYS MECH	U
31S FIELD GEN COMSEC REPRMAN	B
31T FIELD SYS COMSEC REPRMAN	U
31U TACT COMSEC MAINT CHIEF	O
31W TACT ELEC MAINT CHIEF	U
31Z AREA COMM CHIEF	O
32A FIX STAT ATTEND	O
32D FIX STAT TECH CONT	O
32E FIXED PLANT CAR REPRMAN	O
32F FIXED CIPHONY REPRMAN	O
32G FIXED CRYPT EQUP REPRMAN	O
32H FIXED STAT RADIO REPRMAN	O
32Z FIXED STAT CHIEF	B
33C INTER REC SYS REPRMAN	O
33D INTER RECORD SYS REPRMAN	O
33F INTER DUMULTIPLEX SYS REPRMAN	O
33G ECM/DF SYS REPRMAN	O
33Z INT SYS MAINT SUPER	U
34B TAB EQUIP REPRMAN	U
34D ADPS REPRMAN	U
34E NCR 500 COMP REPRMAN	U
34F DSTE REPRMAN	U
34G FIRE CONT COMP REPRMAN	O
34H ADMSE REPRMAN	U
34J UNIVAC 1004/1005, DCT 9000	U
34K IBM 360 REPRMAN	U
34L ADMS PERI EQUP REPRMAN	U
35B ELECT INSTR REPRMAN	O
35D METEOR EQUIP REPRMAN	U
35E SPEC ELEC DEV REPRMAN	O
35F NUC WEAP ELEC SPEC	O
35G MED EQUIP REPRMAN	B
35H CAL SPEC	B
35J AIR FIRE CONT REPRMAN	U

35K AVIONICS MECHANIC	B
35L AVIONIC COMM EQUIP REPRMAN	O
35M AVIONIC NAV EQUIP REPRMAN	O
35N AVIONIC FLIGHT CON EQUIP REPR	O
35P AVIONIC EQUP MAINT SUPER	O
35R AVIONIC RADAR EQUIP REPRMAN	O
36C LINEMAN	U
36D ANTENNAMAN	O
36E CABLE SPLICER	B
36G MAN CENT OFFICE REPRMAN	O
36H DIAL CENT OFFICE REPRMAN	B
36K FIELD WIREMAN	O
41B TOPOGRAPHIC INSTR REPRMAN	U
41C FIRE CONT INSTR REPRMAN	U
41E CAMERA REPRMAN	B
41F PROJECTOR REPRMAN	O
41G SURV PHOTO EQUP REPRMAN	O
41H PHOTO EQUIP REPR CHIEF	O
41J OFFICE MACHINE REPRMAN	B
41K REPROD EQUP REPRMAN	O
42C BRACE SPEC	B
42D DENTAL REMOV PROSTHET SPEC	O
42E OPTICAL LAB SPEC	O
42F DENTAL FIXED PROS SPEC	U
43A TEX & LEATHER REPR ASS	U
43E PARACHUTE RIGGER	U
43J TEXTILE REPRMAN	B
43K CANVAS REPRMAN	O
43L SHOE REPRMAN	O
43M FABRIC & LEATHER REPR FORE	O
44A METALWORK ASS	O
44B METAL BODY REPRMAN	O
44C WELDER	O
44E MACHINIST	O
44Z METALWORKING FOREMAN	O

45A ARM MAINT APPRENTICE	U
45B SMALL ARMS REPRMAN	O
45D ART CALIB SPEC	U
45J AIRCRAFT ARMAMENT REPRMAN	O
45K TANK TURRET REPRMAN	U
45L ART REPRMAN	O
45M TEXTILE ARM SUBSYS MECH	U
45N TANK TURRET MECH	U
45P SHERIDAN TURRET MECH	U
45R MISSILE TANK TURRET MECH	U
45Z ARM MAINT FORE-INSP	U
46A MISSILE MECH REPR APPRENT	U
46D IMPR HAWK MECH SYST REPRMAN	O
46L SGT ELECT-MECH REPRMAN	O
46N PERSHING ELECT-MECH REPR	U
51A CONST & UTIL WORKER	O
51B CARPENTER	O
51C STRUCTURES SPEC	U
51D MASON	U
51F PIPELINE SPEC	U
51G SOILS ANALYST	O
51H CONSTRUCTION FORE	B
51J HEAT & VENT SPEC	U
51K PLUMBER	B
51L HEAT & COOL SPEC	O
51M FIREFIGHTER	O
51N WATER SUPPLY SPEC	U
51P UTILITIES FOREMAN	O
51Q TERRAIN ANALYST	U
51R ELECTRICIAN	B
52A POWERMAN	U
52B POWER GEN EQUIP OPER/MECH	U
52C POWER PACK SPEC	U
52D POWER GEN EQUIP REPRMAN	U
52E POWER STAT OPER	U

52H NUC POW PLANT MECH/OPER	U
52J NUC POW PLANT ELEC/OPER	U
52K NUC POW PLANT INSTR/OPER	U
52L NUC POW PLANT PROC CON SPEC/OPER	O
52M NUC POWER PLANT CHIEF	U
53B OXY-ACET PROD SPEC	O
54A CHEM OPER ASSIST	O
54B DECONTAM SPEC	U
54C SMOKE & FLAME SPEC	O
54D CHEM EQUIP REPRMAN	B
54E CHEM STAFF SPECIALIST	B
54F CHEM OPER SPEC	O
55A AMMUN HELPER	U
55B AMMUN STOR & OPER SPEC	B
55C AMMUN MAINT SPEC	O
55D EXPLOS ORD DIS SPEC	U
55G NUC WEAP MAINT SPEC	O
55X AMMUN INSPECTOR	U
55Z AMMUN FOREMAN	B
57A DUTY SOLDIER	U
57C TIRE REPRMAN	O
57E LAUND, BATH & IMPREG SPEC	B
57F MEM ACT SPEC	O
57G DUTY FOREMAN	B
57H CARGO HANDLER	O
61A SEAMAN	U
61B WATERCRAFT OPER	O
61C MARINE ENGINEER	O
61D AMPHIB OPER	U
61E AMPHIB ENGINEER	O
61F MAR HULL REPRMAN	O
61Z MARINE SENIOR SGT	O
62B ENG EQUIP REPRMAN	O
62C ENG MISSILE EQUIP SPEC	B
62D ASPHALT EQUIP OPER	O
62E CRAWLER TRACTOR OPER	O
62F CRANE OPERATOR	O
62G QUARRMAN	U
62H CONCRETE PAV EQUIP OPER	U
62J GEN CONST MACH OPER	B
62K GRADER OPER	B
62L WHEELED TRACTOR OPER	B
62M ROUGH TERRAIN FORK & LOADER	U
62N CONST MACH SUPER	O
63A MECH MAINT HELPER	U
63B WHEELED VEH MECH	O
63C TRACH VEH MECH	O
63F RECOVERY SPEC	B
63G FUEL & ELECT SYS REPRMAN	O
63H AUTO REPRMAN	B
63J QM LIGHT EQUIP REPRMAN	U
63K QM HEAVY EQUIP REPRMAN	O
63Z MECH MAINT SUPER	U
64C MOTOR TRANS OPER	O
65A RAIL MAINT & OPER APPRENT	O
65B STEAM LOCO REPRMAN	O
65C DIESEL-ELECT LOCO REPRMAN	O
65D RAILWAY CAR REPRMAN	O
65H LOCO OPER	U
65J TRAINMAN	U
65K RAILWAY MOVE COORD	U
65Z RAIL SEN SERGEANT	O
67B O-1/U-6 AIRPLANE REPRMAN	O
67C U-1A AIRPLANE REPRMAN	O
67F AIRPLANE TECH INSPECTOR	O
67G U-8/U-21 AIRPLANE REPRMAN	O
67H OV-L AIRPLANE REPRMAN	O
67M OH-13/OH-23 HEL REPRMAN	O
67N UH-1 HELI REPRMAN	O
67P CH-34 HELI REPRMAN	O
67R OH-58 HELI REPRMAN	U
67U CH-47 HELI REPRMAN	B
67V OH-6 HELI REPRMAN	O
67W HELI TECH INSP	O

67X CH-54 HELI REPRMAN	B
67Y AH-1G HELI REPRMAN	U
67Z AIRCRAFT MAINT SEN SGT	B
68B AIRCRAFT TURBINE ENG REPRMAN	O
68D AIRCRAFT POWERTRAIN MECHANIC	U
68E AIR ROTOR & PROP REPRMAN	U
68F AIRCRAFT ELEC	B
68G AIRFRAME REPRMAN	U
68H AIRCRAFT HYDRAULICS REPRMAN	U
71B CLERK-TYPIST	O
71C STENOGRAPHER	U
71D LEGAL CLERK	O
71E COURT REPORTER	O
71F POSTAL CLERK	O
71G MEDICAL REC SPEC	B
71L ADMIN SPEC	U
71M CHAPLAIN ASS	O
71N MOVEMENTS SPEC	O
71P FLIGHT OPER COORD	B
71Q INFORMATION SPEC	B
71R BROADCAST SPEC	O
71S ATTACHE SPECIALIST	U
71T EQUIP MAINT CLERK	U
71U CARD & TAPE WRITER	U
72B COMM CENTER SPEC	U
72C TELE SWITCH OPER	B
72D CRYPTO CENTER SPEC	U
72F DATA DOMM TERM SPEC	O
72G DATA COMM SWITCH CENT SPEC	O
72H CENT OFFICE OPER SPEC	U
73C ACCOUNTING SPEC	B
73D ACCOUNTING SPEC	O
73Z FINANCE SEN SGT	U
74C DATA ANALYSIS SPEC	U
74D ADPS MACH OPER SPEC	O
74E COMPUTER SYST OPER	O
74F COMPUTER PROGRAMMER	O
74G ADP SYSTEMS ANALYST	U
74Z DATA PROC NCE	U
75B UNIT CLERK	O
75C PERSONNEL MANA SPEC	O
75D PERSONNEL REC SPEC	O
75E PERSONNEL ACTIONS SPEC	O
75Z PERSONNEL SEN SGT	B
76A SUPPLYMAN	B
76J MED SUPPLY & PARTS SPEC	O
76L FILM LIB SPEC	U
76N PROCUREMENT SGY	B
76P STOCK CON & ACCONT SPEC	O
76Q SPEC PUR EQUIP REPR PTS SPEC	U
76R MISSILE REP PTS SPEC	U
76S AUTO REPAIR PARTS SPEC	U
76T AIRCRAFT REPR PARTS SPEC	U
76U COMM-ELEC REPR PARTS SPEC	U
76V EQUIP STORAGE SPEC	O
76W PETR STORAGE SPEC	U
76X SUBISITENCE STORAGE SPEC	O
76Y ARM/UNIT SUPPLY SPEC	B
76Z SEN SUPPLY SGT	U
81A GENERAL DRAFTSMAN	U
81B CONSTRUCTION DRAFTSMAN	O
81C CARTOGRAPHIC DRAFTSMAN	O
81D MAP COMPILER	O
81E ILLUSTRATOR	U
81F MODEL MAKER	U
82A RODMAN & TAPEMAN	U
82B CONSTRUCTION SURVEYOR	B
82C ARTILLERY SURVEYOR	U
82D TOPOGRAPHIC SURVEYOR	O
82E Topographic Computer	O

83A	Printer's Apprentice	U
83D	Process Photographer	O
83E	Platemaker	U
83F	Offset Pressman	B
83Z	Photolithography Chief	O
84B	Still Photographer	O
84C	Motion Picture Photographer	O
84D	Audio Specialist	O
84E	TV Cameraman	O
84F	TV Production Specialist	B
84G	Photographic Laboratory Specialist	O
91A	Medical Corpsman	O
91B	Medical Specialist	U
91C	Clinical Specialist	U
91D	Operating Room Specialist	B
91E	Dental Specialist	B
91F	Neuropsychiatric Specialist	O
91G	Social Work/Psychology Specialist	O
91H	Orthopedic Specialist	O
91J	Physical Therapy Specialist	O
91K	Physical Reconditioning Specialist	O
91L	Occupational Therapy Specialist	U
91M	Electroencephalograph Specialist	O
91N	EKG-BMR Specialist	U
91P	X-Ray Specialist	B
91Q	Pharmacy Specialist	U
91R	Food Inspection Specialist	U
91S	Preventive Medicine Specialist	B
91T	Veterinary Specialist	O
91U	EENT Specialist	U
91V	Respiratory Specialist	B
91Z	Medical Senior Sergeant	O
92B	Medical Laboratory Specialist	U
92C	Petroleum Laboratory Specialist	B
92D	Chemical Laboratory Specialist	O
93D	Flight Simulator Specialist	B
93E	Meterological Observer	U
93F	Ballistic Meterology Crewman	U
93H	Air Traffic Control (ATC) Tower Operator	O
93J	ATC Ground Control Approach (GCA) Specialist	B
93K	ATC Approach Control En Route Specialist	B
93L	Air Traffic Control Chief	U
94A	Food Service Helper	U
94B	Food Service Specialist	U
94D	Baker	O
94F	Hospital Food Services Specialist	U
94Z	Food Service Supervisor	U
95B	Military Policeman	B
95C	Correctional Specialist	B
95D	Assistant Criminal Investigator	U
96B	Intelligence Analyst	O
96C	Interrogator	U
96D	Image Interpreter	B
97B	Counterintelligence Agent	B
97C	Area Intelligence Specialist	U
97D	Military Intelligence Coordinator	U
98B	Cryptanalytic Specialist	O

98C	Traffic Analyst	B
98G	Voice Interceptor	U
98J	Interceptor-Analyst (Noncommunications)	O
98Z	Signal Intelligence Operations Chief	U
00B	Diver	O
00C	Dog Trainer	U
00D	Special Duty Assignment (DMOS)	U
00E	Recruiter and Career Counselor	U
00F	Drill Sergeant	B
00G	Target Aircraft Crewman	U
00H	Enlisted Aide	U
00J	Club Manager	U
00U	Race Relations/Equal Opportunity Specialist	U
00Z	Command Sergeant Major	U
01B	Electrical-Electronic Engineering Assistant	U
01C	Mechanical Engineering Assistant	U
01D	Civil Engineering Assistant	U
01E	Mathematics Statistics Assistant	U
01F	Physical Sciences Assistant	U
01G	Chemical Engineering Assistant	U
01H	Biological Sciences Assistant	U
01K	Personnel Psychology Specialist	O
01L	Audit Specialist	O
02B	Cornet or Trumpet Player	U
02C	Baritone or Euphonium Player	U
02D	French Horn Player	U
02E	Trombone Player	U
02F	Tuba Player	U
02G	Flute or Piccolo Player	U
02H	Oboe Player	U
02J	Clarinet Player	U
02K	Bassoon Player	O
02L	Saxophone Player	U
02M	Percussion Player	B
02N	Piano Player	U
02P	Brass Group Leader	O
02Q	Woodwind Group Leader	O
02R	Percussion Group Leader	O
02S	Special Bandsman	U
02T	Guitar Player	U
02Z	Enlisted Bandleader	O
03B	Performing Arts Specialist	O
03C	Physical Activities Specialist	O
03D	Arts and Crafts Specialist	O
03Z	Special Services Senior Sergeant	O
04B	Translator Interpreter	O
04C	Expert Linguist	U
05B	Radio Operator	U
05C	Radio Teletype Operator	U
05D	Special Identification Operator	O
05E	Voice-Radio Operator	U
05F	Radio Teletypewriter Operator (Non-Morse)	U
05G	Communications Security Specialist	O
05H	Morse Interceptor	B
05K	Teletypewriter Interceptor	O

General ROGERS. This is not simply a problem of training; many other factors also affect imbalance. For example, changes to missions, to force structure and to priorities, and eliminating units and activating new ones often occur with insufficient lead time for the personnel system to adjust, thus changing the target at which our training program has been aimed. This will invariably cause skill imbalance. We have made some progress in this area in recent months by reducing the skill authorizations without trained soldiers from 80,000 to 45,000.

Space imbalance occurs when the requirements for a given skill is greater overseas than in CONUS, thus providing an inadequate sustaining base in CONUS and no skill vacancies for overseas returnees. As of December 73, 44% of our total enlisted spaces were overseas, and 34% of the senior enlisted skills were space imbalanced.

The third factor is *skill mismatch.* A soldier is considered to be mismatched if he is assigned to a job that is not related to a skill he possesses. This definition allows a degree of flexibility since some skills are substitutable for others due to their occupational relationship and some soldiers possess more than one skill.

UNRELATED JOB ASSIGNMENTS

Chairman MCCLELLAN. How many men are assigned jobs not related to their military skills? How many women? Provide data for the past two years and projected for FY 75.

General ROGERS. The table below shows both the number and percentage of the total Army operating strength (both men and women) who were reported as assigned to jobs not related to their primary military skill.

	Number	Percent
June 1972	78,000	15.6
June 1973	72,000	12.9
February 1974	61,000	11.3

Separate reports are not maintained for men and women. A February 1974 review of utilization of women indicated that the number of women assigned jobs not related to their military skills was approximately 1200 (9%), two percent less than Army-wide.

In making assignments, field commanders have information concerning additional skills soldiers have previously acquired that is not available at HQDA. Assignment of soldiers in these skills is considered proper utilization. If those soldiers assigned in these additional skills are considered the actual number of improper assignments in the February DA report would be reduced to approximately 50,000 (9%) Army-wide and 1100 (8%) for women.

Projections of utilization are not available, however we expect the increased emphasis being placed on proper utilization to result in a continuation of the downward trend in the number of soldiers assigned to jobs not related to their military skills.

Chairman MCCLELLAN. Proceed.

General ROGERS. One of the most significant actions to provide short range improvements in this area has been the appointment of a Project Director, specifically tasked to improve soldier utilization. The major efforts of the director are in reducing the adverse impact of all the three factors just defined. Let me now discuss officer personnel.

OFFICER PERSONNEL

OFFICER CONTENT

As indicated in the following table, the officer force is being reduced in both absolute numbers and percentage of total force. To accomplish this we will have involuntarily released over 12,000 officers between end FY 72 and end FY 75.

[In thousands]

	Fiscal year—				
	1969	1972	1973	1974	1975
Force	1,512	811	801	782	785
Officers	172.4	121.0	115.8	106.1	101.6
Percent officers	11.4	14.9	14.5	13.6	12.9

Reductions in Force

The reductions have been achieved by lessening procurement, which will be discussed later, as well as involuntary reduction-in-force (RIF). In 1972 we involuntarily released 5,000 Reserve officers. Upon withdrawal from Vietnam and at about the time I appeared before you last year the Army initiated a RIF of 4,900 Reserve officers to match the reduced officer requirements. The FY 75 officer strengths we are requesting include another involuntary reduction of about 2,200 officers. However, we would hope not to be required to implement this RIF until enactment of the Regular Army RIF legislation presently pending in the Congress.

Regular Army RIF Legislation

Under current law, Regular Army officers may not be subjected to involuntary separations except for "show cause" actions related to substandard performance of duty or moral dereliction, or by twice failing of selection to a permanent grade. Thus, the Regular officer essentially exists in an environment of guaranteed tenure. Because of these statutory restrictions, our involuntary release programs have had to be borne entirely by career-committed Reserve officers.

Career Reserve officers in the Army have been finely sifted during the past few years and there remain few whose manner of performance and future potential warrant involuntary release. Regular officers on the other hand, have not experienced any of the competitive screening normally associated with reductions in strength. At the time we screened records for the 1974 reductions we estimated approximately 1,000 Regular Officers of similar experience are on active duty with performance records equal to or lower than those reservists released.

The requested legislation would authorize us to release Regular Officers in the permanent grade of captain and below in the same manner that we presently release Reserve officers during a RIF. We request your support for that legislation.

Selective Continuation

Along with the need for RA RIF legislation, we need your approval of the DOD selective continuation legislation. This legislation would permit involuntary retirement of colonels and lieutenant colonels to correct imbalances in officer grade distribution that result from large strength fluctuations in the officer force over relatively short periods of time.

Grade Escalation

We are continuing our effort to reduce grade levels, as demonstrated in the FY 74 column of the FY 75 Budget and the FY 75 strengths. You will note in the table below that the FY 75 grade levels are below the FY 64 pre-Vietnam levels in each grade. (The numbers exclude active duty personnel paid from civil functions, Reserve and National Guard appropriations.)

	Fiscal year—					
	1964	1972	1973	1974	1975	(1964-75)
Generals	494	500	484	467	459	(−35)
Colonels	5,119	5,705	5,381	5,082	5,065	(−54)
Lieutenant colonels	12,363	12,776	12,212	11,293	11,261	(−1,102)
Majors	17,105	20,274	18,874	17,622	16,902	(−203)

	Fiscal year—					
	1964	1972	1973	1974	1975	(1964-75)
Captains	30,043	40,631	36,224	33,053	32,056	(+2,013)
1st lieutenants	15,931	15,114	14,871	11,260	10,727	(−5,204)
2d lieutenants	19,459	10,056	12,709	13,114	11,616	(−7,843)

General ROGERS. By-grade reductions are also apparent when physicians and dentists are excluded as the following table depicts.

	Fiscal year—					
	1964	1972	1973	1974	1975	(1964–75)
Generals	472	479	463	447	439	(—33)
Colonels	4,761	5,029	4,639	4,352	4,350	(—411)
Lieutenant colonels	11,628	12,028	11,423	10,508	10,486	(—1,142)
Majors	16,107	17,469	15,939	15,177	14,458	(—1,649)

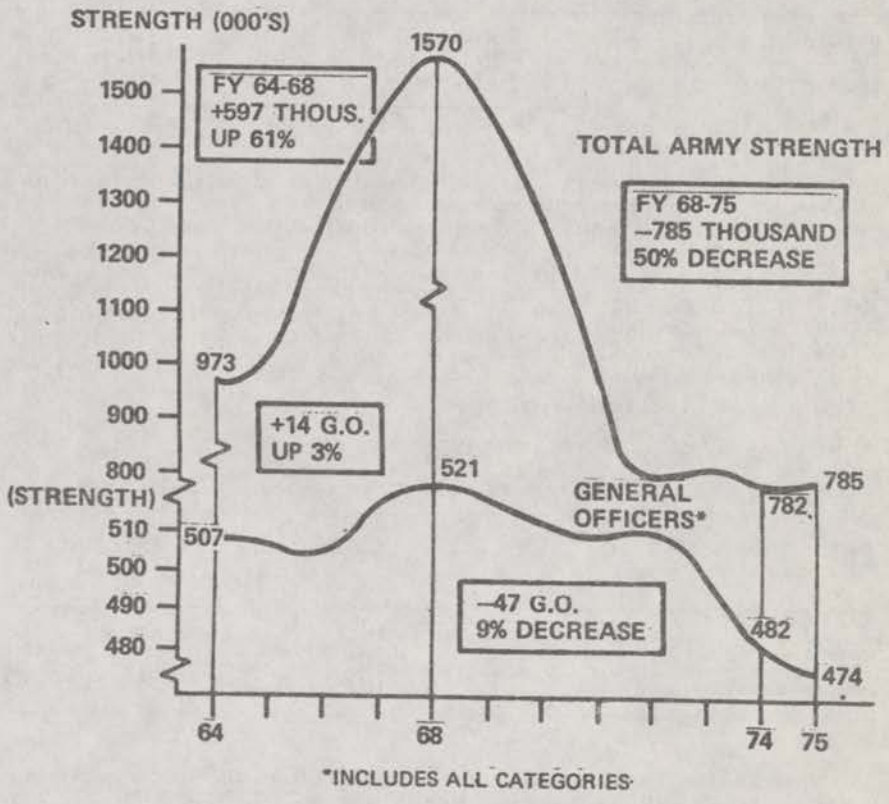
General ROGERS. The following table compares the percentage content of total officer strength by grade including doctors and dentists.

	Fiscal year—				
	1964	1972	1973	1974	1975
Generals	0.4	0.4	0.4	0.4	0.4
Colonels	4.6	4.7	4.6	4.8	5.0
Lieutenant colonels	11.2	10.6	10.6	10.6	11.1
Majors	15.5	16.8	16.3	16.6	16.6

General ROGERS. The following graph illustrates general officer strength in relation to total strength. As you can see the number of generals was not increased proportionately during the Vietnam build-up, and general officer strength is not decreasing in proportion to total strength reduction. However, by end FY 75 we will have reduced the number of generals by at least 47 since the peak in 1968. During the Vietnam build-up we added only 14; thus our FY 75 general officer strength will be at least 33 less than pre-Vietnam.

GENERAL OFFICERS FY 64-75

COMPARATIVE SIZE



*INCLUDES ALL CATEGORIES

Officer Procurement

General Rogers. Officer procurement has been reduced to a level lower than we should maintain so that we might reduce officer strength without unnecessary RIF. In order to provide desired year group distribution, we should be procuring approximately 13,000 officers each year. Current plans call for 9,900 for fiscal year 74 and 9,700 for fiscal year 75. Further reduction would only exacerbate an already undesirable situation. The next table shows the sources of officer procurement from FY 71–75.

	Fiscal year—				
	1971	1972	1973	1974	1975
USMA	701	773	923	809	865
ROTC	10,482	5,449	5,177	3,920	4,020
OCS	2,809	1,134	1,028	350	350
Other	8,996	6,620	4,717	4,866	4,480
Total	22,988	13,976	11,845	9,945	9,715

Chairman McClellan. Provide the estimated cost of each of the categories of officer procurement per individual commissioned.

General Rogers. The estimated cost per individual commissioned follows:

	Fiscal year 1973
Service academy	$64,550
ROTC (4-yr scholarship)	18,438
ROTC (2-yr scholarship)	12,269
ROTC (nonscholarship)	9,651
OCS (infantry)	14,868

Chairman McClellan. Proceed.

ROTC

General Rogers. The next table provides data on the Senior ROTC program:

	Fiscal year—			
	1972	1973	1974	1975 (estimate)
Institutions	286	293	290	291
New enrollments	21,998	17,889	15,493	18,750
Total cadets	50,234	41,294	33,220	36,028
Commissioned from MS IV	10,573	7,251	[1] 5,750	4,819

[1] Estimate.

General Rogers. Female enrollment has increased from 212 Military Science I cadets at the 10 test institutions in school year 1972–1973 to 3,098 Military Science I and Military Science II cadets enrolled at 262 schools this school year.

We are projecting that 6,500 ROTC scholarships will be in effect in fiscal year 1975 of which about 1,200 will be 4-year scholarships awarded to outstanding high school graduates entering the program in fiscal year 1975. For every 4-year scholarship winner there are ten applicants.

The Army annually reviews the list of schools it considers to have failed to maintain a cost effective officer production program. Since May 1972, eleven schools have been placed on an evaluation status. At the close of this academic year a decision will be made whether to continue these units.

Institutions With Low Officer Production

Chairman McClellan. Provide the five institutions in the ROTC program with the least number of FY 1973 graduated accepting commissions. Provide for these same institutions the number of personnel on the ROTC staff.

General Rogers. The five institutions with the lowest officer production for FY 73 with their current staff strength is as follows:

Rochester Institute of Technology, Rochester, New York; Off Production FY 73–4; ROTC Staff—4 Off 4 Enlisted.

Middlebury College,[1] Middlebury, Vermont; Off Production FY 73–4; ROTC Staff—3 Off 4 Enlisted.

Bowdoin College,[1] Brunswick, Maine; Off Production FY 73—5; ROTC Staff—5 Off 3 Enlisted.

Gettysburg College,[1] Gettysburg, Pennsylvania; Off Production FY 73—5; ROTC Staff—5 Off 3 Enlisted 1 Civilian.

Colorado College,[1] Colorado Springs, Colorado; Off Production FY 73—5; ROTC Staff—3 Off 1 Enlisted 2 Civilian.

"Cost Effective" Officer Production Program

Chairman McClellan. What is the criterion for "cost-effective" officer production program?

General Rogers. Cost effectiveness has been measured by annual officer production or projected production. An ROTC unit establishes production indices based upon the two most recent production year totals added to the production potential of the current year and the projected year based upon the advanced course enrollment. A unit will be considered substandard when its officer production index (an average of the four year period) is below fifteen officers per year from a four year program or combination four and two year program, or below twelve officers per year from a two year program.

Chairman McClellan. Proceed.

United States Military Academy

General Rogers. The Military Academy continues to be a prime source for Regular Army officers (40%). Its program is continuously being reviewed in order to improve the quality of its graduates and the effectiveness of its operation. Last August the General Accounting Office announced it will conduct a two-year review of the management and administration of all the academies. One of its first areas of interest is the subject of cadet attrition.

All of us are interested in this matter of attrition. In examining it, we must keep the following in mind:

USMA cadets cannot change careers or academic majors; to do so, they must resign.

Fifty years ago, 4% of the college age population attended college—now 40% attend. The result has been a large increase in number of colleges, junior colleges, technical schools, and scholarship programs. As a result, there are many alternatives to West Point.

The age of "instant gratification" carries with it the age of "instant dropout." USMA and the Army are stressful environments; some cadets cannot adapt. It is more economical to identify these individuals early.

The following graph shows that at the end of every major war, there has been a dramatic rise in cadet resignations.

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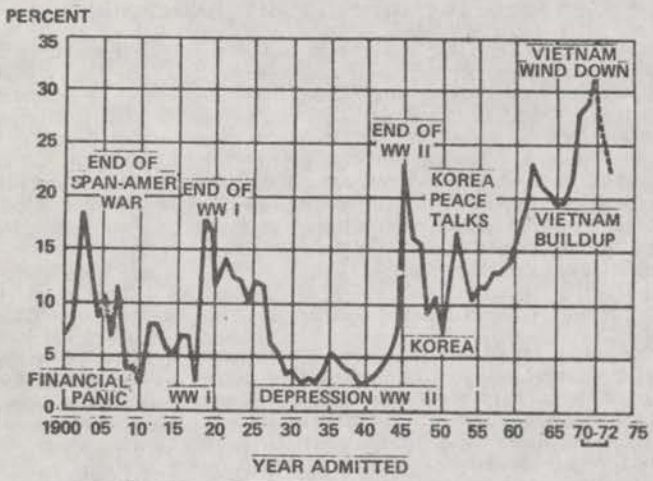
[1] Currently on evaluation status because of low production. Although the Army is sensitive to the low officer production of some of the ROTC units it is also cognizant of the fact that the FY 73 class was recruited in FY 68-69 during the peak period of campus unrest.

CADET RESIGNATIONS
1900 - 1975
PER CENT OF TOTAL ADMITTED EACH YEAR



General Rogers. The seventy-three year history of cadet resignation depicted here reflects the effects of war and peace. During periods of economic crises and United States war engagements, the number of resignations are at the lowest level. Acute rises occur immediately as wars are ended. This pattern was repeated recently as a sharp rise in cadet resignations occurred at the wind down of the Vietnam War.

OCS

The Army is operating one male Officer Candidate School (OCS) in FY 74 and FY 75. As reported to the committee last year, the constrained officer procurement has required fewer graduates from the OCS. The 14 week course conducted at Fort Benning, Georgia, will produce 350 officers each in FYs 74 and 75.

Health Professional Personnel

By end FY 1975, the Medical Corps officer strength will fall to approximately 4,300 which is 10% below the number available in the pre-RVN year of 1964, but with approximately 9% greater population to care for. This shortage seriously impinges upon the Army's ability to respond to the FY 1974 Congressional mandate to divert more workload from non-Army to Army medical facilities. No shortfall of dentists is expected in FY 1975, although a decline in availability is expected to occur during and after FY 1976.

Health Professional Requirements

Chairman McClellan. Show health professional requirements, numbers of people available and shortage for FY 1973—FY 1975.

General Rogers. I will provide that for the record.

(The information follows:)

Fiscal year 1973:	*Actual, June 30*
Medical Corps	5,055
Dental Corps	2,245
Veterinary Corps	501
Medical Service Corps	5,325
Army Nurse Corps	3,769
Army Medical Service Corps	475

	Required	Estimate, June 30	Overage/ shortage
Fiscal year 1974:			
Medical Corps	4,649	4,302	−347
Dental Corps	1,822	1,822	0
Veterinary Corps	507	507	0
Medical Service Corps	5,207	5,207	0
Army Nurse Corps	3,897	3,897	0
Army Medical Service Corps	470	470	0
Fiscal year 1975:			
Medical Corps	4,649	4,302	−347
Dental Corps	1,750	1,750	0
Veterinary Corps	465	465	0
Medical Service Corps	4,944	4,944	0
Army Nurse Corps	3,742	3,742	0
Army Medical Service Corps	450	450	0

General ROGERS. While the Health Professions Scholarship Program (PL 29–426) is expected to eventually reduce these shortages, the program cannot meet the total AMEDD needs—even at its full objective level (1,850 students). The Army must therefore rely heavily upon:

—Other complementary procurement programs such as Internships, Senior Medical Student Program, and the Medical, Dental and Veterinary Student Programs.

—Increased incentives for career attractiveness and retention, including pay comparability, enhanced job satisfaction and improved facilities, equipment and supportive ancillary personnel. In this regard, we seek your support for the bill dealing with a special pay structure for medical officers. This will help to narrow the gap that now exists between the compensation of physicians in the Armed Forces and those in the private sector.

OPMS AND DOPMA

Before leaving our discussion of officer personnel I would like to report that the new Officer Personnel Management System (OPMS) which I discussed last year is proceeding smoothly. This is the second year we have centrally selected Colonels for command positions and this fall we will select lieutenant colonel commanders. The performance of individuals selected last year attests to the validity of this approach. We are also proceeding toward each officer having an alternate specialty in which to serve.

We participated in the development and drafting of the supporting legislation for the proposed Defense Officer Personnel Management Act (DOPMA). This new personnel system legislation provides needed changes relating to the appointment, promotion, separation and retirement of officers and is supported by Department of the Army.

I would now like to turn to the subjects of education, counselors, and human resources.

VOLUNTARY EDUCATION PROGRAM

Last fall, the Department of the Army published its Army Education Services Plan to guide the development of the voluntary education programs. This plan decentralizes education planning to installation level. Each installation develops programs to respond to the needs of the military population served and schedules its activities to preclude conflict between participation in educational activity and military training requirements.

Soldier participation has increased dramatically in the past year; for example, enlisted undergraduate enrollments are up 40 percent and officer graduate enrollments up 31 percent. The voluntary educational program is expanding into the vocational-technical area, assisting soldiers to improve performance and potential in their military careers.

GRADUATE EDUCATION

We are continuing to pursue our long term plan to provide graduate level civilian schooling to sufficient officers to meet the Army's needs. This is an important part of our efforts to provide the professional competence needed in this era of technical and social change. We manage this program very carefully; both the FY 74 and 75 programs reflect reductions to our original plans for graduate civil schooling. This downward trend should continue as we further refine our requirements and intensively manage our assets.

Graduate Level Civilian Schooling For Officers

Chairman McClellan. What number of officers received graduate level civilian schooling in FY 1973 and what number are projected for FY 1974 and FY 1975?

General Rogers. In FY 1973 3,237 officers received graduate level civilian schooling. The projection for FY 1974 is 2,714 officers and for FY 1975 is 2,675 officers.

Chairman McClellan. Proceed.

Counselors

General Rogers. I share the concern expressed last year by the Congress regarding the number of counselors within the services. We are continually reviewing our manpower allocations to determine what spaces can be eliminated; however, the Army is of the opinion that counselor positions are very important in providing a professionally satisfying and rewarding atmosphere for our soldiers.

Effective counseling and advice are especially needed by our young soldiers to identify and understand their capabilities and to direct their efforts into programs that are responsive to their individual aspirations for growth and military job satisfaction. Quality counseling requires counselors specially trained in particular fields.

Career counselors or Reenlistment NCO's play a major role in the retention of qualified and trained manpower. They are trained to evaluate the soldier's occupational and educational background and to design an individual career plan within the Army. Any reduction in these spaces will severely hinder the Army in its attempts to meet reenlistment goals.

The quality of our educational counseling effort is being upgraded by replacing 935 contract personnel with 543 government service personnel. These will be fully professionally qualified full-time personnel. These professional counseling services are recognized as critical to the successful operation of any type of education program. Education counselors administer and interpret vocational and other tests and provide advice and assistance to soldiers regarding career objectives and the types of vocational and academic opportunities available.

Personnel involved in tbe race relations and equal opportunity programs are not really counselors but are staff personnel involved in instructing and policy-making. Alcohol and drug abuse counselors serve both counseling and education functions. Further reduction in the number now on hand for these programs would have an adverse impact. However, any decrease in the extent of alcohol and drug abuse would be the basis for a corresponding decrease in the number of personnel authorized in the program.

Next, I would like to address some other programs directed toward our personnel goals in the area of human resources.

Human Resources

Discipline and Leadership

Army wide statistical data provide no evidence to suggest that the volunteer environment has caused an erosion of authority and discipline. The trends of discipline rates are generally downward except for drug offenses. In order to enhance discipline further, clearly our task is two-fold. First, we must motivate the soldier, treat him with dignity and respect and as an important member of the team so that self-discipline becomes an integral part of the interface between individual and organizational goals. Secondly, we must continue to implement and exercise quality control measures to ensure that personnel who cannot adjust to military conduct are discharged.

Leadership remains the key to a well disciplined, properly motivated soldier. Seeking tools to improve leadership, the Army has been conducting an experimental program testing relatively new techniques for improving human resources management and leadership instruction/training in the field and in service schools. The program, which spans FYs 1974–75, is entitled "Motivational Development" and includes several pilot projects. The objective is to improve the effectiveness of Army units, installations, and major headquarters through (a) decentralized decision-making practices, (b) improving the leadership abilities of junior officers and non-commissioned officers, (c) increasing job and career satisfaction, and (d) conducting more meaningful performance counseling.

Alcohol and Drug Abuse

The abuse of alcohol and other drugs continues to pose a threat to traditional good order and discipline in the Army. The cornerstone of our program is the prevention of drug abuse; we strive to curb availability, thus reducing temptation, of illegal drugs. We then work to reach the soldier who can be freed from involvement and restored to effective soldiering and citizenship. We are using all lawful means to drive drugs out of the barracks, to apprehend the criminal element that is trafficking in drugs and to rehabilitate the abuser.

The true incidence of drug abuse is difficult to gauge since the majority of the abuse occurs off duty, in private, and is occasional in nature. However, world-wide results of random urinalysis indicate that the incidence of positive tests for hard drugs is stabilizing in the two to three percent range for the under-27 population.

Race Relations

Considerable progress has been made in the Army's race relations and equal opportunity programs. We are now implementing a plan to assign personnel to conduct race relations education programs and assist commanders in managing equal opportunity programs. The objective is to influence favorably the state of unit readiness through the creation of harmonious relations among all personnel. Race relations/equal opportunity staff personnel operate within the Army's traditional system of management and are an integral part of the command structure.

There is evidence that the minority soldier is beginning to show more confidence that the system intends to utilize his potential based on merit.

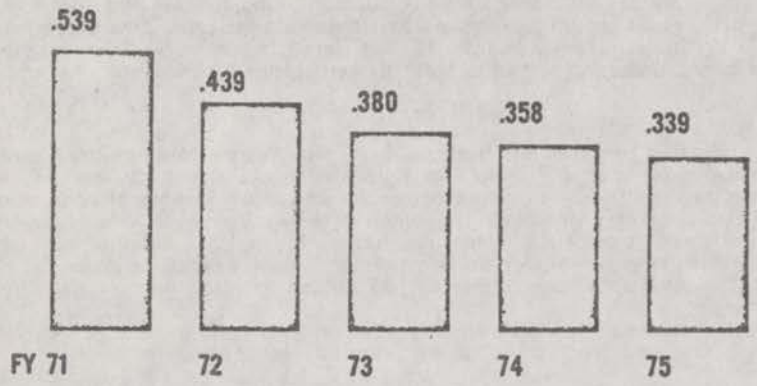
Permanent Change of Station Travel (PCS)

Integral to personnel procurement, retention and management is our permanent change of station travel program. This year's PCS budget submission reflects a revised accounting system for PCS moves in fiscal year 1975. This change was made to standardize move accounting procedures between the services and complies with last year's Congressional directive. As a result of this change, the fiscal year 1975 budget shows a decrease of 130,000 moves between fiscal year 1974 and fiscal year 1975. However, the actual reduction is only 10,000. The remainder of the difference is attributable to accounting changes.

Notwithstanding this small decrease in moves, stability remains a high priority item in personnel management. The Army is constantly searching for new methods and policies designed to improve personnel stability. Just recently the limitations on the maximum period a person may extend overseas were removed. Likewise, the normal tour on the Army staff was increased from three to four years. An indicator of increasing stability since FY 71 is the decreasing trend in the number of PCS moves per Army manyear as reflected on the following chart:

NUMBER PCS MOVES / ARMY MANYEAR

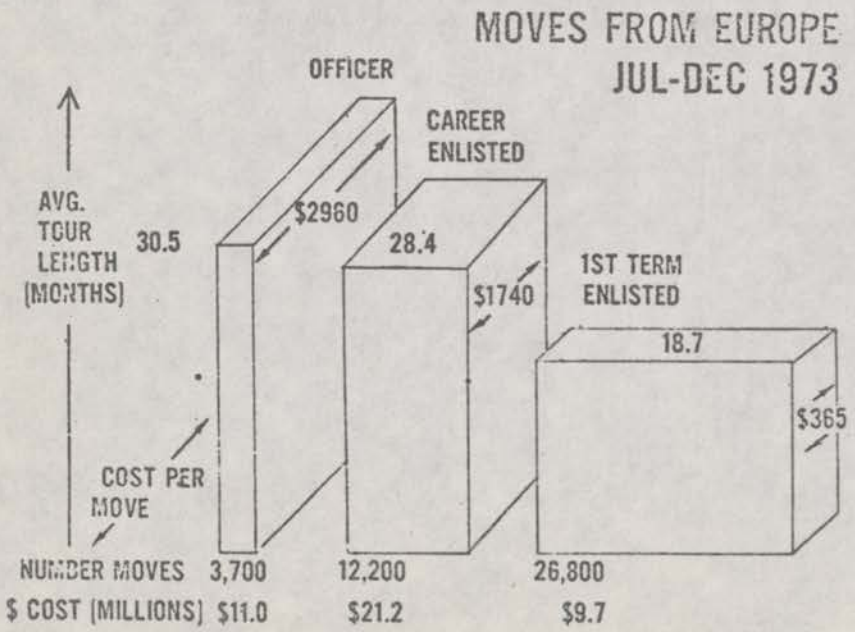
★ DECREASING TREND INDICATES INCREASED STABILITY



NOTES: - MOVES BASED ON NEW ACCOUNTING SYSTEM.
- ACCESSION & SEPARATION MOVES NOT INCLUDED.

General Rogers. Unfortunately, the need to maintain oversea strengths at prescribed levels continues to be the driving force behind PCS moves. In this regard, a shortage of enlisted accessions volunteering for overseas duty precludes projecting any improvement in the enlisted oversea average tour lengths between FY 74 and FY 75.

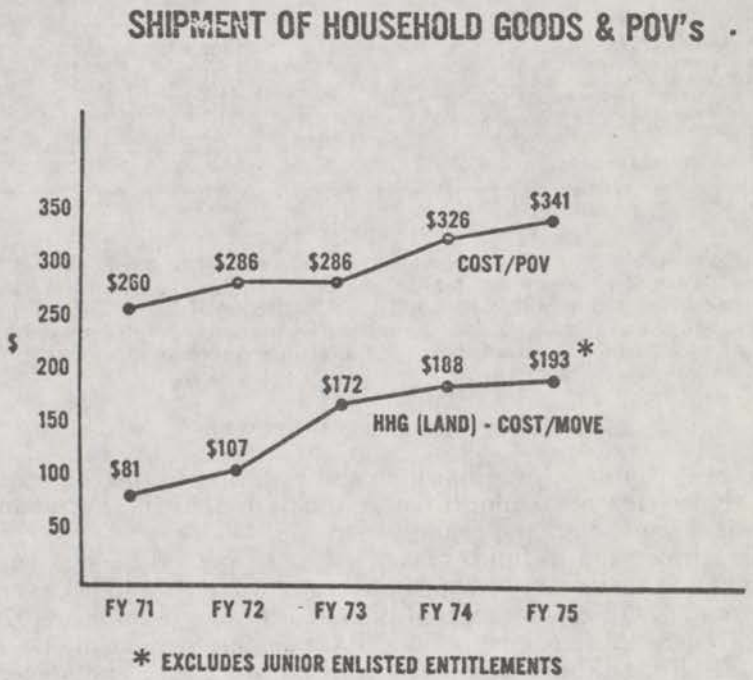
This next chart depicting the rotational moves from Europe during the first half of FY 74 shows that officers and career enlisted personnel were quite stable, with average tour lengths of 30.5 and 28.4 months, respectively. First-term enlisted personnel, however, had only an 18.7 month average tour.



General ROGERS. Significant to note is that moves with high average cost (officer and career enlisted) have relatively long average tours, while the shorter average tour for first-term personnel have much lower average cost.

Though moves decline between FY 1974 and FY 1975, PCS costs increase significantly from $395 to $500 million as a result of proposed entitlement changes and rate increases.

This next chart shows two examples of large rate increases that have occurred in the PCS programs since FY 71.



General ROGERS. The cost of shipping household goods and baggage by Military Airlift Command has more than doubled since FY 71. The average land cost for shipment of household goods during the same period has increased by 180% due to a combination of ICC rate increases and larger size shipments. The FY 74 and FY 75 estimates include only announced rate increases made prior to submission of the FY 75 budget.

The most significant cost increases in the FY 75 budget are the extension of entitlements to all junior enlisted personnel and an increase in mileage allowance payments, the first rate increases in this area since 1951. Extension of full travel entitlements to all junior enlisted personnel less recruits is a program considered essential to the success of the volunteer Army. The following table reflects the cost increase between FY 74 and FY 75:

FY 75 PCS COST INCREASE

	Millions
Mileage increase	+$24.5
Extension of entitlements to E4's over 2 years service	+7.0
Extension of entitlements to all junior enlisted personnel	[1] +67.9
ICC rate increase	+3.0
Increase in E1–E4 baggage allowance	+6.2
MAC and MSC rate increases	+7.6
Reduced number of moves	−11.8
Total increase	+104.4

[1] *Entitlements authorized.*—(1) Provides full entitlements to E1–E4 under 2 years service (less recruits) for transportation of dependents, shipment of HHG and POV's, dislocation allowance, trailer allowance, and non-temporary storage of HHG. (2) Increases weight allowance from 500 to 7000 pounds. (3) Command sponsorship of and travel of dependents authorized overseas for 30 months obligated tour for 1st termers instead of 36 months obligation that applies to all others.

SUMMARY OF REQUIREMENTS

The following table indicates our fund requirements by budget activity. Fiscal year 1973 is actual obligations while fiscal years 1974 and 1975 are estimated requirements.

[In thousands of dollars]

	Fiscal year—		
	1973	1974	1975
Pay and allowances of officers	1,932,961	1,954,007	1,868,111
Pay and allowances of enlisted	4,807,468	4,885,194	5,015,574
Pay and allowances of cadets	15,896	17,540	19,017
Subsistence of enlisted personnel	493,948	489,844	503,829
Permanent change of station travel	415,003	395,457	499,890
Other military personnel costs	19,924	19,758	8,379
Total direct program	7,685,200	7,761,800	7,914,800

CONCLUSION

This concludes my presentation of the FY 1975 Military Personnel, Army request. We seek your support for the resources required to execute it. The program presented today will cost 7 billion, 915 million dollars. These funds will fully support an average military personnel strength of 780,305 and an end strength of 785,000. These are the strengths required to man our force.

Thank you, Mr. Chairman.

ARMY MILITARY MANPOWER

General ROGERS. Mr. Chairman and members of the committee, it is a privilege for me to appear before you to present the Army military personnel request for the coming year.

The Army requests funds to support an active duty end strength of 785,000 and manyears of 780,305 in fiscal year 1975. This compares with the 782,000 end strength authorized for end fiscal year 1974.

As General Abrams pointed out in his posture statement, the Army views itself with three distinct but related functions: The prevention, control, and termination of conflict. Conflict prevention is based upon deterrence to our enemies and assurance to our allies.

Today's prevention requirements call for 4⅓ divisions in Europe, one division in Korea, theater and tactical nuclear weapons, and eight divisions in the States.

Chairman MCCLELLAN. All of these personnel in the 4⅓ divisions are involved in NATO?

General ROGERS. Yes.

"WAR PREVENTION" REQUIREMENTS

Chairman MCCLELLAN. How are these "war prevention" requirements determined? That is, why are 4⅓ divisions considered to be necessary to prevent war in Europe? Why not 3⅓ divisions or 5⅓ divisions? Can the Army and the Defense Department determine these war prevention requirements with as fine a degree of precision as you seem to imply? Explain how it is accomplished.

General ROGERS. Army requirements for conflict prevention are developed based on our military judgment as to the level of forces necessary to insure two perceptions. First, an adversary must perceive that aggression will not produce a short, quick victory. Rather, he must recognize the probability of a longer, more costly war which

could include the use of nuclear weapons. Second, American Army force levels must be adequate to provide our allies and friends a psychological sense of security. These perceptions should be realized by providing sufficient forces to demonstrate American capability and determination to participate in the successful defense of NATO. These forces include those forward deployed in Europe and ready, deployable forces in the CONUS capable of rapid reinforcement. The number of Army divisions necessary to accomplish these two perceptions may be less than or equal to the numbers of divisions actually required for the successful initial defense of NATO. The U.S. Commander-in-Chief, Europe (CINCEUR) has stated and the Joint Chiefs of Staff have validated a requirement for [deleted] Army divisions at D-day if there is little or no strategic warning, and [deleted] divisions if there are several weeks strategic warning. The Joint Chiefs of Staff have also established a requirement for [deleted] Army divisions forward deployed in Europe. Because the likelihood of war in NATO Europe is not high, however, it is our judgement that 4⅓ Army divisions is an adequate forward deployment in Europe. It was not adequate a decade ago and may not be in the future if international tensions and the likelihood of conflct in Europe increase. Three and one-third Army divisions is, in our view, insufficient to provide adequately for the deterrence of our adversaries and assurance of our NATO friends and allies without a corresponding reduction in Soviet forces in central Europe. That is our objective in the negotiations on mutual and balanced force reductions (MBFR). Five and one-third Army divisions would provide a greater contribution to conflict prevention, but are unnecessary at this time.

The size of force required to terminate conflict which we have been unable to control cannot be easily predicted. Conflict control is the most meaningful measure of the three functions with which to size the Army.

General Abrams has indicated to you that we would need on the order of 30 divisions to assure a high probability of acccmplishing our strategy without the use of nuclear weapons, and that our 13⅓ active divisions and 8 Reserve component divisions give us a marginal chance of succeeding. Any number of divisions greater than the 13⅓ plus 8 reduce the risk of failure in our ability to control conflict.

USE AND EMPLOYMENT OF TACTICAL NUCLEAR WEAPONS

Chairman McClellan. Describe in general terms the Army's doctrine for the use and employment of tactical nuclear weapons. Are the war prevention requirements and the warfighting requirements based on the needs in a nonnuclear war? If based on a nonnuclear war, what then is the significance of the tactical nuclear weapons?

General Rogers. [Deleted.] They also provide a link in a chain of deliberate escalation to make potential costs and risks for the aggressor disproportionate to his potential gains. [Deleted.]

Tactical nuclear weapons, an integral part of our forward deployed general purpose forces, enhance the overall deterrent effect of these forces and provide a visible warfighting capability that, along with our conventional warfighting and deterrent capabilities, makes both tactical nuclear and nonnuclear massed attacks costly risks for an aggressor.

The significance, or real value of tactical nuclear weapons is that they represent very large amounts of firepower wrapped up in small packages. They are easy to conceal and can be readily moved about the battlefield to keep them dispersed and make it difficult for the enemy to detect and destroy them. Conversely, they can be quickly massed and deployed to influence the action in selected areas. These aspects help to confuse our potential enemies as to our specific capabilities and possible actions for any given set of circumstances in any given area. [Deleted.]

We believe that we can, through economies and adjustments elsewhere, not only maintain a 13⅓-division structure out of the end strength of 785,000 we are seeking, but also end fiscal year 1975 with 14 Active Army divisions.

PERSONNEL INCREASES

Chairman McClellan. The Army is planning for 13⅓ active divisions in fiscal year 1975, but hopes to achieve 14 active divisions. Where will the reductions come from that will permit the formations of the additional two-thirds division force equivalent? How many people are you talking about?

General Rogers. The revised Army program will be achieved by shifting manpower from within divisions and from support increments, free world support, CONUS strategic intelligence and security, and from general support forces. While active divisions will be increased from 13⅓ to 14, support increments will be reduced from 14⅓ to 14. Thus, the net addition is one-third division force equivalent. These actions will involve the realinement of about 10,000 jobs.

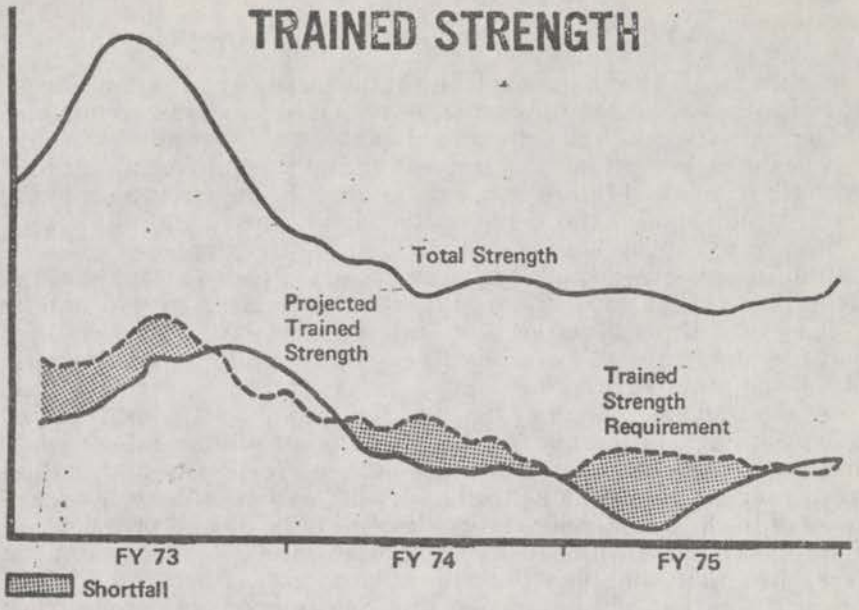
The Army has committed itself to increase the number of combat divisions from that end strength over the next several years by further trimming.

The distribution of the 785,000 personnel places 411,000—52 percent—in Division Forces—an increase of 9,000 over the fiscal year 1974 budget figures—13 percent are in Special Mission Forces; 19 percent in General Support Forces; and 16 percent in the individual account, all down from the fiscal year 1974 levels. Between fiscal year 1971 and fiscal year 1975, the percentage of personnel assigned to Division Forces has grown from 42 to 52.

TRAINED STRENGTH

With the support of Congress, I believe we will achieve the 785,000 end strength requested for end fiscal year 1975. However, there will be an unavoidable, large trained strength shortfall during the first half of the fiscal year which can only gradually be overcome. This shortfall is portrayed below.

[The chart follows:]



General ROGERS. On this chart, Mr. Chairman, the line at the top is total strength in the Army, the solid line at the bottom is the projected trained strength in units and the broken line is the trained strength requirement. The gray area is the trained strength shortfall we will have in the units.

This situation stems from the unusually high draftee and draft motivated 2-year accessions the Army experienced in the fall of 1972, as well as the large number of 3-year enlistees in the fall of 1971.

Their terms of service end next fall and most will leave the Army. Unfortunately, these losses will occur at the same time that output from the training base is at the seasonal low. Requirements to replace these first half losses greatly exceed normal recruiting capability during the months of February through May, which are the recruiting feeder months for trained personnel coming out of the training base in July through October.

Current projections show the trained strength returning to acceptable levels around February of fiscal year 1975. The Army has taken steps to reduce the shortfall in trained strength by encouraging qualified personnel who are due for separation during fiscal year 1974 to extend their enlistment and by discontinuing early release policies for soldiers.

ACCEPTABLE LEVELS OF TRAINED STRENGTH

Chairman McCLELLAN. Explain what is meant by acceptable levels of trained strength. Are the current or projected levels not acceptable?

General ROGERS. Normally an acceptable level of trained strength is within 1½ percent of the trained strength requirement. Trained strength consists of structure—units and headquarters—and the trained individuals—transients, patients, prisoners, and students—necessary to support the structure. Trained strength plus trainees—untrained strength—equals the Army's total strength at any point in time. It is almost impossible to hit required trained strength exactly because this depends on accurate projection of both the magnitude and timing of enlisted losses and the accurate projection and control of enlisted gains. In order to maintain trained strength, personnel must enter the trained strength at the time that personnel are lost from the trained strength. It currently takes 4 to 5 months for a new enlistee to become trained. It is not always possible to access personnel exactly when they are required due to the seasonal pattern of accessions. Because of the high draft calls early in fiscal year 1973, and corresponding draft motivated enlistments, we will experience losses early in fiscal year 1975 that will take time to replace. As a result, the trained strength shortfall will be greater next September and October than we would like. However, we view this as a one-time cost of the end of the draft.

TRAINED STRENGTH DEVIATIONS

Chairman McCLELLAN. Provide numerical details of trained strength shortfalls in the Army.

General ROGERS. Trained strength deviations are as follows:

TRAINED STRENGTH DEVIATIONS

	Fiscal year 1974		Fiscal year 1975 projected
	Projected	Actual	
July			−12,600
August			−21,200
September			−26,700
October			−27,100
November			−21,700
December	−17,100	−16,000	−14,000
January	−13,100	−9,000	−10,600
February	−8,000	−3,700	−3,300
March	−9,600		−2,000
April	−4,000		+800
May	+800		+3,700
June	0		0

Note: Trained strength shortfall data are based on the estimated losses and gains used in the preparation of the President's fiscal year 1975 budget. Continued reduction in losses should reduce the trained strength shortfall.

TRAINED STRENGTH SHORTFALL

General ROGERS. This trained strength shortfall is a one-time phenomenon associated with our losing the last vestiges of the draft. Some of the uninformed may claim it is to be the failure of the Volunteer Army; it is not, Mr. Chairman.

CONFLICT IN RECRUITING OBJECTIVES

Senator YOUNG. Defense news releases for a number of months have indicated the Army has been falling short of its recruiting objectives. This appears to be in conflict with your statement that the 785,000 strength for fiscal year 1975 can be met. Can you explain this conflict?

General ROGERS. The NPS male requirements included in the budget manpower program were based on projected losses as estimated at that point in time and projected capability for prior service enlistments, NPS WAC enlistments, and reenlistments. Actual losses since the budget was submitted have been below projections, most notably in AWOL and desertion and adverse causes—unsuitability, unfitness, misconduct, good of the service, and so forth. The loss trends appear to be staying down; therefore, it will take fewer accessions to make the fiscal year 1975 end strength. Removal of the NHSG constraint would increase our probability of achieving it. There are many uncertainties that will affect our strength by end fiscal year 1975. Using my best judgment of what will likely happen concerning enactment of the enlistment bonus, unemployment, repeal of section 718 restrictions and other factors, I believe we have a reasonable chance of achieving our requested end strength. Even if we fall slightly short in fiscal year 1975, the strength target for the Army should be based on National Security considerations rather than estimates of recruiting capability. Also I would reemphasize that enlistments required to sustain a 785,000 strength decline dramatically in fiscal year 1976, thus assuring that if a shortfall occurs in fiscal year 1975, it will be temporary.

To increase our combat power, the "teeth", we have reduced the "tail"; that is, the training establishment, headquarters, and support. The one-station-training concept will reduce the training establishment, and the elimination of seven headquarters will reduce the headquarters account over and above reductions already included in the fiscal year 1975 program. These manpower spaces freed by reducing the tail will be used to increase the strength of our combat forces.

When addressing the question of how much manpower the Army needs, attention usually focuses on the support portion (the tail) of the Army. As General Abrams pointed out in his posture statement, we should not confuse tail with fat.

Combat troops require support—from engineer water purification units to finance units to ammunition supply companies. Fat, on the other hand, is unnecessary and even counterproductive, be it in a combat unit, support unit or headquarters. Both the Congress and the Army are looking for ways to identify and eliminate fat.

Valid support requirements must be related to the manner in which the Army fights as a combined arms team. That team consists of infantry, armor, artillery, and engineers, tactically supported by medics, mechanics, cooks, signaleers, and all the other supporting personnel designed to assist in keeping the infantryman and tanker combat effective.

The point is that a force must be built with a balance among the combatants, the fire supporter, and the tactical supporter. There is no overall optimum combat-to-support distribution. Each type force is tailored against the factors that demand support.

An infantry battalion, for example, requires about the equivalent of 50 percent of its strength for support, whereas for an artillery battalion it is 114 percent and for an attack helicopter company it is 155 percent.

We believe we have properly balanced the support and combat strength requirements in the force for which we are requesting authorization. This has been done by use of management engineering techniques in those areas where appropriate, such as determining the number of ammunition companies required to support field artillery and tank units, or the number of maintenance units needed to support mechanized or helicopter units.

MANAGEMENT ENGINEERING TECHNIQUES

Chairman McCLELLAN. Describe in detail the management engineering techniques used to determine the number of ammunition companies required to support field artillery and tank units.

General ROGERS. The number of ammunition companies required to support field artillery and tank units, as well as all other units in a particular force, is determined by balancing the ammunition requirements of these units against the issue capability of ammunition companies. Normally, computer models are used to provide the first indication of the number of ammunition companies required in a specific force. The planner determines the number of artillery, tank and other combat units that are required. For each of these units a combat posture, such as attack, delay or defend, is assigned. For each unit and each combat posture a prior determination has been made as to the tons of ammunition per day that will be expended. These expenditure rates are based on studies of ammunition requirements, historical experience and judgment. A planner can vary the rates used in order to determine the effect of different rates on the force.

The planner then assigns a total lift capability that is applicable to each of the ammunition companies that will be required in the force. The total lift capability for each unit is degraded based on the number of times the ammunition company must handle each ton of ammunition. For example, if an ammunition company's total lift capability is 1,680 short tons per day, and it is assumed that the unit will handle each ton of ammunition three times (once to receive, once to store, once to issue), the throughput capability of the unit is reduced to 560 short tons per day.

The total lift capability of an ammunition unit is determined when the unit's table of organization and equipment is first developed, and is changed as the unit changes. It is based on the number of personnel authorized in the unit, their skills, type and quantities of material-handling equipment in the unit, receipt, storage and issue techniques, and the number of shifts per day worked by the unit. The number of times each ton of ammunition is handled is based on historical data as modified by the planners evaluation of the environment within which the unit will work. Given these factors, the computer model can calculate the number of ammunition companies required to support each unit, and, in total, the entire force.

In some computer models dispersion factors can be considered. This could limit the ability of ammunition companies in one sector to support units in another sector. If a particular model cannot accept this type of restriction, the planner can alter the final troop list based on his knowledge of the situation.

COMBAT TO SUPPORT DISTRIBUTION

The next table shows our track record for the 3-year period in the distribution of authorized manpower between combat and support functions. What that shows is that in fiscal year 1973 we had 45 percent of our forces in the combat designation; we are increasing that to 47 percent in fiscal 1975. Of course, there is an associated reduction in the support forces.

[The chart follows:]

COMBAT TO SUPPORT DISTRIBUTION

	Fiscal year–		
	1973	1974	1975
Percent combat (divisions, artillery, tanks, cavalry, infantry, assault or attack aviation, combat engineers, special forces)	43	45	47
Percent support (communications, maintenance, medical, support aviation, transportation, ordnance military police, finance)	57	55	53

General ROGERS. I would now like to discuss our recruiting efforts.

To support the 785,000 force requested, we estimate that 185,000 nonprior service male accessions will be required. This compares with the fiscal year 1974 requirement of 171,000 nonprior service males.

In 1976, the requirement for NPS male enlistments to support a 785,000 force drops to 153,000 as a result of the longer terms of service for which we are enlisting soldiers.

I want to emphasize that point. This year on our current program we need 167,000 to 171,000 males. Next year we will need 185,000. But the following year, fiscal year 1976, at the same end strength of 785,000, we reduce that requirement by 32,000. The reason is we are getting the enlistments now in 3- and 4-year terms of service as contrasted with the 2 years that we had under the draft.

An example of that, in 1971, 65 percent of all the soldiers were in for only 2 years. This fiscal year to date 21 percent or 22 percent are for 2-year enlistments and the rest are for 3 and 4 years. That is the reason for the requirements. In the out years, it starts to pay off.

Chairman MCCLELLAN. What is the smallest number of years one may enlist for now?

General ROGERS. Two years.

Chairman MCCLELLAN. Don't you find that very expensive?

General ROGERS. We would prefer 3- and 4-year enlistments from the standpoint of training costs.

Chairman MCCLELLAN. Do you have the authority now to give a bonus if personnel enlist for 4 years instead of 2?

General ROGERS. Yes.

Chairman MCCLELLAN. You do give some bonuses?

General ROGERS. We have one authority presently and one authority pending in the Congress, on which the joint conference has not met. The authority we have is for combat arms enlistments. A man must be a high school graduate, mental category I through III, and gets $2,500 for signing up if he qualifies for 4 years in the combat arms.

Chairman MCCLELLAN. If he signs for 2 years, what does he receive?

General ROGERS. He gets no bonus.

Chairman MCCLELLAN. You do have to give some inducements to have personnel sign for 4 years?

General ROGERS. That is right.

Chairman MCCLELLAN. Is it not an advantage and more economical in the long run to give a man $2,500 to enlist for 4 years rather than to go out and retrain somebody to take his place?

General ROGERS. Yes. Congress has approved the enlistment bonus, which will authorize not only paying the bonus for 4 years for the combat arms but will authorize paying the bonus up to $3,000 for 4 years enlistment in one of what we call the critical hard skill military occupational specialties.

Chairman MCCLELLAN. Do you have trouble getting mechanics?

General ROGERS. We have some trouble getting the turret mechanic.

Senator HRUSKA. How is this bonus payable?

General ROGERS. It is payable in a lump sum at the time the man finishes his training and is qualified for the military occupational specialty. A man comes in and enlists for the combat arms today, he does not get his $2,500 bonus until he has finished both basic combat training and advanced individual training.

When he finishes that and then is designated as being qualified for his military occupational specialty, at that point he gets his bonus.

Chairman MCCLELLAN. At what rank?

General ROGERS. He would be an E–2 at that time.

Senator HRUSKA. How long will this 153,000 acquisitions, what will become of that figure in 2, 3, 4, and 5 years?

General ROGERS. That fluctuates from fiscal year 1977 onward.

Senator HRUSKA. That is because of the 3- and 4-year enlistments?

General ROGERS. That is right. As we project from now until 1980, if we maintain the 785,000 end strength, the accession requirements will fluctuate from 136,000 to 162,000.

Senator HRUSKA. Is that a newly enlisted man or an extended period?

General ROGERS. This a man or woman never in the service before.

Senator YOUNG. Do you still have the high school requirement?

General ROGERS. I am just getting into that and I would like to spend some time on it.

If you will follow on in my prepared text, I will discuss that subject.

The answer to your question is the law requires us to have a floor of 55 percent high school graduates.

Senator YOUNG. One more question. Is the ratio between blacks and whites in enlistments about the same or is that changing?

General ROGERS. It is changing. I am not sure I can say it is leveling off yet, but for this fiscal year, about 26 to 27 percent of the nonprior service accessions, new people never in the Army before,

black and white, male and female, 26 to 27 percent are black. Last year, our nonprior service personnel, women and men, ran just over 20 percent black.

Now, as a consequence of this increase in the nonprior service accessions, the content of the Army enlisted force which is another figure used and sometimes confused with what we are bringing in as new, the content stands 20 percent black. That is up from, I believe 18.4 percent at the end of fiscal year 1973. So in these 8 months, we have gone up.

Senator YOUNG. That is a little higher than the average blacks in the total population?

General ROGERS. That is correct. If you look at those in the military age that we wish to bring into our Army, it is just over 13 percent of the population. If you look at blacks of all ages in our society, it is just over 11 percent.

Senator YOUNG. Thank you.

General ROGERS. At end February, the Army strength of 784,000 was only 1,700 short of its objective. We had recruited by that time 97 percent of our end February requirement based upon our current program which leads us to a fiscal year end strength of 782,000.

I want to digress a moment. That 97 percent is an important figure. You have read in the press that the Army is meeting only 89 percent of its objectives as far as nonprior service accessions are concerned.

If you take all the monthly objectives we have set for this fiscal year, July through March, and add those monthly objectives up and contrast them with what we actually brought in during those months, you would find it is 89 percent accessions as against objectives.

What has occurred, we have had a change in end strength from 792,000 to 782,000. At the beginning of this fiscal year we were targeting on an end strength of 792,000. You recall the Congress told the Defense Department to reduce total strength by 43,000, our share of that figure was 10,000. So the end strength changed in October to 782,000.

Second, the number of losses from our force is less than that we projected back at the beginning of this fiscal year. In other words, those that are leaving us for unsuitability, unfitness, misconduct—those adverse reasons—their losses are less than projected.

As a consequence, the program we are on right now is of such a nature that by end February we have recruited 97 percent of the end February objectives set to meet that fiscal year end strength of 782,000. That is, to me, a mark of success as far as the volunteer forces is concerned.

Let me go back to the question you asked earlier, Senator Young. We are estimating right now that we will end fiscal year 1974 9,000 under 782,000; 9,000 under strength because we are in our poorest recruiting months, February through May. We also have the constraint on the high school graduates that is in the law.

I also want to mention that 5 months ago we estimated the shortfall to be 17,000 and, because of the success we are having in the recruiting, plus the number of losses being less than projected, we are estimating now a 9,000 shortfall. We believe by June 30 it will be somewhere between 5,000 and 11,000 or 12,000 shortfall.

That is just over 1 percent out of a force of 782,000. That would be a shortfall of slightly over 1 percent of the total force.

RECRUITMENT OF NONPRIOR SERVICE MALES

Senator YOUNG. How many nonprior service males does the Army need to recruit in fiscal year 1974 to support the 782,000 end strength authorized for fiscal year 1974? How many have been recruited to date?

General ROGERS. In the fiscal year 1975 budget which you are reviewing, the Army required 171,500 nonprior service males in fiscal year 1974. Due to a reduction in projected losses that number has now been reduced to 167,100. As of April 2, 1974, the Army had recruited 121,243 nonprior service males.

END STRENGTHS

Senator YOUNG. Can the Army meet its requested end strength and at the same time stay within the restrictions concerning nonhigh school graduate and mental group IV contained in the fiscal year 1974 appropriations bill, that is, section 718, of the General Provisions?

General ROGERS. Probably not. We would rather not be restricted on the number of mental category IV's and nonhigh school graduates who can enter the Army. We prefer to determine quality via the following four criteria: Physical condition, moral background, trainability as determined by Army classification battery scores, and motivation and self-discipline as determined through the 179 day trainee discharge program. We do have some possibility that we can meet our end strength with the section 718 constraints in effect, assuming early enactment of the enlistment bonus and other favorable conditions. However, the chances of meeting our strength targets would be improved by repeal of section 718.

MARINE CORPS REQUEST FOR REPEAL OF SECTION 718

Senator YOUNG. Does the Army desire to have the provisions of section 718 of last year's bill repealed before the end of the fiscal year as the Marine Corps is requesting?

General ROGERS. We prefer that no specific percentages be fixed in legislation for high school graduates or individuals who score in the category IV group. Our present policy is to enlist only those volunteers who demonstrate that they are trainable in some military skill and meet the medical and moral standards. The newly established additional screening process during individual training provides for early separation of individuals who are found to lack motivation, discipline, or aptitude for Army life. The program is designed to improve the quality of soldiers sent to Army units. Since approximately 80 percent of the nonhigh school graduates prove to be good soldiers because of their motivation and desire, the program allows the Army to enlist greater numbers of nonhigh school graduates and screen out potential troublemakers.

The percentage of category IV level volunteers enlisted is generally limited to the number of jobs where they can be effectively assigned in accordance with their capability. Prior to the provisions of section 718, the Army established a 19-percent male ceiling for fiscal year 1974.

The entrance standards and screening system prior to enlistment and early in-service provides adequate controls to assign qualified soldiers to Army units without relying on education level or mental category alone.

Senator YOUNG. There are other standards that would be better to use than just that of a high school graduate, it seems to me. I am thinking of the Indians. I think they have a record of being good soldiers.

General ROGERS. That is right.

Senator YOUNG. And not a very high percentage, at least in my area, are high school graduates. They have to be high school graduates?

General ROGERS. As I say, in the next part of my text, Senator, the traditional measures of quality have been high school graduate and what score the man made on the Armed Forces qualification test which placed him in a particular mental category, category I being the highest and category IV the lowest we take. There is a category V but no service takes lower than IV.

Failing to enlist a nonhigh school graduate or category IV personnel would result in a substantial number of potentially successful soldiers being rejected. Mental category primarily measures a man's knowledge of words, arithmetic reasoning, and spatial perception, while the Army is interested in other abilities as well.

We believe that results from the new Army classification battery of tests, whereby we can determine if a potential enlistee has an aptitude for a skill we need, are a better measure of trainability than a mental category score.

Being a high school graduate generally means that a person can be expected to have greater motivation and self-discipline. However, we believe that scrutinizing a man in the training cycle while he is functioning in the environment of the soldier to determine if he has the attitude, self-discipline and motivation desired is a better discriminator than high school completion.

Senator HRUSKA. General, this is a difficult question in that it would call for evaluation and judgment, but is any notice being taken of the quality that the high schools turn out now by way of product, whether it is up or down, is it deteriorating, is it loosening?

We get some estimates in the field of education and grade school where kids get promoted and they can't read any better than the year before. But they want to do something. They can't keep a 14-year-old kid in the fifth grade.

There are pretty dismal estimates of the educational system and appraisals on it. Have you any observations in that general field? We say high school graduate. The man sitting on this side of the table graduated a long time ago and we have one standard of achievement. What about today's quality?

General ROGERS. We still have the poorer quality high schools and the good high schools, and therefore bad diplomas and good diplomas. Some high schools have very high standards, a man must meet them before being given a diploma. Others are given a diploma for the reasons you indicated, to get them out of the system. But having a diploma is usually an indication of motivation and self-discipline.

What it tells us is that at least that young man or woman showed up enough times at school to meet the attendance qualifications to receive a diploma, that he or she was at least motivated enough to do that.

Secondly, it tells us also that he or she has achieved at least one success in life, namely, has received a high school diploma. That is

important because we get many in our service who have never known success and are interested in coming in to meet the challenge and test of basic training and individual training to see if they can succeed. Once they do, it becomes a self-generating motivator because they have succeeded.

We believe that a high school completion gives us a better chance for the man being motivated and self-disciplined than had he not completed it, but that is all.

We believe a better way to measure is to take that man irrespective of what kind of high school he came from, or if he failed to complete high school, and put him in training where he is closely observed by his drill sergeant, platoon leader, and company commander. If in fact he does not have the aptitude or motivation to be with us, he is separated.

We have separated on the average 1,000 a month since this program started in September. We are separating them with an honorable discharge. What it means is that these men in the past would have gone through the training cycle, gone to a unit, and then probably have been an adverse loss, a loss because of unsuitability, unfitness, or misconduct.

Generally, associated with an adverse loss from a unit, is a dishonorable discharge. Now if a man can't cut the mustard in the first 179 days we send him home with an honorable discharge.

Senator HRUSKA. This possession of a diploma, should that gradation remain in the statute by way of a percentage?

General ROGERS. No, sir, in my opinion, it should not. We would prefer—I won't speak for the other services, but I am sure their personnel managers would agree with me to let the service set the standard of quality it needs for its services and then let it go out and recruit against that standard rather than have some constraints placed on us. Although these constraints may be meaningful, they may not be the best measures of quality.

Senator HRUSKA. When was that incorporated in law?

General ROGERS. It was made a part of the 1974 Appropriations Act last December. What it says is that the services are not authorized to spend funds for any individuals who would exceed a 45 percent ceiling for non-high-school graduates and an 18 percent ceiling for category IV.

Senator HRUSKA. Is that for those in the service?

General ROGERS. Those we are bringing in the service.

Chairman MCCLELLAN. That is in section 718?

General ROGERS. Yes.

Chairman MCCLELLAN. Of the Appropriations Act. Let that be inserted in the record at this point.

I will read it:

None of the funds in this Act shall be available for the enlistment or pay of non-prior service personnel during fiscal year 1974, when the enlistment will cause the percentage of non-high school graduate enlistments of the service concerned to exceed 45 percentum or the mental category IV enlistments to exceed 18 percent of the total non-prior service enlistments for the entire fiscal year.

What is that category IV?

General ROGERS. That is related to the score a man receives on the Armed Forces Qualifications Test. Depending on the score he makes, he is placed in one of five mental categories. Category I is the highest,

V is the lowest. Category V is a score of 9 and below out of 100. No. service takes category V; we do take category IV.

Chairman McCLELLAN. You want less than 18 percent. You would like to have your own standards providing for less than 18 percent in that category?

General ROGERS. This year we set our ceiling on category IV at 19 percent.

Chairman McCLELLAN That should not bother you much.

General ROGERS. No, sir.

Chairman McCLELLAN. What is the problem?

General ROGERS. The high school graduate constraint.

Chairman McCLELLAN. The language indicates that you can't have less than 55 percent of your personnel who must be high school graduates?

General ROGERS. You see our analysis showed——

Chairman McCLELLAN. Do you think you would like a larger number of non-high-school graduates?

General ROGERS. We would not like any percentage set on the high school graduates.

Chairman McCLELLAN. Why?

General ROGERS. We believe it is an artificial constraint placed upon us. As we studied the performance of high school graduates and non-high-school graduates over a 2-year period, we found only 1 out of 20 high school graduates would fall by the wayside for those adverse reasons I described. Four out of 20 non-high-school graduates would fall by the wayside.

What we want to do—let me go back, that means 19 out of 20 high school graduates were successful and 16 out of 20 non-high-school graduates were successful during those 2 years in the Army. What we want to do is try to screen out that one high school graduate and those four non-high-school graduates in the first 179 days of training and thereby let all the rest of the non-high-school graduates who are going to be good soldiers have an opportunity to serve if they wish to enlist.

Chairman McCLELLAN. You would rather not have a percentage. You would prefer to screen them out whether high school or non-high-school graduates?

General ROGERS. Yes. We are very interested in quality. As I say in my statement, the true test of quality is the man on the job, when he is in his unit. So to try to determine how he will perform on his job, we have four factors in our quality equation. The first is the physical, the second is moral background, the third is trainability. Can he be trained in a skill the Army needs and we try to identify that with the Army classification battery.

We have a new battery of tests that gives us a better determination if a man has an aptitude for a skill we need and he can be trained. The fourth factor in our quality equation is to screen out of our system during the first 179 days in the environment of a soldier, those who do not meet our standard.

Chairman McCLELLAN. Where you screen them out in the course of training and give them an honorable discharge, are they then entitled to all veterans benefits?

General ROGERS. No, sir. That is why we established 179 days as a cutoff for the program.

Chairman MCCLELLAN. If they are culled out during that period of time, they are not entitled to all the benefits of the soldier who has qualified and served and is given an honorable discharge?

General ROGERS. Not all.

Chairman MCCLELLAN. What are they not entitled to?

General ROGERS. The educational benefits which are the most costly. He is not entitled to the educational benefits. He is entitled to some others just by serving 1 day. There is a whole series I can put in for the record.

BENEFITS ACCRUED BY HONORABLY DISCHARGED VETERANS

Chairman MCCLELLAN. I think that should be put in the record, particularly emphasizing the part a man is not entitled to. It may not be his fault that he can't qualify. But it seems to me 180 days service with an honorable discharge should hardly entitle one to all of the benefits.

[The information follows:]

Individuals discharged under honorable conditions with 179 days or less service accrue the following benefits:

Benefit	Government Agency	Length of Service Required
Burial Flags	Veterans Administration	1 day
Burial in National Cemetery	Veterans Administration	90 days
Headstone or Grave Marker	Veterans Administration	90 days
Memorial Markers & Memorial Plots	Veterans Administration	90 days
Reimbursement of Burial Expenses	Veterans Administration	90 days
Domiciliary Care**	Veterans Administration	1 day
Drug Treatment	Veterans Administration	1 day
Hospitalization**	Veterans Administration	1 day
Outpatient Dental Treatment**	Veterans Administration	90 days
Job Finding Assistance	Labor	1 day
Reemployment Rights	Labor	1 day
Manpower Retraining	Labor/HEW	1 day
Insurance Conversion (120 days)	Veterans Administration/ Commercial	1 day
Unemployment Compensation	Labor/IAW State Law	90 days
Educational Assistance	Veterans Administration	181 days
Loan Guaranty Benefits	Veterans Administration	181 days
Civil Service Preference	Civil Service Commission	181 days

**Requires statement of financial inability to provide own medical care (pauper's oath) and is dependent upon availability of VA facilities.

General ROGERS. That is why we selected the 179 days. You may be interested in our findings since September as far as the screening itself is concerned. We find that we are eliminating on the average 1,000 a month under this program with honorable discharges.

Chairman MCCLELLAN. 1,000 out of how many?

General ROGERS. About 7 percent of every group that comes in.

Chairman MCCLELLAN. About 92 or 93 of the 100 will be retained and the others screened out?

General ROGERS. That is right.

Senator YOUNG. How about those eliminated because of a drug problem?

General ROGERS. They are eliminated for that reason as well, however, the 179-day program assumes the man cannot perform because he does not have the aptitude, motivation, or self discipline.

Senator YOUNG. But when you get a drug problem with an enlistee——

General ROGERS. Within this 179-day period about 7½ percent of the trainees go out for lack of aptitude or motivation; about 1½ percent are separated for adverse reasons which would include drugs. Just under 5 percent go out for physical reasons, compassionate discharges, deaths, and so on.

Chairman MCCLELLAN. You are getting about 85 percent?

General ROGERS. That is correct. The one I have been talking about, the 7½ percent, relates only to the 179 days trainees discharge program.

Chairman MCCLELLAN. Out of every 100 that enlist, you wind up with about 85 out of 100 who really become permanent enlistees?

General ROGERS. That is correct. Added to those figures is 1.2 percent dropped from military control. You end up with 15 percent dropped.

Within this trainee discharge program, we find that the average monthly loss rate for nonhigh school graduates is 2.6 times that for high school graduates.

There are 1.8 times more category IV's separated than categories I through IIIa, the above average categories. We find the rate of separation of blacks is 1.1 times that of whites. Interestingly enough, in February and March the rate of blacks separated was less than the Caucasians.

Chairman MCCLELLAN. You are speaking of high school graduates?

General ROGERS. Both graduates and nongraduates.

Chairman MCCLELLAN. The blacks are measuring up so far as being acceptable. They measure up well as compared to the whites?

General ROGERS. It is almost a draw.

TRAINEE DISCHARGE PROGRAM

Chairman MCCLELLAN. Provide statistics on the trainee discharge program including the total number discharged, by month since inception, how many have been honorable, how many general and how many dishonorable. Also indicate an average as to how long the individuals had served before being discharged.

General ROGERS. The average time served for personnel separated under the trainee discharge program is 2 months. Monthly discharge data through January follows:

DISCHARGES UNDER THE TRAINEE DISCHARGE PROGRAM

	Honorable	General	Dishonorable
September 1973	525	0	0
October 1973	1,175	0	0
November 1973	1,067	0	0
December 1973	1,002	0	0
January 1974	981	0	0
Total	4,750	0	0

Chairman McCLELLAN. Proceed.

General ROGERS. I am at the bottom of page 8 on the outlook. I realize that you are concerned as to whether we can enlist the type of soldier we need and want in the numbers required over the critical years ahead. So are all of us. However, the Army believes not only that the All-Volunteer Army can work, but is working.

To insure its ultimate success, the public perception of military service must improve; the recruiting command must be properly manned, deployed and offer attractive enlistment options; and our soldiers must have a professionally satisfying environment which is conducive to reenlistment or, as a minimum, produces satisfied alumni. I believe we are making progress in each of these areas.

OFFICER FORCE REDUCTION

As indicated in the following table, the officer force is being reduced in both absolute numbers and percentage of total force. To accomplish this, we will have involuntarily released over 12,000 officers between end fiscal year 1972 and end fiscal year 1975.

[The chart follows:]

[Numbers in thousands]

	Fiscal year—				
	1969	1972	1973	1974	1975
Force	1,512	811	801	782	785
Officers	172.4	121.0	115.8	106.1	101.6
Percent officers	11.4	14.9	14.5	13.6	12.9

General ROGERS. The chart shows along the top line the total number in thousands in the Army. The second line shows the total number of officers in each of those years in thousands and the percentage of officers to the total force is shown at the bottom line.

You will note when we had the precipitous separation of 27 percent of our force in fiscal 1972, our officer content to the force that was left went up to 14.9 percent. The reason for that is the separation for officers, just like the production of officers always lags behind the enlisted content. We are now down to 12.9 percent officers at the end of fiscal 1975. We have done that through the attrition of officers and involuntary separation.

Chairman McCLELLAN. What do you think that will level off to?

General ROGERS. About 12.5 percent.

Chairman McCLELLAN. Is it essential that 12.5 out of every 100 military personnel should be officers?

General ROGERS. We have to look at our structure.

Chairman McClellan. I am just asking the question.

General Rogers. That is correct. In our structure with the divisions we hope to have at a 785,000 end strength and the other units we hope to have in our structure, we need just about 100,000 officers of all grades.

PREPARED STATEMENT ON REQUEST FOR OFFICER PERSONNEL

Chairman McClellan. There is a feeling that we ought to reduce the ratio of officers to enlisted personnel. You may make any statement you wish or submit one for the record about your structure and why you need that many officers. It might be well for you to do that. Please submit a statement for the record.

General Rogers. Yes.

[The statement follows:]

Requirements for manpower are derived directly from the force structure. The required size and composition of the force structure are based on our national security objectives. Determination of structure requirements for military personnel is accomplished through manpower surveys, work-measurement studies, productivity analyses, development of staffing guides and manning tables and a variety of other actions. The final requirement is the result of the combined analysis, evaluation, and validation efforts which start at the operating level and which are reviewed and analyzed at each echelon of command to insure that the final product reflects only hard core requirements. Within this context, requirements for commissioned officers are based on requirements for personnel with sufficient intelligence, education, training, motivation, and judgment to exercise command, act in a staff or advisory capacity, exercise disciplinary powers that include administration of judical punishment, administer oaths, certify vouchers, disburse funds, and serve in jobs requiring advanced skills. The requirement for warrant officers is based primarily on the requirement for highly developed technical expertise in a specific field. Considering the number of officer jobs meeting the above criteria, the 101,550 officers currently programmed for FY 75 represents the bare minimum number of officers needed to adequately perform the Army mission. This equates to 12.9% of the total force programmed for FY 75. However, as we look into the future and attempt to increase the number of combat units at the expense of headquarters and other units with higher officer requirements, we may be able to reduce the officer content below 12.9%. The Army was operating with lower than 12.9% officer content prior to the Vietnam buildup. Since then, there have been three major factors which require increased officer content. These are:

1. An increase in the required medical support for an increased and continually increasing number of retirees.
2. The increased use of warrant officer aviators for aviation units replacing enlisted intensive ground combat units.
3. A civilianization program replacing over 50,000 enlisted personnel with civilians without an appreciable replacement of officers.

These factors alone have caused an officer percent content increase that would require a current 12.9% content to compare favorably with the pre-Vietnam force in officer percent content.

METHOD OF ACHIEVING REDUCTIONS

General Rogers. The reductions have been achieved by lessening procurement, as well as involuntary reduction-in-force (RIF). In 1972 we involuntarily released 5,000 Reserve officers. Upon withdrawal from Vietnam and at about the time I appeared before you last year, the Army initiated a RIF of 4,900 Reserve officers to match the reduced officer requirements.

The fiscal year 1975 officer strengths we are requesting include another involuntary reduction of about 2,200 officers. However, we would hope not to be required to implement this RIF until enactment of the Regular Army RIF legislation presently pending in the Congress.

What I am saying, Mr. Chairman, is that the last two reductions in force from the officer year groups that are over-strength because of Vietnam have been placed on Reserve officers only because we can not touch the regular army officer because of the tenure that they have under the law.

When we looked at the 4,900 reserve officers that we had to RIF this fiscal year, we also looked at the records of the Regular Army officers in those applicable year groups. We estimated about 1,000 of those Regular Army officers had records which were equal to or worse than those 4,900 reserve officers we had to RIF.

If we must RIF more officers what we would like to be able to do over a 2-year period, which is in the proposed legislation, is look at the whole group of officers in those excess year groups, reserve and regular, and retain the best ones. That is what the RA RIF legislation is directed towards.

Along with the need for RA RIF legislation, we need your approval of the DOD selective continuation legislation. This legislation would permit involuntary retirement of colonels and lieutenant colonels to correct imbalances in officer grade distribution that result from large strength fluctuations in the officer force over relatively short periods of time.

We are continuing our effort to reduce grade levels, as demonstrated in the fiscal year 1974 column of the fiscal year 1975 budget and the fiscal year 1975 strengths. You will note in the table below that the fiscal year 1975 grade levels are below the fiscal year 1964 pre-Vietnam levels in each grade. [The numbers exclude active duty personnel paid from civil functions, Reserve and National Guard appropriations.]

[The chart follows:]

	Fiscal year					
	1964	1972	1973	1974	1975	(1964–75)
Generals	494	500	484	467	459	(−35)
Colonels	5,119	5,705	5,381	5,082	5,065	(−54)
Lieutenant colonels	12,363	12,776	12,212	11,293	11,261	(−1,102)
Majors	17,105	20,274	18,874	17,622	16,902	(−203)

GENERAL OFFICER STRENGTHS

General Rogers. The column on the right compares fiscal year 1964, with our fiscal year 1975 program and shows the lesser number of officers we have in each grade in the fiscal year 1975 program.

Chairman McClellan. Is that 35 officers?

General Rogers. Yes, sir, that is 35 general officers total.

Chairman McClellan. These are the number of officers?

General Rogers. Yes, in the MPA account.

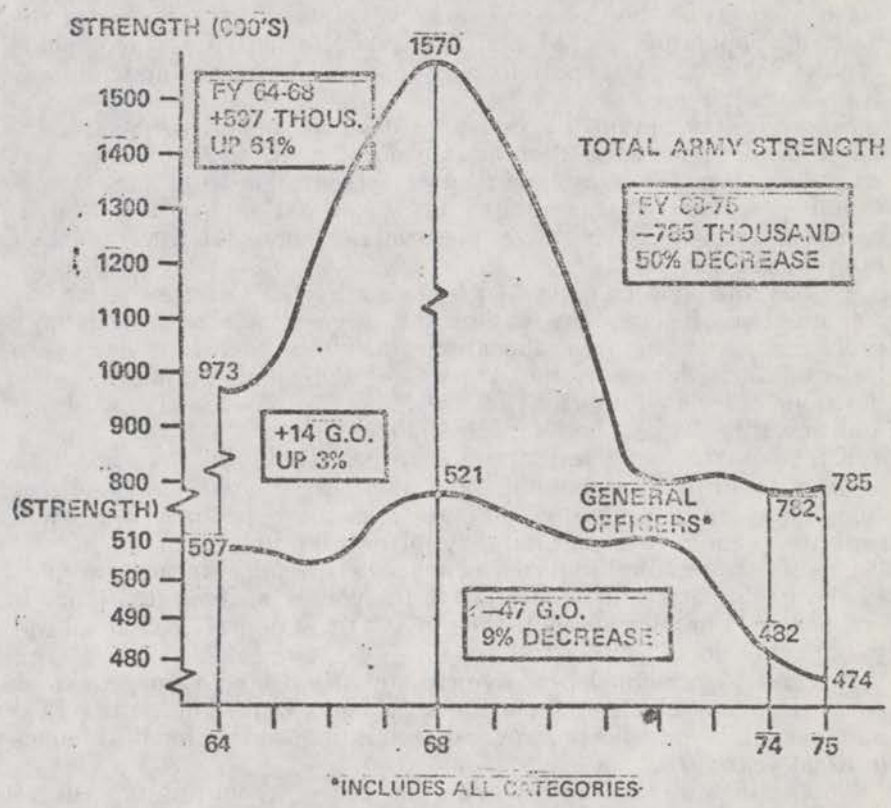
The following graph illustrates general officer strength in relation to total strength. As you can see, the number of generals was not increased proportionately during the Vietnam buildup, and general officer strength is not decreasing in proportion to total strength reduction.

However, by end fiscal year 1975 we will have reduced the number of generals by at least 47 since the peak in 1968. During the Vietnam buildup, we added only 14; thus our fiscal year 1975 general officer strength will be at least 33 less than pre-Vietnam.

[The chart follows:]

GENERAL OFFICERS FY 64-75

COMPARATIVE SIZE



EDUCATION AND COUNSELORS

General ROGERS. In fiscal year 1975 our officer procurement will continue, as in fiscal year 1974, at a level 3,000 below that which we should maintain for desired year group distribution. The major single source of new officer accessions will be ROTC, as in past years.

I would now like to turn to the subjects of education and counselors.

Last fall, the Department of the Army published its Army education services plan to guide the development of the voluntary education programs.

This plan decentralizes education planning to installation level. Each installation develops programs to respond to the needs of the military population served and schedules its activities to preclude conflict between participation in educational activities and military training requirements.

Soldier participation has increased dramatically in the past year; for example, enlisted undergraduate enrollments are up 40 percent and officer graduate enrollment up 31 percent. The voluntary educational program is expanding into the vocational-technical area, assisting soldiers to improve performance and potential in their military careers.

I share the concern expressed last year by the Congress regarding the number of counselors within the services. We are continually reviewing our manpower allocations to determine what spaces can be eliminated; however, the Army is of the opinion that counselor positions are very important in providing a professionally satisfying and rewarding atmosphere for our soldiers.

Effective counseling and advice are especially needed by our young soldiers to identify and understand their capabilities and to direct their efforts into programs that are responsive to their individual aspirations for growth and military job satisfaction.

Quality counseling requires counselors specially trained in particular fields. Especially important in the volunteer force environment are career counselors—reenlistment NCO's and professional educational counselors.

Integral to personnel procurement, retention, and management is our permanent change of station travel program. This year's PCS budget submission reflects a revised accounting system for PCS moves in fiscal year 1975.

This change was made to standardize move accounting procedures between the services and complies with last year's congressional directive. As a result of this change, the fiscal year 1975 budget shows a decrease of 130,000 moves between fiscal year 1974 and fiscal year 1975.

However, the actual reduction is only 10,000. The remainder of the difference is attributable to accounting changes.

ONE-STATION TRAINING CONCEPT

Chairman MCCLELLAN. Why shouldn't one station training concept make the actual reduction in permanent change of station travel greater than 10,000?

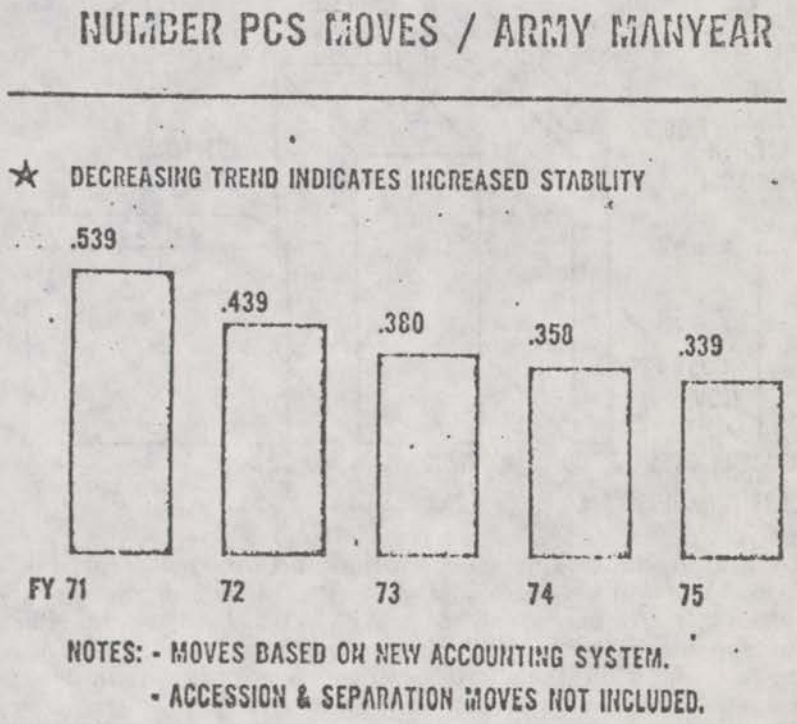
General Rogers. One station training concept will have no impact on the number of PCS accession moves shown in the budget. An accession move takes a man from his point of entry into the service to his first permanent duty station regardless of the number of interim moves made in connection with the training cycle.

Notwithstanding this small decrease in moves, stability remains a high priority item in personnel management. The Army is constantly searching for new methods and policies designed to improve personnel stability. Just recently the limitations on the maximum period a person may extend overseas were removed.

NUMBER PCS MOVES

Likewise, the normal tour on the Army staff was increased from 3 to 4 years. An indicator of increasing stability since fiscal year 1971 is the decreasing trend in the number of PCS moves per Army man-year as reflected on the following chart.

[The chart follows:]



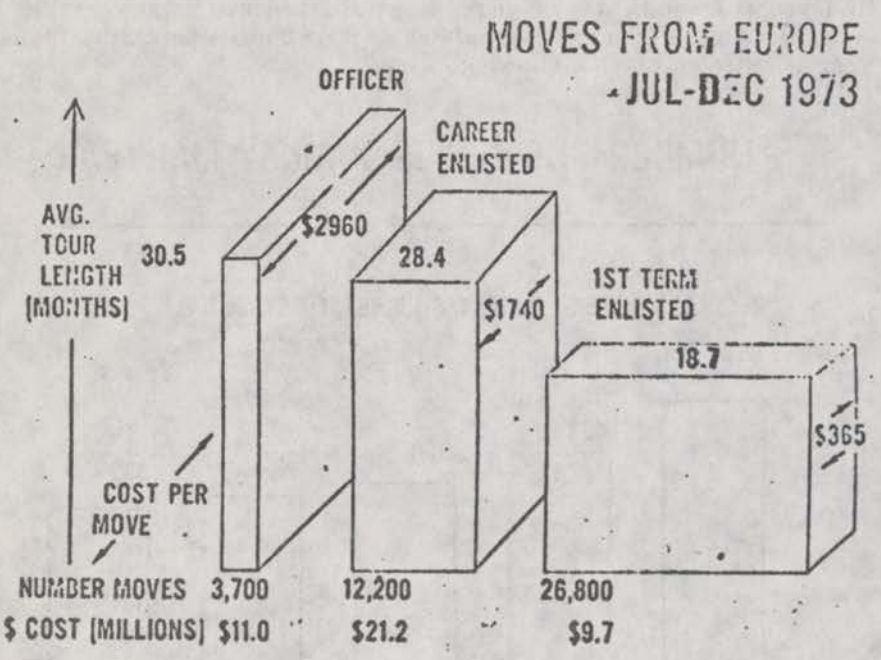
General Rogers. What this chart shows is that when you strip out of the total PCS moves, those moves associated with enlistments, and those associated with separating from the Army, you are left with moves over which we have some control. When one compares those remaining moves with the number of man years we have in the program, one can see there is a decreasing trend since fiscal year 1971. This decreasing trend indicates increasing stability.

Unfortunately, the need to maintain oversea strengths at prescribed levels continues to be the driving force behind PCS moves. In this regard, a shortage of enlisted accessions volunteering for overseas duty precludes projecting any improvement in the enlisted oversea average tour lengths between fiscal year 1974 and fiscal year 1975.

ROTATIONAL MOVES FROM EUROPE

This next chart depicting the rotational moves from Europe during the first half of fiscal year 1974 shows that officers and career enlisted personnel were quite stable, with average tour lengths of 30.5 and 28.4 months, respectively. First-term enlisted personnel, however, had only an 18.7 month average tour.

[The chart follows:]



General Rogers. You will note the officer average tour was 30½ months. You will note also that the cost of an officer move is about $2,960, $1,740 for career enlisted and $365 for the first-term enlisted. Thus the moves with the high average cost have relatively long average tours, while the shorter average tour for first-term personnel has a much lower average cost.

Though moves decline between fiscal year 1974 and fiscal year 1975, PCS costs increase significantly from $395 million to $500 million as a result of proposed entitlement changes and rate increases.

The most significant cost increases in the fiscal year 1975 budget are the extension of entitlements to all junior enlisted personnel and an increase in mileage allowance payments, the first rate increases in this area since 1951.

Extension of full travel entitlements to all junior enlisted personnel less recruits is a program considered essential to the success of the volunteer army.

This concludes my presentation of the fiscal year 1975 "Military Personnel, Army" request. We seek your support for the resources required to execute it. The program presented today will cost $7,915,000,000. These funds will fully support an average military personnel strength of 780,305 and an end strength of 785,000. These are the strengths required to man our force.

Thank you, Mr. Chairman.

Chairman McCLELLAN. Gentlemen, do you have any questions?

Senator Young?

Senator YOUNG. I have one question. General Kjellstrom, I believe you can answer this for the record. Would you put in the record all the categories that you list and the cost of maintaining our Army in Europe. Travel, furloughs, could you supply a list of those?

General KJELLSTROM. Yes, we can.

[The information follows:]

The following estimations represent the major categories of incremental annual operating costs attributable to US Army stationing in Europe:

	Millions
MPA: Military personnel, Army	$142
This cost consists principally of additional costs for Permanent Change of Station travel. It also includes Foreign Duty Pay and Overseas Station Allowance.	
OMA: Operation and maintenance, Army	342
This cost includes support activity for the forces; e.g. training, command, medical, supply and maintenance, etc.	
FHMA: Family housing operations and maintenance, Army	65
Included in this cost are the operations and maintenance of family housing quarters as well as the rental guarantee and family housing leasing programs as of the beginning of the current fiscal year.	
Total incremental annual operating cost for USAREUR stationing	549

Chairman McCLELLAN. Senator Hruska?

Senator HRUSKA. No, thank you, Mr. Chairman.

Chairman McCLELLAN. Off the record.

[Brief discussion off the record.]

Chairman McCLELLAN. Back on the record.

JUSTIFICATION

At this point in the record there will appear certain information from the justifications.

[The justification follows:]

Justification

APPROPRIATION: MILITARY PERSONNEL, ARMY

SECTION 2 - INTRODUCTORY STATEMENT

This appropriation finances the costs of the active military personnel forces of the Army. The program and financing schedule for this appropriation reflects budget activity classifications which are identical to the ten major program classifications used for management purposes throughout the Department of Defense.

The tables in Sections 3 through 5 contain the same type data that has been used for a number of years to present the requirements for the Military Personnel Appropriation. In addition, Section 5 includes justification material for those areas in which there has been congressional interest.

Army military personnel are engaged in programs for Operation of the Army, Operation of Defense Agencies, Research and Development, Army and Research and Development, Defense Agencies. The pay and allowances of these military personnel are financed by the Military Personnel, Army Appropriation. In addition, a small number of Army military personnel are assigned to other Government agencies outside Department of Defense and the costs of these personnel are financed as a part of the reimbursable program for this appropriation with reimbursements received from the Government agencies to which such personnel are assigned.

Obligations for military personnel are distributed to each of the major defense programs on the basis of average officer and enlisted rates. These rates are multiplied by the average number of officer and enlisted personnel assigned in each defense program. Obligations for permanent change of station travel and support of allies are excluded from these average rates and entered directly in the applicable defense program.

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SECTION 3 - SUMMARY TABLES
SUMMARY OF MILITARY PERSONNEL STRENGTH

	FY 1973 Actual		FY 1974 Planned		FY 1975 Planned	
	Manyears	End Strength 30 June 1973	Manyears	End Strength 30 June 1974	Manyears	End Strength 30 June 1975
DIRECT PROGRAM						
Officers	118,686	115,467	108,907	105,889	103,291	101,345
Enlisted	715,992	681,892	675,118	671,703	672,724	679,553
Academy Cadets	3,866	2,796	3,817	3,700	3,988	3,800
Total Direct Program	838,544	800,155	787,842	781,292	780,003	784,698
REIMBURSABLE PROGRAM 1/						
Officers	282	298	314	211	205	205
Enlisted	52	70	89	97	97	97
Total Reimbursable Program	334	368	403	308	302	302
TOTAL PROGRAM						
Officers	118,968	115,765	109,221	106,100	103,496	101,550
Enlisted	716,044	681,962	675,207	671,800	672,821	679,650
Academy Cadets	3,866	2,796	3,817	3,700	3,988	3,800
TOTAL	838,878	800,523	788,245	781,600	780,305	785,000

1/ Military Personnel assigned to agencies outside Department of Defense on a reimbursable basis under the provisions of 10 U.S.C. 4621.

SUMMARY OF REQUIREMENTS BY BUDGET PROGRAM
(In Thousands of Dollars)

Title	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
(1)	(2)	(3)	(4)
DIRECT PROGRAM			
Pay and Allowances of Officers	$1,932,961	$1,954,007	$1,868,111
Pay and Allowances of Enlisted	4,807,468	4,885,194	5,015,574
Pay and Allowances of Cadets	15,896	17,540	19,017
Subsistence of Enlisted Personnel	493,948	489,844	503,829
Permanent Change of Station Travel	415,003	395,457	499,890
Other Military Personnel Costs	19,924	19,758	8,379
Total Direct Program	7,685,200	7,761,800	7,914,800
REIMBURSABLE PROGRAM			
Pay and Allowances of Officers	13,711	11,584	10,199
Pay and Allowances of Enlisted	3,500	6,229	6,453
Subsistence of Enlisted Personnel	85,583	37,977	45,038
Permanent Change of Station Travel	10	10	10
Other Military Personnel Costs	700	600	600
Total Reimbursable Program	103,504	56,400	62,300
TOTAL PROGRAM			
Pay and Allowances of Officers	1,946,672	1,965,591	1,878,310
Pay and Allowances of Enlisted	4,810,968	4,891,423	5,022,027
Pay and Allowances of Cadets	15,896	17,540	19,017
Subsistence of Enlisted Personnel	579,531	527,821	548,867
Permanent Change of Station Travel	415,013	395,467	499,900
Other Military Personnel Costs	20,624	20,358	8,979
Total Obligations	$7,788,704	$7,818,200	$7,977,100

SCHEDULE OF INCREASES AND DECREASES
(In Thousands of Dollars)

		Amount
FY 1974 DIRECT PROGRAM		$7,761,800
Increases:		
a. Military Pay Increase of 1 October 1973 annualization	$83,751	
b. Longevity (time-in-grade)	20,630	
c. Federal Insurance Contribution Act increase in base earnings from $10,800 to $13,200 effective 1 January 1974	9,835	
d. Increased percent receiving Basic Allowance for Quarters	31,566	
e. Grade Structure change	23,552	
f. Increased enlistment and reenlistment bonus payments	22,470	
g. Increased accessions	5,905	
h. 8,164 more females entitled to Clothing Maintenance Allowance	982	
i. Increased ration costs	41,267	
j. Increased mileage allowance	24,514	
k. PCS rate increases	10,582	
l. Increased entitlements for junior enlisted	81,150	
Total Increases		356,204
Decreases:		
a. Manyear reduction	106,581	
b. Decrease in Station Allowance and Family Separation Allowance payments.	12,861	
c. Decreased separation payments	34,492	
d. 10,000 less males entitled to Clothing Maintenance Allowance	766	
e. Decreased Support to Other Nations	18,395	
f. Decreased use of operational rations	3,478	
g. Deletion of "Adjustment for variance between BAS costs and actual food costs"	3,677	
h. Decreased PCS moves	13,704	
i. Termination of Uniformed Services Savings Deposit Program (except MIA).	8,830	
j. Other miscellaneous decreases	420	
Total Decreases		203,204
FY 1975 DIRECT PROGRAM		$7,914,800

APPROPRIATION	BUDGET PROGRAM (Number and title)
Military Personnel, Army	Section 4 - Pay and Allowances of Officers

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
1-A	Basic Pay	$ 1,504,477	$ 1,496,927	$ 1,456,838
1-B	Incentive Pay	46,266	40,175	37,220
1-C	Special Pay	32,275	29,214	28,223
1-D	Basic Allowance for Quarters	167,654	151,307	146,048
1-E	Basic Allowance for Subsistence	68,354	62,754	59,465
1-F	Station Allowances Overseas	19,486	18,691	16,452
1-G	Uniform Allowances	2,956	2,557	2,439
1-H	Family Separation Allowances	2,944	1,890	1,890
1-I	Separation Payments	40,340	94,096	57,302
1-J	Social Security Tax - Employer's Contribution	61,920	67,980	72,433
	Total Obligations	1,946,672	1,965,591	1,878,310
	Less Reimbursements	13,711	11,584	10,199
	Total Direct Obligations	1,932,961	1,954,007	1,868,111

SCHEDULE OF INCREASES AND DECREASES
(In Thousands of Dollars)

PAY AND ALLOWANCES OF OFFICERS		Amount
FY 1974 Program		$1,965,591
Increases:		
a. Military Pay Increase of 1 October 1973 annualization.....	$16,894	
b. Longevity (time in grade).....	5,820	
c. Federal Insurance Contribution Act increase in base earnings from $10,800 to $13,200 effective 1 January 1974.....	9,287	
d. Increased percent receiving Basic Allowance for Quarters..	2,260	
Total Increases.....		34,261
Decreases:		
a. Manyear reduction of 5,725 manyears.....	84,790	
b. Decreased separation payments (Lump Sum Terminal Leave and Readjustment Payments).....	34,492	
c. Decrease in Station Allowance payments.....	2,260	
Total Decreases.....		121,542
FY 1975 Program		$1,878,310

(In Thousands of Dollars)

PROJECT: Basic Pay

Estimate - FY 1975.... $1,456,838
Estimate - FY 1974.... $1,496,927
Actual - FY 1973.... $1,504,477

PART I - PURPOSE AND SCOPE

The funds requested are to provide for the basic compensation and length of service increments of officers on active duty pursuant to 37 U.S.C. 201, 203, and 205. Compensation of officers of Reserve Components on active duty for purposes other than training is included.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The basic compensation is determined by multiplying the projected average number of personnel by grade by the estimated average annual compensation, including length of service increments, for each grade.

PROJECT: Incentive Pay for Hazardous Duty

Estimate - FY 1975.... $37,220
Estimate - FY 1974.... $40,175
Actual - FY 1973.... $46,266

PART I - PURPOSE AND SCOPE

The funds requested will provide for pay to officers under provisions of 37 U.S.C. 301 for these types of duty:

(1) Crew member involving frequent and regular participation in aerial flights;
(2) Non-crew duty involving frequent and regular participation in aerial flights not as a crew member;
(3) Parachute jumping as an essential part of military duty;
(4) Demolition of explosives as a primary duty, including training for such duty;
(5) Hazardous duty as human test subject in thermal stress experiments or pressure chamber inside observer.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The compensation for crew members is obtained by multiplying the projected average number of personnel authorized this type of pay by grade by the estimated average annual rate including length of service increment for each grade. The compensation for all other types of incentive pay is arrived at by multiplying the projected average numbers of each type by the statutory rate.

PROJECT: Special Pay

Estimate - FY 1975.... $28,223
Estimate - FY 1974.... $29,214
Actual - FY 1973.... $32,275

PART I - PURPOSE AND SCOPE

The funds requested are to provide compensation to officers on active duty as physicians, dentists, and veterinarians under the provisions of 37 U.S.C. 302 and 303; certain designated officers in positions of unusual responsibility which are of a critical nature under the provisions of 37 U.S.C.306; officers on duty subject to hostile fire under provisions of 37 U.S.C. 310; personal money allowance to certain Generals under provisions of 37 U.S.C. 414 (a); for diving duty pay under provisions of 37 U.S.C. 304; and for continuation pay for physicians and dentists who extend their service on active duty under the provisions of 37 U.S.C. 311.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The compensation for physicians and dentists is developed by multiplying the number of personnel in each length of service increment by the statutory rate for each increment. The continuation pay compensation is derived by multiplying the number projected by grade by the rate obtained by multiplying the monthly rate for the applicable length of service increment by grade by the multiplier, 1,2,3, or 4, authorized for each grade. The compensation for all other types of special pay is developed by multiplying the average number authorized by the statutory rate for each type of pay.

PROJECT: Basic Allowance for Quarters

Estimate - FY 1975.... $146,048
Estimate - FY 1974.... $151,307
Actual - FY 1973.... $167,654

PART I - PURPOSE AND SCOPE

The funds requested are to provide quarters allowances for officers with dependents and without dependents who do not occupy Government quarters under provisions of 37 U.S.C. 403 and to officers occupying inadequate family housing.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Allowances for quarters are developed by multiplying the projected average number of personnel eligible for each type by grade by the statutory rate applicable.

PROJECT: Basic Allowance for Subsistence

Estimate - FY 1975.... $59,465
Estimate - FY 1974.... $62,754
Actual - FY 1973.... $68,354

PART I - PURPOSE AND SCOPE

The funds requested will provide for subsistence allowances as authorized by 37 U.S.C.402.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Subsistence allowance is obtained by multiplying the projected average number eligible for the allowance by the annual statutory rate of $574.56.

PROJECT: Station Allowances, Overseas

Estimate - FY 1975.... $16,452
Estimate - FY 1974.... $18,691
Actual - FY 1973.... $19,486

PART I - PURPOSE AND SCOPE

The funds requested will provide payments of a per diem allowance to officers on duty outside CONUS or in Alaska, considering all elements of the cost of living, including quarters, subsistence and other necessary incidental expenses as prescribed by Joint Travel Regulations and authorized under provisions of 37 U.S.C. 405.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Station Allowances, overseas payments are determined by multiplying the projected number of personnel eligible for each type of allowance by the estimated average rate applicable.

PROJECT: Uniform Allowances

Estimate - FY 1975.... $2,439
Estimate - FY 1974.... $2,557
Actual - FY 1973.... $2,956

PART I - PURPOSE AND SCOPE

The requested funds will provide for the initial payment and supplemental allowances for purchase of required uniforms under provisions of 37 U.S.C. 415.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Allowances for uniform purchase are developed by multiplying the projected number eligible for each type of allowance by the applicable statutory rate.

PROJECT: Family Separation Allowances

Estimate - FY 1975.... $1,890
Estimate - FY 1974.... $1,890
Actual - FY 1973.... $2,944

PART I - PURPOSE AND SCOPE

The funds requested are to provide for Family Separation Allowance payments to officers with dependents for added separation expenses when:

(a) Travel of dependents to overseas duty station is not authorized and the member maintains two homes, one in CONUS for his family and one overseas for himself; and/or

(b) When a member with dependents makes a permanent change of station or is on temporary duty travel, or on board ship for thirty days or more either in CONUS or overseas and the travel of dependents to his duty station is not authorized and dependents do not reside at or near duty station.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Allowances for family separation payments are determined by multiplying the estimated number of personnel eligible for each type of family separation allowance by the statutory rate applicable.

PROJECT: Separation Payments

Estimate - FY 1975.... $57,302
Estimate - FY 1974.... $94,096
Actual - FY 1973.... $40,340

PART I - PURPOSE AND SCOPE

The funds requested will provide:

(a) For payment of accumulated annual leave under the provisions of 37 U.S.C. 501.

(b) For severance pay to officers, including elimination severance pay to officers not eligible for retirement under any provision of law on the date of elimination by promotion list passover, under the provisions of 10 U.S.C. 1167,

6382-84 and 8303; elimination severance pay for cause under the provisions of 10 U.S.C. 3786 and 8786; disability severance pay under the provisions of 37 U.S.C. 272 and 273.

(c) For lump sum payment to Army Reserve Officers separated under the provisions of 10 U.S.C. 680 and 687 and P.L. 87-509, approved June 28, 1962.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Separation payments are determined by multiplying the projected number eligible for each type of payment by the estimated average payment applicable. Accumulated leave payments include basic pay, basic allowance for subsistence, and basic allowance for quarters payable for the numbers of days of excess leave not to exceed 60 on hand at time of separation. Severance pay for promotion passover is computed at two months basic pay at grade held at time of discharge multiplied by years of service, but not more than 12. The payment cannot exceed two years basic pay or $15,000 whichever is less. Severance pay for cause is computed at one months basic pay of the grade held at time of discharge multiplied by years of active service, but not more than 12. Severance pay for disability is computed at two months basic pay of grade held at time of discharge multiplied by the number of years active service, but not more than 12. Lump sum payments to Army Reserve Officers is computed at two months basic pay of grade held at time of separation multiplied by years of active service, but not over 12. The maximum amount payable is two years basic pay or $15,000 whichever is less.

PROJECT: Social Security Tax - Employer's Contribution

Estimate - FY 1975.... $72,433
Estimate - FY 1974.... $67,980
Actual - FY 1973.... $61,920

PART I - PURPOSE AND SCOPE

The funds requested provide for the employer's tax to the Social Security Administration as required by the Federal Insurance Contribution Act.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The FICA tax is developed by multiplying the total earnings for FICA tax purposes by the applicable percent. The maximum amount of earning per individual on which tax is payable is $9,000 July thru December 1972; $10,800 January 1, 1973 thru December 31, 1973 and $13,200 effective January 1, 1974. The percent payable on earnings is 5.2% July thru December 1972 and 5.85% effective January 1, 1973.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Military Personnel, Army	Section 4 - Pay and Allowances of Enlisted Personnel

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
2-A	Basic Pay	$ 3,664,361	$ 3,746,366	$ 3,827,968
2-B	Incentive Pay	25,747	23,253	22,487
2-C	Special Pay	23,380	10,920	10,491
2-D	Proficiency Pay	51,701	55,294	51,839
2-E	Reenlistment Bonus	118,096	116,801	128,515
2-F	Combat Arms Enlistment Bonus	34,438	45,113	61,467
2-G	Basic Allowance for Quarters	446,991	411,718	440,168
2-H	Station Allowances Overseas	40,966	37,478	27,405
2-I	Clothing Allowances	104,375	120,338	123,558
2-J	Family Separation Allowances	10,742	8,760	8,656
2-K	Separation Payments	88,644	96,701	95,596
2-L	Social Security Tax - Employer's Contribution	201,527	218,681	223,877
	Total Obligations	4,810,968	4,891,423	5,022,027
	Less Reimbursements	3,500	6,229	6,453
	Total Direct Obligations	4,807,468	4,885,194	5,015,574

SCHEDULE OF INCREASES AND DECREASES
(In Thousands of Dollars)

PAY AND ALLOWANCES OF ENLISTED PERSONNEL		Amount
FY 1974 Program		$4,891,423
Increases:		
a. Military Pay Increase of 1 October 1973 annualization	$66,353	
b. Longevity (time in grade)	14,810	
c. Grade Structure change	23,552	
d. Increased enlistment and reenlistment bonus payments	22,470	
e. Increased percentage receiving Basic Allowance for Quarters	29,306	
f. 10,800 increased accessions (clothing bag)	4,014	
g. 8,164 more females entitled to Clothing Maintenance Allowance	982	
h. Federal Insurance Contribution Act increase in base earnings from $10,800 to $13,200 effective 1 January 1974	548	
Total Increases		162,035
Decreases:		
a. Manyear reduction of 2,386 manyears	19,054	
b. Decrease in Station Allowance and Family Separation Allowance payments	10,601	
c. 10,000 less males entitled to Clothing Maintenance Allowance	766	
d. Decreased Support to Other Nations	1,010	
Total Decreases		31,431
FY 1975 Program		$5,022,027

(In Thousands of Dollars)

PROJECT: Basic Pay

Estimate - FY 1975.... $3,827,968
Estimate - FY 1974.... $3,746,366
Actual - FY 1973.... $3,664,361

PART I - PURPOSE AND SCOPE

The funds requested are to provide for the basic compensation and length of service increments of enlisted personnel on active duty under provisions of 37 U.S.C. 201 and 205. Compensation of enlisted personnel of the reserve components on active duty for purposes other than training is included.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The basic compensation is determined by multiplying the projected average number of personnel by grade by the estimated average annual compensation including length of service increments, for each grade.

PROJECT: Incentive Pay

Estimate - FY 1975.... $22,487
Estimate - FY 1974.... $23,253
Actual - FY 1973.... $25,747

PART I - PURPOSE AND SCOPE

The funds requested will provide for pay to enlisted personnel under provisions of 37 U.S.C. 301 for these types of duty:

(1) Crew member involving frequent and regular participation in aerial flights.

(2) Non-crew duty involving frequent and regular participation in aerial flights not as a crew member.

(3) Parachute jumping as an essential part of military duty.

(4) Demolition of explosives as a primary duty, including training for such duty.

(5) Hazardous duty as human test subject in thermal stress experiments or pressure chamber inside observer.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The compensation for crew members is obtained by multiplying the projected average number of personnel eligible for this type of pay by grade by the estimated average annual rate including length of service increments for each grade. The compensation for all other types of incentive pay is arrived at by multiplying the projected average number of each type by the statutory rate.

PROJECT: Special Pay

Estimate - FY 1975....	$10,491
Estimate - FY 1974....	$10,920
Actual - FY 1973....	$23,380

PART I - PURPOSE AND SCOPE

The funds requested will provide for special pay to enlisted personnel while on sea duty or duty outside the contiguious 48 States and the District of Columbia at places designated by the Secretary of Defense under the provisions of 37 U.S.C. 305; for diving duty pay under the provisions of 37 U.S.C. 304; and for duty subject to hostile fire under the provisions of 37 U.S.C. 310.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The compensation for each type of special pay is developed by multiplying the projected average number eligible for each type of pay by the statutory rate for the type of pay.

PROJECT: Proficiency Pay

Estimate - FY 1975....	$51,839
Estimate - FY 1974....	$55,294
Actual - FY 1973....	$51,701

PART I - PURPOSE AND SCOPE

The funds requested will provide for pay to enlisted personnel under provisions of 37 U.S.C. 307 for three types of duty:

Shortage Specialty (Proficiency Pay) - In MOS where there is determined to be a shortage of qualified career personnel caused by inadequate retention over an extended period.

Special Duty Assignment (Proficiency Pay) - In special duty assignments, where a need for all assignees to be qualified volunteers has been demonstrated insufficient to raise the requisite number to adequate levels.

Superior Performance (Proficiency Pay) - For superior performance and job knowledge in MOS not designated for Shortage Specialty or Special Duty Assignment (Proficiency Pay).

PART II - JUSTIFICATION OF FUNDS REQUESTED

Proficiency payments are determined by multiplying the projected number of personnel eligible for each category of proficiency pay by the rate approved for each category.

PROJECT: Reenlistment Bonus

Estimate - FY 1975.... $128,515
Estimate - FY 1974.... $116,801
Actual - FY 1973.... $118,096

PART I - PURPOSE AND SCOPE

The funds requested are to provide:

(a) Bonus to enlisted personnel reenlisting in the regular Army within three months after the date of discharge or release from compulsory or voluntary active duty (other than for training) or for those personnel extending their enlistments for at least two years and who are not covered by Section 207 of the Career Compensation Act of 1949 as amended. This compensation is in accordance with provisions of 37 U.S.C. 308.

(b) Variable reenlistment bonus authorized under Public Law 89-132, August 21, 1965, to enlisted members designated as having a critical military skill and who are entitled to a bonus upon their first reenlistment may be paid an additional amount of not more than four times the amount of that bonus.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The average numbers programmed to receive reenlistment bonuses are adjusted to remove or reduce those with sixteen or more years of service. The remaining numbers are multiplied by past experience cost factors for each grade to determine the total cost.

Variable reenlistment bonus requirements are based on latest reenlistment experience of those members possessing critical skills. The bonus for each skill is based on the average first reenlistment cost times a multiple of from 1 to 4 depending on the need for the skill.

PROJECT: Combat Arms Enlistment Bonus

Estimate - FY 1975.... $61,467
Estimate - FY 1974.... $45,113
Actual - FY 1973.... $34,438

PART I - PURPOSE AND SCOPE

The funds requested are to provide for a bonus, prescribed by the Secretary of Defense but not more than $3,000, to enlisted personnel who enlist in any combat element of the Army for a period of at least three years or who extends his initial period of active duty in a combat element of the Army to a total of at least three years. This compensation in accordance with provisions of 37 U.S.C. 308a.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The number programmed to enlist and receive the bonus are multiplied by the rate approved by the Secretary of Defense to determine the total cost.

PROJECT: Basic Allowance for Quarters

Estimate - FY 1975.... $440,168
Estimate - FY 1974.... $411,718
Actual - FY 1973.... $446,991

PART I - PURPOSE AND SCOPE

The funds requested are to provide quarters allowance for enlisted personnel with dependents and without dependents when Government quarters are not occupied under the provisions of 37 U.S.C. 403 and to enlisted personnel occupying inadequate family housing.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Allowances for quarters are developed by multiplying the projected average number of personnel eligible for each type by grade by the statutory rate applicable.

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PROJECT: Station Allowances, Overseas

Estimate - FY 1975.... $27,405
Estimate - FY 1974.... $37,478
Actual - FY 1973.... $40,966

PART I - PURPOSE AND SCOPE

The funds requested will provide payments of a per diem allowance to enlisted personnel on duty outside CONUS or in Alaska, considering all elements of the cost of living, including quarters, subsistence and other necessary incidental expenses as prescribed by Joint Travel Regulations and authorized under provisions of 37 U.S.C. 405.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Station allowances, overseas payments are determined by multiplying the projected number of personnel eligible for each type of allowance by the estimated average rate applicable.

Project: Clothing Allowances

(In Thousands)
FY 1975 Estimate - $123,558
FY 1974 Estimate - $120,338
FY 1973 Actual - $104,375

Part I - Purpose and Scope

The funds requested will provide for payment to enlisted personnel for prescribed clothing, authorized by the Secretary of Defense under the provisions of 37 U.S.C. 418 including:

(1) Initial clothing allowance including civilian allowance when authorized by competent orders.

(2) For cash payment of the basic maintenance allowance (paid from the sixth month of entrance on duty through the thirty-sixth month) and cash payment of standard maintenance allowance for clothing (commencing with the thirty-seventh month and each month thereafter).

(3) For cost of issue-in-kind in areas where clothing maintenance allowance is not authorized.

(4) Supplementary clothing allowances for personnel assigned to special organizations or details where the nature of the duties to be performed require additional items of individual uniform clothing.

Part II - Justification of Funds Requested

Initial clothing allowances are determined by the types of accessions programmed. The clothing maintenance allowance is determined by the average longevity of the enlisted force. Supplementary clothing allowance estimates are based on numbers programmed for assignment to special details or organizations.

In accordance with DOD Directive 1338.5, Change 21, dated 1 August 1973, initial issue costs and the authorized clothing maintenance allowances have increased as follows due to increased procurement costs:

	FY 1974 Pres. Budget	FY 1974 Column of FY 1975 Pres. Budget
Initial issue		
Enlisted men	$224.28	$253.21
Enlisted women	398.86	470.50
Clothing maintenance allowance		
Enlisted men - Basic	54.00	64.80
Standard	79.20	93.60
Enlisted women- Basic	82.80	93.60
Standard	118.80	133.20

PROJECT: Family Separation Allowances

Estimate - FY 1975.... $ 8,656
Estimate - FY 1974.... $ 8,760
Actual - FY 1973.... $10,742

PART I - PURPOSE AND SCOPE

The funds requested are to provide for Family Separation Allowance payments to enlisted personnel with dependents for added separation expenses when:

(a) Travel of dependents to overseas duty station is not authorized and the member maintains two homes, one in CONUS for his family and one overseas for himself; and/or

(b) When a member with dependents makes a permanent change of station or is on temporary duty travel, or on board ship for thirty days or more either in CONUS or overseas and the travel of dependents to his duty station is not authorized and dependents do not reside at or near duty station.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Allowances for family separation payments are determined by multiplying the estimated number of personnel eligible for each type of family separation allowance by the statutory rate applicable.

PROJECT: Separation Payments

Estimate - FY 1975.... $95,596
Estimate - FY 1974.... $96,701
Actual - FY 1973.... $88,644

PART I - PURPOSE AND SCOPE

The funds requested will provide for payment to enlisted personnel for:

(a) Payment of accumulated annual leave under the provisions of 37 U.S.C. 501.

(b) Disability severance pay under the provisions of 37 U.S.C. 272 and 273.

(c) Donations (not to exceed $25.00) to each enlisted prisoner upon his release from confinement under court martial sentence involving other than honorable discharge and to each person discharged from the Army for fraudulent enlistment in accordance with General Provisions of the Annual Department of Defense Appropriation Act.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Separation payments are determined by multiplying the projected number eligible for each type of payment by the estimated average payment applicable. Accumulated leave payments include basic pay, $1.25 per day quarters allowance to enlisted members in pay grades E-5 to E-9 who have dependents, and 70 cents per day to all members for subsistence, payable for the number of days of excess leave not to exceed 60 on hand at time of separation. Severance pay for disability is computed at two months basic pay of grade held at time of discharge multiplied by the number of years active service but not more than 12. Donations are computed by multiplying the programmed number of releases from confinement and the number discharged for fraudulent enlistments by $25.00.

PROJECT: Social Security Tax - Employer's Contribution

Estimate - FY 1975.... $223,877
Estimate - FY 1974.... $218,681
Actual - FY 1973.... $201,527

PART I - PURPOSE AND SCOPE

The funds requested provide for the employer's tax to the Social Security Administration as required by the Federal Insurance Contribution Act.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The FICA tax is developed by multiplying the total earnings for FICA tax purposes by the applicable percent. The maximum amount of earning per individual on which tax is payable is $9,000 July thru December 1972; $10,800 January 1, 1973 thru December 31, 1973 and $13,200 effective January 1, 1974. The percent payable on earnings is 5.2% July thru December 1972 and 5.85% effective January 1, 1973.

APPROPRIATION	BUDGET PROGRAM (Number and title)		
Military Personnel, Army	Section 4 - Pay and Allowances of Cadets		
		(In Thousands of Dollars)	
BUDGET PROJECT ACCOUNT / TITLE	ACTUAL FISCAL YEAR 1973	ESTIMATE	
		FISCAL YEAR 1974	FISCAL YEAR 1975
3-B Academy Cadets.....	$ 15,896	$ 17,540	$ 19,017

SCHEDULE OF INCREASES AND DECREASES
(In Thousands of Dollars)

PAY AND ALLOWANCES OF CADETS		Amount
FY 1974 Program		$17,540
Increases:		
a. Manyear increase of 288 manyears.....	$754	
b. Increased ration rate.....	428	
c. Military Pay Increase of 1 October 1973 annualization.....	295	
Total Increases.....		1,477
FY 1975 Program		$19,017

(In Thousands of Dollars)

PROJECT: Academy Cadets

Estimate - FY 1975.... $19,017
Estimate - FY 1974.... $17,540
Actual - FY 1973.... $15,896

PART I - PURPOSE AND SCOPE

The funds requested are to provide for basic pay and allowances of Academy Cadets and commuted ration allowance under the provisions of 37 U.S.C. 201, 203, and 422; and for employer's share of FICA tax as provided by Federal Insurance Contribution Act.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The fund requirement was determined by applying statutory rates to the projected manyears.

APPROPRIATION: Military Personnel, Army		BUDGET PROGRAM (Number and title): Section 4 - Subsistence of Enlisted Personnel		
		(In Thousands of Dollars)		
BUDGET PROJECT ACCOUNT	TITLE	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
		$	$	$
4-A	Basic Allowances for Subsistence.....	206,795	254,069	290,214
4-B	Subsistence in Kind.....	372,736	273,752	258,653
	Total Obligations.....	579,531	527,821	548,867
	Reimbursable Obligations.....	-85,583	-37,977	-45,038
	Total Direct Obligations.....	493,948	489,844	503,829

SCHEDULE OF INCREASES AND DECREASES
(In Thousands of Dollars)

		Amount
SUBSISTENCE OF ENLISTED PERSONNEL		
FY 1974 Program		$527,821
Increases:		
a. Annualization of BAS rate at $2.28	$37,045	
b. Selective use of choice beef @ 4¢ per ration	2,976	
c. Annualization of cost of operational rations	818	
d. Increased reimbursable program	7,061	
Total Increases		47,900
Decreases:		
a. Decrease 1,230 enlisted manyears in Basic Allowance for Subsistence	900	
b. Decrease 1,464 enlisted manyears subsisting in messes	1,224	
c. Decreased use of operational rations	3,478	
d. Decrease in Support to Other Nations	17,385	
e. Deletion of "Adjustment for variance between BAS costs and actual food costs" which covers losses experienced in first half FY 1974 due to disparity in commuted rate of reimbursement and actual food cost	3,677	
f. Other miscellaneous items	190	
Total Decreases		26,854
FY 1975 Program		$548,867

Budget Activity 4: Subsistence of Enlisted Personnel

(In Thousands)
1975 Estimate - $548,867
1974 Estimate - $527,821
1973 Actual - $579,531

Purpose and scope of work

The funds requested for this activity provide for the feeding of Army enlisted personnel which includes payment of authorized basic allowances for subsistence to enlisted personnel not in a travel status; and for rations furnished eligible Army enlisted personnel when they do not receive a cash allowance for subsistence. It also provides for feeding of operational rations, contract feeding, testing new food items, and support of other nations.

This activity is directly related to the other activities in that it is funded in terms of the personnel plans and the strength distribution for fiscal year 1975.

The following projects are funded in this activity.

Basic allowance for subsistence - 1.

This project provides for the basic allowances for subsistence which are paid to enlisted personnel under the following conditions: (1) when authorized to mess separately, (2) while on authorized leave, (3) when rations in kind are not available, and (4) for the augmentation of commuted ration allowance for meals taken separately.

In accordance with DOD Directive 1338.7, dated 4 January 1974, the commuted and leave ration rate is increased from $1.65 to $2.28 per day effective 1 January 1974. The estimated cost of this rate increase is approximately $37 million. The statutory rate of $2.57 per day is used in computing funds required for enlisted personnel authorized "when rations in kind are not available."

Subsistence in kind - 2.

The funds requested for this project provide for subsistence in kind furnished active duty enlisted personnel when they do not receive an allowance for subsistence. Funds are also included for operational rations, contract feeding, testing new food items, and support of other nations. Subsistence supplies are provided by procurement from military stock funds or by local purchase from commercial sources. Excludes cost of subsisting civilian personnel or officers, or subsistence while in a travel status.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Military Personnel, Army	Section 4 - Permanent Change of Station Travel

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
5-A	Accession Travel	$ 34,166	$ 30,642	$ 68,115
5-B	Training Travel	22,405	23,857	22,673
5-C	Operational Travel, Between Stations (within CONUS and within Overseas)	35,178	35,905	40,810
5-D	Rotational Travel To and From Overseas	278,582	257,751	274,453
5-E	Separation Travel	41,461	44,564	90,995
5-F	Travel of Organized Units	3,221	2,748	2,854
	Total Obligations	$415,013	$395,467	$499,900
	Less Reimbursements	10	10	10
	Total Direct Obligations	$415,003	$395,457	$499,890

PERMANENT CHANGE OF STATION TRAVEL
SUMMARY OF PROJECT REQUIREMENT MOVES

(Amount in Thousands of Dollars)

	FY 1973 Actual		FY 1974 Estimate		FY 1975 Estimate	
	No. Moves	Amount	No. Moves	Amount	No. Moves	Amount
Accession Travel	247,391	$ 34,166	222,668	$ 30,642	244,700	$ 68,115
Training Travel	27,567	22,405	29,199	23,857	24,130	22,673
Operational Travel Between Duty Stations	61,604	35,178	54,904	35,905	49,398	40,810
Rotational Travel To and From Overseas	368,062	278,582	321,907	257,751	185,110	274,453
Separation Travel	251,018	37,481	238,560	40,402	226,330	85,187
Travel of Organized Units	9,246	3,221	8,052	2,748	6,139	2,854
Subtotal	964,888	$411,033	875,290	$391,305	735,807	$494,092
Reenlistment Travel Payments	(43,487)	3,980	(45,475)	4,162	(47,600)	5,808
Total Obligations		$415,013		$395,467		$499,900
Less: Reimbursements		10		10		10
Total Direct Program		$415,003		$395,457		$499,890

PERMANENT CHANGE OF STATION TRAVEL
SUMMARY OF REQUIREMENTS BY TYPES OF COSTS
(In Thousands of Dollars)

	FY 1973 Actual		FY 1974 Estimate		FY 1975 Estimate	
	Number	Amount	Number	Amount	Number	Amount
Travel of Military Member	964,888	$139,298	875,290	$118,928	865,517	$140,584
Travel of Dependents (Family)	163,045	31,626	154,703	30,041	186,620	44,327
Transportation of Household Goods	-	188,344	-	191,389	-	245,807
m tons - MSC	171,338	(5,116)	169,147	(5,729)	216,642	(7,537)
s tons - MAC	20,436	(17,945)	17,508	(21,093)	20,310	(27,804)
Other Shipments	183,251	(165,283)	173,280	(164,567)	209,968	(210,466)
Dislocation Allowance	109,878	16,644	100,961	15,250	132,122	18,460
Trailer Allowance	5,914	3,102	5,403	2,841	7,130	3,776
Transportation of POV's	45,025	12,873	45,530	14,854	54,262	18,511
Non-Temporary Storage	61,495	12,907	54,327	11,516	71,248	14,117
Port Handling Charges	-	6,239	-	6,486	-	8,510
Subtotal		$411,033		$391,305		$494,092
Reenlistment Travel Payments	43,487	3,980	45,475	4,162	47,600	5,808
Total Obligations		$415,013		$395,467		$499,900
Less: Reimbursements		10		10		10
Total Direct Program		$415,003		$395,457		$499,890

SCHEDULE OF INCREASES AND DECREASES
(In Thousands of Dollars)

PERMANENT CHANGE OF STATION TRAVEL*		Amount
FY 1974 Program		$395,467
Increases:		
a. Officer and enlisted accessions (officer moves -175; enlisted moves +16,917)	$ 1,891	
b. Increase in mileage allowance	24,514	
c. IGC rate increase	3,000	
d. Annualization of extension of entitlements to E-4's with over 2 years' service	7,050	
e. Increase in E1-E4 Baggage Allowance (225-500 lbs.)	6,200	
f. Extension of entitlements to junior enlisted personnel (less recruits)	67,900	
g. MAC rate increase	6,175	
h. MSC rate increase	1,407	
Total Increases		118,137
Decreases:		
a. Officer and enlisted Training moves (officer moves -891; enlisted moves -4,615)	3,344	
b. Officer and enlisted Operational moves (officer moves -1,281; enlisted moves -3,788)	3,738	
c. Officer and enlisted Rotational moves (officer moves +25; enlisted moves -1,822)	1,679	
d. Officer and enlisted Separation moves (officer moves -5,300; enlisted moves -6,930)	4,261	
e. Officer and enlisted Unit moves (officer moves -236; enlisted moves -1,677)	682	
Total Decreases		13,704
FY 1975 Program		$499,900

*Change in moves will not coincide with FY 1975 Column of Budget due to change in move accounting procedures.

PURPOSE AND SCOPE OF WORK

For expenses incident to permanent change of station travel of military personnel, individually or as organizational unit. PCS travel costs include mileage; monetary allowance in lieu of transportation; transportation by common carrier (rail, bus, air, or water, including Military Airlift Command and Military Sealift Command); per diem allowances, cost of subsistence while in a travel status; miscellaneous reimbursable expenses authorized by JTR Ch 4, Part I, for PCS travel; issue of meal tickets in lieu of subsistence; travel of dependents and transportation of baggage and household goods, port handling charges for personnel, their household goods, baggage and privately owned automobiles passing through CONUS MTMTS terminals; payments of dislocation allowances; authorized transportation of dependents and personal and household effects of deceased military personnel; costs of contract packing, crating, handling and temporary storage of household goods; cost of non-temporary storage of household goods; cost of trailer allowances; travel incident to organizational movements on permanent change of station whether for training or non-training purposes; expenses incident to PCS movement of any military group traveling under one order from the same point of origin to the same destination; minor supplies and services incident to troop or organizational PCS movements; expenses and allowances incident to separation travel, including payments of mileage upon reenlistment, discharge or release. Also included is all authorized Temporary Duty Travel directly related to and an integral part of PCS movements of individuals or organizational units. Excludes Temporary Duty Travel other than that directly related to and an integral part of PCS movements. All authorized PCS travel expenses provided for under this budget program account shall be charged to the same subprogram account cited in PCS travel order of the military member. The only exception is cost of contract commercial storage of household goods on a non-temporary basis. The term "CONUS" (Continental United States) referred to herein applies to the United States Territory, including the adjacent territorial waters located within the North American Continent between Canada and Mexico.

NOTE. The FY 1975 column of this budget submission reflects revised PCS move definitions that have been standardized between the Services. Because of this change, the numbers of moves and rates for accession, rotation, and separation travel cannot be directly compared between the FY 1974 and FY 1975 columns of the budget.

The following projects are funded in this activity:

(Amounts in Thousands of Dollars)

PROJECT: Accession Travel

Estimate - FY 75 $66,115
Estimate - FY 74 $30,642
Actual - FY 73 $34,166

PART I - PURPOSE AND SCOPE

Officers. Covers PCS Movements of (1) officers appointed to a commissioned grade from civil life, military academies, Reserve, ROTC, and National Guard officers called or recalled to extended active duty, from home or point where orders were received to first permanent duty station or training school, of twenty weeks or more duration and (2) officers or warrant officers appointed or recalled from enlisted status from station where they served as enlisted to new permanent duty station or training school of twenty weeks or more duration. (Includes officers appointed from enlisted status upon graduation from OCS.)

Enlisted. Covers PCS Movements of (1) enlistees, reenlistees, and prior service personnel from recruiting station or place of enlistment to first permanent duty station or training school of twenty weeks or more duration and (2) recalled enlisted reservists from home to first permanent duty station or training school of twenty weeks or more duration.

Cadets. Covers PCS Movements of (1) individuals selected as Academy Cadets upon entry into the Academy and (2) individuals who travel to the Academies but fail to pass the entrance physical examinations and required to return home.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Accession estimates are based on the personnel gains required to meet the Army's planned manpower levels.

PROJECT: Training Travel

Estimate - FY 75 $22,673
Estimate - FY 74 $23,857
Actual - FY 73 $22,405

PART I - PURPOSE AND SCOPE

Officers. Covers CONUS PCS Movements of (1) officers and warrant officers from previous permanent duty station to formal service or civilian schools, including technical schools, flying training schools, factory training, and other approved courses of instruction, of 20 weeks duration or more, and (2) officer and warrant officer school graduates and eliminees from school to their next permanent CONUS duty station. (Excludes Academy graduates, OCS or OTC graduates, ROTC graduates and others chargeable as Accession Travel.)

Enlisted. Covers PCS Movements of (1) enlisted personnel from previous CONUS permanent duty station to formal service or civilian schools, including technical schools, flying training schools, factory training, and other approved courses of instruction, of

20 weeks duration or more; (2) enlisted school graduates and eliminees from school to their next CONUS permanent duty station; and (3) enlisted personnel ordered to training leading to a commission if such training period is of 20 weeks duration or more.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The estimate is based on planned training inputs for officer and enlisted personnel that are necessary to maintain the needed skill levels and educational requirements of the Army.

PROJECT: Operational Travel

Estimate - FY 75 $40,810
Estimate - FY 74 $35,905
Actual - FY 73 $35,178

PART I - PURPOSE AND SCOPE

Officers. Covers PCS Movements of (1) officers and warrant officers to and from permanent duty stations located within the United States; (2) officers and warrant officers to and from permanent duty stations located within an overseas area when no transoceanic travel is involved; and (3) dependents, household goods, personal effects, trailer allowances, and privately owned vehicles of officers and warrant officers who are interned, missing, or captured when no transoceanic travel is involved.

Enlisted. Covers PCS Movements of (1) enlisted personnel to and from permanent duty stations located within the United States; (2) enlisted personnel to and from permanent duty stations within an overseas area when no transoceanic travel is involved; and (3) dependents, household goods, personal effects, trailer allowances, and privately owned vehicles of enlisted personnel who are interned, missing, or captured when no transoceanic travel is involved.

PART II - JUSTIFICATION OF FUNDS REQUESTED

These moves are necessary to maintain units at acceptable readiness conditions. Unit activations, inactivations, and reorganizations will also generate this type of PCS move both within CONUS and within overseas commands.

PROJECT: Rotational Travel

Estimate - FY 75 $274,453
Estimate - FY 74 $257,751
Actual - FY 73 $278,582

PART I - PURPOSE AND SCOPE

Officers. Covers PCS Movements of (1) officers and warrant officers from permanent duty stations in CONUS to permanent duty stations overseas; (2) officers and warrant officers from permanent duty stations overseas to permanent duty stations in CONUS; (3) officers and warrant officers from permanent duty stations in one overseas area to permanent duty stations in another overseas area when transoceanic travel is involved; and (4) dependents, household goods, personal effects, trailer allowances and privately owned vehicles of officers and warrant officers who are interned, missing or captured when transoceanic travel is involved.

Enlisted. Covers PCS Movements of (1) enlisted personnel from permanent duty stations in CONUS to permanent duty stations overseas; (2) enlisted personnel from permanent duty stations overseas to permanent duty stations in CONUS; (3) enlisted personnel from permanent duty stations in one overseas area to permanent duty stations in another overseas area when transoceanic travel is involved; and (4) dependents, household goods, personal effects, trailer allowances, and privately owned vehicles of enlisted personnel who are interned, missing, or captured when transoceanic travel is involved.

PART II - JUSTIFICATION OF FUNDS REQUESTED

These moves are determined by the number of personnel overseas and the average length of time served overseas.

PROJECT: Separation Travel

Estimate - FY 75 $90,995
Estimate - FY 74 $44,564
Actual - FY 73 $41,461

PART I - PURPOSE AND SCOPE

Officers. Covers PCS Movements of (1) officers and warrant officers upon release or separation from the service from last permanent duty station to home of record or entry into service or to home of selection when authorized by law, and (2) dependents, household goods, trailer allowances, and personal effects of officers and warrant officers who are deceased.

Enlisted. Covers PCS Movements of (1) enlisted personnel upon release or separation from the service from last permanent duty station to home of record or point of entry into service, or to home of selection when authorized by law, and (2) dependents, household goods, trailer allowances, and personal effects of enlisted personnel who are deceased. Also includes payments, upon reenlistment with no break in service of mileage to home of record or point of entry into active duty where the member is not required to perform travel and where no entitlement to movement of dependents and HHG accrues. Cost and the number who qualify will be reflected but not number of moves.

Cadets. Covers PCS Movements of eliminated Academy cadets to home of record or point of entry into service.

PART II - JUSTIFICATION OF FUNDS REQUESTED

The estimate is based on planned personnel losses and reenlistments.

PROJECT: Travel of Organized Units

Estimate - FY 75 $2,854
Estimate - FY 74 $2,748
Actual - FY 73 $3,221

PART I - PURPOSE AND SCOPE

Officers. Covers PCS Movements, CONUS or Overseas, of (1) officers and warrant officers directed to move as members of an organized unit movement, and (2) officer and warrant officer fillers and replacements directed to move as part of the unit move.

Enlisted. Covers PCS Movements, CONUS or Overseas, of (1) enlisted personnel directed to move as members of an organized unit movement, and (2) enlisted fillers and replacements directed to move as part of the unit move.

PART II - JUSTIFICATION OF FUNDS REQUESTED

These moves are required because of changes in the force structure that necessitate realignment of forces in order to correct imbalances of support and command and control units. The need for maintaining tactical integrity of units also generates moves in this travel category.

The estimate is based on point-to-point unit moves.

APPROPRIATION: Military Personnel, Army		BUDGET PROGRAM (Number and title): Section 4 - Other Military Personnel Costs		
		(In Thousands of Dollars)		
BUDGET PROJECT ACCOUNT	TITLE	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
		$	$	$
6-A	Apprehension of military deserters, absentees and escaped military prisoners	2,899	2,848	2,845
6-B	Interest on uniformed services savings deposits	9,663	8,869	39
6-C	Death gratuities	6,552	4,212	4,218
6-D	Servicemen's Group Life Insurance	1,510	4,429	1,877
	Total Obligations	20,624	20,358	8,979
	Less Reimbursements	700	600	600
	Total Direct Obligations	19,924	19,758	8,379

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SCHEDULE OF INCREASES AND DECREASES
(In Thousands of Dollars)

OTHER MILITARY PERSONNEL COSTS		Amount
FY 1974 Program		$20,358
Increases:		
Military Pay Increase of 1 October 1973 annualization.....	$209	
Total Increases.....		209
Decreases:		
a. Manyear decrease of 7,940.....	2,528	
b. Termination of Uniformed Services Savings Deposit Program (Except MIA).....	8,830	
c. Death Gratuities--decreased deaths.....	203	
d. Extra hazard contribution to Group Life Insurance--decreased percentage.....	27	
Total Decreases.....		11,588
FY 1975 Program		$ 8,979

(Amount in Thousands of Dollars)

PROJECT: Apprehension of Military Deserters, Absentees, and Escaped Military Prisoners

Estimate - FY 1975.... $2,845
Estimate - FY 1974.... $2,848
Actual - FY 1973.... $2,899

PART I - PURPOSE AND SCOPE

The funds requested are to provide for expenses in connection with the apprehension of deserters, absentees, and escaped military prisoners and for their delivery to the control of the Department of Defense including cost of subsistence furnished during the period an enlisted member is detained in civil confinement for safekeeping when so requested by military authority, costs of rewards and reimbursements for expenses incurred (not to exceed $25.00 in either case), and cost of transportation, lodging and subsistence of a guard sent in pursuit of member.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Cost estimates are based on factors developed from current experience.

PROJECT: Interest on Uniformed Services Savings Deposit Program

Estimate - FY 1975.... $ 39
Estimate - FY 1974.... $8,869
Actual - FY 1973.... $9,663

PART I - PURPOSE AND SCOPE

The funds requested are to provide for payment of interest at the rate of ten percent (10%) per annum on any sum not less than $5.00 which is deposited in an enlisted or officer's deposit account while overseas as authorized by Public Law 89-538, August 14, 1966. Except for the accounts of the missing-in-action personnel, this program will be phased out by 30 June 1974.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Officers and enlisted personnel who participate in the program authorized by Public Law 89-538, withdraw deposits within three months after returning from overseas.

PROJECT: Death Gratuities

Estimate - FY 1975.... $4,218
Estimate - FY 1974.... $4,212
Actual - FY 1973.... $6,552

PART I - PURPOSE AND SCOPE

The funds requested are to provide for the payment of death gratuities to beneficiaries of deceased military personnel as authorized by law. Death gratuity is composed of basic pay, incentive pay and overseas pay, if applicable. Minimum payment is $800 and maximum payment is $3,000.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Fund requirements are based on the most recent mortality rates as applied against programmed manyears of personnel. The increase in costs from FY 1974 to FY 1975 is due to the 1 October 1973 pay increase offset by a reduction in the number of gratuities.

PROJECT: Servicemen's Group Life Insurance

Estimate - FY 1975.... $1,877
Estimate - FY 1974.... $4,429
Actual - FY 1973.... $1,510

PART I - PURPOSE AND SCOPE

The funds requested provide for the Army's contribution towards the extra hazard cost of Servicemen's Group Life Insurance (SGLI) in accordance with P.L. 91-291 dated 25 June 1970.

PART II - JUSTIFICATION OF FUNDS REQUESTED

Servicemen's Group Life Insurance costs for Fiscal Year 1975 are based on 99.4% of officers and 97.2% of enlisted manyear at an average rate of 8% (or $.20 per month) of the $2.55 (maximum insurance) deducted from the serviceman's monthly pay. Payments were required at 12% from January to June of fiscal year 1973. In fiscal year 1974 the payments were required at 12% from July to August and 20% from September to June. The decrease in fiscal year 1975 is due to the changes in the average rate and the lower average officer and enlisted manyears.

SECTION 5 - SPECIAL ANALYSES
Military Personnel, Army, FY 1975

a. Military Personnel Assigned to Communications Activities (End Strengths).

	FY 1973	FY 1974	FY 1975
Officer	2,567	2,570	2,386
Enlisted	32,266	32,687	30,453
TOTAL	34,833	35,257	32,839

Communications activities support Army activities world-wide, including the Defense Communications Systems and non-Defense Communications Systems; the Alternate National Military Command Center that is the primary alternate Command Center of the National Military Command System; Command and Control functions; Communications Security functions; base communications; Signal communications units that perform a combat support role; Theater Army communications systems; military support to DCA; and sensitive communications.

b. Military Personnel Assigned to ADP Activities (End Strengths).

	FY 1973	FY 1974	FY 1975
TOTAL	6,208	5,383	5,682

The end strengths shown above are for those military personnel engaged in the development, management and operation of automatic data processing management information systems within the Army. The slight increase in FY 1975 is due to the planned extension of the Combat Service Support System (CS3). This will be a temporary increase pending the phaseout of the systems which CS3 will replace, i.e., the Division Logistics System (DLOGS) and the Personnel Management and Accounting Card Processor (PERMACAP).

c. Military Personnel Assigned to Intelligence Activities (End Strengths).

	FY 1973	FY 1974	FY 1975
Officer	2,780	2,622	2,182
Enlisted	17,259	14,123	10,588
TOTAL	20,039	16,745	12,770

Intelligence Activities include the Consolidated Cryptologic Program (CCP), the General Defense Intelligence Program (GDIP) and military support to DIA and DIS. The CCP is designed to provide the facilities and resources required for the accomplishment of the cryptologic mission of the Army as assigned by the Secretary of Defense. The GDIP consists of activities covering human intelligence collection, imagery interpretation, electronic intelligence centers, intelligence production, scientific and technical intelligence, intelligence data handling systems, intelligence management and support activities and special communications.

Military Personnel Assigned to Headquarters Activities
(Strength in Whole Numbers)

	FY 1973 Actual				FY 1974 Estimate				FY 1975 Estimate			
	End Strength			Civilian	End Strength			Civilian	End Strength			Civilian
	Off	Enl	Tot	ES Total	Off	Enl	Tot	ES Total	Off	Enl	Tot	ES Total
1. ARMY MANAGEMENT HQ												
a. DEPARTMENTAL	2248	519	2767	4301	2011	414	2425	3962	2012	393	2405	3921
(SSA)	(390)	(311)	(701)	(1221)	(413)	(294)	(707)	(1225)	(414)	(273)	(687)	(1184)
OSA	97	12	109	314	94	12	106	302	94	12	106	302
Army Staff	1761	196	1957	2766	1504	108	1612	2435	1504	108	1612	2435
SSA	390	311	701	1221	413	294	707	1225	414	273	687	1184
b. MAJOR COMMANDS	1650	1199	2849	5214	2403	1383	3786	6889	2263	1302	3565	6745
(SSA)	(179)	(387)	(566)	(796)	(182)	(496)	(678)	(1006)	(173)	(459)	(632)	(984)
CONARC	520	215	735	636	-	-	-	-	-	-	-	-
SSA	23	154	177	140	-	-	-	-	-	-	-	-
CDC	-	-	-	109	-	-	-	-	-	-	-	-
AMC	247	26	273	2054	223	22	245	2032	223	22	245	2032
SSA	36	33	69	442	41	38	79	523	41	38	79	523
ARADCOM	203	78	281	181	198	52	250	173	67	8	75	51
SSA	32	63	95	26	19	37	56	25	10	-	10	3
ASA	165	199	364	321	174	137	311	339	174	137	311	339
SSA	19	12	31	2	19	12	31	2	19	12	31	2
Health Svcs Cmd	-	-	-	-	238	107	345	415	238	107	345	415
Intel Cmd	49	76	125	84	34	45	79	95	34	45	79	95
MDW	67	73	140	79	58	41	99	101	58	41	99	101
SSA	10	15	25	22	9	14	23	26	9	14	23	26

Military Personnel Assigned to Headquarters Activities
(Strength in Whole Numbers)

	FY 1973 Actual				FY 1974 Estimate				FY 1975 Estimate			
	End Strength			Civilian	End Strength			Civilian	End Strength			Civilian
	Off	Enl	Tot	ES Total	Off	Enl	Tot	ES Total	Off	Enl	Tot	ES Total
b. MAJOR COMMANDS (contd)												
ACC	92	95	187	540	71	36	107	426	71	36	107	426
SSA	10	58	68	105	10	58	68	105	10	58	68	105
TRADOC	-	-	-	-	625	200	825	1085	625	200	825	1085
SSA	-	-	-	-	19	137	156	139	19	137	156	139
FORSCOM	-	-	-	-	481	194	675	851	481	194	675	851
SSA	-	-	-	-	25	160	185	134	25	160	185	134
CIDC	91	45	136	27	82	48	130	29	82	48	130	29
SSA	44	50	94	19	39	34	73	12	39	34	73	12
MTMTS	37	5	42	387	37	5	42	337	37	5	42	337
SSA	5	2	7	40	1	6	7	40	1	6	7	40
c. FIELD ARMIES	1298	1584	2882	3062	448	480	928	934	448	480	928	934
(SSA)	(265)	(953)	(1218)	(1238)	(72)	(254)	(326)	(205)	(72)	(254)	(326)	(205)
First Army	204	130	334	393	134	79	213	276	134	79	213	276
SSA	69	217	286	465	27	87	114	107	27	87	114	107
Third Army	429	163	592	539	-	-	-	-	-	-	-	-
SSA	79	296	375	237	-	-	-	-	-	-	-	-
Fifth Army	211	155	366	536	129	82	211	237	129	82	211	237
SSA	69	261	330	304	26	96	122	58	26	96	122	58
Sixth Army	189	183	372	356	113	65	178	216	113	65	178	216
SSA	48	179	227	232	19	71	90	40	19	71	90	40

Military Personnel Assigned to Headquarters Activities
(Strength in Whole Numbers)

		FY 1973 Actual				FY 1974 Estimate				FY 1975 Estimate			
		End Strength			Civilian	End Strength			Civilian	End Strength			Civilian
		Off	Enl	Tot	ES Total	Off	Enl	Tot	ES Total	Off	Enl	Tot	ES Total
d.	COMMODITY CMDS	178	57	235	2128	186	74	260	2424	186	74	260	2382
	ARMSCOM	38	13	51	615	45	18	63	696	45	18	63	683
	AVSCOM	34	11	45	325	32	22	54	374	32	22	54	367
	ECOM	50	15	65	409	45	12	57	450	45	12	57	444
	MICOM	29	9	38	398	31	11	42	375	31	11	42	369
	TACOM	19	4	23	240	19	6	25	315	19	6	25	309
	TROSCOM	8	5	13	141	14	5	19	214	14	5	19	210
e.	MTMTS REGIONS	57	15	72	270	60	17	77	294	60	17	77	294
	(SSA)	(4)	(5)	(9)	(121)	(7)	(7)	(14)	(145)	(7)	(7)	(14)	(145)
	Eastern Area	20	2	22	72	20	2	22	72	20	2	22	72
	SSA	1	4	5	49	1	4	5	54	1	4	5	54
	Western Area	33	8	41	77	33	8	41	77	33	8	41	77
	SSA	3	1	4	72	6	3	9	91	6	3	9	91
f.	MACOMS (OVERSEAS)	1121	1382	2503	1543	1034	1177	2211	1485	1034	1177	2211	1485
	(SSA)	(208)	(737)	(945)	(417)	(189)	(639)	(828)	(435)	(189)	(639)	(828)	(435)
	USARAL	82	66	148	61	88	69	157	67	88	69	157	67
	SSA	13	62	75	44	13	62	75	44	13	62	75	44
	USAREUR	435	343	778	376	409	282	691	318	409	282	691	318
	SSA	97	429	526	115 q	95	369	464	112	95	369	464	112
	USARPAC	289	121	410	518	248	89	337	500	248	89	337	500
	SSA	91	231	322	241	75	194	269	262	75	194	269	262
	USARSO	107	115	222	171	100	98	198	165	100	98	198	165
	SSA	7	15	22	17	6	14	20	17	6	14	20	17

Military Personnel Assigned to Headquarters Activities
(Strength in Whole Numbers)

	FY 1973 Actual				FY 1974 Estimate				FY 1975 Estimate			
	End Strength			Civilian	End Strength			Civilian	End Strength			Civilian
	Off	Enl	Tot	ES Total	Off	Enl	Tot	ES Total	Off	Enl	Tot	ES Total
g. SUB-MACOMS (OSEAS)	913	1810	2723	1163	883	1530	2413	1240	875	1447	2322	1191
(SSA)	(18)	(81)	(99)	(135)	(18)	(81)	(99)	(135)	(21)	(64)	(85)	(114)
SETAF	65	121	186	74	60	102	162	74	60	102	162	74
TASCOM	251	488	739	285	256	460	716	240	256	460	716	240
ENG CMD	66	202	268	63	75	164	239	102	75	164	239	102
ACC-PAC	49	102	151	130	44	92	136	128	44	63	107	128
ACC-EUR	68	145	213	57	56	111	167	54	56	111	167	54
Eighth Army	248	550	798	356	226	364	590	289	215	327	542	261
SSA	(18)	(81)	(99)	(135)	18	81	99	135	21	64	85	114
USARJ/IX Corps	96	123	219	147	83	91	174	165	83	91	174	165
USARSUPTHAI	70	79	149	51	65	65	130	53	65	65	130	53
TOTAL ARMY MANAGEMENT HQ	7465	6566	14031	17681	7025	5075	12100	17228	6878	4890	11768	16952
(SSA)	(1064)	(2474)	(3538)	(3928)	(881)	(1771)	(2652)	(3151)	(876)	(1696)	(2572)	(3067)
2. UNIFIED COMMANDS												
USEUCOM	148	96	244	119	151	97	248	150	151	97	248	150
USSOUTHCOM	49	46	95	35	49	36	85	46	49	36	85	46
USALCOM	25	12	37	-	25	11	36	-	25	11	36	-
USLANTCOM	29	10	39	-	29	10	39	-	29	9	38	-
USNORAD/CONAD	76	33	109	-	77	31	108	-	76	32	108	-
USPACOM	144	117	261	-	131	112	243	-	131	79	210	-
USREDCOM	95	62	157	-	98	50	148	-	98	50	148	-
TOTAL UNIFIED COMMANDS	566	376	942	154	560	347	907	196	559	314	873	196

Military Personnel Assigned to Headquarters Activities
(Strength in Whole Numbers)

	FY 1973 Actual				FY 1974 Estimate				FY 1975 Estimate			
	End Strength			Civilian	End Strength			Civilian	End Strength			Civilian
	Off	Enl	Tot	ES Total	Off	Enl	Tot	ES Total	Off	Enl	Tot	ES Total
3. OTHER (ARMY ELEMENTS OF:)												
OSD	212	49	261	-	195	49	244	-	194	51	245	-
JCS	254	136	390	-	274	163	437	-	273	164	437	-
Defense Agcy Hq	209	181	390	-	183	69	252	-	181	64	245	-
TOTAL OTHERS	675	366	1041	-	652	281	933	-	648	279	927	-
TOTAL HEADQUARTERS	8706	7308	16014	17835	8237	5703	13940	17427	8085	5483	13568	17148

Military Personnel Assigned to Other DOD Activities
(End Strengths)

	FY 73			FY 74			FY 75		
	Officer	Enlisted	Total	Officer	Enlisted	Total	Officer	Enlisted	Total
Other DOD Activities									
Secretary of Defense	228	64	292	191	48	239	195	51	246
Joint Chiefs of Staff	264	180	444	274	163	437	273	164	437
Defense Communications Agency	196	574	770	199	526	725	199	534	733
Defense Intelligence Agency	548	317	865	492	274	766	482	268	750
National Security Agency		(deleted)			(deleted)			(deleted)	
Defense Nuclear Agency	133	127	260	125	111	236	146	149	295
Defense Supply Agency	347	75	422	318	113	431	318	113	431
Defense Mapping Agency	77	130	207	79	108	187	79	99	178
Defense Investigative Service	474	564	1038	462	572	1034	409	418	827
Total Other DOD Activities		(deleted)			(deleted)			(deleted)	

Department of the Army
Military Personnel Assigned to Other Government Agencies
(End Strength)

	FY 1973			FY 1974			FY 1975		
	Officer	Enlisted	Total	Officer	Enlisted	Total	Officer	Enlisted	Total
Non-Reimbursable Personnel									
White House & Executive Office	14	-	14	10	1	11	10	1	11
State Department	2	1	3	2	1	3	2	1	3
Atomic Energy Commission	8	1	9	9	-	9	9	-	9
Total Non-Reimbursable	24	2	26	21	2	23	21	2	23
Reimbursable Personnel									
White House & Executive Office	1	-	1	1	-	1	1	-	1
State Department	3	-	3	3	-	3	3	-	3
Justice Department	-	-	-	4	20	24	4	20	24
Transportation Department	6	-	6	7	-	7	7	-	7
Agriculture Department	-	-	-	1	-	1	1	-	1
Atomic Energy Commission	1	-	1	1	-	1	1	-	1
Nat'l. Aero. & Space Admin. (NASA)	13	-	13	16	-	16	16	-	16
Canal Zone Government	38	2	40	40	3	43	40	3	43
Selective Service Commission	174	2	176	70	-	70	64	-	64
American Battle Monument Comm.	8	-	8	8	-	8	8	-	8
U.S. Soldiers & Airmen's Home	5	-	5	5	-	5	5	-	5
USEUCOM Support Activity	2	-	2	1	-	1	1	-	1
Classified Activities	7	46	53	17	52	69	17	52	69
U.S. Memorial Affairs Agency	2	-	2	2	4	6	2	4	6
U.S. Postal Service	5	-	5	-	-	-	-	-	-
Saudi Arabia	33	20	53	34	18	52	34	18	52
Kuwait	-	-	-	1	-	1	1	-	1
Total Reimbursable	298	70	368	211	97	308	205	97	302
Total Non-Reimbursable and Reimbursable	322	72	394	232	99	331	226	99	325

Military Personnel In Support of Foreign Military Sales Programs
(End Strength)

	FY 1973			FY 1974			FY 1975		
	Officer	Enlisted	Total	Officer	Enlisted	Total	Officer	Enlisted	Total
Foreign Military Sales Personnel	23	58	81	69	160	229	85	172	257

SCHEDULE OF COMBAT AND NON-COMBAT FORCES
(End Strengths)

TYPE OF UNIT	(End Strengths to the Nearest Hundred) FY 1973	FY 1974	FY 1975
1. Combat Forces (Strategic & General Purpose) a/			
Europe and Related Areas	175.5	[deleted]	
Western Pacific	34.8		
United States, Territories, and SEA	231.3	237.5	250.6
2. Mission Support and Auxiliary Forces b/			
Europe and Related Areas	21.4	[deleted]	
Western Pacific	7.6		
Other Foreign Countries	1.5	1.6	1.6
United States, Territories, and SEA	66.2	50.1	44.2
3. Central Support c/			
Europe and Related Areas	10.1	[deleted]	
Western Pacific	4.0		
Other Foreign Countries	.1	.1	.1
United States, Territories, and SEA	145.1	121.9	119.7
4. Individuals d/			
United States, Territories, and SEA	102.9	129.2	127.6
TOTAL	800.5	781.6	785.0

a/ Units include Air Defense, SAFEGUARD, General Purpose Forces (Divisions, Brigades, Regiments, Separate Artillery and Infantry Battalions), and Aviation Units.

b/ Units include Intelligence/Security, Strategic Communications, Military Assistance Group and Missions, selected Research and Development Units, Command oriented base operations, Joint and Army Command Headquarters facilities, and command oriented training.

c/ Units include all others in Base Operations and Command/Headquarters Facilities world-wide, selected logistical facilities, medical support (less patients) and the U. S. Military Academy.

d/ Includes students, trainees, patients, prisoners and transients.

DISTRIBUTION OF MILITARY PERSONNEL BY GEOGRAPHICAL AREA 1/

REGION AND COUNTRY	(End Strengths to the Nearest Hundred) FY 1973	FY 1974	FY 1975
Europe and Related Areas			
West Germany	[deleted]	[deleted]	[deleted] (C)
Other Europe and Related Areas			
Total Europe and Related Areas			
Western Pacific			
Japan (Including Ryukyu Islands)			
South Korea			[deleted] (C)
Other Western Pacific			
Total Western Pacific			
Other Foreign Countries	1.6	1.7	1.7
United States, Territories, and SEA	545.5	538.7	542.1
TOTAL	800.5	781.6	785.0

1/ Number of personnel distributed by region, and by country if the end strength for a country exceeds 5,000.

Estimated Amounts Included for Support of Free World Forces in Southeast Asia
($ Thousands)

Direct Program	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Pay and Allowances of Officers-Total	$ 7,411	$ -0-	$ -0-
Korea 1/	7,411	-0-	-0-
Pay and Allowances of Enlisted-Total	16,303	2,531	1,521
South Vietnam 2/	1,340	2,531	1,521
Korea 1/	14,963	-0-	-0-
Subsistence of Enlisted Personnel-Total	100,408	39,869	22,484
South Vietnam 3/	59,407	30,269	22,484
Korea 4/	21,016	-0-	-0-
Laos 4/	19,985	9,600	-0-
Permanent Change of Station Travel-Total	10,700	-0-	-0-
Korea 5/	10,700	-0-	-0-
Other Military Personnel Costs-Total	2,120	-0-	-0-
Korea 6/	2,120	-0-	-0-
Total	136,942	42,400	24,005
South Vietnam	60,747	32,800	24,005
Korea	56,210	-0-	-0-
Laos	19,985	9,600	-0-

1/ Overseas station allowances.
2/ Clothing (underwear and socks).
3/ Subsistence (operational rations and food supplement).
4/ Subsistence.
5/ Moves to and from RVN.
6/ Disability and death gratuities.

MILITARY PERSONNEL, ARMY - FY 1975

GAINS AND LOSSES BY TYPE OF OFFICER

	FY 1973	FY 1974	FY 1975
Beginning Strength	120,982	115,765	106,698
Gains:			
Regulars from Academies	923	809	865
ROTC	5,177	3,920	4,000
Officer Candidate School	1,028	350	350
Voluntary Active Duty and Direct Appointment	3,593	3,895	3,250
Warrant Officer Programs	1,124	971	1,250
Total Gains	11,845	9,945	9,715
Losses:			
Non-Disability Retirements-Voluntary & Mandatory	3,698	3,246	3,426
Disability Retirements	992	436	406
RA Unqualified Resignations	917	944	1,004
Qualified Resignations	180	81	75
Voluntary Release from AD, OTRA	2,658	2,351	1,374
Expiration Tour Obligation	5,797	5,465	4,808
Miscellaneous (deaths, promotion passover physically disqualified, etc.)	2,681	1,275	1,131
Reduction-in-Force	--	4,900	1,850
Early Release of MC/DC OBV Officers	--	895	125
Adjustment	+ 139	+ 17	+ 66
Total Losses	17,062	19,610	14,265
End Year Strength	115,765	106,100	101,550

GAINS AND LOSSES BY TYPE OF ENLISTED AND CADETS

	FY 1973	FY 1974	FY 1975
ENLISTED:			
Beginning Strength	686,692	681,962	671,800
Gains:			
Enlistments			
Prior Service	423	500	500
Non-Prior Service (Male)	169,617	171,000	185,100
WAC	8,701	14,900	17,200
OCS	610	-0-	-0-
Reserves	2,301	2,400	2,400
Returned from Dropped from Rolls	36,507	37,300	32,400
Reenlistments			
Within 90 Days	50,053	57,000	59,500
Over 90 Days	11,612	11,300	10,500
Draftees	35,678	-0-	-0-
Total Gains	315,502	294,400	307,600
Losses:			
Expiration of Term of Service	49,428	51,800	63,700
Early Release	85,220	63,900	55,600
To Commissioned or WO	5,497	1,400	1,300
Retirements (Over 20 Years)	13,162	13,100	11,200
Immediate Reenlistments (Loss)	44,147	51,100	53,500
Attrition	87,719	92,900	87,400
Deserters	35,268	30,300	27,000
Loss Adjustment	-209[1/]	62[1/]	50[1/]
Total Losses	320,232	304,562	299,750
End Year Strength	681,962	671,800	679,650
ACADEMY CADETS:			
Beginning Strength	2,975	2,838	3,700
Gains:			
Input	1,324	1,367	1,400
Losses:			
Graduation and Attrition	1,461	505	1,300
End Year Strength	2,838	3,700[2/]	3,800

1/ Adjustment used to reconcile gain and loss transactions with end strength.

2/ Includes the annual graduating class since graduation and the arrival of the new Cadet input occur within 15 to 20 days of each other. For accounting purposes these transactions are recorded in July for future projections in order to maintain the authorized level for the Cadet account.

SECTION 5

ACTIVE DUTY MILITARY PERSONNEL MANPOWER
BY BUDGET ACTIVITY (FYDP PROGRAM) AND BY OPERATING PROGRAM
(Dollars in thousands; End strengths in whole numbers)

Budget Activity/ Operating Program	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Direct Program			
1. Strategic Forces			
Operation of the Army			
Costs	$64,240	$60,632	$31,761
End Strengths:			
Officer	1,341	1,113	286
Enlisted	5,571	3,986	549
Total	6,912	5,099	835
2. General Purpose Forces			
Operation of the Army			
Costs	$3,863,337	$4,228,409	$4,369,099
End Strengths:			
Officer	44,332	43,999	41,366
Enlisted	428,619	417,774	435,031
Total	472,951	461,773	476,397
3. Intelligence and Communications			
Operation of the Army			
Costs	$364,948	$321,731	$282,404
End Strengths:			
Officer	5,158	3,482	3,300
Enlisted	33,393	26,838	25,582
Total	38,551	30,320	28,882

Budget Activity/ Operating Program	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Direct Program			
Operation of Defense Agencies			
Costs	$37,235	$46,477	$45,464
End Strengths:			
Officer	1,591	1,520	1,474
Enlisted	2,394	2,260	2,112
Total	3,985	3,780	3,586
Total, Intelligence and Communications			
Costs	$402,183	$368,208	$327,868
End Strengths:			
Officer	6,749	5,002	4,774
Enlisted	35,787	29,098	27,694
Total	42,536	34,100	32,468
4. Airlift and Sealift			
Operation of the Army			
Costs	$7,528	$8,070	$7,956
End Strengths:			
Officer	277	266	266
Enlisted	428	374	374
Total	705	640	640
5. Guard and Reserve			
Operation of the Army			
Costs	$47,002	$57,593	$67,537
End Strengths:			
Officer	1,696	2,665	2,665
Enlisted	2,364	2,304	2,304
Total	4,060	4,969	4,969

Budget Activity/ Operating Program	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Direct Program			
6. Research and Development			
Research and Development, Army			
Costs	$83,165	$87,272	$86,338
End Strengths:			
Officer	2,209	2,168	2,173
Enlisted	6,325	5,596	5,582
Total	8,534	7,764	7,755
Research and Development, Defense Agencies			
Costs	$1,491	$1,839	$1,925
End Strengths:			
Officer	70	89	71
Enlisted	48	58	56
Total	118	147	127
Total, Research and Development			
Costs	$84,656	$89,111	$88,263
End Strengths:			
Officer	2,279	2,257	2,244
Enlisted	6,373	5,654	5,638
Total	8,652	7,911	7,882
7. Central Supply and Maintenance			
Operation of the Army			
Costs	$124,578	$118,551	$115,226
End Strengths:			
Officer	3,079	3,080	2,972
Enlisted	8,254	7,476	6,889
Total	11,333	10,556	9,861

Budget Activity/ Operating Program	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Direct Program			
8. Training, Medical and Other General Personnel Activities			
Operation of the Army			
Costs	$2,711,943	$2,586,770	$2,700,926
End Strengths:			
Officer	46,763	40,528	39,760
Enlisted	186,210	198,421	194,392
Cadets	2,796	3,700	3,800
Total	235,769	242,649	237,952
Operation of Defense Agencies			
Costs	$326	$316	$315
End Strengths:			
Officer	12	9	11
Enlisted	18	14	18
Total	30	23	29
Total, Training, Medical and Other General Personnel Activities			
Costs	$2,712,269	$2,587,086	$2,701,241
End Strengths:			
Officer	46,775	40,537	39,771
Enlisted	186,228	198,435	194,410
Cadets	2,796	3,700	3,800
Total	235,799	242,672	237,981
9. Administration and Associated Activities			
Operation of the Army			
Costs	$148,238	$128,888	$105,338
End Strengths:			
Officer	6,516	4,528	4,550
Enlisted	4,906	2,750	2,802
Total	11,422	7,278	7,352

Budget Activity/ Operating Program	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Direct Program			
Operation of the Defense Agencies			
Costs	$13,680	$14,978	$15,056
End Strengths:			
Officer	762	727	720
Enlisted	205	238	236
Total	967	965	956
Total, Administration and Associated Activities			
Costs	$161,918	$143,866	$120,394
End Strengths:			
Officer	7,278	5,255	5,270
Enlisted	5,111	2,988	3,038
Total	12,389	8,243	8,308
10. Support of Other Nations			
Operation of the Army			
Costs	$217,362	$100,212	$85,419
End Strengths:			
Officer	1,696	1,713	1,729
Enlisted	3,176	3,614	3,626
Total	4,872	5,327	5,355
Operation of Defense Agencies			
Costs	$127	$62	$36
End Strengths:			
Officer	5	2	2
Enlisted	0	0	0
Total	5	2	2

Budget Activity/ Operating Program	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Direct Program			
Total, Support of Other Nations			
Costs	$217,489	$100,274	$85,455
End Strengths:			
Officer	1,701	1,715	1,731
Enlisted	3,176	3,614	3,626
Total	4,877	5,329	5,357
Direct Program Summary			
Operation of the Army			
Costs	$7,549,176	$7,610,856	$7,765,666
End Strengths:			
Officer	110,858	101,374	96,944
Enlisted	672,921	663,537	671,499
Cadets	2,796	3,700	3,800
Total	786,575	768,611	772,243
Operation of Defense Agencies			
Costs	$51,368	$61,833	$60,871
End Strengths:			
Officer	2,370	2,258	2,207
Enlisted	2,617	2,512	2,366
Total	4,987	4,770	4,573
Research and Development, Army			
Costs	$83,165	$87,272	$86,338
End Strengths:			
Officer	2,209	2,168	2,173
Enlisted	6,325	5,596	5,582
Total	8,534	7,764	7,755

Budget Activity/ Operating Program	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Direct Program Summary			
Research and Development, Defense Agencies			
Costs	$1,491	$1,839	$1,925
End Strengths:			
Officer	70	89	71
Enlisted	48	58	56
Total	118	147	127
Total, Direct Program			
Costs	$7,685,200	$7,761,800	$7,914,800
End Strengths:			
Officer	115,507	105,889	101,395
Enlisted	681,911	671,703	679,503
Cadets	2,796	3,700	3,800
Total	800,214	781,292	784,698
Reimbursable Program			
Costs	$103,504	$56,400	$62,300
End Strengths:			
Officer	258	211	205
Enlisted	51	97	97
Total	309	308	302
Total, Army			
Costs	$7,788,704	$7,818,200	$7,977,100
End Strengths:			
Officer	115,765	106,100	101,550
Enlisted	681,962	671,800	679,650
Cadets	2,796	3,700	3,800
Total	800,523	781,600	785,000

SUBCOMMITTEE RECESS

Chairman McClellan. We will recess now and reconvene over in the Capitol in room S–128 at 2 o'clock.

[Whereupon, at 11:55 a.m., the subcommittee was recessed, to reconvene at 2 p.m., the same day.]

AFTERNOON SESSION, 2:15 O'CLOCK, WEDNESDAY, APRIL 3, 1974

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

OPERATION AND MAINTENANCE, ARMY

STATEMENT OF MAJ. GEN. JOHN A. KJELLSTROM, DIRECTOR OF ARMY BUDGET, OFFICE OF THE COMPTROLLER OF THE ARMY

ACCOMPANIED BY:

BRIG. GEN. F. C. SHEFFEY, OFFICE OF THE DEPUTY CHIEF OF STAFF FOR LOGISTICS

COL. JOHN W. KIELY, ASSISTANT DIRECTOR OF ARMY BUDGET (OPERATIONS), OFFICE OF THE COMPTROLLER OF THE ARMY

COL. C. VUONO, OFFICE OF THE DEPUTY CHIEF OF STAFF FOR PERSONNEL

LT. COL. R. CHANCELLOR, OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR FORCE DEVELOPMENT

LT. COL. D. B. WILLIS, OFFICE OF THE DIRECTOR OF ARMY BUDGET, OFFICE OF THE COMPTROLLER OF THE ARMY

OPERATION AND MAINTENANCE, ARMY BUDGET REQUEST

Chairman MCCLELLAN. The subcommittee will come to order.

Our next witness is Maj. Gen. J. A. Kjellstrom, Director of the Army Budget, Office of the Comptroller of the Army.

JUSTIFICATION

At this point in the record there will appear certain program and financing information from the justifications.

[The justification follows:]

Justification

OPERATION AND MAINTENANCE, ARMY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

	IDENTIFICATION CODE 97-10-2020-C-1-051	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:			
	DIRECT PROGRAM:			
	1. STRATEGIC FORCES	100,086	101,464	97,005
	2. GENERAL PURPOSE FORCES	1,750,787	1,703,784	1,902,649
	3. INTELLIGENCE AND COMMUNICATIONS	352,488	324,182	392,544
	7. CENTRAL SUPPLY AND MAINTENANCE	2,151,210	1,998,146	1,831,200
	8. TRAINING, MEDICAL, AND OTHER GENERAL PERSONNEL ACTIVITIES	1,465,295	1,767,159	1,793,922
	9. ADMINISTRATION AND ASSOCIATED ACTIVITIES	389,070	349,109	460,828
	10. SUPPORT OF OTHER NATIONS	572,779	341,699	359,252
	TOTAL DIRECT PROGRAM	6,781,715	6,485,543	6,837,400
	REIMBURSABLE (TOTAL)	1,224,304	1,208,297	1,322,558
	SUBTOTAL	8,006,019	7,693,840	8,159,958
	INTRAFUND OBLIGATIONS	-109,032	-97,397	-83,952
10	TOTAL OBLIGATIONS	7,896,987	7,596,443	8,076,006
	FINANCING:			
	RECEIPTS AND REIMBURSEMENTS FROM:			
11	FEDERAL FUNDS	-909,615	-910,893	-1,043,415
13	TRUST FUNDS	-113,916	-109,017	-113,529
14	NON-FEDERAL SOURCES	-102,292	-87,001	-81,662
21	UNOBLIGATED BALANCE AVAILABLE, START OF YEAR	-31,937	-42,489	-38,500
22	UNOBLIGATED BALANCE TRANSFERRED FROM OTHER ACCOUNTS	-133,755	.....	.....
24	UNOBLIGATED BALANCE AVAILABLE, END OF YEAR	42,489	38,500	38,500
25	UNOBLIGATED BALANCE LAPSING	20,641	.....	.....
	BUDGET AUTHORITY	6,698,598	6,485,543	6,837,400
	BUDGET AUTHORITY:			
40	APPROPRIATION	6,735,370	6,214,697	6,837,400
41	TRANSFERRED TO OTHER ACCOUNTS	-67,709	-3,314	.....
42	TRANSFERRED FROM OTHER ACCOUNTS	30,937	.....	.....
43	APPROPRIATION (ADJUSTED)	6,698,598	6,211,383	6,837,400
44.10	PROPOSED SUPPLEMENTAL FOR WAGE-BOARD PAY RAISES	.....	90,526	.....
44.20	PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	183,634	.....

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 97-10-2020-0-1-051	1973 ACT	1974 EST	1975 EST
RELATION OF OBLIGATIONS TO OUTLAYS:			
71 OBLIGATIONS INCURRED, NET	6,771,163	6,489,532	6,837,400
OBLIGATED BALANCE, START OF YEAR			
72.40 APPROPRIATION	324,772	822,880	766,812
72.49 CONTRACT AUTHORITY	75,800	46,249	46,249
OBLIGATED BALANCE, END OF YEAR			
74.40 APPROPRIATION	-822,880	-766,812	-923,412
74.49 CONTRACT AUTHORITY	-46,249	-46,249	-46,249
77 ADJUSTMENTS IN EXPIRED ACCOUNTS	36,606	.....	.....
90 OUTLAYS, EXCLUDING PAY RAISE SUPPLEMENTAL	6,339,161	6,282,540	6,669,700
91.10 OUTLAYS FROM WAGE-BOARD PAY RAISE SUPPLEMENTAL	.....	89,226	1,300
91.20 OUTLAYS FROM CIVILIAN PAY RAISE SUPPLEMENTAL	.....	173,834	9,800

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS) — PROGRAM SUPPLEMENTAL

IDENTIFICATION CODE 97-10-2020-1-1-051	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:			
DIRECT PROGRAM:			
2. GENERAL PURPOSE FORCES	.....	42,387	.....
3. INTELLIGENCE AND COMMUNICATIONS	.....	2,515	.....
7. CENTRAL SUPPLY AND MAINTENANCE	.....	118,300	.....
8. TRAINING, MEDICAL, AND OTHER GENERAL PERSONNEL ACTIVITIES	.....	22,398	.....
9. ADMINISTRATION AND ASSOCIATED ACTIVITIES	.....	23,440	.....
10 TOTAL OBLIGATIONS	.....	209,040	.....
FINANCING:			
BUDGET AUTHORITY	.....	209,040	.....
RELATION OF OBLIGATIONS TO OUTLAYS:			
71 OBLIGATIONS INCURRED, NET	.....	209,040	.....
72 OBLIGATED BALANCE, START OF YEAR	.....	.....	23,640
74 OBLIGATED BALANCE, END OF YEAR	.....	-23,640	-3,440
90 OUTLAYS	.....	185,400	20,200

INTRODUCTION OF ASSOCIATES AND PREPARED STATEMENT

General KJELLSTROM. Mr. Chairman and members of the committee, I am pleased to present the Operation and Maintenance, Army Budget Request.

I would like to introduce those who are accompanying me. On my left is Brigadier General Sheffey, from the Office of the Deputy Chief of Staff for Logistics. On my right is Col. John W. Kiely from my office, Col. Carl Vuono from the Office of the Deputy Chief of Staff for Personnel, Lieutenant Colonel Chancellor from the Office of the Assistant Chief of Staff of Force Development, and Lieutenant Colonel Willis is from the Office of the Director of Army Budget. I will insert the long version of my statement into the record.

[The statement follows:]

INTRODUCTION

Mr. Chairman and Members of the Committee, I am pleased to present the Operation and Maintenance, Army budget request.

The Operation and Maintenance appropriation impacts on every Army activity. Funds in this appropriation support the attainment of readiness goals for the 13-1/3 Active Army division equivalents and their support increments. The appropriation also provides for the training of both military and civilian personnel, the operation of the Army's logistical system, the overhaul of major items of equipment, medical care, and the entire spectrum of command, administrative, and support services from Department of the Army headquarters down through installation level.

In developing the OMA request, we established a basic objective of providing the necessary level of funding to attain readiness goals, while sustaining the level of support necessary to maintain the volunteer force.

BUDGET SUMMARY

Changes in the appropriation since enactment of the FY 1974 appropriation are shown below:

	($ in Millions)
FY 1974 Appropriation	$ 6,214.7
Supplemental Requests	+ 483.2
Transfers	- 3.3
FY 74 Column, FY 75 Budget	$ 6,694.6
Net Increase	142.8
FY 1975 Budget Estimate	$ 6,837.4

The increase of $142.8 million is not a valid expression of change in level of activity in the appropriation. Increases for the annualized effect of FY 1974 pay raises ($80.2 million); for petroleum and transportation rate increases ($42.0 million); for the substitution of civilian personnel for military in support functions ($49.9 million), a change in financing only;

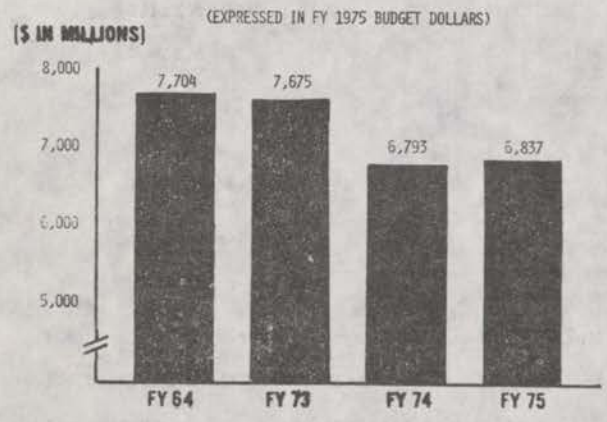
and for the assumption of lease costs by the Army for space administered by the General Services Administration ($89.5 million), a financing technique directed by the Public Buildings Amendment Act of the 92d Congress, do not represent changes in program. Rather, these increases represent increased costs to perform the same program.

Major transfers of funding responsibility must also be considered. The FY 1975 budget reflects the transfer of Overseas Dependent Schools to Defense Agencies ($128.3 million), and funding support for Laos to the Military Assistance Program ($26.9 million).

A more valid comparison of the level of activity supported by the appropriation levels can be made, however, by adjusting FY 1974 and prior years to reflect these changes and other minor adjustments, and to reflect the impact of increases in the purchase price of goods and services. This comparison, as shown in the following chart, indicates that the FY 1975 request is $44 million higher than FY 1974 and is $867 million less than FY 1964, the last pre-war year.

OPERATION AND MAINTENANCE COMPARISON OF FISCAL YEARS

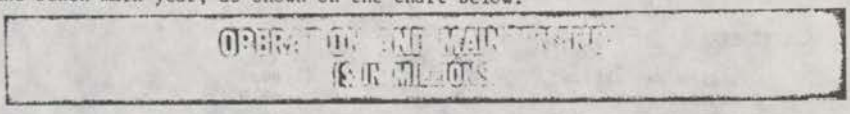
(EXPRESSED IN FY 1975 BUDGET DOLLARS)



Another technique of examining the FY 1975 request, in comparison to funding levels in previous fiscal years, is in terms of the variable dollars requested for each military manyear supported. This comparison provides an overall indicator of the adequacy of funding to meet budget objectives -- attainment of readiness goals and the level of support necessary to maintain the volunteer force.

This analysis focuses on those dollars directly related to the force structure, that change in relation to changes in military manyears supported. We exclude those costs not directly associated with performance of Army missions and those costs that will occur regardless of strength changes -- the fixed or static costs.

Variable dollars per military manyear supported in the FY 1975 request are $2,945; this is comparable to the FY 1973 level, which we consider as the bench mark year, as shown on the chart below.



ANALYSIS

(EXPRESSED IN FY 75 BUDGET DOLLARS)

	FY 1973	FY 1974	FY 1975	
TOTAL BUDGET	$7,675	$6,792	$6,837	
NON-FORCE RELATED	859	425	536	
FORCE RELATED BASE	6,815	6,367	6,301	
STATIC	(4,432)	(4,140)	(4,042)	
VARIABLE	(2,383)	(2,228)	(2,259)	
MILITARY MANYEARS - FORCE RELATED	807	773	767	
VARIABLE DOLLARS MANYEAR	$2,953	$2,883	$2,945	FUTURE VALUE (2,860)

The future value reflected on this chart, $2,860 variable dollars per manyear supported, is an expression of the expected degradation of purchasing power for goods and services that will occur between budget preparation and the end of FY 1975. Under current budgeting rules we are not permitted to include in our request this inflation or loss of purchasing power. We estimate the effect of these increased prices for goods and services on the

total budget request to be in the range of $225 to $240 million. As a consequence, we cannot execute fully the program as presented in this budget -- reprograming and supplemental requests are necessary for the most critical items. The balance is absorbed within the appropriation causing most of the differences between plans and actual accomplishments. Perhaps the most significant impact is on commanders in the field, distorting and impeding their effective resource management.

APPROPRIATION HIGHLIGHTS

The major funding changes incorporated in the FY 1975 request are summarized in the following table.

OPERATION AND MAINTENANCE, ARMY
MAJOR CHANGES - FY 74 TO FY 75

($ in Millions)

FY 1974 Revised Estimate		$ 6,694.6
Increases:		
Civilian Pay Raises	$ 80.2	
Civilianization of Military Positions	49.9	
Civilian Personnel-Readiness Improvement	110.0	
Improved Combat Forces	29.8	
Petroleum Price Increases	42.0	
Maintenance and Repair of Facilities	134.0	
Demilitarization of Munitions and Chemical Agents	19.8	
Medical Care	20.0	
Leases of GSA Properties	89.5	
Increased Support - Vietnam	38.6	
Other Program Changes	55.7	
TOTAL INCREASES	$+669.5	
Decreases:		
Individual Travel and Temporary Duty	27.0	
Reorganization - Realignment	93.6	
Depot Maintenance - Equipment Overhaul	177.6	
Anticipated Improvement - Foreign Currency Exchange Rates	73.3	
Transfer of Overseas Dependent Education	128.3	
Transfer of Laos Funding to MAP	26.9	
TOTAL DECREASES	$-526.7	
Net Increase		$ +142.8
FY 1975 Budget Request		$ 6,837.4

CIVILIAN PERSONNEL

Civilian personnel manyears included in the request are summarized in the following table:

OPERATION AND MAINTENANCE, ARMY
CIVILIAN PERSONNEL MANYEARS

(Thousands)

	FY 1974	FY 1975
U.S. Direct Hire	183.9	196.6
Foreign Direct Hire	16.9	15.5
Foreign Indirect Hire	69.1	66.4
TOTAL	269.9	278.5

The net increase over the FY 1974 manyear level results from the combined effect of:

Full year strengths for the civilianization of military positions:	+ 6.1
Employment of civilian personnel to reduce use of STRAF and other combat military personnel in non-skill related areas and to reduce long-standing staffing shortfalls in installation support activities:	+ 11.1
Reorganization - realignment reductions:	- 5.2
Workload reductions - overseas commands:	- 3.4

In addition to the direct funding for personnel employed in support of Operation and Maintenance activities, a significant level of services is provided under contract. The estimated number of contractor manyear services shows a significant decline, with higher costs due principally to wage increases.

OPERATION AND MAINTENANCE, ARMY
CONTRACTING FOR SERVICES

	FY 1973	FY 1974	FY 1975
Dollar Value of Contractual Services ($ millions)	$ 356.9	$ 380.2	$ 383.2
Estimated Contractor Manyears (thousands)	57.7	46.9	45.6

PROGRAM DISTRIBUTION

Distribution of the request by major mission aggregation is displayed in the following chart.

OPERATIONS AND MAINTENANCE, ARMY

PROGRAM DISTRIBUTION
($ in Millions)

PROGRAM		ACTUAL FY 1973	REVISED FY 1974	REQUESTED FY 1975
1	Strategic Forces	$ 100	$ 101	$ 97
2	General Purpose Forces	1,751	1,746	1,902
3	Intelligence & Communications	352	327	393
7-S	Central Supply	1,444	1,289	1,288
7-M	Depot Maintenance	707	728	544
8	Training & Other Pers Actys	910	1,169	1,137
8-M	Medical	556	621	656
9	Administration & Assoc Actys	389	372	461
10	Support of Other Nations	573	342	359
11	Base Operations	(1,850)	(1,869)	(2,036)
	TOTAL	$ 6,782	$ 6,695	$ 6,837

The balance of this presentation will address significant changes or areas of special interest within these mission aggregations. The first two of these subjects represent funds most specifically related to our overall budget objectives:

--- Combat Structure Funding - funds directly consumed by our combat and combat support units in meeting readiness goals

--- Recruiting and Examining - funds applied to maintain recruiting momentum necessary for an all volunteer force

COMBAT STRUCTURE FUNDING

In an effort to attain the highest possible combat readiness configuration this request reflects an increase of $29.8 for combat units and their associated combat support, training and command elements as compared to the FY 1974 level. The following table illustrates this emphasis on the Army's fighting forces:

OPERATION AND MAINTENANCE, ARMY
COMBAT STRUCTURE FUNDING 1/

($ in Millions)

	FY 1974	FY 1975
Combat Forces	$ 209.2	$ 237.4
Combat Support Forces	86.8	99.4
Combat Service Support Forces	202.3	186.5
JCS Exercises	10.4	16.1
Other	102.3	101.4
	$ 611.0	$ 640.8

1/ Program 2 General Purpose Forces Mission Funds

The increased FY 1975 funding provides $25.1 million for the activation and initial operating costs of an additional 1/3 division equivalent, improvements in combat units worldwide, and continued conversion of units to the "H" series TOE; and $4.7 million for joint training necessary to support the new combat units.

Not included in the request are the fund requirements, estimated at $4.5 million in FY 1975, to support the planned end FY 1975 structure of 14 divisions. However, savings resulting from reorganization and realignment are expected to satisfy this requirement.

RECRUITING AND EXAMINING

The budget request provides for continuation of the recruiting and examining program at essentially the revised 1974 level, with no significant changes in program content.

The Recruiting and Examining program is as follows:

OPERATION AND MAINTENANCE, ARMY

RECRUITING AND EXAMINING
($ in Millions)

	FY 1973	FY 1974	FY 1975
Recruiting	$ 36.3	$ 52.0	$ 48.3
Examining	32.7	21.8	26.2
Advertising	26.7	43.9	46.5
TOTAL	$ 95.7	$ 117.7	$ 121.0

The recruiting program for FY 1975 increases slightly due to higher programed accessions. The apparent decrease results from the FY 1975 transfer of recruiting lease costs ($7 million) to the Administrative Program.

The examining program increases due to increased number of applicant examinations for all DOD service components and for a continued program to upgrade Armed Forces Entrance and Examining Stations.

The modest increase in advertising provides for continued improvements in advertising effectiveness.

Not reflected in the budget submission is the recently announced decision to disestablish 8 Armed Forces Examining and Entrance Stations (AFEES). This disestablishment, coupled with strength reductions in the remaining 66 stations, meets the FY 1974 Congressional reduction of 787 positions in AFEES.

The funding impact of this disestablishment, other than the civilian personnel reduction already addressed in the request, has not been precisely determined.

BASE OPERATIONS SUPPORT

OMA mission funds provide support for the soldier, his unit and other supporting units without regard to geographic location. On the other hand, base operations funds support the individual soldier, his dependents, and his unit at his specific assigned installation. Generally, base operations support encompasses much the same services as a municipal government would provide its residents in addition to military peculiar support requirements. The FY 1975 request for base operations support is $166.9 million above the revised FY 1974 level. This increase is primarily attributable to improved facilities maintenance and readiness related civilian personnel increases. The following chart displays the base operations support by functional account:

OPERATION AND MAINTENANCE, ARMY

BASE OPERATIONS FUNCTIONAL REQUIREMENTS

($ in Millions)

	FY 1973	FY 1974	FY 1975
Supply Operations	$ 102.3	$ 97.7	$ 113.4
Maintenance of Materiel	162.6	159.0	170.8
Personnel Support	139.3	143.7	159.5
Base Services	371.5	405.7	383.6
Operation of Utilities	192.0	255.3	243.6
Maintenance and Repair, Real Property	331.2	262.0	396.0
Minor Construction	35.5	18.7	18.7
Other Engineering Support	180.1	187.6	191.6
Administration	335.3	339.2	358.6
TOTAL	$1,849.8	$ 1,868.9	$ 2,035.8

MAINTENANCE AND REPAIR OF FACILITIES

The most significant change in base operations is the increase to $396 million, an increase of $134 million over the revised FY 1974 level of $262 million. This level of funding initiates a major Army effort to prevent further facility deterioration, and to upgrade our facilities, and responds to Congressional direction to embark on an adequately financed maintenance program. This planned program will reverse the growth of maintenance and repair backlog experienced in the last few years. We plan to continue this funding level in succeeding years to reduce the backlog to manageable levels.

MEDICAL CARE

The costs of the medical program continue to rise, primarily attributable to:

-- Civilianization of military positions.

-- Workload increases, principally for retired and dependents of retired personnel.

-- Supply cost increases as a result of technological advancement.

-- Participation in the development of a comprehensive beneficiary enrollment system.

Reflected in this request is an increase in the dependent cost sharing rate per hospital day, from $1.75 to $3.50 per day.

Distribution of workload and costs for care provided in Army and civilian medical facilities is displayed below. The workload distribution incorporates a decreased Active Army dependent utilization of civilian medical facilities in favor of Army hospitals.

OPERATION AND MAINTENANCE, ARMY

PATIENT CARE

($ in Millions)

	FY 1973	FY 1974	FY 1975
COST			
Army Hospital Operations	$ 310.9	$ 346.1	$ 371.7
Civilian Facilities (CHAMPUS)	139.8	147.5	155.0
Other Non-Army Facilities	16.3	20.9	21.2
TOTAL	$ 467.0	$ 514.5	$ 547.9
WORKLOAD (Average Patient Days)			
Army Hospital Operations	10,387	9,308	9,370
Civilian Facilities (CHAMPUS)	3,514	3,445	3,620
Other Non-Army Facilities	513	504	475
TOTAL	14,414	13,257	13,465

DEPOT MAINTENANCE

The total Depot Maintenance overhaul program in FY 1975 is $365.5 million, a $177.6 million decrease from the revised FY 1974 level. Although unfunded backlog increases in FY 1975 over the FY 1974 level, there is a net reduction of $33 million since end FY 1973. Our objective is to reduce the backlog to the management level within the next four years.

A comparison of the Depot Maintenance Program is shown below:

OPERATION AND MAINTENANCE, ARMY

DEPOT MAINTENANCE
(EQUIPMENT OVERHAUL)

($ in Millions)

	FY 1973	FY 1974	FY 1975
Total Overhaul Requirement	$ 760.3	$ 681.1	$ 541.5
Funded Program	540.3	543.1	365.5
Backlog	$ 220.0	$ 138.0	$ 176.0
Management Level	(85.0)	(77.0)	(74.0)
Unfunded	(135.0)	(61.0)	(102.0)

SUPPORT OF OTHER NATIONS

Funds in the request to support other nations are displayed as follows:

OPERATION AND MAINTENANCE, ARMY

SUPPORT OF OTHER NATIONS
($ in Millions)

	FY 1973	FY 1974	FY 1975
Support of Allies - Vietnam	$ 422.9	$ 266.2	$ 304.8
Support of Allies - Laos	100.2	26.9	-0-
International Military Headquarters	36.4	42.8	48.0
MAAGs, Missions, and Military Groups	13.3	5.8	6.5
TOTAL	$ 572.8	$ 341.7	$ 359.3

The increased support for Vietnam of $38.6 million is to replenish stocks of repair parts and other supplies exhausted or reduced to unacceptable levels by funding limitations in the FY 1974 program. The support to Vietnam is currently under extensive review. As part of this review, we have submitted a FY 1974 reprograming request to OSD of $35.8 to finance petroleum price increases. The impact of this petroleum price increase has not been fully recognized in the FY 1975 request.

The significant increase for international military headquarters is caused by increased NATO headquarters costs of which the U.S. contribution is currently 28%.

NEW PROGRAMS

Weapons Management Improvement Program

Eight hundred thousand dollars is requested to initiate an automated central registry system for all Army-owned weapons .50 caliber and below. When completely implemented, this central registry will provide the number, location, accountable organization, and ownership history. A similar program proposed in the FY 1974 budget, at a significantly higher funding level, was denied by the Congress as being unnecessary and a duplication of existing control systems. However, the current Army system only controls weapons at the installation level, while the proposed system will centrally control weapons from depot through installation level.

Labor Relations Training

Two hundred thousand dollars is requested to establish a Department of Defense Center for Management Training in Labor-Management Relations. The Army will be the Executive Agent for this Center, which will provide training to installation commanders and executive managers.

General Services Administration (GSA Leases - PL 92-313)

The request includes $89.5 million for payment of the fair market lease value of Army-occupied space in GSA-administered facilities. The dollar requirement for space in the National Capital Region is estimated at $30 million, recruiting and Armed Forces Examining and Entrance Stations is estimated at $30.9 million, and the remaining $28.6 million is for other CONUS facilities outside the National Capital Region.

Extension of Army Education Programs - Military Personnel

Education activities integral to the overall Army military education program, formerly provided and administered by the U.S. Armed Forces Institute (USAFI) will cost $2.8 million. Activities include the academic credit by examination program; limited scope correspondence education program; group study courses; and professional counselor support.

PROJECT TRANSITION

No funds are requested for Project Transition in accordance with Congressional direction to terminate the program by 31 May 1974.

ARMY CLUB MANAGEMENT AGENCY

No funds are requested for the Army Club Management Agency in accordance with the FY 1974 Appropriation Act, denying the use of appropriated funds for this purpose. Appropriated funds in the amount of $1.5 million were used in FY 1974 to phase out the Agency to comply with the Appropriation Act. The Army has reorganized the Agency, with command supervision now exercised by military personnel assigned to the Adjutant General. Operating costs of the Agency are being financed from non-appropriated funds.

REORGANIZATION - REALIGNMENT

Continued savings resulting from the FY 1973 CONUS reorganization and FY 1973 and 1974 base closures reduce the FY 1975 budget request by $70.4 million.

In accordance with the intent of Congress, the Army is phasing out the NIKE-HERCULES portion of CONUS Air Defense. The phaseout of 21 Active Army batteries and 27 Army National Guard batteries began in March 1974, and will be completed by mid FY 1975, with the inactivation of the Army Air Defense Command Headquarters by end FY 1975. The budget request reflects a net savings in FY 1975 of $12 million in this appropriation as a result of the deactivations.

Actual costs to prepare batteries for inactivation in FY 1974 are expected to exceed the current estimate by $1.5 million. This shortfall is being absorbed through a planned redistribution of supplemental funds between SAFEGUARD and ARADCOM, in accordance with discussions held with Senate and House Appropriation Committee staffs.

Headquarters reductions and eliminations announced since the budget submission include worldwide reductions in headquarters strengths and the elimination of six headquarters.

More than 3,600 additional personnel will be reduced in Army headquarters, approximately half of which will be civilian employees financed in this appropriation. This further reduction will bring the total reduction in headquarters since we submitted the FY 1974 President's Budget to over 8,500, of which 5,900 were eliminated with the balance being activity transfers.

Six headquarters will be eliminated -- US Army, Alaska; US Army Forces, Southern Command; Theater Army Support Command, Europe; Engineer Command, Europe; US Army, Pacific; and the US Army Intelligence Command.

Other reorganization/realignment actions announced on 4 and 8 February 1974 will result in one-time costs in this appropriation in FY 1975 of $8 million. Although all cost data pertinent to these actions have not been finalized, the long range cost reductions will be over $21 million annually.

Detailed command plans for the headquarters reductions and eliminations, and the other reorganization and realignment actions, are due in early May. We plan to reprogram the net savings to force structure requirements in the investment appropriations.

ENERGY CONSUMPTION

Major actions have been taken in FY 1974 and continued into FY 1975 to reduce energy consumption. The stringent application of these conservation

measures by field commanders has reduced petroleum consumption in FY 1974 almost 5 million barrels below FY 1973.

The FY 1975 program reflects a slight increase of 400 thousand barrels above the FY 1974 level, but is still 4½ million barrels below actual FY 1973 consumption. This increase is directly attributable to the improved combat force structure and related readiness requirements.

As a further indication of our intensive management of energy consumption, the level of purchased utilities consumption in both FY 1974 and FY 1975 is more than 15% below the FY 1973 level.

In spite of these substantive reductions in energy use, price increases for petroleum and purchased utilities cause the total dollar requirement for energy to rise. The annualized effect of petroleum price increases included in this request is $42 million over the revised FY 1974 levels. Further price increases are expected although we do not as yet know the magnitude nor timing of these increases.

A related energy action is the reduced Army demand on transportation systems through a $27 million reduction in individual travel and temporary duty.

FOREIGN CURRENCY EXCHANGE RATES

The FY 1974 enacted appropriation provided for foreign currency exchange rates of 2.40 DM to the dollar and 265 Yen to the dollar. At the time of budget preparation and review, we anticipated that exchange rates would improve to 2.67 DM to the dollar and 293 Yen to the dollar. This change in exchange rates reduced our total requirement by $73.3 million dollars. Current exchange rates for both the Deutsche Mark and the Yen are less favorable than estimated; consequently, if exchange rates persist at or near current levels, adjustments to the budget request will be necessary.

CONCLUSION

Throughout this discussion of the Operations and Maintenance, Army request, I have indicated several areas of potential change. These adjustments result from inflationary pressures, such as POL price increases, and Army reorganization and realignment actions announced after budget submission.

We will work very closely with the Committee staff as we determine the precise impact of these adjustments on our request.

Mr. Chairman, I would like to conclude my prepared remarks by emphasizing the basic objective which this appropriation supports -- the attainment of readiness goals while maintaining the level of support necessary to maintain the volunteer force. We feel that the funding requested in this appropriation is necessary in meeting that objective.

SUPPORT FOR ATTAINMENT OF READINESS GOALS

General KJELLSTROM. The operation and maintenance appropriation impacts on every Army activity. Funds in this appropriation support the attainment of readiness goals for the 13⅓ Active Army division equivalents and their support increments. The appropriation also provides for the training of both military and civilian personnel, the operation of the Army's logistical system, the overhaul of major items of equipment, medical care, and the entire spectrum of command, administrative and support services from Department of the Army headquarters down through the installation level.

In developing the OMA request, we established a basic objective of providing the necessary level of funding to attain readiness goals, while sustaining the level of support necessary to maintain the volunteer force.

BUDGET SUMMARY

Changes in the appropriation since enactment of the fiscal year 1974 appropriation are shown below:

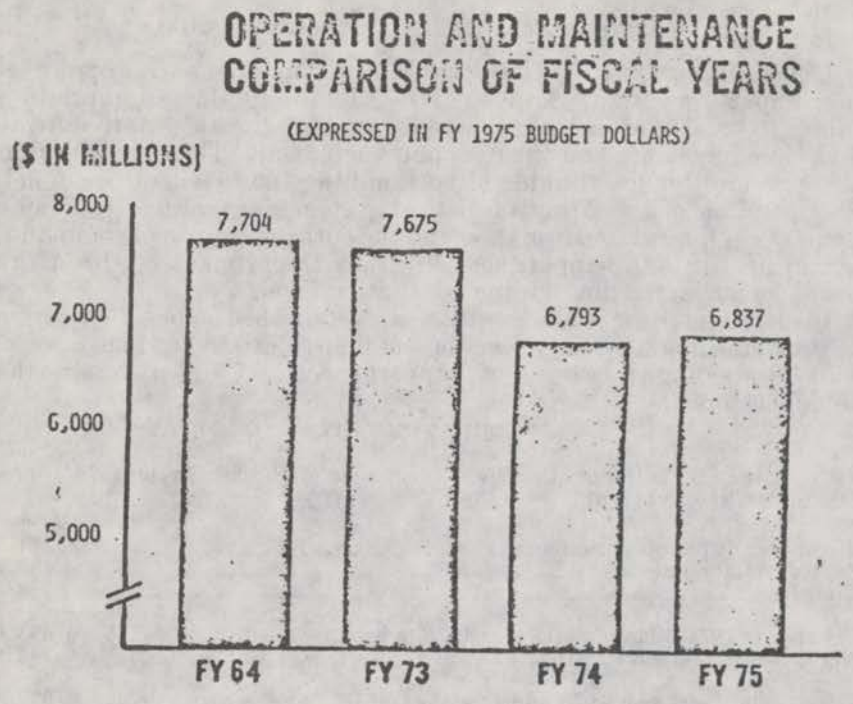
	Millions
Fiscal year 1974 appropriation	$6,214.7
Supplemental requests	+483.2
Transfers	−3.3
Fiscal year 1974 column, fiscal year 1975 budget	6,694.6
Net increase from 1974 to 1975	142.8
Total fiscal year 1975 budget estimate	6,837.4

COMPARISON CHART

I will address the increases as we proceed.

A more valid comparison of the level of activity supported by the appropriation levels can be made however, by adjusting fiscal year 1974 and prior years to reflect price level and financing changes and other minor adjustments, and to reflect the impact of increases in the purchase price of goods and services. This comparison, as shown in the following chart, indicates that the fiscal year 1975 request is $44 million higher than fiscal year 1974 and is $867 million less than fiscal year 1964, the last prewar year.

[The chart follows:]



OPERATION OF ACCOUNTS

Senator YOUNG. Is the Army able to manage operations and maintenance accounts without problems under the provisions of the fiscal year 1974 appropriations bill?

General KJELLSTROM. The flexibility permitting transfer of 5 percent into and 3 percent out of each subdivision, which resulted from the initiative of the Senate Appropriations Committee, has alleviated the critical problems which would have resulted from the House version. However, the Army would still prefer to have operations and maintenance funds appropriated at the total level.

APPROPRIATION HIGHLIGHTS

The major funding changes incorporated in the fiscal year 1975 request are summarized in the following table.

[The table follows:]

OPERATION AND MAINTENANCE, ARMY
MAJOR CHANGES-FY 74 TO FY 75

($ in Millions)

FY 1974 Revised Estimate		$ 6,694.6
Increases:		
Civilian Pay Raises	$ 80.2	
Civilianization of Military Positions	49.9	
Civilian Personnel-Readiness Improvement	110.0	
Improved Combat Forces	29.8	
Petroleum Price Increases	42.0	
Maintenance and Repair of Facilities	134.0	
Demilitarization of Munitions and Chemical Agents	19.8	
Medical Care	20.0	
Leases of GSA Properties	89.5	
Increased Support - Vietnam	38.6	
Other Program Changes	55.7	
TOTAL INCREASES	$+669.5	
Decreases:		
Individual Travel and Temporary Duty	27.0	
Reorganization - Realignment	93.6	
Depot Maintenance - Equipment Overhaul	177.6	
Anticipated Improvement - Foreign Currency Exchange Rates	73.3	
Transfer of Overseas Dependent Education	128.3	
Transfer of Laos Funding to MAP	26.9	
TOTAL DECREASES	$-526.7	
Net Increase		$ +142.8
FY 1975 Budget Request		$ 6,837.4

SAVINGS IN MILITARY MAN-YEARS

Chairman McClellan. What are the corresponding savings in military man-years and costs which are offset by the $49.9 million increase in fiscal year 1975 due to substitution of civilian for military personnel? What is the number of civilian personnel spaces involved?

General Kjellstrom. The corresponding savings are 7,335 military man-years and $69.7 million in military pay and support costs. Additional civilian man-years of 6,100 are included in fiscal year 1975 against total civilian personnel spaces identified in the civilian substitution program of 14,015.

CIVILIAN PERSONNEL

Civilian personnel man-years in the request are summarized in the following table:

OPERATION AND MAINTENANCE, ARMY, CIVILIAN PERSONNEL MAN-YEARS

[In thousands]

	Fiscal year—	
	1974	1975
U.S. direct hire	183.9	196.6
Foreign direct hire	16.9	15.5
Foreign indirect hire	69.1	66.4
Total	269.9	278.5

INDIRECT HIRE

Chairman McCLELLAN. Does that refer to direct hire?

General KJELLSTROM. Those are U.S. personnel.

Chairman McCLELLAN. Tell me what that is.

General KJELLSTROM. U.S. direct hire are U.S. civilian personnel, foreign direct hire are foreign personnel in Korea, England, and Italy, which the United States employs directly. Foreign indirect hire are those working for us through foreign governments.

In Germany, the U.S. Government is not the direct employer of the German nationals. We go through a German labor office which provides the service of the employee, so from a categorization of personnel, we show the total civilian work force of the Army financed by operation maintenance as 269,974 in fiscal year 1974 and 278,000 in fiscal year 1975.

HIRE OF U.S. DEPENDENTS BY INSTALLATIONS

Senator YOUNG. Is it true in Germany that U.S. dependents must seek work in the civilian economy because German nationals are given preference for hire at U.S. installations?

General KJELLSTROM. No, sir, it is Army policy that qualified U.S. citizen dependents of Department of Defense military and civilian personnel are given preference for appointment to all vacancies in Army-controlled activities in foreign areas where their sponsors are stationed, whether these positions normally are occupied by U.S. citizens or local nationals. If there is no appropriate position available, U.S. dependents wishing employment would have to seek work elsewhere; however, the need for this has been substantially reduced since June 1973, when all local national positions were opened for dependent employment.

Chairman McCLELLAN. Why has your direct hire increased?

General KJELLSTROM. The increase is related to the increase in the readiness supplemental which we addressed last week where we are trying to increase the U.S. civilian personnel in the United States in fiscal year 1974 by some 13,500. Furthermore, we are attempting to increase some other categories slightly.

Chairman McClellan. Why do we have to increase the numbers here in the United States? We have a smaller Army.

General Kjellstrom. Yes, sir, but in 1968, 1969, and 1970, we reduced the civilian personnel work force at most of our installations in the United States.

We made those reductions as a result of fiscal measures directed by the administration, and we find that in many areas we have been developing backlogs of maintenance and other backlogs in our work requirements as a result of not having sufficient civilian personnel. As a result, we have asked for the increase in fiscal year 1974 and projected that increase into fiscal year 1975.

Chairman McClellan. How many personnel is that going to require?

General Kjellstrom. There will be 278,000 total man-years paid for the operation and maintenance appropriation as compared to 270,000 man-years in 1974.

Chairman McClellan. How many more?

General Kjellstrom. 269,900 is the total for 1974 and 278,500 in fiscal year 1975.

Chairman McClellan. These are man-years?

General Kjellstrom. Yes, sir.

Chairman McClellan. Actually, how many people will that involve?

General Kjellstrom. About the same number, sir.

General McClellan. It includes about 13,000 additional U.S. direct hire people?

General Kjellstrom. Yes, sir.

Chairman McClellan. Proceed.

General Kjellstrom. The net increase over the fiscal year 1974 man-year level results from the combined effect of:

Full year strengths for the civilianization of military positions	+6.1
Employment of civilian personnel to reduce use of STRAF and other combat military personnel in nonskill related areas and to reduce long-standing staffing shortfalls in installation support activities	+11.1
Reorganization, realinement reductions	−5.2
Workload reduction—overseas commands	−3.4

Civilian and Military Man-Years

Chairman McClellan. What are the estimated civilian and military man-years devoted to education activities formerly administered by the Armed Forces Institute?

General Kjellstrom. In fiscal year 1975 there will be 95 civilian man-years. No military man-years are programed for these activities.

In addition to the direct funding for personnel employed in support of operation and maintenance activities, a significant level of services is provided under contract. The estimated number of contractor man-year services shows a significant decline, with higher costs due principally to wage increases.

CONTRACTUAL SERVICES

The contractual services are where we contract for service to be performed, such as in the area of KP and the custodial area. The amount of money required and the estimated contractor man-years are as indicated in the following chart.

OPERATION AND MAINTENANCE, ARMY, CONTRACTING FOR SERVICES

	Fiscal year—		
	1973	1974	1975
Dollar value of contractual services (millions)	$356.9	$380.2	$383.2
Estimated contractor Man-years (thousands)	57.7	46.9	45.6

USE OF CONTRACTUAL EMPLOYEES

Chairman McCLELLAN. To illustrate contractual services, provide the five largest areas where contractual employees are used and the estimated man-years for fiscal years 1973, 1974, and 1975.

General KJELLSTROM. The five largest areas where contractual employees are used are:

	Fiscal year— man-years		
Area	1973, actual	1974, programed	1975, estimated
Buildings and ground maintenance	18,705	9,678	9,141
Maintenance of equipment	7,365	6,181	5,889
Physical security services	6,270	6,135	6,047
Civilian mess attendants	7,064	6,444	6,730
Transportation services	7,316	6,720	6,564

Chairman McCLELLAN. We are getting fewer people at greater cost?

General KJELLSTROM. Yes, sir. It is a reduction of 1,300 man-years at an increased cost of $3 million between 1974 and 1975.

Chairman McCLELLAN. Is that increased wages?

General KJELLSTROM. Yes, sir, and when you consider the impact of inflation, the $3 million increase is not above the norm that you would expect.

PROGRAM DISTRIBUTION

Distribution of the appropriation by major mission categories is displayed in the following chart and provides a comparison between fiscal years.

OPERATION AND MAINTENANCE, ARMY—PROGRAM DISTRIBUTION

[In millions]

Program	Actual fiscal year 1973	Revised fiscal year 1974	Requested fiscal year 1975
1—Strategic forces	$100	$101	$97
2—General purpose forces	1,751	1,746	1,902
3—Intelligence and communications	352	327	393
7-S—Central supply	1,444	1,289	1,288
7-M Depot maintenance	707	728	544
8—Training and other personnel activities	910	1,169	1,137
8-M—Medical	556	621	656
9—Administration and associated activities	389	372	461
10—Support of other nations	573	342	359
11—Base operations	(1,850)	(1,869)	(2,036)
Total	6,782	6,695	6,837

KP FUNCTIONS

Senator YOUNG. Has the cost for civilianization of the KP function increased proportionate to other civilian wage increases? If so, what is the budget request for this service, plus custodial services compared to fiscal year 1974 and fiscal year 1975.

General KJELLSTROM. The cost for civilianization of the KP function has increased proportionately to other civilian wage increases. The budget request for this service and custodial services is as follows:

[In thousands]

	Fiscal year—		
	1973	1974	1975
Total	$84,796	$92,742	$99,340
KP's	63,039	66,305	70,575
Custodial	21,757	26,437	28,765

General KJELLSTROM. I will go into some of the major changes in the following discussion, Mr. Chairman.

Chairman MCCLELLAN. Why do medical costs increase despite a smaller number of troops?

General KJELLSTROM. I have a discussion on medical a little later.

Chairman MCCLELLAN. All right.

General KJELLSTROM. The balance of this presentation will address significant changes or areas of special interest within these mission aggregations. The first two of these subjects represent funds most specifically related to our overall budget objectives:

Combat Structure Funding—funds directly consumed by our combat and combat support units in meeting readiness goals;

Recruiting and Examining—funds applied to maintain recruiting momentum necessary for an all volunteer force.

COMBAT STRUCTURE FUNDING

In an effort to attain the highest possible combat readiness configuration, this request reflects an increase of $29.8 million for combat units and their associated combat support, training and command elements as compared to the 1974 level. The following table illustrates this emphasis on the Army's fighting forces:

OPERATION AND MAINTENANCE, ARMY—COMBAT STRUCTURE FUNDING [1]

[In millions]

	Fiscal year 1974	Fiscal year 1975
Combat forces	$209.2	$237.4
Combat support forces	86.8	99.4
Combat service support forces	202.3	186.5
JCS exercises	10.4	16.1
Other	102.3	101.4
Total	611.0	640.8

[1] Program 2—General purpose forces mission funding.

General KJELLSTROM. The aggregation shows the comparison between 1974 and 1975.

Chairman MCCLELLAN. For combat forces you show $209 million as against $237 million. That is a $28 million increase?

General KJELLSTROM. Yes, sir.

Chairman MCCLELLAN. What is that for?

Colonel CHANCELLOR. This includes all the combat units of the Army. As mentioned earlier in other hearings, we are increasing the combat forces of the Army increasing to 13⅓ divisions.

Chairman MCCLELLAN. You show in the first item, combat forces, an increase of about $28 million. Tell me why that increase is needed.

Colonel CHANCELLOR. We have within this particular aggregation, the funds displayed here, $237 million. These are the funds for the combat divisions of the Army. In fiscal year 1975, we are adding 15 battalions to the force structure.

Chairman MCCLELLAN. You are not adding 15 battalions in additional troops. Instead, you are taking troops you already have and creating out of them more combat forces. Is that what this is?

Colonel CHANCELLOR. That is correct, sir.

General KJELLSTROM. And we are moving the funds around within the appropriation, sir.

Chairman MCCLELLAN. You are not moving them around, you are asking for more.

General KJELLSTROM. Within this particular line, we are asking for more, but directly related to combat forces. You see, down three lines further—you see combat service support where we have a decrease of some $16 million. You will recall this morning, Mr. Chairman, that I displayed the additional battalions that we are going to have?

Chairman MCCLELLAN. Yes.

General KJELLSTROM. These additional battalions will be charged to that particular category, combat forces.

Chairman MCCLELLAN. This is to create an additional combat unit out of troops you already have in noncombat status?

General KJELLSTROM. Yes, sir.

COMBAT SUPPORT AND COMBAT SERVICE SUPPORT FORCES

Chairman MCCLELLAN. Explain the difference between the combat support forces and combat service support forces.

General KJELLSTROM. Combat support forces are those units that have the primary mission of providing support to the combat forces and/or are a part of a theater, command, or task force formed for combat operations. Inclusive within this category are such units as separate aviation units [i.e., medical companies air ambulance, assault support helicopter companies, surveillance airplane companies]; air defense command, control and support; electronic warfare activities; and certain separate signal units [i.e., cable construction and radio and radar operations].

Combat service support forces are units and elements that have the mission of performing logistical, intelligence, administrative, and communications services to the operating forces but are not organic to the combat or combat support forces. Included are service units such as administrative, logistical and certain civil affairs, finance, intelligence, labor, maintenance, medical, military police, supply, transportation, and replacement units.

INCREASED COSTS IN JCS EXERCISES

Chairman McClellan. Why is there a 60 percent increase in the cost of JCS exercises from fiscal year 1974 to fiscal year 1975?

General Kjellstrom. The JCS exercise program was originally funded at $13.997 million in fiscal year 1974 but was reduced to $10.362 million partly because of the fuel crisis. The fiscal year 1975 budget figure of $16.149 million represents a 15 percent increase over the prefuel crisis fiscal year 1974 budget figure. Actual requests from Unified and Specified commands were $26.449 million. The funded portion of $16 million is only 62 percent of this request. The Army must continue to improve operational readiness in fiscal year 1975. To this end, the JCS has planned an expanded fiscal year 1975 exercise program. The fact that there is no longer a U.S. Army combat role in Southeast Asia further accentuates the need for more joint and combined training. The significant increases in the fiscal year 1975 exercise program result from an increase in scope of a USCINCRED large-scale exercise and an Army oriented corps level command post exercise, based on current contingency plans. These two exercises will cost approximately $4.556 million. Further, the increase in the fiscal year 1975 program is designed to train more units in joint operations.

H SERIES TOE

Chairman McClellan. What do you mean by the H series TOE?

General Kjellstrom. The term "H series TOE" refers to a specific unit configuration. Each unit has a basic Table of Organization and Equipment (TOE) which outlines its manpower and equipment requirements. Through the years this basic TOE has been modified several times. Each modification has been assigned an alphabetic letter to distinguish it from previous modifications. At the present time, the Army is reconfiguring from the previous letter series TOE to the new configuration—"R series TOE". The H series TOE permits a more austere organization, reflects doctrinal changes, and integrates new equipment into the Army structure.

RECRUITING AND EXAMINING

General Kjellstrom. On page 7, in recruiting and examining, the budget request provides for continuation of the recruiting and examining program at essentially the revised 1974 level, with no significant changes in program content.

The Recruiting and Examining program is as follows:

OPERATION AND MAINTENANCE, ARMY—RECRUITING AND EXAMINING

[in millions]

	Fiscal year—		
	1973	1974	1975
Recruiting	$36.3	$52.0	$48.3
Examining	32.7	21.8	26.2
Advertising	26.7	43.9	46.5
Total	95.7	117.7	121.0

General KJELLSTROM. The recruiting program for fiscal year 1975 increases slightly due to higher programed accessions. The apparent decrease results from the fiscal year 1975 transfer of recruiting lease costs—$7 million—to the administrative program.

The examining program increases due to increased number of applicant examinations for all DOD service components and for a continued program to upgrade Armed Forces entrance and examining stations.

ARMED FORCES EXAMINING AND ENTRANCE STATIONS

Chairman MCCLELLAN. Describe the program to upgrade Armed Forces examining and entrance stations, including its objectives and costs.

General KJELLSTROM. The program includes relocation and special items of renovation of nine Armed Forces examining and entrance stations (AFEES). Examples of the special items of renovation include lead-lined walls for X-ray equipment, plumbing, special purpose electrical outlets, soundproofing, and minor construction to meet AFEES operational requirements. Alterations will be made to 49 AFEES in their current location. These alterations will improve operational flow, the counselor areas and the female examining rooms. In addition, 27 AFEES will be completely painted. The objective of the program is to improve operations, efficiency and the appearance of the examining facilities as a part of the continuing effort to convey a favorable image of the Armed Forces to prospective enlistees and the public in general. These improvements, along with efficient personalized processing of applicants for enlistment, are essential to the achievement of a volunteer force. To expose prospective enlistees to drab, unattractive, inadequate and inefficient facilities during their very first contact with the Armed Forces is counterproductive to our recruiting efforts. The cost of this program for fiscal year 1975 is $3,259,000.

The modest increase in advertising provides for continued improvements in advertising effectiveness.

ADVERTISING EFFECTIVENESS

Chairman MCCLELLAN. What kinds of continued improvements in advertising effectiveness are envisioned in your fiscal year 1975 request?

General KJELLSTROM. Our fiscal year 1975 budget reflects only a modest increase above fiscal year 1974 expenditures. To make the program more effective funds are requested to: increase advertising directed at the prospective enlistee's influencers, intensify regional advertising in areas producing a low accession rate, but exhibiting a high potential for enlistments, increase localized advertising placed at the recruiting station and RMS level and directed at specific audience segments, and produce a series of 10 career field films.

Chairman MCCLELLAN. Why would there be an increased workload if the number of enlistees is smaller?

Colonel VUONO. That includes all the other services.

Chairman MCCLELLAN. That may be true, but you have been doing that. We are not increasing our personnel, so why does the workload increase?

General KJELLSTROM. The workload in examining in fiscal year 1974 was 690,805. The workload in fiscal year 1975 is 753,497 examinations, so we are going up.

Chairman MCCLELLAN. Why do you require those additional examinations?

General KJELLSTROM. They are required by each of the services. I have the detail which I can insert for the record on the number of people that we must give entrance examinations to at our Armed Forces Examining and Entrance Stations. They include medical and mental examinations, sir.

As General Rogers mentioned this morning, we have an increased requirement for new recruits in fiscal year 1975. That increase requirement for new recruits causes additional workload on our people in the examining area. This is the reason for the increased funds in fiscal year 1975.

REASON FOR ADDITIONAL EXAMINATIONS

Chairman MCCLELLAN. Tell me, why those additional examinations?

General KJELLSTROM. All services project a slight increase in the number of accessions in fiscal year 1975. The number of examinations differ from the number of accessions since all examinees do not enter the Armed Forces due to failure to meet standards and other reasons. Projected accessions follow (Army figures include nonprior service and prior service males and females, and personnel in the Reserve enlisted program):

	Fiscal year 1974	Fiscal year 1975
Army	238,388	265,200
Navy	100,541	113,388
Marine Corps	65,010	70,010
Air Force	86,344	89,403
Total	490,283	538,001

Chairman MCCLELLAN. Are they idle much of the time?

General KJELLSTROM. No, sir. We carefully examine the workload in the examining stations. Just last week we announced the reduction of certain examining stations as a result of shifting workloads. Much

of the work in the medical area, the physical exam area is done under contract with civilian medical personnel.

Chairman McClellan. We have a vote. Please give us a few minutes, and we will be right back after our vote.

[Brief recess.]

Chairman McClellan. The committee will come to order.

BASE OPERATIONS SUPPORT

General Kjellstrom. We will go to the top of page 8, Base Operations Support. OMA mission funds provide support for the soldier, his unit, and other supporting units without regard to geographic location. On the other hand, base operations funds support the individual soldier, his dependents, and his unit at his specific assigned installation.

Generally, base operations support encompasses much the same type services as a municipal government would provide its residents in addition to military peculiar support requirements. The fiscal year 1975 request for base operations support is $166.9 million above the revised fiscal year 1974 level. This increase is primarily attributable to improved facilities maintenance and readiness related civilian personnel increases.

Chairman McClellan. Why would this be?

General Kjellstrom. Those are the same civilian personnel increases I addressed earlier, where in the United States we want to hire additional civilian personnel primarily in the base operations area.

PERSONNEL SUPPORT AND SUPPLY OPERATIONS FUNCTIONS

Chairman McClellan. With the number of military personnel and total bases being decreased, base operations requirements should be reduced rather than increased by $167 million. Explain why the personnel support and supply operations functions should increase.

General Kjellstrom. The increase between fiscal year 1974 and fiscal year 1975 in the area of personnel support is $23 million. This increase is primarily attributable to the additional acquisition of barracks furniture—$7.4 million will finance initial issue of furniture for approximately 24,600 billets in newly constructed barracks and $3.4 million will replace furnishings for 20,000 spaces in the barracks modernization program; increased personnel costs for individuals who are to be hired in connection with the program for improved unit readiness (8 million); the one-time purchase of washers and dryers for troop housing in Europe $5 million); and the funding of the annual increment of the fiscal year 1973–74 civilianization program ($3.4 million). Against these increases there are certain offsetting reductions related to the anticipated improvement in foreign currency exchange rates.

The increase between fiscal year 1974 and fiscal year 1975 in the area of supply operations is $15.7. The increase is primarily attributable to costs of civilian personnel who are to be hired in connection with the improved unit readiness program ($13.8 million) and the annualization of the civilian pay raise for those individuals already employed ($4.2 million). These increases are offset by savings realized

from the reorganization/realinement of the Army ($1.4 million) and anticipated improvements in foreign currency exchange rates ($1.2 million).

BASE OPERATIONS SUPPORT

The following chart displays the base operations support by functional account:

OPERATIONS AND MAINTENANCE, ARMY—BASE OPERATIONS FUNCTIONAL REQUIREMENTS

[In millions]

	Fiscal year—		
	1973	1974	1975
Supply operations	$102.3	$97.7	$113.4
Maintenance of materiel	162.6	159.0	170.8
Personnel support	139.3	143.7	159.5
Base services	371.5	405.7	383.6
Operation of utilities	192.0	255.3	243.6
Maintenance and repair, real porperty	331.2	262.0	396.0
Minor construction	35.5	18.7	18.7
Other engineering support	180.1	187.6	191.6
Administration	335.3	339.2	358.6
Total	1,849.8	1,868.9	2,035.8

MAINTENANCE AND REPAIR FACILITIES

General KJELLSTROM. The most significant change in base operations is the increase for maintenance and repair of facilities to $396 million, an increase of $134 million over the revised fiscal year 1974 level of $262 million. This level of funding initiates a major Army effort to prevent further facility deterioration and to upgrade our facilities and responds to congressional direction to embark on an adequately financed maintenance program. This planned program will reverse the growth of maintenance and repair backlog experienced in the last few years. We plan to continue this funding level in succeeding years to reduce the backlog to manageable levels.

MAINTENANCE AND REPAIR BACKLOGS

Chairman MCCLELLAN. What were the maintenance and repair backlogs as of the end of fiscal year 1973 and what backlogs are projected for the end of fiscal year 1974 and fiscal year 1975?

General KJELLSTROM. The backlog of essential maintenance and repair (BEMAR) at the end of fiscal year 1973 was $299.2 million. The backlog is expected to increase to $384 million by the end of fiscal year 1974 and remain at that level to the end of fiscal year 1975.

Chairman MCCLELLAN. You mean you have it up to a desirable level and you won't be asking for an increase next year?

General KJELLSTROM. That is right. We do not expect to ask for an increase next year except for the normal inflation and pay raise amounts.

MEDICAL CARE

Next is medical care. The costs of the medical program continue to rise, due to retired workload increases, technological advancement, civilian personnel costs and special programs.

Distribution of workload and costs for care provided in Army and civilian medical facilities is displayed in the next chart. The workload distribution incorporates a decreased Active Army dependent utilization of civilian medical facilities in favor of Army hospitals.

Chairman McCLELLAN. General, take a soldier who enlists and serves from 3 years or 5 years. He serves out his time, and he has a wife and child. After he is discharged, does he get free medical service for the rest of his life?

General KJELLSTROM. He does not unless he serves a minimum of 20 years and then retires. So the man who served during the Vietnam war and was in as a draftee for 2 years or is one of our 3- or 4-year enlistees, does not receive any medical benefits from the Department of Defense upon his release from active duty.

Chairman McCLELLAN. He may go to the Veterans' Administration.

General KJELLSTROM. He personally has benefits from the Veterans' Administration.

MEDICAL AND RETIREMENT BENEFITS

Senator YOUNG. Is the Army required to provide medical and retirement benefits to foreign nationals hired at overseas installations? If so, how does this compare with similar benefits for U.S. personnel?

General KJELLSTROM. Yes. The usual status of forces treaty or base rights agreement obligates the U.S. forces to accord the local national personnel utilized abroad conditions of employment, including conditions for the protection of workers, as laid down by the legislation of the host country. In most countries, the required medical or health benefits, as well as provision for retirement, are provided through the coverage of our local national personnel under the host country's social security system.

Because of differences in local legislation and prevailing practice, the specific benefits for the local national vary widely both in type and in amount from country to country. In contrast, the U.S. citizen employee stationed overseas receives only medical or health benefits and retirement benefits which are authorized by U.S. law and which are essentially uniform for all duty stations worldwide.

Chairman McCLELLAN. To secure all the benefits of military service in the way of hospitalization and so forth is 20 years' service required?

General KJELLSTROM. Yes, sir, except for dependents of deceased personnel. If a man was killed on active duty, as happened in many instances in Vietnam, then his dependent is authorized care at military medical facilities until she remarries or until the children are of age.

We will place in the record a table on dependent's status for medical benefits.

OPERATION AND MAINTENANCE, ARMY, PATIENT CARE

[Dollar amounts in millions]

	Fiscal year—		
	1973	1974	1975
Cost:			
Army hospital operations	$310.9	$346.1	$371.7
Civilian facilities (CHAMPUS)	139.8	147.5	155.0
Other non-Army facilities	16.3	20.9	21.2
Total	467.0	514.5	547.9
Workload (average patient days):			
Army hospital operations	10,387	9,308	9,370
Civilian facilities (CHAMPUS)	3,514	3,445	3,620
Other non-Army facilities	513	504	475
Total	14,414	13,257	13,465

General KJELLSTROM. Army hospital operations go up from 1974 to 1975 from $346 million to $371 million.

Chairman MCCLELLAN. Is that due primarily to inflation?

General KJELLSTROM. Inflation and pay raises.

Chairman MCCLELLAN. Is the patient load higher?

General KJELLSTROM. You see in the bottom half of that chart, sir, a slight increase in the average daily patient load in Army hospital operations, from 9,308 in 1974 to 9,370 in 1975.

Chairman MCCLELLAN. It has not been due to increased number of patients?

General KJELLSTROM. Not significantly. You see in the table in the bottom of the chart, the total workload from 1973 to 1974 to 1975 is leveling off.

Chairman MCCLELLAN. Yes, I see that.

COMPREHENSIVE BENEFICIARY ENROLLMENT SYSTEM

Explain the added costs for participation in the development of a comprehensive beneficiary enrollment system.

General KJELLSTROM. The Department of Defense has directed the three Services to develop a single comprehensive medical beneficiary enrollment system. The added cost is the Army's share for development of this system. The system will provide a demographic profile and accurate count of all medical beneficiaries with an ultimate objective of improving estimates and bringing about medical management improvements.

Senator YOUNG. Could I go back a bit and ask this question? If a soldier served one year, for example, and was wounded in Viet Nam which resulted in a permanent problem, would he be eligible for VA hospitalization?

General KJELLSTROM. Yes, sir. The Department of Defense medical system takes that man through to the point in time where he is fully rehabilitated and ready to go back into civilian life or to such point in time where they can't do anymore for him and then they turn him over to the Veterans Administration facilities.

Colonel Willis is a Medical Service Corps officer and has more background in that than I do.

Colonel WILLIS. If a man is injured or has some service-related injury or disease and is discharged for that reason, he is retained in the military medical service until we can't do anymore for him and then he is transferred to care under Veterans Administration.

Senator YOUNG. Suppose he served out his 2 years and had an honorable discharge and no problem, is he still eligible, he and his family, for VA assistance?

General KJELLSTROM. Not his family. In the veterans' benefits for a discharged soldier, I am not sure of that.

Colonel WILLIS. If they can show a service-related cause for any subsequent illness, he is entitled to veterans' benefits.

Senator YOUNG. In order to get veterans care he would have to serve out his 20 years or be injured?

General KJELLSTROM. Let's be sure we understand. A soldier after he completes his 2 years' service and he is in a good condition and then something happens to him and he wants to go into VA, I believe, sir, that he has to show that that problem is service-related.

I would like to provide you with a fact sheet on this to clarify the point.

VETERANS ELIGIBLE FOR ASSISTANCE

Senator YOUNG. The reason I ask is I think there is over 1 million that served in Vietnam alone. They served for about 2 years. What percentage would be eligible for veterans' assistance?

General KJELLSTROM. I don't have the information, but will provide it for the record. I don't have those data with me.

[The information follows:]

In addition to entitlement for care because of service connected disease or injury, honorably discharged veterans are entitled to inpatient care in Veterans Administration medical facilities if they are over 65 or state under oath that they are unable to pay the cost of hospitalization, subject to availability of beds. Outpatient care in VA facilities is limited to care of veterans with service connected conditions.

There are 6,826,000 Vietnam conflict veterans from all the uniformed services. All of these individuals, except those dishonorably discharged, are entitled to medical care in Veterans' Administration facilities provided they qualify under one of the three criteria stated previously: service connected conditions; inability to pay; or over 65. Of this total number, there are 519,600 veterans with service connected disabilities who are entitled to both inpatient and outpatient care in Veterans Administration medical facilities.

Chairman MCCLELLAN. Let me give one illustration. A man served 2 or 3 years, whatever his enlistment period was, and was discharged. He has not served 20 years and retired, but is given an honorable discharge. The next day he is run over by an automobile and crippled for life. The Army has no further responsibility?

General KJELLSTROM. No, sir.

Chairman MCCLELLAN. But he becomes eligible for veterans' benefits?

General KJELLSTROM. Yes, whatever his rights are as determined by the Veterans' Administration.

DEPOT MAINTENANCE

At the bottom of page 10, depot maintenance.

The total depot maintenance overhaul program in fiscal year 1975 is $365.5 million, a $177.6 million decrease from the revised fiscal year 1974 level. Although unfunded backlog increases in fiscal year 1975 over the fiscal year 1974 level, there is a net reduction of $33 million since end fiscal year 1973. Our objective is to reduce the backlog to the management level within the next 4 years.

OPERATION AND MAINTENANCE, ARMY, DEPOT MAINTENANCE (EQUIPMENT OVERHAUL)

[In millions of dollars]

	Fiscal year—		
	1973	1974	1975
Total overhaul requirement	$760.3	$681.1	$541.5
Funded Program	540.3	543.1	365.5
Backlog	220.0	138.0	176.0
Management Level	(85.0)	(77.0)	(74.0)
Unfunded	(135.0)	(61.0)	(102.0)

Chairman McCLELLAN. How are you able to reduce that?

General KJELLSTROM. At the very end of the budget cycle, at the time we were finalizing the President's budget for 1975 and finalizing the supplemental, we determined that we would transfer $88 million from 1975 into 1974 for the readiness supplemental, thereby reducing the 1975 requirement but increasing the readiness supplemental. As a result the 1975 program shows a significant reduction.

The chart shows that situation. The total overall requirement for the 3 years is as indicated. Let me use 1975 as an example. The requirement in fiscal year 1975 is $541 million. The funded program in fiscal year 1975 is $365 million. Now prior to the final cutoff on the fiscal year 1975 President's budget, that program showed some $88 million more while the 1974 column showed $88 million less. That is the basic reason. We wanted to induct the material earlier in the depot maintenance program and we felt that we could accomplish that induction of the material in fiscal year 1974 providing we got the money that was requested in the supplemental.

Now you know that our backlog of maintenance goes down from 1973 to 1974 and then goes up a little bit in 1975. We are hoping in the next 3 or 4 years to reduce the unfunded portion of the backlog.

Chairman McCLELLAN. What do you mean by "management level?"

General KJELLSTROM. At any one time within our total system we will have some pieces of equipment that will require maintenance. We can't have the backlog a hundred percent wiped out and we feel that the area of $75 to $85 million is our management level backlog.

Chairman McCLELLAN. You want to keep that much in reserve for whatever needs to be done from time to time. You call that management level funding?

General SHEFFEY. That is our thought. If you ran completely out of backlog, you would have to send your people home.

Chairman McCLELLAN. You have to keep them employed?

General SHEFFEY. Yes, sir, and keep your workload leveled out.

SUPPORT OF OTHER NATIONS

General KJELLSTROM. Funds in the request to support other nations are displayed as follows:

OPERATION AND MAINTENANCE, ARMY, SUPPORT OF OTHER NATIONS

[In millions of dollars]

	Fiscal year—		
	1973	1974	1975
Support of allies, Vietnam	422.9	266.2	304.8
Support of allies, Laos	100.2	26.9	0
International military headquarters	36.4	42.8	48.0
MAAG's, missions, and military groups	13.3	5.8	6.5
Total	572.8	341.7	359.3

General KJELLSTROM. In the support of other nations, the increased support for Vietnam of $38.6 million is to replenish stocks of repair parts and other supplies exhausted or reduced to unacceptable levels by funding limitations in the fiscal year 1974 program. The support to Vietnam is currently under extensive review. As part of this review we have submitted a fiscal year 1974 reprograming request to OSD of $35.8 to finance petroleum price increases. The impact of this petroleum price increase has not been fully recognized in the fiscal year 1975 request.

The significant increase for international military headquarters is caused by increased NATO headquarters costs of which the U.S. contribution is currently 28 percent.

NATO COSTS

Chairman MCCLELLAN. What are the significant NATO costs which have increased almost $12 million since fiscal year 1973? List other countries and the percentage they contribute to the support of NATO headquarters costs.

General KJELLSTROM. The significant increases in NATO costs from fiscal year 1973 to fiscal year 1975 are in two areas, the U.S. Contribution to NATO $10.6 million and the U.S. share of the increased operating costs of the Central European Operating Agency (CEOA) $.8 million. The $10.6 million increase in the U.S. contribution to NATO occurs due to an increase in the NATO military budget of approximately [deleted] million. The U.S. share, under the cost sharing agreement, will pay [deleted] million of this increase. The increase in the contribution also reflects a [deleted] increase, [deleted] million, in the value of the NATO military budget actually required for funding in fiscal year 1975. The [deleted] million increase in the NATO budget reflects approximately [deleted] additional annual costs for cost of living and price increases. Also the operation and maintenance costs of new systems and functions/activities have caused increases to the total military budget since fiscal year 1973.

NATO COST SHARING

[In percent]

Country	15-nation share	14-nation share
Belgium	2.95	3.56
Canada	5.80	6.99
Denmark	1.74	2.10
France	17.10	0
Germany	16.10	19.42
Greece	.39	.47
Iceland	.05	.06
Italy	6.12	7.38
Luxembourg	.09	.11
Netherlands	2.94	3.55
Norway	1.20	1.45
Portugal	.65	.78
Turkey	1.65	1.99
United Kingdom	18.22	21.98
United States	25.00	30.16
Total	100.00	100.00

Note.—France does not participate in all NATO activities thus the NATO military budget is divided into 2 parts, those costs where France participates and those which exclude their participation. The U.S. composite share is currently approximately 28 percent.

Chairman McCLELLAN. Describe the support of allies in Vietnam.

General KJELLSTROM. That is primarily increased funding for replenished stocks of repair parts and other supplies which have been drawn down. It is a one-for-one replacement program which we have entered into.

Chairman McCLELLAN. That is the Army's contribution of aid to Vietnam for fiscal year 1975?

General KJELLSTROM. Yes, sir. It is the Army O. & M. portion.

Chairman McCLELLAN. Only?

General KJELLSTROM. Yes, sir.

Chairman McCLELLAN. What is the total for all purposes?

General KJELLSTROM. Our total support of Vietnam and for Army in the 1975 budget is $803 million, of which the O. & M. portion is $305 million. Of that $803 million I just addressed, the greatest portion is ammunition. It is $400 million of the $803 million.

Chairman McCLELLAN. What is the total for the Defense Department?

General KJELLSTROM. That is $1.45 billion in fiscal year 1975 for South Vietnam.

Chairman McCLELLAN. We have to go vote again.

[A brief recess was taken.]

Chairman McCLELLAN. The committee will come to order.

General KJELLSTROM. Sir, I will be completing the O. & M. statement. I am on the middle of page 12, the reorganization and realinement.

REORGANIZATION REALINEMENT

Continued savings resulting from the fiscal year 1973 Conus reorganization and fiscal year 1973 and 1974 base closures reduce the fiscal year 1975 budget request by $70.4 million.

In accordance with the intent of Congress the Army is phasing out the Nike–Hercules portion of Conus Air Defense. The phaseout of 21 Active Army batteries and 27 Army National Guard batteries began in March 1974 and will be completed by mid-fiscal year 1975. The budget request reflects a net savings in fiscal year 1975 of $12 million in this appropriation as a result of the deactivations.

Actual costs to prepare batteries for inactivation in fiscal year 1974 are expected to exceed the current estimate by $1.5 million. This shortfall is being absorbed through a planned redistribution of supplemental funds between Safeguard and the Army Air Defense Command, in accordance with discussions held with Senate and House Appropriation Committee staffs.

Other reorganization/realinement actions, principally headquarters reductions and eliminations, have been announced since submission of the budget request. Savings resulting from these actions will be reprogramed to force structure requirements and the investment appropriation.

FUNDING OF DIVISIONS

Chairman McCLELLAN. Have the announced headquarters reorganization and realinement actions taken to date by the Army been sufficient to generate the savings needed to fund 14 divisions?

General KJELLSTROM. Final data are not yet available on the savings to be derived from the headquarters reorganization and realinement actions currently underway. However, it is anticipated that these actions in conjuction with other Army management actions will accrue sufficient manpower and dollar resources to achieve the goal of 14 division equivalants by end fiscal year 1975.

CONCLUSION

Throughout this discussion of the Operations and Maintenance, Army request, I have indicated several areas of potential change. These adjustments result from inflationary pressures, such as POL price increases and Army reorganization and realinement actions announced after budget submission.

As an example the April 1 POL increased prices will cost the Army an estimated $105 million in 1975 over and above the amounts we requested in the budget.

Chairman McCLELLAN. That is for the Army alone?

General KJELLSTROM. That is correct, sir.

Chairman McCLELLAN. What is it going to cost the Defense Department?

General KJELLSTROM. I don't have the precise figure.

Chairman McCLELLAN. Will you submit it at this point for the record?

General KJELLSTROM. Yes, sir.

[The information follows:]

The 1 April 1974 DSA price increase will cost the Department of the Army $105 million in fiscal year 1975. A total estimate for the Department of Defense is not yet available but will be provided by 17 April 1974.

General KJELLSTROM. In the foreign exchange area we anticipate the rate will be better than we are currently receiving, specifically in Germany. At the time you mark the bill the problem could be eliminated or be far greater.

Chairman McCLELLAN. It so fluctuates that there is no stability and you can't predict accurately?

General KJELLSTROM. We will work very closely with your staff as we determine the precise impacts of these adjustments on our request.

Mr. Chairman, I would like to conclude my prepared remarks by emphasizing the basic objective which this appropriation supports—the attainment of readiness goals while maintaining the level of support necessary to maintain the volunteer force. We feel that the funding requested in this appropriation is necessary in meeting that objective.

STATEMENT ON REVOLVING FUNDS

Chairman McCLELLAN. At this point in the record there will appear material furnished by the Department describing the activities of the revolving funds of the Department of the Army.

[The information follows:]

STATEMENT OF BRIGADIER GENERAL FRED C. SHEFFEY, JR.

Fred C. Sheffey, Jr. was born in McKeesport, Pennsylvania on 27 August 1928. He was graduated from the ROTC program at Central State College (Wilberforce, Ohio) in June 1950, as a distinguished military graduate. At this time, he was commissioned a second lieutenant of Infantry and awarded a Bachelor of Science degree in Economics.

In October of 1950 he joined the Twenty Fifth Infantry Division fighting in Korea as an Infantry Platoon Leader. April 1951, several weeks after promotion to first lieutenant, he was wounded and medically evacuated to the United States. After hospitalization, he was assigned as a weapons instructor to the 5th Infantry Division Faculty at Indiantown Gap military reservation in Pennsylvania.

He was detailed to the Quartermaster Corp in 1953 and attended the QM Officers Basic and Advanced Courses at Fort Lee, Virginia. During the period of August 1953 to June 1962, in addition to attending these schools, he had a series of logistical assignments in inventory management, supply and maintenance at the Nahbollenbach Depot in Europe and at the Columbus General Depot in Columbus, Ohio. While at the Columbus General Depot, he engaged in business studies at the Ohio State University and received the MBA degree in June 1962.

From June 1962 until December 1964, he served on the staff of the U. S. Army, Communications Zone, Europe. From this assignment he attended the Command and General Staff College graduating in May 1965. After graduation, he was assigned to the 4th Infantry Division at Fort Lewis, Washington. There he was the Division Supply Officer and later the

executive officer of the 4th Division Supply and Transport Battalion.

In January 1966, he was promoted to the grade of Lieutenant Colonel and assigned to command the 266 QM Battalion stationed at Fort Lewis. In June 1966, he deployed with this unit to the Republic of South Vietnam. On return to the United States, he was assigned to the Office of the Deputy Chief of Staff for Logistics, Department of the Army as the Chief of Base Operations Branch in financial management.

He graduated from the National War College in June 1969 and assumed duties as the Chief of the Plans Branch, J4, Pacific Command Headquarters in Hawaii where he was promoted to Colonel in November 1970. Colonel Sheffey took command of the General Support Group in the Republic of South Vietnam in May 1971. In July 1972, he was again assigned to the Office of the Deputy Chief of Staff for Logistics as the Director of Financial Resources in the Pentagon. He was promoted to the grade of Brigadier General on 1 July 1973 (DOR: 26 June 1973).

On 2 July 1973, he became Director of Operation and Maintenance Resources (Prov), ODCSLOG.

Mr. Chairman and Members of the Committee:

I am Brigadier General Fred C. Sheffey, Jr., Operation and Maintenance Resources (Prov), Office of the Deputy Chief of Staff for Logistics, Department of the Army. I am representing the program director for both the supply and financial aspects of the Army Stock Fund.

The Army Stock Fund is a single assignment of responsibility for the management of a portion of the Army supply system. It provides the means

for financing the procurement of consumable supplies, repair parts, and minor items of equipment and holding them in inventory until sold.

Our Stock Fund encompasses both a wholesale and a retail operation. The Wholesale Division, organized as six individual National Inventory Control Points under the direction of the Army Materiel Command, procures Army managed secondary items from commercial suppliers, and, to some extent, from governmental manufacturing arsenals. Stocks are purchased from the National Inventory Control Points by the Army retail stock fund divisions, one chartered in the name of each of our major operating commands. These National Inventory Control Points also sell to other Department of Defense services as well as International Logistics customers.

Retail Divisions also purchase supplies from other wholesale supply managers such as the Defense Supply Agency and the General Services Administration. Customers reimburse the fund with appropriated funds or, as in the case of commissary sales, with cash dollars.

The Army Stock Fund budget is designed to provide funds to purchase expense type materiel to meet the needs of operating forces. Our goal is to provide the desired level of support with a minimum inventory investment. My discussion will outline the financial status of the fund through the budget year. Significant operating elements are as follows:

TABLE
ARMY STOCK FUND
($ Millions)

	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE
Sales	2,810	3,158	3,209
Obligations	2,735	3,183	3,170
Inventory	2,284	2,189	2,111
Cash (End of Year)	257	163	198

Plans for fiscal years 74-75 encompass a balanced sales and obligation program of approximately $3.2 billion. This is a thirteen percent increase over FY 73 actual accomplishment.

The upward growth in sales mirrors our effort to reconstitute units in the continental United States, and reflects the continuing cost of living price index increases.

Obligation estimates support the sales and also provide amounts for Mobilization Reserve of $68.2 million in FY 74 and $93.7 million in FY 75.

Inventory levels are projected to decrease $173 million through the budget year mainly through disposal of obsolete inventories as well as sales from The Army Stock Fund budget is designed to provide funds to purchase expense type materiel to meet the needs of operating forces. Our goal is to provide the desired level of support with a minimum inventory investment. My discussion will outline the financial status of the fund through the budget year. Significant operating elements are as follows:

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Inventory levels are projected to decrease $173 million through the budget year mainly through disposal of obsolete inventories as well as sales from

long supply. These sales reflect our intensive management efforts to identify and redistribute excess assets worldwide to ensure the fullest utilization of inventory and thus avoid unnecessary procurements.

The cash balance of $163.0 million at the close of FY 74 is net of a $125.0 million transfer to other appropriations. The projected FY 75 cash balance of $198.0 million should be sufficient to finance deliveries of Mobilization Reserve and normal replenishment items during FY 76 with a minimum generation of $35.0 million during that period.

The Army continues to make progress in its objective to reduce stockage requirements below the continental U. S. Army depot system through the implementation of a number of intensive management actions.

By way of review, during early 1970 the Army developed a plan for filling requisitions by shipment from U. S. Army Materiel Command depots in the United States direct to support units in the field. This plan was expanded to include Defense Supply Agency and General Services Administration shipments and became known as the Direct Support System.

As a result of implementation of the Direct Support System in Europe and the Pacific, continental United States depots now provide the predominance of support to Army Forces in lieu of theater depots. This has enabled major reductions in peacetime support inventories and operations in oversea depots. The same principles are now being applied in the continental United States posts, camps and stations with the objective of reducing stocks required at that level.

The Army is continuing its intensive management efforts toward the identification, redistribution and retrograde of excess assets in the Pacific area in order to insure the fullest utilization of inventory and preclude unnecessary procurements. Since the inception of this program in April 1968, through December 1973, $339.6 million of these assets have been redistributed to satisfy replenishment requisitions, and $951 million has been directed for return to the continental United States inventory manager for depot stocks.

Mr. Chairman, this concludes my presentation. Army representatives responsible for the day-to-day operations of the Fund are available to assist with in-depth discussion, if desired.

STATEMENT OF MAJOR GENERAL JOHN A. KJELLSTROM

Mr. Chairman and members of the Committee, I am MG John A. Kjellstrom, Director of Army Budget. I am responsible to the Comptroller of the Army for the broad management of the Army Industrial Fund - a revolving fund used to finance the work performed at 29 industrially funded Army activities located in 16 states. The Fund is reimbursed by its various "customers" such as Operation and Maintenance, Army; Research, Development, Test and Evaluation, Army; and the Procurement appropriations. This presentation is intended to provide you with a brief overview of industrial fund operations. It is not a request for additional obligational authority.

The Army Industrial Fund was established under the provisions of Title 10, U. S. C. 2208 to provide working capital funds to finance the operating costs of industrial and commercial-type activities that produce goods and services required by the three military departments and other government agencies. The working capital of each industrial or commercial-type facility chartered under the Army Industrial Fund includes cash allocated from the United States Treasury plus the installation's accounts receivable, inventories of materials and supplies, and work in process. Real and plant property and other types of capital equipment acquired with construction and procurement appropriations are not capitalized under the Fund.

An installation's industrial fund is used initially to pay for civilian labor, materials, overhead and contractual services. The customer appropriation is billed periodically as work progresses, as deliveries are made and when work is completed to recoup costs incurred by the Army Industrial Fund.

Costs pertaining to depreciation on Government-owned plants and equipment and military pay are not paid from the Industrial Fund and, therefore, are not included in costs billed to Federal Government customers. Both depreciation and military pay costs are recorded statistically, however, and used as one of the factors considered when making a comparison with commercial production costs and for billing non-Federal customers.

The estimates included in the President's budget for FY 1975 pertain to operations at 29 activities categorized into "activity group" stratifications of depot activities, missile activities, armament activities, transportation and terminal operations and research and development activities. Supply operations and other activities were added to depot maintenance at continental depots as Army Industrial Fund activities in FY 1974.

The Army Industrial Fund depot facilities perform such maintenance activities as : repair and overhaul of combat vehicles, automotive equipment, basic aircraft, aircraft equipment and components; renovation of ammunition; repair and overhaul of medical and electronics equipment and calibration services. They also provide for receipt, storage and issue of supplies controlled by National Inventory control points and incidental depot services. The work is performed at 15 depots and three sub-depots through FY 1974 with Atlanta Army Depot scheduled to be discontinued before FY 1975.

Missile activities are performed at the US Army Missile Command's Redstone Arsenal, Alabama. These include research, development, production engineering and logistical support of missile weapons systems as well as scientific projects for other US Government agencies.

Armament activities comprised of the weapons and munitions functions are the responsibility of the Armament Command. Weapons activities are performed in two weapons arsenals. These arsenals are engaged in such weapons-related functions as: industrial engineering, overhaul, pilot and limited manufacturing and research and development of artillery cannon, smaller caliber weapons, field artillery carriages and rocket launchers. Munitions activities are carried out at five munitions arsenals responsible for: manufacturing, production and maintenance engineering, research and development of chemical agents

and equipment, artillery and small arms ammunition, explosives and nuclear munitions, and demilitarization of toxic munitions.

Transportation and terminal activities are supervised by the Military Traffic Management and Terminal Service with Eastern area headquarters located in Brooklyn, New York and Western area headquarters located in Oakland, California. The Military Traffic Management and Terminal Service directs, controls and supervises the movement of DOD sponsored freight/cargo and passenger traffic in the continental United States; and plans, regulates and controls the movement of personnel and cargo through waterfront terminals.

Research and development activities which are financed through the Army Industrial Fund are performed at four different facilities located in the continental United States. Functions performed include: basic and applied research in weapons technology, ballistics, fuels, nuclear effects and related sciences; cost effectiveness/systems analysis; human factors research and engineering; technical studies and evaluations; research and exploratory development in materials (metals, plastics, etc.); and testing of defense materiel.

The Program and Financing and the Revenue and Expense Schedules for the Army Industrial Fund in the President's Budget show significant increases in the cost of goods and services produced for FY 1974 when compared to FY 1973. Beginning in FY 1974, Army Industrial Fund activities were expanded to accommodate the inclusion of depot supply operations and an acceleration in depot maintenance operations to reduce accumulated backlogs. The accelerated maintenance program is projected to continue in FY 1975. This is illustrated by the following table.

TOTAL OBLIGATIONS

(In Thousands of Dollars)

1972 ACTUAL	1973 ACTUAL	1974 ESTIMATE	1975 ESTIMATE
1,387,145	1,438,063	1,708,546	1,754,714

Although the Army Industrial Fund budgets are projected to reflect neither gain nor loss, the use of standard rates and other adjustments generally results in a minor gain or loss. Operating results through FY 1975 are expected to show an accumulated loss of $851 thousand.

The Analysis of Changes in Government Equity reflects the transfer of $25 million from the Army Industrial Fund during FY 1973 as provided in the Defense Appropriations Act of 1973. The FY 1974 estimate reflects transfer of a like amount from the Army Stock Fund to finance expanded AIF activities. The total investment or equity in the Fund consists of appropriations and reappropriations, assets capitalized less liabilities assumed, and accumulated operating results. The government equity shown for Fiscal Years 1972 through 1975 is:

(In Millions)

30 June 1972	$93.8
30 June 1973	67.8
30 June 1974 (Estimated)	69.7
30 June 1975 (Estimated)	69.4

As a result of a highly successful test of Army Industrial funding of total depot operations at Lexington-Bluegrass Army Depot, the Office of the Secretary of Defense granted authority for the Army to extend the Army Industrial Fund to finance all activities at Army depots in the continental United States. This action was accomplished 1 July 1973.

JUSTIFICATION

Chairman MCCLELLAN. At this point in the record there will appear certain information from the justifications.

[The justification follows:]

Justification

OPERATION AND MAINTENANCE, ARMY
Personnel Summary

	FY 73 Actual	FY 74 Estimate	FY 75 Estimate
Total number of permanent positions	206,050	191,800	207,223
Full time equivalent of other positions	12,688	7,773	7,451
Average paid employment	237,651	200,801	212,145
Average GS Grade	7.2	7.1	7.1
Average GS salary	$ 11,838	$ 12,401	$ 12,296
Average salary of ungraded position	$ 9,605	$ 10,415	$ 10,530

SECTION 2 - INTRODUCTORY STATEMENT

Operation and Maintenance, Army finances all costs, except military pay, of operating and maintaining the U. S. Army. The FY 1975 request of $6.8 billion is $142 million higher than the revised FY 1974 program. It provides for the training and operational support of an active Army of 13 1/3 divisions and an average active Army strength of 780,305, a decrease of 7,940 manyears from FY 1974. This request also includes funds to support a civilian direct hire average strength of 212,145 in FY 1975 which is an increase of 11,344 manyears from the revised FY 1974 level primarily due to improved unit personnel readiness, additional civilianization of military positions, and improved medical staffing; offset by decreased intelligence functions and reorganization/realignment reductions in central supply and maintenance activities.

This request is formulated in terms of functions such as Strategic Forces and General Purpose Forces and mission and base operations activities within each function. Included in the request is a careful consideration of requirements developed by commanders in the field. This request reflects the efforts of the Army to improve and maintain combat readiness and the living standards of the individual soldier.

Base operations costs, the part of the OMA budget which finances the operation and maintenance of Army installations, amounts to $2.0 billion of the total estimate for FY 1975, an increase of $167 million from the revised FY 1974 estimate. The increase results primarily from civilian pay raises, a facilities maintenance program designed to curb the deterioration of facilities, and a specific effort to improve unit readiness and base support; offset by a reduction in energy consumption and the transfer of base communication functions to the mission account.

OPERATION AND MAINTENANCE, ARMY
NEW PROGRAMS
(Dollars in Millions)

Identification and Description:	FY 1975 Estimate
Weapons Management Improvement Program This program initiates an automated central registry system for all Army owned weapons .50 caliber and below. When completely implemented, this central registry will provide the number, location, accountable organization, and ownership history for each weapon.	$ 0.8
Labor Relations Training These funds provide for the establishment of a Department of Defense Center for Management Training in Labor - Management Relations, to be attended by all base commanders and executive level managers. The Army will be the Executive Agent for operation of the Center.	$ 0.2
General Services Administration (GSA) Leases - Public Law 92-313 This program provides the first year of financing under Public Law 92-313, Public Building Amendments Act of 1972. Funds provide for payment to GSA of the estimated fair market lease value of GSA administered buildings, services, and facilities used by Army agencies.	$ 89.5
Extension of Army Education Programs - Military Personnel This program finances education activities integral to the overall Army military education program formerly provided and administered by the US Armed Forces Institute (USAFI). Activities financed are the academic credit by examination program; limited correspondence education program; group study courses; and professional counselor support.	$ 2.8

Direct Hire Civilian Employment
Operation and Maintenance, Army
(Dollars in Thousands; Strength in Whole Numbers)

	FY 1973 Actual			FY 1974 Estimate 3/			FY 1975 Estimate		
	Average Strengths	End Strength June 30 1/	Est Oblig 2/	Average Strengths	End Strength June 30 1/	Est Oblig 2/	Average Strengths	End Strength June 30 1/	Est Oblig 2/
Direct Hire Civilians									
Full-Time Permanent	220,251	197,808	$2,530,802	187,801	201,469	$2,415,969	199,595	202,926	$2,549,429
Other	17,400	12,434	97,746	13,000	7,949	77,435	12,550	7,405	80,010
Total Direct Hire Civilians	237,651	210,242	2,628,548	200,801	209,418	2,493,404	212,145	210,331	2,629,439
Detail by Budget Activity									
Strategic Forces	3,442	2,639	52,839	2,448	2,414	42,931	1,478	761	26,728
General Purpose Forces	68,402	59,001	601,148	49,211	56,134	514,474	55,508	56,852	591,948
Intelligence and Communications	10,520	10,173	146,514	9,160	9,270	133,742	12,545	13,048	172,327
Central Supply and Maintenance	63,369	59,195	842,368	40,498	37,815	614,064	34,419	33,382	552,994
Training, Medical and other General Personnel Activities	66,185	60,669	711,315	83,564	87,751	958,975	92,669	90,350	1,060,420
Administration and Associated Activities	19,051	17,920	264,385	15,058	15,163	221,092	14,750	15,150	216,640
Support of Other Nations	6,682	645	9,979	862	871	8,126	776	788	8,382
Total Direct Hire Civilians	237,651	210,242	2,628,548	200,801	209,418	2,493,404	212,145	210,331	2,629,439
Reimbursable Obligations Included Above			(230,033)			(192,725)			(293,050)

1/ End Strength excludes school teachers for overseas eduction of dependents.
2/ Estimated obligations includes Object Class 13 - Benefits for Former Personnel.
3/ FY 74 Estimate includes following for Readiness Supplemental:

Average Strength	End Strength	Est Oblig
2,020	13,500	$20,000

INTRODUCTORY STATEMENT
STRATEGIC FORCES

Estimates included in this program provide for the operation and maintenance of the U.S. Army air defense missile battalions, the SAFEGUARD weapons system and related activities which are part of the strategic defense forces.

In FY 1975 funds are required to support SAFEGUARD activities and provide for the orderly inactivation of the Army Air Defense Command. Included are funds for the support of NIKE HERCULES (Active Army and Army National Guard) and SAFEGUARD weapons systems, the United States Army SAFEGUARD System Command, and the one-time costs required for the inactivation of the Army Air Defense Command Units.

The FY 1975 estimate is $97 million or a net decrease of $4.5 million as compared to the revised FY 1974 estimate. This decrease results from non-SAFEGUARD reductions of $12 million offset by a $7.5 million increase to the SAFEGUARD program.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army	1 - Strategic Forces

PE/AGGR OR PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
12212A	Missile Forces	$ 3,389	$ 10,841	$ 6,006
123XXA	Command Control - Communication Systems	3,515	3,524	1,723
128XXA	Training	2,737	2,182	-0-
12898A	Command	4,479	4,441	4,307
12896A	Base Operations - Non SAFEGUARD	26,009	12,930	9,980
125XXA	SAFEGUARD	59,957	67,546	74,989
12520A	Base Operations - SAFEGUARD (MEMO)	(4,908)	(6,621)	(6,596)
	TOTAL, Strategic Forces	$100,086	$101,464	$ 97,005

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	3,442	2,448	1,478
NUMBER OF EMPLOYEES AT END OF YEAR	2,639	2,414	761
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ $52,804	$ $42,890	$ $26,687

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
1 - Strategic Forces - Missile Forces	$ 3,389	$ 10,841	$ 6,006

JUSTIFICATION

Section 1 - Purpose and Scope

This aggregation provides for United States Army air defense units assigned to the United States Army Air Defense Command, a major Army field command, which is the Army component of the North American Air Defense Command and the Continental Air Defense Command. Funds included in this program support the operational requirements of the on-site units, provide for supplies and services used by these units to perform their assigned mission and the one-time costs associated with the inactivation of these units.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
1 - Strategic Forces - Command Control - Communication Systems	$ 3,515	$ 3,524	$ 1,723

JUSTIFICATION

Section 1 - Purpose and Scope

Funds included in this aggregation provide for the operation and phase down of the fire control systems of the U.S. Army Air Defense Command and the leased communications in support of air defense units. Included are funds for normal operating supplies, contractual support for inter and intra headquarters and firing battery communications which are leased from commercial companies and the one-time costs associated with the inactivation of air defense units.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
1 - Strategic Forces - Training	$ 2,737	$ 2,182	$ -0-

JUSTIFICATION

Section 1 - Purpose and Scope

This aggregation provides for Joint Chiefs of Staff directed and coordinated exercises and for operational training of the United States Army Air Defense Command operating units. The Joint Chiefs of Staff directed and coordinated exercises are a continuing electronic countermeasure test program designed to evaluate the effectiveness of North American Air Defense Systems against penetration tactics in a heavy electronic countermeasure environment.

Operational training exercises consist of a systems training program which utilizes training aids and films to simulate tactical environments for selected command and control systems. Also included are defense combat evaluations and electronic countermeasure training.

Funds required to support the above exercises are based on the scope of the exercises and the extent of contractual effort required for technical support. No funds are requested for FY 1975 in view of the inactivation of all CONUS Air Defense units in FY 75.

This aggregation also provides for annual service practice at McGregor Range, Fort Bliss, Texas for all United States Army Air Defense Command units. No annual service practices are now scheduled for FY 1975.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
1 - Strategic Forces - Command	$ 4,479	$ 4,441	$ 4,307

JUSTIFICATION

Section 1 - Purpose and Scope

This aggregation provides for the operation and phase down of the Army Air Defense Command Headquarters and Regional Headquarters of the command. Included are funds for civilian pay, other expenses which are associated with normal headquarters operations and the one-time costs associated with the inactivation of these headquarters.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
1 - Strategic Forces-Non-SAFEGUARD - Base Operations	$ 26,009	$ 12,930	$ 9,980

JUSTIFICATION

Section 1 - Purpose and Scope

These funds provide for the local costs of operations and maintaining United States Army installations required for the support of United States Army Air Defense Command missile forces. It includes costs associated with supply operations, maintenance of materiel, personnel support, base services, operation of utilities, maintenance of real property, minor construction, other engineering support and administration.

APPROPRIATION	(In Thousands of Dollars)		
Operations and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
Program 1 - Strategic Forces - SAFEGUARD	$ 59,957	$ 67,546	$ 74,989

JUSTIFICATION

Section 1 - Purpose and Scope

This program provides for personnel costs and related support required to deploy the SAFEGUARD weapon system. Included are the costs of implementing and evaluating the deployment, provision of tactical and management communications, mission essential logistical support to the SAFEGUARD sites and installation support at the SAFEGUARD tactical site at Grand Forks, ND.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
1 - Strategic Forces - SAFEGUARD - Base Operations (MEMO)	$ 4,908	$ 6,621	$ 6,596

JUSTIFICATION

Section 1 - Purpose and Scope

These funds provide for the local costs of operating and maintaining the Grand Forks, North Dakota installation required for the support of the SAFEGUARD tactical site. It includes costs associated with supply operations, maintenance of material, personnel support, base services, operation of utilities, maintenance of real property, minor construction, other engineering support and administration.

GENERAL PURPOSE FORCES

Program 2, General Purpose Forces, funds the Army Combat Forces, their command organizations, the logistic and administrative units which support them, and the unified commands for which the Army is the administrative agent. The forces comprise thirteen and 1/3 active divisions at end FY 1975, three special mission brigades, three armored cavalry regiments, and [ ] separate artillery units. Their projected military end strength in FY 1975 is approximately 476,000, over one-half of the current strength of the Army.

Funding estimates in this program are required for the operation, maintenance and training of the General Purpose Forces. The program provides for the activation and operation of additional combat units; it provides for an increase in the operational readiness of active Army combat and support units; and it provides for an improvement in the combat to combat support unit ratio of the active Army.

The request for FY 1975 is $1,902.6 million, a net increase of $156.5 million from the revised FY 1974 estimate. The increase results primarily from repairs to base facilities, annualization of FY 1974 wage increases in FY 1975, and increased operating supplies and equipment in support of combat force improvements.

(D) = Deleted

APPROPRIATION: Operation and Maintenance, Army

BUDGET PROGRAM (Number and title): 2 - General Purpose Forces

PE/AGGR OR PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
2100	Unified Commands	$ 4,727	$ 4,990	$ 5,223
2210	Combat Forces	204,716	209,281	237,380
2220	Combat Support Forces	71,456	86,826	99,417
2230	Combat Service Support Forces	195,952	202,326	186,477
28011	JCS Directed and Coordinated Exercises	9,735	10,362	16,149
28015	Combat Developments Activities	(31,029) 1/	33,739	31,557
23X97	Training	9,622	8,170	6,534
23X98	Command	24,404	55,422	58,122
23X96	Base Operations	1,230,175	1,135,055	1,261,790
	TOTAL, General Purpose Forces	$1,750,787	$1,746,171	$1,902,649

1/ Non additive memo entry to illustrate comparability of combat development activities.

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	68,402	49,211	55,508
NUMBER OF EMPLOYEES AT END OF YEAR	59,001	56,134	56,852
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 599,639	$ 512,910	$ 590,359

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
2 - General Purpose Forces - Unified Commands	$ 4,727	$ 4,990	$ 5,223

JUSTIFICATION

Section 1 - Purpose and Scope

This program provides funds for support of the operation of Headquarters, United States European Command (USEUCOM) and United States Southern Command (USSOUTHCOM) for which the Army has been designated as the administrative or executive agent. Funds are utilized for pay of civilian personnel, travel, and other normal operating expenses.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
2 - General Purpose Forces - Combat Forces	$ 204,716	$ 209,281	$ 237,380

JUSTIFICATION

Section 1 - Purpose and Scope

This program provides for operation and maintenance of combat forces world-wide. Their primary mission is to engage in land combat against hostile armed forces for the purpose of destroying enemy forces and installations in order to seize, control and dominate populations, resources, and critical land areas. Special forces groups, artillery units, combat aviation and engineer battalions, missile commands and separate small combat units (i.e., company size and below) are also included in this aggregation.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
2 - General Purpose Forces - Combat Support Forces	$ 71,456	$ 86,826	$ 99,417

JUSTIFICATION

Section 1 - Purpose and Scope

This program provides for world-wide operation of combat support units which are normally a part of the Field or Theater Army. Essential missions for these forces include reconnaissance and security for combat elements; aerial evacuation of casualties; and, potential combat support to the operating forces.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
2 - General Purpose Forces - Combat Service Support Forces	$ 195,952	$ 202,326	$ 186,477

JUSTIFICATION

Section 1 - Purpose and Scope

This program provides for the operation and maintenance of combat service support forces which provide services to the operating forces, but are not assigned to the combat and combat support elements. The forces in this aggregation are deployed world-wide and include such units as logistical, supply, transportation, administrative, civil affairs, finance, intelligence, maintenance, medical, military police, and replacement. These forces are required for logistical and administrative support of combat and combat support units in both Field Army and Theater Army areas.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
2 - General Purpose Forces - Joint Chiefs of Staff Directed and Coordinated Exercises	$ 9,735	$ 10,362	$ 16,149

JUSTIFICATION

Section 1 - Purpose and Scope

The Army participates in Joint Chiefs of Staff (JCS) exercises on a world-wide basis. The JCS Exercise program consists of training exercises recommended by commanders of unified commands which are approved by and then directed by or coordinated with the Joint Chiefs of Staff. These exercises provide training for Army organizations in joint operations, prepare forces for the conduct of contingency operations, test the effectiveness of airlift forces and plans, test the reaction capability and combat readiness of selected units, and provide a means to evaluate procedures, doctrine and equipment which affect the missions of our operating forces.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
2 - General Purpose Forces - Combat Developments Activities	$ 31,029 1/	$ 33,739	$ 31,557

JUSTIFICATION

Section 1 - Purpose and Scope

The objective of Army Combat Developments is to increase the combat effectiveness of the Army as rapidly as possible at realistic costs. This is accomplished by the orderly development of new or improved doctrine, organization and materiel, and by the early integration of the resultant products into the Army.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/ AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
2 - General Purpose Forces - Training	$ 9,622	$ 8,170	$ 6,534

JUSTIFICATION

Section 1 - Purpose and Scope

This program reflects the expenses for Command Area Schools and TRICAP Training. Command Area Schools provide non-CONUS commands with an immediately responsive mission related training capability essential to maintain and increase combat readiness. Area Schools are operated by major overseas commands.

TRICAP Training is included only through FY 74 when testing of the TRICAP Division is scheduled for completion. Training funds for FY 75 are included in the division program element of the Combat Forces Aggregation.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/ AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
2 - General Purpose Forces - Command	$ 24,404	$ 55,422	$ 58,122

JUSTIFICATION

Section 1 - Purpose and Scope

This program reflects the requirements for operation of the headquarters and staff support activities of Headquarters, United States Army, Pacific (USARPAC); United States Army, Forces Command (FORSCOM); United States Army, Alaska (USARAL); United States Army Forces, Southern Command (USARSO); United States Army, Europe (USAREUR); and Southern European Task Force (SETAF); and units of the Special Ammunition Support Command (SASCOM) in Europe that provide for the supply, maintenance and security control of nuclear ammunition support of North Atlantic Treaty Organization (NATO).

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 1975
2 - General Purpose Forces - Base Operations	$ 1,230,175	$ 1,135,055	$ 1,261,790

JUSTIFICATION

Section 1 - Purpose and Scope

The resources requested in this program provide for the operation and maintenance of installations in the Continental United States, Alaska, Hawaii, the Pacific, Europe and Panama.

Functions supported include:

Installation supply operations; maintenance of materiel (excluding depot maintenance and maintenance performed by Table of Organization and Equipment units in support of installation mission); personnel services to include chaplain activities, information activities, special services and Army community services activities, and preservation of order. Also included are base services functions to include communications, audio visual and transportation services, the Army food program, and laundry and dry cleaning services. Provides for the operation of utilities; maintenance of real property; minor construction (excluding projects financed by military construction funds); other engineering support such as fire protection, custodial services, entomology services, and refuse collection and disposal; and command and administrative services in support of the installation operations.

Program 3 - Intelligence and Communications

INTRODUCTORY STATEMENT

This program includes costs for Army Intelligence, Communications, and Intelligence and Communications related activities and Combat Development Activities.

Intelligence cost estimates include resources associated with the Consolidated Defense Intelligence Program (CDIP) which are required for the conduct of Army worldwide Cryptologic and General Defense Intelligence Activities. Army intelligence estimates in this portion of the Program are based on levels of effort recommended by the National Security Agency for Cryptologic Activities/Communications and by the Defense Intelligence Agency for General Defense Intelligence Activities.

Communications estimates include resources associated with the Consolidated Telecommunications Program (CTP) which are required to provide: Army Worldwide Communications which include support for the Defense Communications System; support of the National Military Command System; and Base Communications requirements at installations worldwide.

Activities which are Intelligence and Communications related, but are not included in the CDIP or CTP, are included in this aggregation along with Combat Development Activities. Estimates for these activities provide: Worldwide Counterintelligence and Investigative Activities; Special Activities providing for the continuity of Government; Command and Control Functions; Base Operations Activities; and Combat Development Activities.

Estimates in this program reflect the recent Army reorganization and realignment actions. Major realignment actions are identified below. Budget changes for these and other items are included in the justification for each budget account.

Intelligence: FY 1975 Estimates reflect the following: Reduction in level of effort; realignment of Intelligence Management and Support Activities to the Human Intelligence and Counterintelligence and Investigative Activities Elements with which they are more closely related; and transfer of Cryptologic Direct Support and Human Intelligence Collection Resources to Program 2 in order to more accurately depict the intelligence support function of these activities.

Communications: Estimates reflect the transfer to Program 3 of Army Base Communications requirements worldwide from Programs 1, 2, 7 and 8 effective FY 1975.

Intelligence and Communications Related and Combat Development Activities: Estimates reflect the transfer of Combat Development Activities to Program 2 and other programs effective FY 1974 and the transfer of Command and Control resources to Program 9 effective FY 1975.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army	3 - Intelligence and Communications

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
31011	Cryptologic Activities	[Deleted]	[Deleted]	[Deleted]
31055	Cryptologic Communications			
	General Defense Intelligence Program			
32000	National Military Command System	7,261	7,303	7,342
33000	Worldwide Communications	161,699	172,016	151,487
35700	Base Communications	(85,568) 1/	(87,465) 1/	98,043
34111	Special Activities	26,788	26,464	26,457
35120	Combat Development Activities	45,651	-0-	-0-
35128	Counterintelligence and Investigative Activities	[Deleted]	[Deleted]	[Deleted]
35896	Base Operations	26,921	29,819	31,044
35898	Command	1,327	1,694	-0-
	TOTAL Direct Obligations - Intelligence and Communications	$352,488	$ 326,697	$ 392,544

1/ Non-add memo entry

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
AVERAGE NUMBER OF ALL EMPLOYEES	10,520	9,160	12,545
NUMBER OF EMPLOYEES AT END OF YEAR	10,173	9,270	13,048
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11 + 12)	$ 146,449	$ 133,686	$ 172,245

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operations and Maintenance, Army	3-Intelligence

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
31011	Cryptologic Activities	$ [Deleted]	$ [Deleted]	$ [Deleted]
31055	Cryptologic Communications			
	General Defense Intelligence Program			
	TOTAL Direct Obligations - Intelligence	$ 76,561	$ 82,390	$ 65,133

NOTE: This schedule summarizes intelligence activities, excluding counterintelligence and investigative activities.

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	2,396	2,442	2,029
NUMBER OF EMPLOYEES AT END OF YEAR	2,334	2,394	2,147
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 33,906	$ 36,987	$ 29,052

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army	3 - Communications

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
		$	$	$
32000	National Military Command System	7,261	7,303	7,342
33000	Worldwide Communications	161,699	172,016	151,487
35700	Base Communications	(85,568) 1/	(87,465 1/	98,043
	TOTAL Direct Obligations - Communications	$168,960	$179,319	$256,872

1/ Non-add memo entry

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
AVERAGE NUMBER OF ALL EMPLOYEES	3,870	4,003	7,822
NUMBER OF EMPLOYEES AT END OF YEAR	3,910	4,078	8,171
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11 + 12)	$ 56,113	$ 60,645	$ 104,747

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
3 - Intelligence and Communications - 32000 - National Military Command System	$ 7,261	$ 7,303	$ 7,342

JUSTIFICATION

Section 1 - Purpose and Scope

This program provides funds for the Army's assigned responsibilities for the National Military Command System. The National Military Command System provides National Command authorities with the means to exercise direction of the Armed Forces of the United States through the military chain of command. This includes a survivable and effective communications system that, under emergency conditions as well as nuclear attack and post-attack conditions, will provide the means to exercise this strategic direction. The Army's responsibility under the National Military Command System consists of the following:

a. Provide funds for the operation and maintenance of the Alternate National Military Command Center (ANMCC), which is the primary Alternate Command Center of the National Military Command System (NMCS). The ANMCC, in its protected location, provides an immediate capability to exercise strategic direction of the Armed Forces.

b. Provide funds in support of the National Military Command System for the following:
   (1) Washington Area High Speed Facsimile Network (WASHFAX).
   (2) Secure Data and Visual Communications System (Broadband Systems).
   (3) Automatic Message Processing System (AMPS).
   (4) Other Leased Circuitry and Automatic Switched Networks.
   (5) Logistical Support for the National Military Command Center/Message Center (NMCC/MC).

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
3 - Intelligence and Communications - 33000 - Worldwide Communications	$ 161,699	$ 172,016	$ 151,487

JUSTIFICATION

Section 1 - Purpose and Scope

The resources in this program are primarily in support of the Defense Communications System (DCS). This includes : Operation and maintenance of the Army portion of DCS for entry, relay, and termination of communications throughout the world; Civil Defense Networks and Warning Centers; major headquarters communications management; engineering and administrative activities; communications security functions; leased circuits and operational support of the Defense Satellite Communications System (DSCS); leased communications circuitry including access to the Defense switched networks - Automatic Voice Network (AUTOVON) and Automatic Digital Network (AUTODIN); operation and maintenance of other Defense networks; operation of joint message refile centers which retransmit messages for all United States Military services into commercial facilities for delivery to addressees not served by Government-owned or leased communications; and costs associated with installation of major items of equipment procured for communications projects.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army	3 - Other Intelligence and Communications Support

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
		$	$	$
34111	Special Activities	26,788	26,464	26,457
35120	Combat Development Activities	45,651	-0-	-0-
35128	Counterintelligence and Investigative Activities	[Deleted]	[Deleted]	[Deleted]
35896	Base Operations	26,921	29,819	31,044
35898	Command	1,327	1,694	-0-
	TOTAL Direct Obligations - Other Intelligence and Communications Support	[Deleted]	[Deleted]	[Deleted]

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	4,254	2,715	2,694
NUMBER OF EMPLOYEES AT END OF YEAR	3,929	2,798	2,730
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 56,430	$ 36,054	$ 38,446

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
3 - Intelligence and Communications 34111 - Special Activities	$ 26,788	$ 26,464	$ 26,457

JUSTIFICATION

Section 1 - Purpose and Scope

The resources in this program provide Army support to the Office of Preparedness, General Services Administration.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
3 - Intelligence and Communications 35128 - Counterintelligence and Investigative Activities	[Deleted]	[Deleted]	[Deleted]

JUSTIFICATION

Section 1 - Purpose and Scope

Counterintelligence and Investigative Activities provide for counterintelligence investigations (complaints and incident type), operations (counterespionage, countersubversion, and countersabotage), security support services (education, inspections and surveys) and investigation of overseas personnel security leads. Funds in this program element are for the operational activities of: US Army Intelligence Command, 66th MI Group, 500th MI Group, 470th MI Group, 650th MI Group, CI Analysis Detachment, US Army Administrative Survey Detachment, US Army Intelligence Materiel Support Office, and US Army Intelligence Materiel Development Office.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
3 - Intelligence and Communications 35896 - Base Operations	$ 26,921	$ 29,819	$ 31,044

JUSTIFICATION

Section 1 - Purpose and Scope

The resources requested in this program provide for the operation and maintenance of facilities at Fort Huachuca, Arizona, and Fort Ritchie, Maryland. Functions supported include: Installation supply operations; maintenance of materiel (excluding depot maintenance and maintenance performed by TOE units in support of installation mission); personnel support services to include food service, laundry plants, and special services; and base services to include photographic services, preservation of order, transportation services, and general and administrative motor and support services. Also provides for operation of utilities;

maintenance of real property; minor construction (excluding projects financed by military construction funds); other engineering support such as fire protection, custodial services, entomology services, and refuse collection and disposal; and command and administrative services in support of the two installations.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army	7 Central Supply and Maintenance

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
71111	Supply Depot Operations	$ 228,088	$ 265,850	$ 254,270
71112	Inventory Control Points	130,720	125,406	121,800
71113	Procurement Operations	105,882	97,285	95,098
72207	Depot Maintenance Activities	540,311	543,058	365,488
72896	Base Operations	185,193	146,217	115,367
72897	Maintenance Technical, Administrative, and New Equipment Training	7,597	8,056	8,013
72898	Command	177,274	174,400	169,057
78010	Second Destination Transportation	487,786	359,794	386,474
78011	Industrial Preparedness	45,856	40,444	45,052
78012	Logistic Support Activities	83,454	79,210	101,211
78017	Maintenance Support Activities	159,049	176,726	169,370
	Total Direct Obligations	$2,151,210	$2,016,446	$1,831,200

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	63,369	40,498	34,419
NUMBER OF EMPLOYEES AT END OF YEAR	59,195	37,815	33,382
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11 + 12)	$ 840,923	$ 612,558	$ 551,468

INTRODUCTORY STATEMENT

This program provides the funds to finance the operation of the supply and depot maintenance support activities above the post, camp and station level in support of the combat forces of the Army and to maintain the readiness of Army forces throughout the world.

The Central Supply portion of the program includes funds for the operation of supply depots, inventory management operations, stock control and cataloging activities and operation of offices and activities engaged in the procurement of centrally controlled items of materiel and industrial preparedness production capability. Cost of second destination transportation requirements, funds required to purchase services from industrially funded water ports and terminals, in addition to related command, base operations, and logistics support services, are also included in this program.

The estimate for Maintenance Activities covers the cost of depot maintenance activities necessary to assure combat serviceability of Army-owned materiel. The maintenance performed includes overhaul, repair, analytical rework, calibration of test equipment and inspection and test of major and secondary items. Also included is the cost of basic issue items which are required to complete a major item for issue after overhaul or repair and the tools and equipment required for depot maintenance shop operations. Related support activities and necessary specialized training are also funded from this program.

The Central Supply and Maintenance Program is a support program, as opposed to force-oriented programs. As such the requirements are determined by the output of the force-oriented programs. Factors which govern the magnitude of the program are: (1) strength, composition, and deployment of forces; (2) quantity, condition and age of equipment in the hands of our forces; (3) the Army's mobilization base; and (4) the degree of support provided to Allied Forces. These factors, in turn, are governed by the level of readiness required, equipment modernization plans, and combat development plans.

To carry out the programed level of activities, $1.831 billion is being requested for Fiscal Year 1975. This represents a reduction of $185 million below the Fiscal Year 1974 level, and results primarily from the workload reductions related to force structure changes and One-Time FY 74 increased readiness, and to reduction in civilian personnel strengths. These decreases were partially offset by additions for transfer of modification/conversion responsibility from Procurement Equipment and Missiles, Army, transportation rate changes, petroleum price increases and the annualization of the FY 1974 graded and ungraded pay raises.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army	7 Central Supply and Maintenance

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
	CENTRAL SUPPLY ACTIVITIES	$	$	$
71111	Supply Depot Operations	228,088	265,850	254,270
71112	Inventory Control Points	130,720	125,406	121,800
71113	Procurement Operations	105,882	97,285	95,098
72896	Base Operations	185,193	146,217	115,367
72898	Command	177,274	174,400	169,057
78010	Second Destination Transportation	487,786	359,794	386,474
78011	Industrial Preparedness	45,856	40,444	45,052
78012	Logistic Support Activities	83,454	79,210	101,211
	Total Direct Obligations	$1,444,253	$1,288,606	$1,288,329

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	57,167	34,691	29,422
NUMBER OF EMPLOYEES AT END OF YEAR	53,248	32,414	28,359
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11 + 12)	$ 745,645	$ 521,072	$ 463,150

APPROPRIATION	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
Operation and Maintenance, Army			
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
7 - Supply Depot Operations	$ 228,088	$ 265,850	$ 254,270

JUSTIFICATION

Section 1 - Purpose and Scope

This Program Element provides for the operation of supply depots in the Continental United States, and in Europe and the Pacific. The function includes the receipt, storage, preservation, and issue of supplies in support of world-wide military operations.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
7 - Inventory Control Points	$ 130,720	$ 125,406	$121,800

JUSTIFICATION

Section 1 - Purpose and Scope

Inventory Control Points translate Army materiel requirements into supply actions, and initiate and monitor these actions throughout the supply process to insure the availability at the time and place needed. These operations are conducted primarily at National Inventory Control Points in the United States and at an Inventory Control Point in Europe.

National Inventory Control Points have primary responsibility for integrated materiel inventory management on a world-wide basis of these major commodities: Aviation, Electronics, Missiles, Engineering, Munitions, Tank-Automotives and Weapons. Integrated materiel inventory management includes requirements computations, which consist of cyclical and special supply control studies, to provide catalog, procurement, rebuild and disposal directions, distribution management actions, stock control operations, as well as cataloging activities.

The Inventory Control Point in Europe has responsibility for all financial and quantitative inventory management of the theater's inventories. Inventory management includes the developing of theater-wide requirements, maintaining appropriate inventory balance and computing requirements to support all theater-Army contingency plans.

Cataloging activities under the Federal Catalog System include the maintenance of basic identification records for Army items of supply already cataloged under the Federal Catalog System, the preparation and submission of data for the identification of new items entering the supply system, and the publication of new or revisions of existing supply catalogs which are the official media for dissemination of supply data to the field.

APPROPRIATION	(In Thousands of Dollars)		
Operations and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
7 - Procurement Operations	$ 105,882	$ 97,285	$ 95,098

JUSTIFICATION

Section 1 - Purpose and Scope

This program element provides for the cost of operating the Army's central procurement offices located in the United States, Europe and Pacific areas which are engaged in the procurement of materiel, supplies and services for the Army and for other agencies where the Army has procurement responsibility. The major functions involved in performing these services are procurement planning, contract execution, contract management and quality assurance activities, including acceptance inspection.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
7 - Central Supply and Maintenance - Base Operations	$ 185,193	$ 146,217	$ 115,367

JUSTIFICATION

Section 1 - Purpose and Scope

This category provides for base operations in support of Central Supply and Maintenance activities such as Military Traffic Management and Terminal Service ports, depots, and supply management offices in the United States and overseas. These functions include supply operations, maintenance of materiel, personnel support, base services, utilities, maintenance of real property, minor construction, other engineering support and administration.

APPROPRIATION	(In Thousands of Dollars)		
Operations and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
7 - Command	$ 177,274	$ 174,400	$ 169,057

JUSTIFICATION

Section 1 - Purpose and Scope

This program element provides those resources allocated in support of the U.S. Army Materiel Command Headquarters, Military Traffic Management and Terminal Services (MTMTS), Army's mid-management headquarters functions located in the United States and Europe, project manager functions directly associated with central supply activities, and dispersed field activities engaged exclusively in the command and direction of logistical activities. These organizations provide technical control and direction of the wholesale supply and maintenance systems to include storage, distribution, maintenance, and dispersed logistical activities. They perform command managerial functions in the areas of data processing including development and implementation of new or improved systems, civilian and military manpower management, employee safety programs, inspector general activities, and technical surveillance of Army logistic operations worldwide.

APPROPRIATION	(In Thousands of Dollars)		
Operations and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
7 - Second Destination Transportation	$ 487,786	$ 359,794	$ 386,474

JUSTIFICATION

Section 1 - Purpose and Scope

This element provides funds for the procurement of commercial land transportation for the distribution of material, supplies and equipment of units on permanent change of station; for airlift services provided for the shipment to, from and between the

oversea commands of high priority cargo, Army Post Office (APO) mail, and civilian employees and their dependents on permanent change of station; for ocean surface services provided for the shipment of dry cargo, second destination shipment of bulk petroleum products, and for lease of transportation equipment not available on a tariff basis from common carriers; as well as the transshipment through Continental United States ports of cargo and passengers.

APPROPRIATION	(In Thousands of Dollars)		
Operations and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 1974	FISCAL YEAR 19 75
7 - Industrial Preparedness	$ 45,856	$ 40,444	$ 45,052

JUSTIFICATION

Section 1 - Purpose and Scope

This program element provides for continuation of activities designed to assure the production capability needed to support emergency procurement programs and to decrease the time required to attain scheduled production rates in an emergency. The major expenses incurred are for (1) maintenance and protection of the inactive portion of the Army's production base (industrial plants and separate production equipment) and (2) industrial preparedness planning activities which supplement the physical facilities.

APPROPRIATION	(In Thousands of Dollars)		
Operations and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 1975
7 - Logistic Support Activities	$ 83,454	$ 79,210	$ 101,211

JUSTIFICATION

Section 1 - Purpose and Scope

This element provides for central supply logistic services not specifically related to other programs under Major Program 7 and which have been grouped under the heading of Logistic Support Activities. These activities are: (1) Attendant Central Supply Services, which provides for the Army Management Engineering Agency, centralized packaging offices, laboratory and test facilities, and printing of forms and publications used in the supply system; (2) Production Engineering for Stock Funds, which provides for the preparation of technical data packages required for competitive procurement, for evaluation of engineering change proposals, for correction of deficiencies in production processes, for testing and evaluation of commercial items to determine military application and for day-to-day support to contracting officers; (3) Defense Standardization projects relating to specifications, standards, handbooks, and studies and for other standardization activity to implement and supplement the Defense Standardization Program to include preparation of purchase descriptions, packaging data documents and qualified products lists; (4) Facilities investigations and analyses of engineering problems in the construction field; (5) Real Estate Administration, which provides for the management of real estate matters within the Army; (6) The Army Facilities Component System; (7) Demilitarization of military items.

APPROPRIATION	BUDGET PROGRAM (Number and title)
OPERATION AND MAINTENANCE, ARMY	7 Central Supply and Maintenance

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
	DEPOT MATERIEL MAINTENANCE AND SUPPORT ACTIVITIES	$	$	$
72207	Depot Maintenance Activities	540,311	543,058	365,488
72897	Maintenance Technical Administrative & New Equipment Training	7,597	8,056	8,013
78017	Maintenance Support Activities	159,049	176,726	169,370
	Total Direct Obligations	$706,957	$727,840	$542,871

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	6,202	5,807	4,997
NUMBER OF EMPLOYEES AT END OF YEAR	5,947	5,401	5,023
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 95,278	$ 91,486	$ 88,318

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
7 - Depot Maintenance Activities	$ 540,311	$ 543,058	$ 365,488

JUSTIFICATION

Section 1 - Purpose and Scope

The purpose of this activity is to provide serviceable, combat ready weapons/support systems for issue to field troops by performing depot maintenance functions and restoring the life of economically reparable, unserviceable materiel. Materiel support provides for Basic Issue Items (BII) which are those ancillary items required to complete a major item for issue after overhaul or repair. BII are those additional items needed to make the major item usable, such as spare tires, head phones, covers, automotive tools, and fire extinguishers. Plant equipment includes test equipment and selected items of shop operating equipment, with a unit cost of $1,000 or more, required to perform depot maintenance.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
7 - Maintenance Technical, Administrative, and New Equipment Training	$ 7,597	$ 8,056	$ 8,013

JUSTIFICATION

Section 1. Purpose and Scope

Maintenance Technical, Administrative, and New Equipment Training is specialized training of service school instructors, depot maintenance personnel, and field technical assistance personnel in the maintenance of specific items of equipment, either for improvement of skills or for the introduction of new equipment.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 1975
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
7 - Maintenance Support Activities	$ 159,049	$ 176,726	$ 169,370

JUSTIFICATION

Section 1 - Purpose and Scope

This activity provides for maintenance support services which include maintenance program management, maintenance engineering and technical services, and maintenance publications. These services facilitate, support and perpetuate the maintenance process. Also, these services have a worldwide effect on all levels of the maintenance effort, from operator maintenance to depot maintenance, and are provided by organizations other than maintenance production organizations; e.g., maintenance functions performed by National Maintenance Points, the Army Maintenance Board, and the Army Logistics Data Processing Center.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army	8-Training, Medical and Other General Personnel Activities

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
	Training			
81111	Recruit Training	$ (652,200)	$ (873,692)	$ (969,330)
81112	Specialized Training	25,546	18,027	25,403
81113	Professional Training (Non-Medical)	109,246	116,350	129,837
81114	Flight Training	31,400	30,894	30,615
81115	United States Military Academy	44,561	43,707	41,838
81123/5	Reserve Officers' Training Corps	35,343	38,819	40,410
88097	Other Training Activities	31,802	35,134	35,064
88014	Project HIRE	52,460	61,283	63,886
88098	Command	(467) 1/	780	833
88096	Base Operations of Training Activities	-0-	39,895	39,133
	Other General Personnel Activities	321,842	488,803	562,311
81412	Recruiting and Examining (Non-Medical)	(257,108)	(295,095)	(168,262)
81413	Personnel Support	88,193	111,470	113,388
81417	Oversea Education of Dependents	19,803	20,800	21,253
81117	Other Education Programs	116,206	128,295	-0-
	Medical	32,906	34,530	33,621
81113	Medical Professional Training	(555,987)	(620,770)	(656,330)
81211	Hospital Operations	17,390	24,150	23,089
81214	Medical Care in Non-Service Facilities (Executive Director)	310,906	346,143	371,708
81215	Health Benefits in Non-Army Facilities, Other than Executive Director	139,791	147,516	154,963
81216	Other Medical Activities	16,290	20,928	21,205
81412	Armed Forces Examining and Entrance Stations (Medical)	39,955	53,229	56,355
	Base Operations of Medical Activities	7,460	6,244	7,487
	Total Direct Obligations	24,195	22,560	21,523
		$1,465,295	$1,789,557	$1,793,922

1/ Non-additive-for comparative purposes only.

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	66,185	83,564	92,669
NUMBER OF EMPLOYEES AT END OF YEAR	60,669	87,751	90,350
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 711,036	$ 958,617	$ 1,060,026

INTRODUCTORY STATEMENT

TRAINING, MEDICAL, AND OTHER GENERAL PERSONNEL ACTIVITIES

This major program provides for operation and maintenance of the United States Army School System to include the US Military Academy (USMA) and Army War College; joint colleges and Department of Defense Schools for which the Army has the funding responsibility, i.e., National War College, Industrial College of the Armed Forces, Defense Language Institute, Defense Information School, and the Defense Systems Management School; training at civilian institutions, Reserve Officers' Training Corps (ROTC) units, and schools of other services; preparation and distribution of training devices and publications; the Army Training Center System; temporary duty travel; and Project HIRE.

It provides for health service support of the United States Army to include health service administration, provisions for health service in Army facilities, dependent medical care, medical care in Army facilities for retired personnel and their dependents and dependents of deceased personnel, as well as similar services in non-Army facilities. In addition, the program provides support for recruiting, examining and entrance stations, German statutory accident insurance; operation of personnel centers; oversea education of dependents (except FY 1975); welfare and morale services; disposition of remains, operation of the Disciplinary Barracks and the US Army Retraining Brigade; central procurement of Special Services' supplies and equipment in the Personnel Support program element; Chief of Chaplains' specialized services; the Enlisted Evaluation Center, General Educational Development, and Project Transition (terminating in FY 1974).

The FY 1975 direct obligation requirement is $1.794 billion, a net increase of $4 million over the FY 1974 revised estimate of $1.790 billion. This net increase represents an increase of $36 million for medical activities, and a net decrease of $32 million for training and other general personnel activities. The net increase in medical activities results from the continued rise of utilization of medical care in both civilian facilities and Army hospitals, annualization of the civilianization program, annualization of civilian pay raises effective in FY 1974--offset to some extent by reorganization/realignment actions, reductions in travel, and reductions in the drug and alcohol prevention and rehabilitation program. The net decrease in training and other general personnel activities is due primarily to the transfer of Oversea Education of Dependents to the Operation and Maintenance Appropriation, Defense Agencies; elimination of Project Transition, effective May 31, 1974; energy conservation reduction; flight simulator utilization; and a decrease for one-time FY 1974 reorganization and realignment costs--offset by annualization of the civilianization program; annualization of civilian pay raises effective in FY 1974; training load increases; increases for petroleum, oil, and lubricant products, and the increased emphasis on recruiting.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army	Training

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
81111	Recruit Training	$ 25,546	$ 18,027	$ 25,403
81112	Specialized Training	109,246	116,350	129,837
81113	Professional Training (Non-Medical)	31,400	30,894	30,615
81114	Flight Training	44,561	43,707	41,838
81115	United States Military Academy	35,343	38,819	40,410
81123/5	Reserve Officers' Training Corps	31,802	35,134	35,064
88097	Other Training Activities	52,460	61,283	63,886
88014	Project Hire	(467) 1/	780	833
88098	Command		39,895	39,133
88096	Base Operations of Training Activities	321,842	488,803	562,311
	Total Direct Obligations	$652,200	$873,692	$969,330

1/ Non-additive-for comparison purposes only.

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	33,121	47,846	55,178
NUMBER OF EMPLOYEES AT END OF YEAR	32,889	56,280	57,945
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11 + 12)	$ 367,517	$ 563,288	$ 647,595

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
81111 Recruit Training	$ 25,546	$ 18,027	$ 25,403

JUSTIFICATION

Section 1 - Purpose and Scope

This account provides funds for the operation of US Army Training Centers which conduct standard basic training in combat tactics, battle indoctrination, physical conditioning and drill; modified basic training for conscientious objectors; basic training for the Women's Army Corps; and advanced individual training during which the individual is trained to qualify for a military occupational specialty.

Funding levels portrayed are those required to support the total projected trainee loads at these centers. The training center load is a result of the weekly Active Army and Reserve Enlisted Program input and length of the various training cycles. Input into recruit training for all personnel is projected for each month of the fiscal year. The Active Army input is based on an approved manpower program. The Reserve input is based on the annual Active Duty for Training program for the Army National Guard and the Army Reserve.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
81112 Specialized Training	$ 109,246	$ 116,350	$ 129,837

JUSTIFICATION

Section 1 - Purpose and Scope

This program element provides for the operation and maintenance of the Army schools and separate courses--those of the combat arms, plus technical, administrative, and specialist schools and courses. The mission assigned to these schools includes: the conduct of resident courses of instruction for Active Army and Reserve personnel, personnel from other services, and foreign military personnel; preparation and administration of non-resident training such as extension courses or courses conducted at installations other than the school; the development of doctrine and techniques; and the preparation and revision of Army training texts and publications. In addition, this account funds the Officer Candidate School at Fort Benning, Georgia.

Resident instruction may be grouped into two broad categories: training of career personnel with accent on doctrine, strategy, and tactics; and training in specific military skills. Training of career personnel is necessary to prepare Army officers and enlisted men for increasing responsibilities commensurate with rank and career progression. This training is essential to the readiness of active and reserve forces. Specialist training imparts specific skills in such fields as missile maintenance, counter mortar radar operation, aircraft maintenance, electronic equipment repair, financial management, and the operation of complex weapons and equipment of the modern Army.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/ AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
81113 Professional Training	$ 31,400	$ 30,894	$ 30,615

JUSTIFICATION

Section 1 - Purpose and Scope

1. To provide advanced schooling of selected military personnel in civilian institutions, other military schools, and industrial establishments to meet the following requirements:

a. Senior civilian scientist assistants and directors of research and development in such areas as atomic energy (nuclear studies) and missile and radiological defense.

b. Qualified supervisors in the specialized fields of communications, engineering, and international relations.

c. Professionally qualified leaders for high level positions in comptroller, personnel, and industrial management fields.

d. Area specialists for Mission, Military Assistance Advisory Group, and Attache assignments.

e. Qualified faculty members for duty at the United States Military Academy and at Army and joint service schools and colleges.

f. Equip potential leaders with an enhanced ability to solve complex problems and communicate with the academic and technological community.

2. To provide specialist training to officers and enlisted men in subjects that are better and more economically taught in short courses at civilian schools and industrial establishments rather than in the Army service school system. Examples are executive management and control and the operation of specialized communications equipment.

3. To operate and maintain the following professional service schools:

a. Defense Information School--a defense school providing education in information techniques for all services and agencies of the Department of Defense.

b. Industrial College of the Armed Forces--a joint school providing advanced education in national security with emphasis on management of national resources under current and predicted environments. ICAF provides this education to military personnel of all services.

c. National War College--a joint school providing advanced education in national policy and strategy for military personnel of all services.

d. Army War College--an Army school providing advanced education in strategy and the art and science of land warfare, fundamentally for Army personnel.

e. Command and General Staff College--an Army school providing intermediate education in tactics and logistics, fundamentally for Army personnel.

f. Defense Systems Management School--a defense school providing training for intermediate level supervisors involved in project/systems management.

g. Defense Language Institute--a defense school to conduct the defense language program for all services and agencies of the Department of Defense.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
BUDGET PROGRAM, PROGRAM ELEMENT/ AGGREGATION, OR BUDGET PROJECT ACCOUNT			
81114 Flight Training	$44,561	$ 43,707	$41,838

JUSTIFICATION

Section 1 - Purpose and Scope

Provides for the operation and maintenance of the Army Aviation School, the Primary Helicopter School, and the Army Flight Training Center. The mission assigned to these schools includes: Initial Entry (Undergraduate) Rotary Wing Aviator Training for Officers and Warrant Officers; Graduate Rotary and Fixed Wing Training inclusive of Qualification, Instrument Flight, Instructor Pilot, Instrument Flight Examiner, Standardization, Gunnery, Warrant Officer Career Development Courses as well as Airfield and Control Tower Operation, Air Navigation System Operations and Aircraft Maintenance.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
BUDGET PROGRAM, PROGRAM ELEMENT/ AGGREGATION, OR BUDGET PROJECT ACCOUNT			
81115 United States Military Academy	$ 35,343	$ 38,819	$ 40,430

JUSTIFICATION

Section 1 - Purpose and Scope

This program element provides for the operation of the United States Military Academy at West Point. The mission of the Military Academy is to provide instruction, experience, and motivation to each cadet so that he will graduate with the knowledge and the qualities of leadership required of a junior officer and possessing the necessary background for continual development throughout a career as an Officer of the Regular Army. Courses include academic education and military training designed to develop the character and personal attributes essential to an officer, and provide a balanced and liberal education in the arts and sciences

as well as a broad military education. The maximum enrollment is fixed by Congress at 4,393 and four Philippine and 20 Latin American or Canadian students for a total of 4,417. This excludes a surplus due to redistricting. Included in this account is the U.S. Military Academy Preparatory School at Ft Belvoir, Virginia.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
BUDGET PROGRAM, PROGRAM ELEMENT/ AGGREGATION, OR BUDGET PROJECT ACCOUNT			
81123/81125 Reserve Officers' Training Corps (ROTC)	$ 31,802	$ 35,134	$ 35,064

JUSTIFICATION

Section 1 - Purpose and Scope

These program elements provide for the operation of ROTC units at civilian educational institutions where instruction is given in military science, and support of ROTC summer camps where military science and tactics training is conducted which involves actual experience in tactical, technical, and administrative duties under field conditions. Included is the pay of civilian personnel to support the Professor of Military Science staff at institutional level and temporary hire at summer camps conducted during June and July of each year. In addition, funds provide for contractual hire of retired military personnel as instructors for Junior ROTC units; costs of scholarships for selected cadets participating in the ROTC program; purchase of stock-funded organizational clothing and individual and organizational equipment and operating supplies such as expendables and petroleum, oil, and lubricants; and the costs for ROTC information and recruiting activities.

The ROTC program is managed through four regional activities reporting to Headquarters TRADOC. The Regional Headquarters located at Fort Bragg, North Carolina, Fort Knox, Kentucky, Fort Riley, Kansas and Fort Lewis, Washington supervise the ROTC activities in their geographic areas.

The ROTC program is one of the principal sources of officer procurement for the Army. Funds provide for the operation of 650 Junior ROTC units and 291 Senior ROTC units in FY 1975. A total of 1,000 two-year scholarships, 1,750 three year scholarships and 3,750 four-year scholarships are programmed to be in effect in FY 1975.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
BUDGET PROGRAM, PROGRAM ELEMENT/ AGGREGATION, OR BUDGET PROJECT ACCOUNT			
88097 Other Training Activities	$ 52,460	$ 61,283	$ 63,886

JUSTIFICATION

Section 1 - Purpose and Scope

This program element grouping provides for nontype classified training devices, training aid centers, training films, training publications, and temporary duty travel and per diem.

These funds are required for the procurement, fabrication, and distribution of certain aids and devices. Fabrication and procurement of training devices is accomplished by US Army Material Command and by the Training Aids Center System. Distribution

of approved training aids is accomplished in the Training Aids Center System both in the Continental United States and in oversea commands.

Funds are also required for script writing, production, procurement, printing, and distribution of Army-wide requirements for television recordings, motion pictures, film strips, and slides/transparencies used for the training of individuals and units of the Army. In addition, funds are required for audio-visual services at TRADOC/FORSCOM installations.

The necessary funds are provided for printing, reproduction, and binding of Army-wide publications used for the training of individuals and units of the Army. Such publications consist of field manuals, technical manuals, training circulars, Reserve Officers' Training Corps manuals, Department of the Army pamphlets, firing tables and trajectory charts, Army training programs of instructional material, Army subject schedules, Army training tests, instructor film references, and graphic aids. The bulk of training literature is prepared in-house. These funds also provide for reprinting of training literature stocks which have been exhausted.

In addition, funds are needed for student temporary duty travel and per diem at Army schools, civilian institutions and schools of other services when assignment thereat is for training of less than 20 weeks.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19	FISCAL YEAR 19
88014 Project HIRE	$ (467) 1/	$ 780	$ 833

JUSTIFICATION

Section 1 - Purpose and Scope

This program element provides for temporary spaces and attendant operating costs for Alaskan Native Employment Program (Project HIRE). This program was included in Base Operations (PE 818096) in FY 1973.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
88098 Command	$ -0-	$ 39,895	$ 39,133

JUSTIFICATION

Section 1 - Purpose and Scope

The mission of the Training and Doctrine Command (TRADOC) is to provide supervision and direction of individual training, development of doctrine, organizations and weapons/support systems for the Army; supervision and direction of the Reserve Officers' Training Corps programs, command of service schools and Army training centers, and command of those installations which are primarily training oriented.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
8-T - Training Activities - Base Operations	$ 321,842	$ 488,803	$ 562,311

JUSTIFICATION

Section 1 - Purpose and Scope

The resources requested in this program element provide for the operation and maintenance of installations and for those activities of an installation support nature where Program 8 Training is the carrier with major mission responsibilities. Resources requested are for installation support functions such as installation supply operations; maintenance of materiel (excluding depot maintenance and maintenance performed by Table of Organization and Equipment units in support of installation mission); personnel support services such as religious, educational, preservation of order and special services; base services to include local communication and photographic services, transportation services, general and administrative motor and support services; food service, laundry and dry cleaning services; operation of utilities; maintenance of real property; minor construction (excluding projects financed by military construction funds); other engineering support such as fire protection, custodial services, entomology services, and refuse collection and disposal; and command and administrative services.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army	Other General Personnel Activities

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
		$	$	$
81412	Recruiting and Examining (Non-Medical)	88,193	111,470	113,388
81413	Personnel Support	19,803	20,800	21,253
81417	Oversea Education of Dependents	116,206	128,295	-0-
81117	Other Education Programs	32,906	34,530	33,621
	Total Direct Obligations	$257,108	$295,095	$168,262

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	10,584	11,398	11,148
NUMBER OF EMPLOYEES AT END OF YEAR	5,066	5,037	5,123
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 115,493	$ 128,826	$ 126,261

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 1974	FISCAL YEAR 1975
81412 Recruiting and Examining (Non-Medical)	$ 88,193	$ 111,470	$ 113,388

JUSTIFICATION

Section 1 - Purpose and Scope

Provides for recruiting of enlistees for the US Army and mental examining and processing of enlistees for the US Army, Navy, Marine Corps, and Air Force at 74 Armed Forces Examining and Entrance Stations. These stations are located in the Continental United States, and the states of Hawaii and Alaska, and the territory of Puerto Rico.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 1974	FISCAL YEAR 1975
81413 Personnel Support	$ 19,803	$ 20,800	$ 21,253

JUSTIFICATION

Section 1 - Purpose and Scope

Provides for the operation of US Army personnel centers, welfare and morale services, disposition of remains expenses, operation of the US Disciplinary Barracks, US Army Retraining Brigade, support of the Army Enlisted Evaluation Center and German Ststutory Accident Insurance.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 1974	FISCAL YEAR 1975
81117 Other Education Programs	$ 32,906	$ 34,530	$ 33,621

JUSTIFICATION

Section 1 - Purpose and Scope

Provides for General Educational Development, and Transition Programs for Military Personnel. In accordance with Congressional action on the FY 1974 Budget, Project Transition will be terminated as of 31 May 1974. Therefore, funds are not included in the Army's request for FY 1975 for Project Transition. In addition, provides for the credit by examination program, group study programs, educational materials selection program, Servicemen's Opportunity College Program, and support for the Commission on Accreditation of Service Experience.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army	8 - Medical

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
		$	$	$
81113	Professional Medical Training	17,390	24,150	23,089
81211	Hospital Operations	310,906	346,143	371,708
81214	Medical Care in Non-Service Facilities (Executive Director)	139,791	147,516	154,963
81215	Health Benefits in Non-Army Facilities, Except Those Administered by Executive Director	16,290	20,928	21,205
81216	Other Medical Activities	39,955	53,229	56,355
81412	Armed Forces Examining and Entrance Stations (Medical)	7,460	6,244	7,487
	Based Operations of Medical Activities	24,195	22,560	21,523
	TOTAL DIRECT OBLIGATIONS	$555,987	$620,770	$656,330

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	22,480	24,320	26,343
NUMBER OF EMPLOYEES AT END OF YEAR	22,714	26,434	27,282
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 228,034	$ 266,503	$ 286,170

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
81113 Professional Medical Training	$ 17,390	$ 24,150	$ 23,089

JUSTIFICATION

Section 1 - PURPOSE AND SCOPE

Provides for the training of Army Medical Department personnel through training programs in Army medical facilities, in schools of other Federal agencies, and in civilian institutions. These programs have as their objective the development of technically and professionally qualified officers and enlisted personnel required to staff Army Medical Department units worldwide. The development and maintenance of high standards of technical and professional competence of Army Medical Department personnel is essential to the maintenance of the health of the Army. The level of instruction which must be provided varies from the basic principles of emergency medical care to post-graduate training in professional medical specialities. Army medical facilities provide resident training and extension courses. Facilities of other Federal agencies and civilian institutions provide training which is not available or feasible in Army medical facilities

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
81211 Hospital Operations	$ 310,906	$ 346,143	$ 371,708

JUSTIFICATION

Section 1 - PURPOSE AND SCOPE

Provides medical and dental services through the operation of medical centers, hospitals, and clinics. Includes emergency and routine medical and dental services, preventive and prophylactic measures for disease prevention and medical examinations.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
81214 Medical Care in Non-Service Facilities (Executive Director)	$ 139,791	$ 147,516	$ 154,963

JUSTIFICATION

Section 1 - PURPOSE AND SCOPE

Provides for the administration of the Uniformed Services Health Benefits Program by The Surgeon General of the Army as Executive Director. Medical care is provided pursuant to the Dependents' Medical Care Act (10 U.S.C. 1071-1087) as modified by Section (25) of Public Law 85-861 and 89-914. Included is inpatient and outpatient medical care furnished dependents of active duty personnel, retirees, and dependents of retired and deceased of the Uniformed Services in civilian facilities in the United States, Puerto Rico, Canada, and Europe. Included also is a program of health services, training and rehabilitation for handicapped dependents of active duty personnel.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
81215 Health Benefits in Non-Army Facilities (Outside Executive Director)	$ 16,290	$ 20,928	$ 21,205

JUSTIFICATION

Section 1 - PURPOSE AND SCOPE

Provides for (1) medical and dental care of active duty Army personnel, including members of the Reserve Components in non-Army facilities; (2) medical and dental care of Army personnel and members of the Reserve Components by civilian doctors and dentists in civilian facilities; (3) physical examinations of Army Reserve personnel pursuant to Public Law 476, 82nd Congress (4) medical care of authorized civilian pursuant to Public Law 453, 83rd Congress and (5) medical care of dependents of Army military personnel in civilian facilities in certain areas outside the jurisdiction of the Executive Director for the Civilian Health and Medical Program of the Uniformed Services pursuant to Public Law 569, 84th Congress.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
81216 Other Medical Activities	$ 39,955	$ 53,229	$ 56,355

JUSTIFICATION

Section 1 - PURPOSE AND SCOPE

This program element provides for the operation of the following medical activities:

Army Medical Laboratories: Serves as reference and consulting laboratory to medical treatment facilities of the Armed Forces, within a prescribed area, providing them with diagnostic and epidemiologic facilities. The activities include the investigation, by laboratory methods, of the outbreaks of disease and conditions which may, or do, affect the health of military personnel.

Optical Fabrication and Repair: Fabricates spectacles and optical assemblies, conducts training in the construction, installation, repair and general maintenance of optical equipment.

Control of Disease Vectors: Performs activities in connection with prevention and control of Malaria and similar insect-borne disease in selected areas.

Veterinary Services: Provides sanitary and other food hygiene inspections incident to and following the procurement of foods.

Regional Dental Laboratories: Furnishes dental laboratory service for Army, Navy, Air Force, and U. S. Public Health Service installations located within designated areas. Provides consultation service to using installations. These services include

fabricating or replacing dentures, advising on unusual or difficult prosthetic cases, maintaining a stock of artificial teeth, and recommending improved prosthetic techniques and materials considered suitable for general use by the Army Dental Service.

Medical Materiel Activities: Provides technical, logistical, and maintenance support for worldwide medical supply missions.

Miscellaneous Medical Activities - Include such activities as:

Armed Forces Institute of Pathology which serves as a central laboratory of pathology for the Department of Defense; maintains a consultation service for diagnosis of pathologic tissues; is the chief reviewing authority on the diagnosis of pathologic tissues for the Army, Navy, and Air Force; and trains medical enlisted personnel of the Armed Forces in pathologic techniques.

US Army Environmental Hygiene Agency which conducts surveys and special investigations leading to the control of occupational hazards and the improvement of working conditions from a health standpoint at government-owned and operated installations.

Section 1 - PURPOSE AND SCOPE

Walter Reed Army Institute of Research which manufactures, purchases, tests and standardizes diagnostic and therapeutic biologicals; provides advisory services on problems and procedures in military medicine; acts as a central diagnostic laboratory; and conducts training and education programs incorporating the findings of research studies.

US Army Medical Department Historical Unit prepares and publishes the history of the Army Medical Department. This includes histories of medical activities during US conflicts, planning and providing for present and future historical coverage, preparation and publication of an annual summary of Army Medical Department Activities, and collecting and maintaining documents and other essential material of historical significance.

Headquarters, US Army Health Services Command plans, directs and supervises the delivery of all health care services in the Continental United States.

US Army Health Services Data Systems Agency is responsible for the design, development, installation and maintenance of standard computer-based medical information systems in support of the Army Medical Department. Also, provides technical assistance to staff elements of the Office of The Surgeon General and manages and operates a Data Processing Installation (DPI).

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
81412 Armed Forces Examining and Entrance Stations (Medical)	$ 7,460	$ 6,244	$ 7,487

JUSTIFICATION

Section 1 - PURPOSE AND SCOPE

This program element grouping provides for medical examinations of individuals being processed through Armed Forces Examining and Entrance Stations.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 1974	FISCAL YEAR 1975
8 - Medical - Base Operations	$ 24,195	$ 22,560	$ 21,523

JUSTIFICATION

Section 1 - Purpose and Scope

This program element grouping provides for expenses in connection with operating and maintaining certain Army medical installations and activities. These expenses include supply operations; personnel support such as chaplain, information, special services activities, preservation of order, and other personnel support; base services such as communication and photographic services, transportation services, laundry and dry cleaning services, and the Army Food program; operation of utilities, maintenance and repair of real property; minor construction; other engineering support; and administration.

APPROPRIATION	BUDGET PROGRAM (Number and title)
OPERATIONS AND MAINTENANCE, ARMY	9 - Administration and Associated Activities

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
91113	Departmental Headquarters	$ 82,445	$ 65,743	$ 59,878
91114	Field Headquarters and Activities	61,590	5,414	5,785
91212	Service-Wide Support	239,286	287,811	380,683
91214	Public Affairs	4,251	4,722	4,806
91513	Audio-Visual Activities	1,498	1,554	1,571
91520	Criminal Investigations	(6,833) 1/	7,305	8,105
		$ 389,070	$ 372,549	$ 460,828

1/ Non additive memo entry to illustrate comparability

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
AVERAGE NUMBER OF ALL EMPLOYEES	19,051	15,058	14,750
NUMBER OF EMPLOYEES AT END OF YEAR	17,920	15,163	15,150
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11 + 12)	$ 264,335	$ 221,042	$ 216,595

INTRODUCTORY STATEMENT

Administration and Associated Activities

Program 9 - Administration and Associated Activities provides for the operating costs of the Headquarters, Department of the Army, Headquarters, Military District of Washington; Headquarters, Criminal Investigation Command; Public Affairs activities world-wide, and the Audio-Visual Agency. Operating costs are included for field activities performing Army-Wide personnel and administrative services such as the Military Personnel Center and The Adjutant General Center.

APPROPRIATION	(In Thousands of Dollars)		
OPERATIONS AND MAINTENANCE, ARMY	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
9 - Departmental Headquarters	$ 82,445	$ 65,743	$ 59,878

JUSTIFICATION

Section 1. Purpose and Scope

This element includes the operating costs of the executive offices of the Department of the Army located in the Washington area and engaged in the formulation of plans and policies and the supervision and direction of subordinate offices, agencies and commands. Included are civilian personnel compensation and operating costs such as travel, supplies, and equipment necessary for the operation of the offices of the Secretary of the Army and the Army Staff.

APPROPRIATION	(In Thousands of Dollars)		
OPERATIONS AND MAINTENANCE, ARMY	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
9 - Field Headquarters and Activities	$ 61,590	$ 5,414	$ 5,785

JUSTIFICATION

Section 1. Purpose and Scope

This element provides for operation of the Military District of Washington. It includes the offices of the Commander and all staff elements. The estimate includes civilian personnel pay and other operating costs such as travel, supplies, equipment and contractual services. The mission of the Military District of Washington is to plan and execute those functions peculiar to the needs of the seat of the Government, to provide an organized and responsive defense of the Nations Capital when required, and to administratively support Army and other Federal agencies as assigned. For FY 1973, this includes the Continental Army Command and the US Army Criminal Investigation Command. Effective 1 July 1973 the Continental Army Command was disestablished and the Criminal Investigation Command transferred to the new Criminal Investigation element of Program 9.

APPROPRIATION	(In Thousands of Dollars)		
OPERATIONS AND MAINTENANCE, ARMY	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
9 - Service Wide Support	$ 239,286	$ 287,811	$ 380,683

JUSTIFICATION

Section 1. Purpose and Scope

This element supports 60 service-wide administrative and personnel field activities and functions administered by Headquarters, Department of the Army such as the Armed Forces Courier Service which provides secure and expeditious transmission of qualified material requiring protective handling by military courier; US Army Computer Systems Command which provides for centralized design, programming and maintenance of multi-command systems; US Army Finance Support Agency located at Ft. Benjamin Harrison, Indiana, which monitors and provides centralized direction to Army finance and accounting activities, processing and payment of allotments of pay, issuance of savings bonds, maintenance of soldiers deposits, and administration of the retired pay program; US Army Military Personnel Center which provides a complete military and personnel information and operational center; US Army Audit Agency which provides comprehensive audit services; Public Law requirements to reimburse the US Postal Service for Army official mail, the Department of Labor for Employee Compensation, and the General Services Administration (GSA) for Army managed building space. Included are civilian personnel compensation and operating costs such as travel, supplies, and equipment essential to the operation of these activities.

APPROPRIATION	(In Thousands of Dollars)		
OPERATIONS AND MAINTENANCE, ARMY	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
9 - Public Affairs	$ 4,251	$ 4,722	$ 4,806

JUSTIFICATION

Section 1 - Purpose and Scope

This element provides for the support of all public information and community relations activities at Army installations world-wide. The public information area includes functions of providing official information about the Army and Army personnel to the public and public media and includes the Home-Town News Center in Kansas City, Missouri. Community relations activities contribute to good relations between the Army and the civilian community. Included are civilian compensation and operating costs such as travel, supplies, equipment and incremental cost of tours associated with the operation of the Army Public Affairs Program.

APPROPRIATION	(In Thousands of Dollars)		
OPERATIONS AND MAINTENANCE, ARMY	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
9 - Audio-Visual Activities	$ 1,498	$ 1,554	$ 1,571

JUSTIFICATION

Section 1. Purpose and Scope

This element provides for the operation of the U.S. Army Audio-Visual Agency. The Agency provides audio-visual support such as motion and still photographic service, closed circuit television, a still photographic library, passport and identification photographs, operating the Pentagon Auditorium, screening rooms and audio-visual center for Headquarters, Department of the Army, Office of the Secretary of Defense, other agencies and departments as directed and provides Army-Wide standardization and testing of audio-visual media and equipment.

APPROPRIATION	(In Thousands of Dollars)		
OPERATIONS AND MAINTENANCE, ARMY	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
9 - Criminal Investigation	$ (6,833) 1/	$ 7,305	$ 8,105

JUSTIFICATION

Section 1. Purpose and Scope

This program element was established 1 July 1973 and provides the resources for the operation of the Headquarters, U.S. Army Criminal Investigation Command and its world-wide activities. The estimate includes civilian personnel compensation, travel, supplies, equipment, and contractual services. The Criminal Investigation Command conducts criminal investigations and crime prevention surveys world-wide for Department of the Army activities and other DOD components as required. The Command is actively engaged in the Alcohol and Drug Abuse Control Program and works in close coordination with the Federal Bureau of Investigation, the Secret Service, and other law enforcement agencies. Prior to Fiscal Year 1974 the operating costs of the Criminal Investigation Command were carried in the Field Headquarters and Activities element of Program 9.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army	10 - Support of Other Nations

P E/AGGR OR PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
01001	Support of Allies	$ 523,119	$ 293,123	$ 304,800
01004	International Military Headquarters and Agencies	36,383	42,794	47,990
01006	MAAGS, Missions and Military Groups	13,277	5,782	6,462
	TOTAL, Support of Other Nations	$572,779	$341,699	$359,252

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
AVERAGE NUMBER OF ALL EMPLOYEES	6,682	862	776
NUMBER OF EMPLOYEES AT END OF YEAR	645	871	788
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 9,487	$ 7,950	$ 8,270

SUPPORT OF OTHER NATIONS

Support of Other Nations consists of three related functional areas, Support of Allies, International Military Headquarters and Agencies (IMHA) and MAAGS, Missions and Military Groups.

Support of Allies includes the Military Assistance Service Funded (MASF) Program for the Republic of Vietnam and Laos. MASF support for Laos terminates at end FY 1974 at which time military assistance will be funded by the Military Assistance Program (MAP). Support to Vietnam comprises common service commodity support, training, depot maintenance, programs formerly sponsored by the Agency for International Development (AID) and communications contract support.

IMHA includes the U.S. contribution to NATO and support of NATO International Military Headquarters and attendant activities. MAAGS, Missions and Military Groups provides administrative support for MAAGS under the command of the U.S. European Command and the U.S. Military Groups in Latin America.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/ AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
10 - Support of Other Nations - Support of Allies	$ 523,119	$ 293,123	$ 304,800

JUSTIFICATION

Section 1 - Purpose and Scope

The Support of Allies aggregation reflects the obligations required for support provided to the Republic of Vietnam Armed Forces, support for the Laos MASF Program in FY 1973 and FY 1974 and for communications contract support in the Republic of Vietnam.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/ AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
10 - Support of Other Nations - International Military Headquarters and Agencies	$ 36,383	$ 42,794	$ 47,990

JUSTIFICATION

Section 1 - Purpose and Scope

International Military Headquarters and Agencies provides for the United States contribution to the North Atlantic Treaty Organization (NATO). The NATO Defense Planning Committee, composed of representatives from the 15 member nations, determines the percentage of each member nation's contribution to the total operation costs of NATO activities. The U.S. contribution is currently approximately 28 percent of the total operating costs. Costs associated with subordinate NATO agencies and activities are also included in this program.

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT/ AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 19 75
10 - Support of Other Nations - Military Assistance Advisory Groups, Missions and Military Groups	$ 13,277	$ 5,782	$ 6,462

JUSTIFICATION

Section 1 - Purpose and Scope

This program provides for support of Military Groups in Latin America where the U.S. Army has administrative agent responsibility and the administrative and TDY expenses for non-MAAG type costs such as physical examinations and MOS training for U.S. Army personnel assigned to European MAAGS and Missions. The program also provides funding for the support costs of MAAGS in the Middle East, Africa and Spain under the command of the U.S. European Command.

Areas of Special Interest
(Dollars in Thousands; Strength in Whole Numbers)

	FY 1973 Actual			FY 1974 Estimate			FY 1975 Estimate		
	Military End Strength	Civilian End Strength	Obligations By Appn	Military End Strength	Civilian End Strength	Obligations By Appn	Military End Strength	Civilian End Strength	Obligations By Appn
1. Public Affairs Activities	334	208	$8,227	394	235	$8,868	394	235	$9,440
MPA			3,926			4,096			4,584
OMA			4,251			4,722			4,806
OMARNG			50			50			50
2. Legislative Affairs Activities	12	7	$301	12	7	$318	12	7	$327
MPA			210			220			229
OMA			91			98			98
3. Headquarters Operations and Activities									
Army Management Headquarters	14,031	17,681	$605,025	12,100	17,228	$561,560	11,768	16,952	$558,728
MPA			193,561			164,593			173,260
OMA			373,539			338,928			324,033
OMAR			827			20,137			18,803
OMARNG			1,742			1,874			1,912
RDT&E, A			11,662			14,270			18,801
Civil Defense			176			30			30
AIF			22,072			20,593			20,757
HOA (HAP)			86			90			91
NASA			41			21			22
MAP			1,319			1,024			1,019
Unified Commands	1,211	154	$21,065	1,183	196	$22,639	1,149	196	$23,050
MPA			16,338			16,549			16,620
OMA			4,727			5,426			5,763
MAP			-			664			667
International Military Headquarters	2,226	66	$22,883	2,490	69	$26,154	2,490	69	$27,285
MPA			21,457			24,581			25,687
OMA			1,426			1,573			1,598

Areas of Special Interest
(Dollars in Thousands; Strength in Whole Numbers)

	FY 1973 Actual			FY 1974 Estimate			FY 1975 Estimate		
	Military End Strength	Civilian End Strength	Obligations by Appn	Military End Strength	Civilian End Strength	Obligations by Appn	Military End Strength	Civilian End Strength	Obligations by Appn
4. Automatic Data Processing									
Military Functions	6,208	11,534	$379,772	5,383	11,726	$411,608	5,682	10,985	$422,927
MPA			54,707			53,912			56,786
OMA			238,044			227,228			224,105
OMAR			3,399			2,795			2,764
Procurement Accounts			22,880			31,265			40,715
RDT&E, A			17,596			21,305			22,904
MCA			104			268			1,091
OMARNG			5,505			6,560			6,754
AIF			33,020			62,709			61,527
Other			473			474			478
Civil Functions									
Civil Works Revolving Fund			4,044			5,092			5,803
5. Communications	33,851	7,536	$726,127	35,257	8,346	$782,279	32,839	8,587	$788,320
MPA			288,443			303,430			291,908
OMA			271,951			275,215			283,691
Procurement Appropriations			108,259			139,247			132,166
RDT&E, A			54,272			61,334			76,094
MCA			3,202			3,053			4,461
6. Intelligence	18,136	2,357	$272,052	14,945	2,416	$270,951	11,193	2,169	$223,404
MPA			165,171			151,151			124,513
OMA			76,561			82,390			65,133
Procurement Appropriations			16,463			23,723			19,234
RDT&E, A			9,002			11,096			14,376
MCA			4,855			2,591			148

Areas of Special Interest
(Dollars in Thousands; Strength in Whole Numbers)

	FY 1973 Actual			FY 1974 Estimate			FY 1975 Estimate		
	Military End Strength	Civilian End Strength	Obligations by Appn	Military End Strength	Civilian End Strength	Obligations by Appn	Military End Strength	Civilian End Strength	Obligations by Appn
7. Travel & Transportaion of Persons (OC 21)			$445,584			$424,451			$446,117
MPA			178,019			153,824			193,331
RPA			36,253			37,671			37,407
NGPA			17,551			23,086			25,027
OMA			181,311			162,023			135,425
OMAR			7,430			19,565			22,478
OMARNG			7,360			10,108			12,379
NBPRP			11			12			19
Procurement Appropriations			244			583			876
RDTE,A			14,888			15,260			16,346
MCA			2,306			2,000			2,500
MCAR			29			66			58
MCANG			4			3			6
FHMA			158			175			200
HOA			20			75			65
8. Maintenance and Repair of Real Property			$486,295			$448,588			$618,746
OMA			331,236			262,046			396,000
OMAR			12,563			12,054			15,707
OMARNG			6,343			9,979			11,110
FHMA			91,210			117,397			145,856
RDTE,A			11,592			11,760			12,600
AIF			33,351			35,352			37,473

Areas of Special Interest
(Dollars in Thousands; Strength in Whole Numbers)

	FY 1973 ACTUAL			FY 1974 ESTIMATE			FY 1975 ESTIMATE		
	Military End Strength	Civilian End Strength	Obligations By Appn	Military End Strength	Civilian End Strength	Obligations By Appn	Military End Strength	Civilian End Strength	Obligations By Appn
9. Depot Level Maintenance	1,623	5,947	$769,381	1,344	5,401	$782,349	1,117	5,023	$614,041
MPA			14,942			13,892			12,052
OMA			706,957			727,840			542,871
OMAR			3,226			10,864			7,670
OMARNG			44,256			29,753			51,448
10. Project Transition a/									
OMA	-	243	$3,105	-	-	$4,452	-	-	-
11. Project Hire									
OMA	-	69	$467	-	80	$778	-	80	$799

a/ Program has been terminated.

Maintenance and Repair of Real Property
Operation and Maintenance, Army Obligations
(Dollars in Thousands)

Budget Activity	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Strategic Forces	$ 5,795	$ 3,453	$ 4,016
General Purpose Forces	226,893	171,126	254,888
Intelligence and Communications	5,094	4,193	6,138
Central Supply and Maintenance	26,127	14,202	19,798
Training, Medical and Other Personnel Activities	67,327	69,072	111,160
Total Maintenance and Repair of Real Property 1/	$331,236	$262,046	$396,000

1/ In accordance with GAO Letter Report, June 28, 1973, "Comparative Levels of Maintenance of Facilities Within DOD", only the obligations in the .K0000 (Maintenance and Repair of Real Property) account will be applied against the MRPF floor in FY 1975. In prior years, obligations for Minor Construction and Alterations and Other Engineering Support have been included (FY 1973 $72,648 thousand, FY 1974 $49,565 thousand).

TOTAL DEPARTMENT OF THE ARMY CIVILIAN EMPLOYMENT
MILITARY FUNCTIONS AND MILITARY ASSISTANCE

	30 JUNE 1973		30 JUNE 1974		30 JUNE 1975	
	END STRENGTH	MAN YEARS	END STRENGTH	MAN YEARS	END STRENGTH	MAN YEARS
SUMMARY						
DIRECT HIRE	333,235	362,283	356,294	345,224	358,717	359,426
INDIRECT HIRE	72,296	72,342	73,359	70,363	72,651	67,701
TOTAL DIRECT AND INDIRECT HIRE	405,531	434,625	429,653	415,587	431,368	427,127

1. Direct Hire End Strength excludes school teachers in the overseas education of dependents program.

2. FY 73 Direct Hire End Strength excludes 5,282 employees who retired on the last working day of June 1973.

TOTAL DEPARTMENT OF THE ARMY CIVILIAN EMPLOYMENT
MILITARY FUNCTIONS AND MILITARY ASSISTANCE

	30 JUNE 1973		30 JUNE 1974		30 JUNE 1975	
	END STRENGTH	MAN YEARS	END STRENGTH	MAN YEARS	END STRENGTH	MAN YEARS
DIRECT HIRE						
Operation & Maintenance, Army	210,242	237,651	209,418	200,801	210,331	212,145
Operation & Maintenance, Army Nat'l Guard	27,515	27,274	28,871	28,312	29,009	28,673
Operation & Maintenance, Army Reserve	10,997	11,287	14,685	13,297	14,595	13,572
Res, Dev, Test & Evaluation	17,476	17,804	16,585	16,724	17,327	16,940
Army Industrial Fund	60,425	62,091	79,607	79,514	80,174	81,343
Army Management Fund	226	254	213	208	213	208
Nat'l Bd for Promotion Rifle Practice	10	8	11	11	11	11
Military Construction, Army	4,598	4,233	5,196	4,692	5,344	4,838
Military Construction, Army Reserve	121	104	77	60	77	76
Military Family Housing	1,083	1,042	1,078	1,042	1,083	1,067
Homeowners Assistance	49	27	50	50	50	50
Military Assistance Program	493	508	503	513	503	503
TOTAL DIRECT HIRE	333,235	362,283	356,294	345,224	358,717	359,426

1. FY 74 includes 16,111 end strength and 2,564 manyears reflected in Readiness Supplemental.
OMA (13,500) (2,020)
AIF (2,611) (544)

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TOTAL DEPARTMENT OF THE ARMY CIVILIAN EMPLOYMENT
MILITARY FUNCTIONS AND MILITARY ASSISTANCE

	30 JUNE 1973		30 JUNE 1974		30 JUNE 1975	
	END STRENGTH	MAN YEARS	END STRENGTH	MAN YEARS	END STRENGTH	MAN YEARS
INDIRECT HIRE FOREIGN NATIONALS						
Operation & Maintenance, Army	71,137	71,147	72,071	69,106	71,363	66,433
Operation & Maintenance, Army Reserve	5	5	7	6	7	6
Res, Dev, Test & Evaluation	4	4	6	6	6	6
Army Management Fund	169	160	170	167	170	167
Military Construction, Army	38	56	61	61	61	60
Military Family Housing	941	968	1,042	1,015	1,042	1,027
Military Assistance Program	2	2	2	2	2	2
TOTAL INDIRECT HIRE	72,296	72,342	73,359	70,363	72,651	67,701

1. FY 74 includes 1,400 end strength reflected in Readiness Supplemental.

Reserve Personnel, Army

Operation and Maintenance, Army Reserve

STATEMENT OF MAJ. GEN. J. MILNOR ROBERTS, CHIEF, ARMY RESERVE

ACCOMPANIED BY:

MAJ. GEN. J. A. KJELLSTROM, DIRECTOR OF ARMY BUDGET, OFFICE, COMPTROLLER OF THE ARMY

B. E. PETHTAL, CHIEF, COMPTROLLER DIVISION, OFFICE CHIEF, ARMY RESERVE

JUSTIFICATION

Chairman McClellan. The next appropriations to be considered will be those for "Reserve Personnel, Army" and "Operation and Maintenance, Army Reserve".

At this point in the record there will appear certain program and financing information from the justifications.

[The justification follows:]

Justification

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

	IDENTIFICATION CODE 07-05-2070-0-1-051	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:			
	DIRECT PROGRAM:			
	1. RESERVE COMPONENT PERSONNEL	412,571	457,472	456,279
	2. RESERVE OFFICER CANDIDATES	25,373	36,028	34,321
	TOTAL DIRECT PROGRAM	437,944	493,500	490,600
	REIMBURSABLE (TOTAL)	1,045	1,792	1,717
10	TOTAL OBLIGATIONS	438,989	495,292	492,317
	FINANCING:			
	RECEIPTS AND REIMBURSEMENTS FROM:			
11	FEDERAL FUNDS	-554	-820	-820
14	NON-FEDERAL SOURCES	-491	-972	-897
21	UNOBLIGATED BALANCE AVAILABLE, START OF YEAR	-600	.....	.....
25	UNOBLIGATED BALANCE LAPSING	24,314	.....	.....
	BUDGET AUTHORITY	461,658	493,500	490,600
	BUDGET AUTHORITY:			
40	APPROPRIATION	461,658	452,408	490,600
44.30	PROPOSED SUPPLEMENTAL FOR MILITARY PAY RAISES	.....	41,092	.....
	RELATION OF OBLIGATIONS TO OUTLAYS:			
71	OBLIGATIONS INCURRED, NET	437,944	493,500	490,600
72	OBLIGATED BALANCE, START OF YEAR	92,393	102,266	138,266
74	OBLIGATED BALANCE, END OF YEAR	-102,266	-138,266	-148,966
77	ADJUSTMENTS IN EXPIRED ACCOUNTS	-3,318	.....	.....
90	OUTLAYS, EXCLUDING PAY RAISE SUPPLEMENTAL	424,752	419,408	476,900
91.30	OUTLAYS FROM MILITARY PAY RAISE SUPPLEMENTAL	.....	38,092	3,000

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS) PROGRAM SUPPLEMENTAL

IDENTIFICATION CODE 07-05-2070-1-1-051	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:			
DIRECT PROGRAM:			
10 TOTAL OBLIGATIONS	.....	600	.....
FINANCING:			
BUDGET AUTHORITY	.....	600	.....
RELATION OF OBLIGATIONS TO OUTLAYS:			
71 OBLIGATIONS INCURRED, NET	.....	600	.....
72 OBLIGATED BALANCE, START OF YEAR	.....	.....	100
74 OBLIGATED BALANCE, END OF YEAR	.....	-100	.....
90 OUTLAYS	.....	500	100

OPERATION AND MAINTENANCE, ARMY RESERVE

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

	IDENTIFICATION CODE 97-10-2080-0-1-051	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:			
	DIRECT PROGRAM:			
	1. MISSION FORCES	120,004	133,286	147,408
	2. DEPOT MAINTENANCE	3,148	10,864	7,670
	3. OTHER SUPPORT	79,300	120,507	124,622
	TOTAL DIRECT PROGRAM	202,452	264,657	279,700
	REIMBURSABLE (TOTAL)	3,956	5,000	5,000
	SUBTOTAL	206,408	269,657	284,700
	INTRAFUND OBLIGATIONS	-84	-262	-262
10	TOTAL OBLIGATIONS	206,324	269,395	284,438
	FINANCING:			
	RECEIPTS AND REIMBURSEMENTS FROM:			
11	FEDERAL FUNDS	-3,471	-4,230	-4,230
14	NON-FEDERAL SOURCES	-401	-508	-508
25	UNOBLIGATED BALANCE LAPSING	545	.....	.....
	BUDGET AUTHORITY	202,997	264,657	279,700
	BUDGET AUTHORITY:			
40	APPROPRIATION	202,999	253,900	279,700
41	TRANSFERRED TO OTHER ACCOUNTS	-2	-33	.....
43	APPROPRIATION (ADJUSTED)	202,997	253,867	279,700
44.10	PROPOSED SUPPLEMENTAL FOR WAGE-BOARD PAY RAISES	.....	1,936	.....
44.20	PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	8,854	.....

Chairman McCLELLAN. Our first witness will be Maj. Gen. J. Milnor Roberts, Chief of the Army Reserve.

General ROBERTS. Mr. Chairman, we appreciate this opportunity to appear before you again to present the Army Reserve and ROTC budgets and to inform you of the status of our plans and programs for fiscal year 1975.

RESERVE PERSONNEL, ARMY

For the Reserve personnel, Army budget, the fiscal year 1974 column shows $493.5 million. An amount of $452.4 million has been appropriated by the Congress to date, and $41.1 million is pending in the pay raise supplemental. These funds provide for the support of an Army Reserve average strength of 231,792 and for the ROTC senior division entering enrollment of 33,207.

The fiscal year 1975 budget request is for $490.6 million, of which $456.3 million is for Army Reserve and $34.3 million is for Army ROTC. The total is a net decrease of $2.9 million from the fiscal year 1974 column amount.

OPERATION AND MAINTENANCE, ARMY RESERVE

For operation and maintenance, Army Reserve, our budget requests direct support funds for a wide variety of requirements. Some of the funds also provide essential support to the Army National Guard. The fiscal year 1975 request of $279.7 million includes $1.6 million transferred into this appropriation. The remaining fiscal year 1975 increase of $13.4 million is primarily to fund the equipment and logistics programs required for attainment of an increase in mobilization readiness and for annualization of the civilian pay raise. Funds are included to support significant increases of modern equipment, increased readiness training, personnel recruiting, technician manpower support, and provision of training facilities.

STEADFAST REORGANIZATION

Chairman McCLELLAN. Describe the support provided the Army National Guard which is funded from the "Operation and Maintenance," Army Reserve, appropriation.

General ROBERTS. Under the Steadfast Army reorganization, the three CONUS Armies and the newly provided Army readiness regions and readiness groups are assigned the mission of training the Army Reserve and Army National Guard. In addition, large numbers of both Army Reserve and Army National Guard members train at six major Army Reserve component installations. However, for simplified fiscal management, all of the direct costs of these operations and activities are included in the OMAR budget.

TRANSFER OF FUNDS TO O. & M.

Chairman McCLELLAN. Why is $1.6 million being transferred into "Operation and Maintenance," Army Reserve, in fiscal year 1975, and what is it for?

General ROBERTS. Major funding for the three Continental U.S. Armies was transferred into the "Operation and Maintenance," Army Reserve appropriation for fiscal year 1974. However, the

funding for aviation detachments of the Armies remained and is now being transferred for fiscal year 1975. This action completes total funding for the Continental Armies from the "Operation and maintenance," Army Reserve appropriation.

INCREASES IN MOBILIZATION READINESS

Chairman McClellan. Describe the increases in mobilization readiness programed in fiscal year 1975 in detail.

General Roberts. Sir, some $80 million in major equipment items has been programed for issue to Army Reserve units during fiscal year 1975. An increase of this magnitude will significantly improve the readiness of our units. We have an aggressive training program planned for fiscal year 1975. This program includes expansion of the battalion affiliation program started in the last half of fiscal year 1974 and it includes a significant increase in the conduct of weekend training at field training sites instead of in the confines of the Army Reserve centers. We hope to increase the level of stock fund equipment issued to our units and to provide additional technician man-years to help increase the readiness condition of our equipment.

I think that perhaps the greatest impact on our readiness will be the very high level of emphasis placed on Army Reserve activities by the new Active Army management structure. It is too soon to be able to quantify or discuss in specific detail the impact of this first year of Forscom's operation on our readiness status. I am confident, however, that marked improvement has been made and I am sure that this improvement will continue in the future.

SELECTED RESERVE STRENGTH

For fiscal year 1974, Public Law 93–155 requires that we program to attain a Selected Reserve or paid drill average strength of not less than 232,591. Our average strength through January 31, 1974, was 230,738, and the January 31 strength was 227,702. Addition of the REP–63 personnel who have not yet entered training brings our assigned strength to 228,613. I am confident that we will attain the programed end strength of 230,350 by the end of this fiscal year.

For fiscal year 1975 the budget and the strength authorization of an average of 215,842 and end strength of 201,350 assumes no additional recruiting and retention incentives and includes the fiscal year 1975 impact of inactivation of units with an authorized TOE strength of 19,200. We have estimated a fiscal year 1975 loss of 6,250. I believe we have a good likelihood of achieving a strength well above the budgeted 201,350 for fiscal year 1975.

A strong effort has been made to turn the Army Reserve strength upward. We have been working hard in recruiting prior-service personnel and in steadily increasing our retention of unit personnel. However, our recruitment of nonprior service personnel has been low and is the reason our strength has been dropping.

RECRUITING

An intensified and strengthened recruiting program is necessary in the zero draft and volunteer strength environment. We urgently need continuation of our 430 recruiting technicians who are located at larger

units and selected Army Reserve centers. We, likewise, need and request continuation of our recruiting advertising program which enables selective intensification of all aspects of our recruiting effort. I feel that our requested recruiting program is an urgent requirement, that our separate recruiting program is critically required, that the Active Army is helping us in every practicable way, and that we are not duplicating its efforts.

RECRUITING TECHNICIANS

Chairman McCLELLAN. Are the 430 recruiting technicians full time civil service employees during the normal work week and part of the 8,146 technician positions being supported in the fiscal year 1975 budget?

General ROBERTS. Yes, sir. The 430 recruiting technicians are civil service employees and they are included in the 8,146 technicians supported within the fiscal year 1975 budget.

RESERVE RECRUITING PROGRAM

Chairman McCLELLAN. What is the total cost of the Reserve recruiting program, and how many people are involved? What is the relationship of these Reserve recruiters with the U.S. Army Recruiting Command?

General ROBERTS. Sir, the total cost of the Army Reserve recruiting program during fiscal year 1975 will be $24.6 million. There are 430 civilian technician recruiters and 99 full-time Army Reserve senior enlisted recruiters conducting the efforts of the program throughout the country. There are also nearly 9,000 unit members who are assigned additional part-time duties as the recruiters for their own specific units. The relationship of Reserve recruiters with the U.S. Army recruiting command is primarily one of mutual support. There are 64 USAR NCO's stationed at selected Army recruiting main stations. These NCO's function as liaison personnel and assist and refer to specific units individuals interested in joining the Army Reserve.

RESERVE ADVERTISING PROGRAM

Chairman McCLELLAN. What is the cost of the Reserve advertising program?

General ROBERTS. The cost of the fiscal year 1975 advertising program is $5.4 million.

TECHNICIANS

The fiscal year 1975 OMAR budget provides for 8,146 technicians and will provide manning at 90 percent of our fiscal year 1975 requirement. This budget request will increase stock fund equipment as an essential step in the effort to increase unit and materiel readiness. Significant quantities of new and modern mission equipment continue to be issued to the Army Reserve and our budget includes funds to maintain this equipment in a fully deployable condition.

BASE OPERATIONS AND COMMAND

The base operations part of the OMAR budget finances the operations cost of 6 major Army Reserve component installations, 3 field maintenance shops, and the operation of over 1,000 home station training centers. The command part of OMAR finances operations of the Army Reserve program such as Office, Chief Army Reserve, CONUS Army Headquarters and Army readiness regions, supply management, recruiting, civilian personnel, and inspection activities.

ROTC

For the Senior ROTC this budget provides for a fiscal year 1975 entering enrollment of 36,000. We estimate commissions of approximately 5,750 junior officers at end fiscal vear 1974 and 4,819 at end fiscal year 1975. The budget also provides for Junior ROTC opening enrollment of 130,000.

HEALTH PROFESSIONS SCHOLARSHIP PROGRAM

The health professions scholarship program is designed to produce officers for the uniformed services in the fields of medicine, dentistry, veterinary medicine and allied health disciplines. This request provides for a monthly stipend of $400 to be paid to each of the 1,850 participants and for pay and allowances for the active duty for training performed annually by each student. The total cost in fiscal year 1975 is $12.5 million.

MOBILIZATION KNOWLEDGE

I would like to add at this time it is our practice to advise all members of the Army Reserve, including new members, that they do face activation should the need arise.

Chairman McCLELLAN. They have always known they could be mobilized, but as I understand it, during the Viet-Nam conflict you undertook to build up your strength through the draft with new recruits in order to provide replacements. But as I understand it now, you propose that in the event of an emergency you simply call up the Reserves?

General ROBERTS. That is correct.

Chairman McCLELLAN. When they enlist in the Reserves and National Guard, they know they are likely to be called first?

General ROBERTS. That's right.

Chairman McCLELLAN. We have this problem in Congress. When you begin to call them up, they say, "Well, I didn't expect to go." They also say, "I have got a family, I have a business." They have all sorts of excuses. They should be made to understand that this means, "If we need you, you will be on call."

General ROBERTS. Yes, sir, we make it clear. There is no longer any doubt. It is a national policy.

This concludes my statement, sir. I would like to add the long version of my statement for the record.

Chairman McCLELLAN. Thank you, sir.

There will be included in the record at this point, justification material and your prepared statement.

JUSTIFICATION

At this point in the record there will appear certain information from the justifications.

[The justification follows:]

Justification

APPROPRIATION INTRODUCTION

The Reserve Personnel, Army appropriation consists of two Budget Programs. Budget Program 3200, Reserve Component Personnel, provides unit and individual readiness training and support for the United States Army Reserve. This includes military personnel costs of pay, allowances, clothing, subsistence, and travel, and covers home station training, annual field training, initial training of Reserve Enlistment Program of 1963 personnel, training at military schools, and tours of active duty for specialized training. This budget program also provides for military personnel costs of officers on extended active duty under appropriate sections of Title 10, U.S.C. and for death gratuities and disability and hospitalization benefits for reservists killed or injured while participating in military activities. The budget accounts include Pay Group A, Pay Group D, Pay Group F, School Training, Special Training, and Administration and Support. The amount required for FY 1975 is $456,279,000.

Budget Program 3300, Reserve Officer Candidates, provides for programs which procure junior officers for the Active Army and Reserve Components, and medical doctors for the Active Army. It includes military personnel costs of subsistence, clothing, pay and allowances including stipends, and travel for members of the Reserve Officers' Training Corps and for participants in the Health Professions Scholarship Program. The budget accounts include Senior ROTC, Senior ROTC Scholarship program, Junior ROTC, and Health Professions Scholarship. The amount required for FY 1975 is $34,321,000.

SUMMARY OF REQUIREMENTS

(In Thousands of Dollars)

	Actual	Estimate	
	FY 1973	FY 1974	FY 1975
Reserve Component Personnel	$413,581	$459,164	$457,896
Reserve Officer Candidates	25,408	36,128	34,421
TOTAL PROGRAM REQUIREMENTS (Obligations)	438,989	495,292	492,317
Less Actual/Anticipated Reimbursements	-1,045	-1,792	-1,717
Unobligated balance lapsing	23,714	-	-
Total Direct Obligations/Appropriations	$461,658	$493,500	$490,600

Budget Program 1
Reserve Component Personnel
SUMMARY OF REQUIREMENTS BY BUDGET ACTIVITY

(In Thousands of Dollars)

Budget Activity	Actual FY 1973	Estimate FY 1974	Estimate FY 1975
Direct Program			
Training, Pay Group A	$292,759	$323,690	$310,731
Training, Pay Group D	19,411	23,307	24,974
Training, Pay Group F	27,324	24,581	40,077
School Training	43,838	44,998	37,081
Special Training	26,656	38,821	41,318
Administration and Support	2,583	2,075	2,098
Total Direct Program (Pay Group A)	$412,571	$457,472	$456,279
Reimbursable Program			
Total Reimbursable Program	$ 1,010	$ 1,692	$ 1,617
Total Program			
Training, Pay Group A	$293,769	$325,382	$312,348
Training, Pay Group D	19,411	23,307	24,974
Training, Pay Group F	27,324	24,581	40,077
School Training	43,838	44,998	37,081
Special Training	26,656	38,821	41,318
Administration and Support	2,583	2,075	2,098
Total Obligations	$413,581	$459,164	$457,896

RESERVE PERSONNEL IN PAID STATUS

RESERVE COMPONENT USAR

Pay Groups	Paid Drills	Paid Days of Active Duty for Training		FY 1973 (PAST YEAR) BEGIN	FY 1973 (PAST YEAR) AVERAGE	FY 1973 (PAST YEAR) END	FY 1974 (CURRENT YEAR) AVERAGE	FY 1974 (CURRENT YEAR) END	FY 1975 (BUDGET YEAR) AVERAGE	FY 1975 (BUDGET YEAR) END
A	48	15	Off	38,082	39,711	40,501	39,089	39,630	39,007	38,480
			Enl	193,614	190,994	191,129	188,520	185,072	170,563	155,371
			Off	-0-	-0-	-0-	-0-	-0-	-0-	-0-
F	0	Minimum 4 Mos.	Enl	3,496	3,390	3,869	4,183	5,648	6,272	7,499
Paid Drill Training										
		Sub Total	Off	38,082	39,711	40,501	39,089	39,630	39,007	38,480
			Enl	197,110	194,384	194,998	192,703	190,720	176,835	162,870
			Total	235,192	234,095	235,499	231,792	230,350	215,842	201,350
Paid Active Duty Training Only										
		Sub Total	Off	9,931	10,795	10,795	12,210	12,210	12,660	12,660
D	0	15	Enl	38,362	38,193	38,193	37,875	37,875	37,875	37,875
			Total	48,293	48,988	48,988	50,085	50,085	50,535	50,535
TOTAL PAID STATUS			Off	48,013	50,506	51,296	51,299	51,840	51,667	51,140
			Enl	235,472	232,577	233,191	230,578	228,595	214,710	200,745
			Total	283,485	283,083	284,487	281,877	280,435	266,377	251,885

Averages computed by doubling the end strengths of the months of July through May, adding 30 June strengths of the previous year and the year under consideration, and dividing the total by 24, except for Pay Group D. Pay Group D represents the total number of personnel participating during the fiscal year, and average and end strengths are identical in any one year.

FY 1975 STRENGTH PLAN

	Pay Group A			Reserve Enlistment Program	Total Selected Reserve
	Off	Enl	Total		
June 30, 1974	39,630	185,072	224,702	5,648	230,350
July	39,630	185,641	225,271	4,079	229,350
August	39,630	182,861	222,491	4,059	226,550
September	39,630	179,581	219,211	4,739	223,950
October	39,630	177,401	217,031	5,419	222,450
November	39,630	174,921	214,551	6,099	220,650
December	38,480	167,421	205,901	6,799	212,700
January 1975	38,480	165,421	203,901	7,499	211,400
February	38,480	164,511	202,991	7,499	210,490
March	38,480	162,301	200,781	7,499	208,280
April	38,480	159,291	197,771	7,499	205,270
May	38,480	157,181	195,661	7,499	203,160
June 30, 1975	38,480	155,371	193,851	7,499	201,350
Average	(39,007)	(170,563)	(209,570)	(6,272)	(215,842)

RESERVE COMPONENT OFFICERS
ON STATUTORY TOURS OF ACTIVE DUTY

Army Reserve officers performing full-time active duty under Sections 265, 2019, and 3033 of Title 10, United States Code:

	FY 19PY Actual			FY 19CY Estimate		FY 19BY Estimate	
	Begin	Average	End	Average	End	Average	End
Section 265:							
O-7 Brigadier General	1	1	1	1	1	1	1
O-6 Colonel	11	11	11	11	11	11	11
O-5 Lieutenant Colonel	22	22	22	24	24	27	27
O-4 Major	7	7	7	6	6	1	1
Section 3019:							
O-8 Major General	1	1	1	1	1	1	1
Section 3033:							
O-6 Colonel	1	1	1	1	1	1	1
O-5 Lieutenant Colonel	4	4	4	4	4	8	8
O-4 Major	2	2	2	2	2	-	-
Total	39	39	39	50	50	51	51

Appropriation: Reserve Personnel, Army
Budget Program 1: 3200 Reserve Component Personnel
Budget Activity 1A: 3210 Training, Pay Group A

(In Thousands of Dollars)		
ACTUAL FISCAL YEAR 1973	ESTIMATE	
	FISCAL YEAR 1974	FISCAL YEAR 1975
$ 292,759	$ 323,690	$ 310,731

Part 1 - PURPOSE AND SCOPE

This project provides funds for officer and enlisted personnel assigned to TOE and TDA units and Staff and Faculty (USAR Schools) to include pay and allowances, active and inactive duty; individual clothing and uniform gratuities; subsistence for enlisted personnel; and travel.

The objective is to provide training to qualify units and individuals for attainment of a high state of readiness to meet assigned mobilization missions. Training conforms to the Department of the Army doctrines and standards, as prescribed for the Active Army. A tour of not less than 14 days of active duty training (exclusive of travel time) is provided to supplement the training received by the reservist through the year at home station. Reserve duty training is accomplished through reservists attending a single training assembly scheduled for a period of at least 4 hours, inclusive of rests and interruptions; a multiple training assembly scheduled during 1 calendar day for a period of at least 8 hours duration; or a weekend training assembly scheduled on holidays or weekends for a period of at least 4 hours on each of two consecutive days with a minimum of 4 hours military training during each calendar day.

Appropriation: Reserve Personnel, Army
Budget Program 1: 3200 - Reserve Component Personnel
Budget Activity 1C: 3220 - Training, Pay Group D

(In Thousands of Dollars)		
ACTUAL FISCAL YEAR 1973	ESTIMATE	
	FISCAL YEAR 1974	FISCAL YEAR 1975
$ 19,411	$ 23,307	$ 24,974

Part I - Purpose and Scope

This project provides funds for support of officer and enlisted personnel assigned as students at USAR schools, mobilization designees, and individual reinforcements. Costs include pay and allowances, individual clothing and uniform gratuities, subsistence of enlisted personnel, and travel. The specific objective is to qualify members of the US Army Reserve in their appropriate MOS, grades, assignments, and other duties to which they may be assigned upon mobilization, and to maintain MOS proficiency of those members of the Individual Ready Reserve.

The USAR schools provide a means whereby non-unit Reserve Component officers may meet military educational and proficiency requirements. The school provides a progressive system of military education paralleling as closely as possible the resident career courses of the Army Service schools and the resident associate course of the Army Command and General Staff College. An annual active duty for training tour is mandatory for successful completion of the courses in these schools.

All mobilization designees will be ordered to a tour of annual active duty for training. This training is directed toward the objective of preparing the individual for his mobilization assignment as well as the maintenance and advancement of the military proficiency required for his branch and grade.

Individual reinforcements, with a participating obligation, may be required to perform a tour of annual active duty for training. Ready Reserve individual reinforcements without a statutory obligation may attend annual active duty for training according to prescribed criteria and within approved programs.

Part II - Justification of Funds Requested

The FY 1975 estimates are based on a strength of 12,660 officers and 37,875 enlisted personnel. The following is a comparison by fiscal years of the program data and associated costs included in this estimate:

	FY 1973 (Actual)	FY 1974 (Estimate)	FY 1975 (Estimate)
		($ in Thousands)	
Average Strength:			
Officers	10,795	12,210	12,660
Enlisted	38,193	37,875	37,875
Active Duty Mandays:			
Officers	146,038	165,706	171,601
Enlisted	510,621	526,300	526,300
		($ in Thousands)	
Active Duty Training Costs:			
Officers	$6,993	$8,808	$9,407
Enlisted	7,465	8,559	8,868
Clothing Costs:			
Officers	6	50	50
Enlisted	176	280	280
Subsistence of Enlisted Personnel	71	1,046	1,058
Travel Costs:			
Officers	2,001	1,849	2,158
Enlisted	2,699	2,715	3,153
Total Requirement:	$19,411	$23,307	$24,974

Appropriation: Reserve Personnel, Army
Budget Program 1: 3200 - Reserve Component Personnel
Budget Activity 1D: 3230 - Training, Pay Group F

(In Thousands of Dollars)		
ACTUAL FISCAL YEAR 19 73	ESTIMATE	
	FISCAL YEAR 19 74	FISCAL YEAR 19 75
$ 27,324	$ 24,581	$ 40,077

Part I - Purpose and Scope

This Budget Activity provides funds for the pay and allowances, individual clothing and overcoats, subsistence and travel of enlisted members of the US Army Reserve participating in minimum 4 months training program with Active Army as authorized by the Reserve Enlistment Program of 1963.

Funds are provided for pay and subsistence for terminal leave accrued and separate rations allowance for any authorized leave.

Part II - Justification of Funds Requested

This estimate provides for 17,200 non-prior service enlistees to attend basic military training in accordance with DoD Directives and sending 17,000 on to basic technical training to bring them to the semi-skilled level in those career areas where on-the-job training will not permit an earlier qualification. Following is a comparison, by fiscal year, of basic military training and a computation of requirements included in this estimate.

	FY 1973 (Actual)	FY 1974 (Estimate)	FY 1975 (Estimate)
Number to enter training	10,754	7,539	17,200
Total Man-days	1,219,590	1,505,760	2,257,890
Man-months Mid-month Average	40,653	50,192	75,263
		($ in Thousands)	
Active Duty Training Costs, Enlisted	$21,970	$19,943	$30,268
Clothing Costs, Enlisted	2,257	1,841	3,881
Subsistence of Enlisted	1,436	1,699	3,729
Travel Costs, Enlisted	1,661	1,098	2,199
Total Requirement:	$27,324	$24,581	$40,077

Appropriation: Reserve Personnel, Army
Budget Program 1: 3200 - Reserve Component Personnel
Budget Activity 1E: 3240 - School Training

(In Thousands of Dollars)		
ACTUAL FISCAL YEAR 1973	ESTIMATE	
	FISCAL YEAR 1974	FISCAL YEAR 1975
$ 43,838	$ 44,998	$ 37,081

Part 1 - Purpose and Scope

This project provides funds for officer and enlisted personnel to attend Army Service, Army Area, Officer Candidate, and Army Language schools, to include pay and allowances, uniform gratuities, subsistence of enlisted personnel, and travel.

Utilization of Army Service, Army Area and other authorized schools or military colleges afford participating Army Reserve personnel an opportunity to attain a high standard of MOS and/or promotion qualification. Training tours of varying durations, with pay, are authorized for selected personnel when deemed necessary to maintain essential proficiency in military occupational specialties. Members of the US Army Reserve attend the service school pertaining to the branch or MOS of the individual concerned. Exceptions to this policy are authorized for the purpose of qualifying the individual in a new branch or MOS for which a mobilization requirement exists. Attendance at the Active Army Infantry and Artillery Officer Candidate (Reserve Component) schools is authorized. Participation of members of the US Army Reserve at Army Area schools is authorized for courses conducted by the Commanding Generals, CONUS Armies, and includes, but is not limited to, common specialist training of enlisted members of the US Army Reserve.

This account provides required Basic Officers Course (BOC) training for commissioned graduates entering USAR direct from ROTC.

Funds are provided for subsistence of enlisted personnel at the commuted ration rate of $2.28 Due to inclusion in travel allowances, subsistence is computed for less days than the duration of school training.

Under the provisions of Section 427(b), Public Law 88-132, family separation allowance is provided for those individuals attending courses of more than 30 days duration.

Travel of Reserve personnel, to and from stations of active duty training, is specified in orders placing members of the US Army Reserve on active duty for training.

Includes funds for the Clinical Clerkship program under Project Volunteer.

Part II - Justification of Funds Requested

The FY 1975 estimates are based on 17,762 officers and 7,744 enlisted personnel participation in the school program. The following is a comparison by fiscal years of the program data and associated costs included in this estimate:

	FY 1973 (Actual)	FY 1974 (Estimate)	FY 1975 (Estimate)
Number of Particpants (Schools)			
Officers	11,949	15,237	15,222
Enlisted	5,202	7,958	7,744
Total Participants	17,151	23,195	22,966
Number of Man-Days (Schools)			
Officers	181,030	222,225	259,085
Enlisted	68,040	95,328	106,852
Total Man-Days	249,070	317,553	365,937
Number of Participants (ROTC BOC)	6,400	5,240	2,540
Number of Man-Months (ROTC BOC)	20,802	18,634	9,575
		($ in Thousands)	
Active Duty Training Costs:			
Officers	$28,721	$28,735	$23,924
Enlisted	1,552	3,172	3,628
Clothing Costs:			
Officers	1,897	1,627	817
Enlisted	1	5	5
Subsistence of Enlisted Personnel	102	173	226
Travel Costs:			
Officers	11,046	10,103	7,297
Enlisted	519	1,183	1,184
Total Requirement:	$43,838	$44,998	$37,081

Appropriation: Reserve Personnel, Army
Budget Program 1: 3200 - Reserve Component Personnel
Budget Activity 1F: 3250 - Special Training

(In Thousands of Dollars)		
ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
$ 26,656	$ 38,821	$ 41,318

Part I - Purpose and Scope

This budget activity provides funds for pay and allowances, subsistence, and travel for short tours of active duty for specialized training in connection with projects relating to the Army Reserve program. Such training is designed to maintain MOS proficiency of individuals. Types of specialized training include, but are not limited to, Special Tours, Command Post Exercises, seminars, supervision of subordinate units, 45-day tours, and pre-camp conferences:

Special Tours provide training and support for relatively short periods for aviation qualification; special physical examinations; surveys; shuttle of equipment; training conferences; evaluation boards; aerial flights; PIO coverage of units at camp; drill sergeant's orientation; Commanders' Conferences; marksmanship coordination; line of duty investigations; special projects; advisor activities; appointment boards; equipment maintenance support; recruiting; medical support, OSD test 4; steadfast reorganization.

Seminars provide very valuable training for selected reservists in specialized fields. At the same time, professional and highly skilled personnel in the USAR contribute to the advancement of ideas in the active military establishment. Quotas have been established for Reserve Personnel at the following seminars: Defense Strategy Seminar, National Security Seminar, and Reserve Orientation Course.

Command Post Exercises (CPX) provide realistic operational training for selected unit and Individual Ready Reserve members.

Increased emphasis in readiness requires the additional supervision by key officers. This budget includes requirements to provide minimum supervision to those units which are 35 or more miles from their parent organization. This is budgeted on the basis of one visit each quarter for an average duration of 1.7 days each trip for commanders and key staff personnel.

45-Day tours are required by law for obligated reservists who do not satisfactorily participate in training.

Part II - Justification of Funds Requested

The 1975 estimates are based on 67,445 officers and 31,152 enlisted personnel participating in the special training program. The following is a comparison by fiscal years of the program data and associated costs included in this estimate:

	FY 1973 (Actual)	FY 1974 (Estimate)	FY 1975 (Estimate)
Number of Participants			
Officers	58,973	65,642	67,445
Enlisted	27,551	30,614	31,152
Total Participants	86,524	96,256	98,597
Number of Man-Days			
Officers	280,934	343,343	357,387
Enlisted	160,791	212,938	217,941
Total Man-Days	441,725	556,281	575,328
		($ in Thousands)	
Active Duty Training Costs:			
Officers	$16,367	$ 23,173	$ 24,628
Enlisted	4,426	7,051	7,305
Clothing Costs:			
Officers	5	5	5
Enlisted		5	5
Subsistence of Enlisted Personnel:	220	355	426
Travel Costs:			
Officers	4,412	6,014	6,598
Enlisted	1,226	2,218	2,351
Total Requirement:	$26,656	$ 38,821	$ 41,318

Appropriation: Reserve Personnel, Army
Budget Program 1: 3200 Reserve Component Personnel
Budget Activity 1G: 3260 Administration and Support

(In Thousands of Dollars)		
ACTUAL FISCAL YEAR 1973	ESTIMATE	
	FISCAL YEAR 1974	FISCAL YEAR 1975
$ 2,583	$ 2,075	$ 2,098

Part I - Purpose and Scope

The funds requested in this budget activity are to provide for pay and allowances, and permanent change of station travel costs of Army Reserve officers serving on active duty as authorized by Sections 265, 3019, and 3033, Title 10, United States Code.

Funds are also requested to provide death gratuity payments to beneficiaries of Army Reserve personnel who die while participating in or as a result of injury received or disease contracted while participating in active duty training; for pay and allowances during periods of disability and hospitalization to members of the Army Reserve who suffer injury or contract disease in line of duty while participating in active or inactive duty training; and for the Federal Government's portion of the Servicemen's Group Life Insurance associated with Army Reserve personnel when required.

Part II - Justification of Funds Requested

The following is a comparison by fiscal years of the program data and associated costs included in this estimate:

	FY 1973 (Actual)	FY 1974 (Estimate)	FY 1975 (Estimate)
Average Strength, Officers	43	49	51
		($ in Thousands)	
Active Duty Costs, Officers	$1,600	$1,319	$1,337
Travel Costs, Officers	50	67	67
Death Gratuities			
Officers	20	15	15
Enlisted	20	15	15
Disability and Hospitalization Benefits			
Officers	340	300	300
Enlisted	504	325	324
Servicemen's Group Life Insurance	49	34	40
Total Requirement	$2,583	$2,075	$2,098

Budget Program 2
Reserve Officer Candidates

SUMMARY OF REQUIREMENTS BY BUDGET ACTIVITY
(In Thousands of Dollars)

Budget Activity	Actual	Estimate	
	FY 1973	FY 1974	FY 1975
Direct Program			
Senior ROTC	$15,603	$12,729	$12,473
Scholarship Program	7,101	7,768	7,849
Junior ROTC	771	2,968	1,488
Health Professions Scholarship	1,898	12,563	12,511
Total Direct Program/Obligations	$25,373	$36,028	$34,321
Reimbursable Program			
Total Reimbursable Program	$ 35	$ 100	$ 100
Total Program			
Senior ROTC	$15,638	$12,829	$12,573
Scholarship Program	7,101	7,768	7,849
Junior ROTC	771	2,968	1,488
Health Professions Scholarship	1,898	12,563	12,511
Total	$25,408	$36,128	$34,421

Appropriation: Reserve Personnel, Army
Budget Program 2: 3300 - Reserve Officer Candidates
Budget Activity 2A: 3310 - Senior ROTC

(In Thousands of Dollars)		
ACTUAL FISCAL YEAR 1973	ESTIMATE	
	FISCAL YEAR 1974	FISCAL YEAR 1975
$ 15,603	$ 12,729	$ 12,473

Part 1 - Purpose and Scope

Funds herein provide subsistence allowance; uniform issue-in-kind and commutation in lieu of uniform; pay and allowances for summer camp training; subsistence for summer camp training and travel to and from summer camps, as authorized under the provisions of Public Law 88-647, dated 13 October 1964, and Public Law 89-51, dated 28 June 1965.

Funds provided for subsistence allowance are based upon the average number of cadets estimated to be enrolled in the First and Second Year Advanced Courses, computed at $100 per month, not to exceed 9 months.

Provides funds for commutation in lieu of uniform and for issue-in-kind uniforms for Advanced and Basic Course Senior ROTC cadets; for the issuance of uniforms to cadets attending advanced and basic summer camps; and for replacement issues of Advanced and Basic Course uniforms.

Funds provide for payment of Advanced Course cadets at ROTC advanced summer camps who will receive the allowance of a cadet at the United States Military Academy of $300.60 per month, or $10.62 per day, under the provisions of Section 2109 (b) of Title 10, as amended by PL 88-647. Funds are also provided for a basic camp for selected applicants for the Advanced Course who have not taken the Basic Course (freshman and sophomore years). Payment will be made at the rate of an E-1 under 2 years of $326.10 per month or $10.87 per day. The objective of military science and tactics training at summer training camps is to supplement instruction received by the cadet at the institution by providing intensive applicatory training involving actual experience in the performance of tactical, technical, and administrative duties under field conditions. Camps will ordinarily open in June of each year (as soon as practicable after the closing date of educational institutions concerned) and will continue for 6 weeks.

Provides funds for subsistence to cadets at both the advanced and basic summer camp.

Provides funds for travel allowances of cadets to and from advanced and basic summer camps at the rate of 6¢ per mile. The estimated travel of cadets from July 1974 camps and to June 1975 camps is 1,218 miles round trip.

Also provides funds for payment of contribution for Servicemen's Group Life Insurance (PL 91-291), when required.

Part II - Justification of Funds Requested

The following is a comparison by fiscal years of the costs included in this estimate:

	($ in Thousands) FY 1973 (Actual)	FY 1974 (Estimate)	FY 1975 (Estimate)
Subsistence Allowance	$ 9,375	$ 6,122	$ 5,423
Uniforms, Issue in Kind	1,255	1,896	1,974
Uniforms, Commutation in Lieu	901	627	673
Pay and Allowances (Summer Camp Training)	2,639	2,845	3,071
Subsistence of Reserve Officer Candidates	820	616	672
Travel of Reserve Officer Candidates	613	619	656
SGLI	-	4	4
Total Requirement	$15,603	$12,729	$12,473

Appropriation: Reserve Personnel, Army
Budget Program 2: 3300 - Reserve Officer Candidates
Budget Activity 2B: 3320 - Scholarship Program

(In Thousands of Dollars)		
ACTUAL FISCAL YEAR 1973	ESTIMATE	
	FISCAL YEAR 1974	FISCAL YEAR 1975
$ 7,101	$ 7,768	$ 7,849

Part I - Purpose and Scope

Public Law 88-647, established a scholarship program for selected cadets within the Senior Reserve Officers Training Corps.

Funds herein provide subsistence allowance; uniform issue-in-kind and commutation in lieu of uniform; pay and allowances for summer camp training; subsistence for summer camp training and travel to summer camps for scholarship cadets.

Funds are provided for subsistence allowance for Basic Course and Advanced Course scholarship cadets at the rate of $100 per month, not to exceed 9 months.

Provides funds for issue-in-kind uniforms to Basic Course cadets and Advanced Course cadets attending summer camp; replacement issues of Basic Course uniforms; and commutation in lieu of uniform for Advanced Course cadets. Funds provide for purchase of individual clothing items from the Army Stock Fund through a special open allotment. Requisitions submitted by ROTC requisitioning activities will bear the citation of the clothing funds, such issues being made from DSA depots.

Provides funds for payment of Advanced Course cadets at ROTC advanced summer camps at the rate of $300.60 per month, or $10.02 per day.

Funds are provided for subsistence to Advanced Course cadets at summer camp.

Funds are provided for travel of Advanced Course cadets to June 1975 summer camps at the rate of 6¢ per mile. Estimated one-way trip is 623 miles.

Per diem for cadets undergoing Army Orientation Training are solely for cadets appointed under Sec 2107, Title 10, U.S.C. Cadets and midshipmen appointed under provision of 10 U.S.C. 2107 are entitled, under provision of 37 U.S.C. 422 (c), to the same allowances as are provided for cadets and midshipmen at the US Military, Naval and Air Force Academies.

Also provides funds for payment of contribution for Servicemen's Group Life Insurance (P.L. 91-291), when applicable.

Appropriation: Reserve Personnel, Army
Budget Program 2: 3300 - Reserve Officer Candidates
Budget Activity 2C: 3330 - Junior ROTC

(In Thousands of Dollars)		
ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
$ 771	$ 2,968	$ 1,488

Part 1 - PURPOSE AND SCOPE

Funds herein provide for issue-in-kind uniforms, primarily for military schools; and for replacement issues of uniforms to Junior Course cadets enrolled in the ROTC.

Funds provide for purchase of individual clothing items from the Army Stock Fund through a special open allotment. Requisitions submitted by Junior ROTC requisitioning activities will bear the citation of the clothing funds, such issues being made from DSA depots.

Appropriation: Reserve Personnel, Army
Budget Program 2: 3300 - Reserve Officer Candidates
Budget Activity 2E: 3350 - Health Professions Scholarship

(In Thousands of Dollars)		
ACTUAL FISCAL YEAR 1973	ESTIMATE Fiscal Year 1974	ESTIMATE Fiscal Year 1975
$ 1,898	$ 12,563	$ 12,511

Part I - Purpose and Scope

This project provides funds for officers to participate in the Armed Forces Health Professions Scholarship Program as authorized by Public Law 92-426, 92nd Congress H.R. 2, September 21, 1972.

Persons participating in the program shall be commissioned officers in reserve components of the armed forces. Members of the program shall serve on active duty in pay grade O-1 with full pay and allowances of that grade for a period of 45 days during each year of participation in the program. They shall be detailed as students at accredited civilian institutions located in the United States or Puerto Rico, for the purpose of acquiring knowledge or training in a designated health profession. In addition, members of the program shall under regulations prescribed by the Secretary of Defense, receive military and professional training and instruction. Except when serving on active duty pursuant to subsection (c), a member of the program shall be entitled to a stipend at the rate of $400 per month.

OPERATION AND MAINTENANCE, ARMY RESERVE
Personnel Summary

Identification Code 07-10-2080-01-051	1973 Actual	1974 Estimate	1975 Estimate
Total number of permanent positions	9,979	13,207	13,117
Full time equivalent of other positions ...	1,093	750	1,112
Average paid employment	11,192*	13,297	13,572
Average GS grade	7.3	7.3	7.3
Average GS salary	$ 10,061	$ 10,486	$ 10,670
Average salary of ungraded positions	$ 9,757	$ 10,635	$ 10,954

* Excludes SEY 95 MY

JUSTIFICATION OF ESTIMATES FOR FY 1975
OPERATION AND MAINTENANCE, ARMY RESERVE

Section 2 - INTRODUCTORY STATEMENT

Operation and Maintenance, Army Reserve finances all costs, except military (Active and Reserve) pay, of operating and maintaining the U.S. Army Reserve. The FY 1975 request provides for the training and operational support for an average of 215,842 Army Reserve Personnel in the Selected Reserve. In addition to direct support of the Army Reserve forces this appropriation provides functional support for administration, communications, logistical functions, transportation of materiel and depot maintenance essential to training and readiness improvement. The Active Army Advisors for the US Army Reserve and the Army National Guard as well as the reorganized Army Headquarters and the newly established Army Readiness Regions and Readiness Groups are supported by this appropriation. The FY 1975 military and civilian end strengths in this request are 4,969 and 14,595 respectively. Included in this $280 million budget estimate is $160 million for pay and benefits of civilian personnel and $40 million (excluding civilian pay) for the operation of nine Reserve Component Facilities, three field maintenance shops, and 1,019 reserve centers and the maintenance of real property facilities at these sites.

No new programs are programmed for initiation in this budget estimate.

Direct Hire Civilian Employment
Operation and Maintenance, Army Reserve
(Dollars in Thousands; Strength in Whole Numbers)

	FY 1973			FY 1974 Estimate			FY 1975 Estimate		
	Average Strengths	End Strength Jun 30, 73	Oblig	Average Strengths	End Strength Jun 30, 74	Est Oblig	Average Strengths	End Strength Jun 30, 75	Est Oblig
Direct Hire Civilians									
Full-Time Permanent	10,099	9,979	$110,727	12,547	13,207	$144,703	12,460	13,117	$146,955
Other	1,093	1,018	11,983	750	1,478	8,650	1,112	1,478	13,115
Total Direct Hire Civilians	11,192 1/	10,997 2/	$122,710	13,297	14,685	$153,353	13,572	14,595	$160,070
Detail by Budget Activity									
Mission Forces	7,451	7,809	$ 83,521	7,953	8,623	$ 94,773	8,305	8,535	$101,273
Other Support	3,741	3,188	39,189	5,344	6,062	58,580	5,267	6,060	58,797
TOTAL Direct Hire Civilians	11,192 1/	10,997 2/	$122,710	13,297	14,685	$153,353	13,572	14,595	$160,070

1/ Excludes SEY 95 MY

2/ Excludes SEY 239 ES

OPERATION AND MAINTENANCE, ARMY RESERVE
OTHER PERSONNEL COMPENSATION
(Dollars in thousands)

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Overtime	$ 548	$ 246	$ 167
Other Premium Pay including Holiday Pay	442	302	204
Total	$ 990	$ 548	$ 371

INTRODUCTORY STATEMENT
MISSION FORCES

This budget activity provides Operation and Maintenance, Army Reserve funds for operation and training of approximately 2,600 company/detachment units and an average Selected Reserve strength of 215,842.

The Army Reserve Program is administered in the field through Continental US Armies, overseas commands, Army Readiness Regions, Readiness Groups, Army Reserve Commands (ARCOM's), and General Officer Commands (GOCOM's). Activities include supervision of training, administration, supply management and other activities of operation and command. Provides for activities incident to the training of USAR units and individuals, logistical support for the purchases of supplies and for the repair and maintenance of equipment. Provides for the purchase of supplies and equipment for training and readiness requirements, and provides for a total FY 1975 technician program of 8,146 end strength, which will be manning 90% of the FY 1975 technician requirement, and 389 civilian personnel to support annual training.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance Army Reserve	0100 Mission Forces

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
52121	Units to Reinforce Active Army	$ 26,440	$ 29,370	$ 32,453
52122	Division Forces	23,000	25,556	28,238
52124	Brigades	3,467	3,852	4,258
52125	Support to Other Services	5,303	5,894	6,512
58122	Individual Training	3,413	3,756	4,278
59411	Mobilization Base and Training Units	58,381	64,858	71,669
	Total Direct Obligations	120,004	133,286	147,408

1/ Includes SEY 22 MY
2/ Includes SEY 44 ES

PERSONNEL REQUIREMENTS		ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	MY	7,451 1/	7,953	8,305
NUMBER OF EMPLOYEES AT END OF YEAR	ES	7,809 2/	8,623	8,535
		(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11 + 12)		$ 83,521	$ 94,773	$ 101,273

APPROPRIATION	(In Thousands of Dollars)		
Operation and Maintenance, Army Reserve	ACTUAL FISCAL YEAR 1973	ESTIMATE	
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT		FISCAL YEAR 19 74	FISCAL YEAR 1975
0100 Mission Forces	$ 120,004	$ 133,286	$ 147,408

JUSTIFICATION

Section 1 - PURPOSE AND SCOPE

This aggregation provides funds for the following six program elements: Units to Reinforce Active Army, Division Forces, Brigades, Support to Other Services, Mobilization Base and Training Units (US Army Reserve) and Individual Training of members of the Ready Reserve. Consists of Force-oriented program elements including the command organizations associated with these forces, the logistics organizations organic to these forces, and the related logistics support and training units which are available for mobilization to reinforce the Active Army.

This budget activity provides operational and logistical support for inactive duty training at Army Reserve Centers and nearby installations. The programs requiring support to accomplish readiness objectives of the Army Reserve include the hire of civilian technicians for unit operation, administration, supply, equipment maintenance; purchase and transportation of individual and unit equipment; procurement of publications and printed material; USAR School support, contractual trade and vocational schools training, helicopter training; operations and rental of aircraft; marksmanship training; procurement of petroleum, oil, and lubricants and expendable supplies. Includes organizational maintenance and purchase of repair parts, and Civil Service retirement, Federal Insurance Contribution Act, and Group Life and Health Insurance contributions.

This budget activity also supports costs of annual training including mission costs of opening, operating, and closing training facilities. Includes annual training costs such as civilian manpower support, maintenance of borrowed equipment, operating supplies, travel of Active Army personnel, and burial costs.

INTRODUCTORY STATEMENT
DEPOT MAINTENANCE

This budget activity provides for the depot "Repair and Return to User" program for major items of equipment including Aviation equipment.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army Reserve	0200 Depot Maintenance

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
		$	$	$
57113	Depot Maintenance	3,226	10,864	7,670
	Total Direct Obligations	3,226	10,864	7,670

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 19	ESTIMATE FISCAL YEAR 19	ESTIMATE FISCAL YEAR 19
AVERAGE NUMBER OF ALL EMPLOYEES N/A			
NUMBER OF EMPLOYEES AT END OF YEAR			
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$	$	$

INTRODUCTORY STATEMENT
OTHER SUPPORT

This activity provides personnel and TDY Travel for Office, Chief Army Reserve and personnel, TDY Travel, logistical and administrative support for the Continental US Armies, Army Readiness Regions (include Readiness Groups). Provides Base Operations support for Army Reserve Component installations (Camp Drum, New York; Camp McCoy, Wisconsin; Camp Pickett, Virginia; Camp A.P. Hill, Virginia; Indiantown Gap Military Reservation, Pennsylvania; Fort Chaffee, Arkansas; Fort Douglas, Utah; Oakdale, Pennsylvania Support Detachment and Fort Hayes, Ohio), support of three field maintenance shops, and 1,019 USAR Centers. Provides for the purchase of supplies and equipment for training and readiness supervision. Provides for USAR recruiting and information activities, and provides for a total FY 1975 civilian personnel requirement of 6,060 end strength.

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army Reserve	0300 Other Support

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
		$	$	$
59496	Base Operations	62,540	67,043	70,955
59498	Command	16,682	53,464	53,667
	Total Direct Obligations	79,222	120,507	124,622

1/ Includes SEY 73 MY
2/ Includes SEY 215 ES

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
AVERAGE NUMBER OF ALL EMPLOYEES	3,836 1/	5,344	5,267
NUMBER OF EMPLOYEES AT END OF YEAR	3,447 2/	6,062	6,060
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 39,189	$ 58,580	$ 58,797

CIVILIAN PERSONNEL PROGRAM

STRENGTH BY FUNCTION	FY 1973	FY 1974	FY 1975
Office Chief Army Reserve	42	42	42
Three Continental US Army Headquarters	-0-	931	929
Reserve Personnel Actions Support	487	547	547
Nine Army Readiness Regions	-0-	468	468
Advisor Support to Reserve Components	-0-	426	426
Army Installation Support to Reserve Components	-0-	193	193
Total	529	2,607	2,605

The following is the cost of civilian personnel, to include annualization of Wage Board and Classified Civilian Pay Raises:

	Actual FY 1973	Estimated FY 1974	Estimated FY 1975
Man-Years	700 1/	2,580	2,578
End Strength	529 2/	2,607	2,605
Personal Service Obligations ($000) (Object Class 11 & 12)	$ 6,925	$ 27,618	$ 28,000
Average Manyear Cost	$ 9,893	$ 10,705	$ 10,861

1/ Includes SEY 2 MY
2/ Includes SEY 33 ES

Section 3 - SUMMARY OF BUDGET CHANGES

	In Thousands of Dollars	
FY 1974 Estimate		$53,464
Decreases		
1. OSD Tests	4,213	
2. OSD Committee to support your Guard and Reserve	183	
Total Decreases		4,396
Increases		
1. Civilian Pay and Benefits	382	
2. Operation costs of CONUSA Headquarters and Army Readiness Regions	1,617	
3. TDY Travel of Army Readiness Regions	2,600	
Total Increases		4,599
FY 1975 Estimate		$53,667

RESERVE PERSONNEL IN PAID STATUS

RESERVE COMPONENT USAR

Pay Groups	Paid Drills	Paid Days of Active Duty for Training		FY 1973 (PAST YEAR) BEGIN	FY 1973 (PAST YEAR) AVERAGE	FY 1973 (PAST YEAR) END	FY 1974 (CURRENT YEAR) AVERAGE	FY 1974 (CURRENT YEAR) END	FY 1975 (BUDGET YEAR) AVERAGE	FY 1975 (BUDGET YEAR) END
A	48	15	Off	38,082	39,711	40,501	39,089	39,630	39,007	38,480
			Enl	193,614	190,994	191,129	188,520	185,072	170,563	155,371
			Off	-0-	-0-	-0-	-0-	-0-	-0-	-0-
F	0	Minimum 4 Mos.	Enl	3,496	3,390	3,869	4,183	5,648	6,272	7,499
Paid Drill Training Sub Total			Off	38,082	39,711	40,501	39,089	39,630	39,007	38,480
			Enl	197,110	194,384	194,998	192,703	190,720	176,835	162,870
			Total	235,192	234,095	235,499	231,792	230,350	215,842	201,350
Paid Active Duty Training Only Sub Total			Off	9,931	10,795	10,795	12,210	12,210	12,660	12,660
D	0	15	Enl	38,362	38,193	38,193	37,875	37,875	37,875	37,875
			Total	48,293	48,988	48,988	50,085	50,085	50,535	50,535
TOTAL PAID STATUS			Off	48,013	50,506	51,296	51,299	51,840	51,667	51,140
			Enl	235,472	232,577	233,191	230,578	228,595	214,710	200,745
			Total	283,485	283,083	284,487	281,877	280,435	266,377	251,885

Averages computed by doubling the end strengths of the months of July through May, adding 30 June strengths of the previous year and the year under consideration, and dividing the total by 24, except for Pay Group D. Pay Group D represents the total number of personnel participating during the fiscal year, and average and end strengths are identical in any one year.

STATEMENT OF MAJ. GEN. J. MILNOR ROBERTS

Mr. Chairman and members of the committee: We appreciate this opportunity to appear before you again to present the Army Reserve and ROTC budgets and to inform you of the status of our plans and programs for FY 1975. I know that you share with us the same urgent concern for maintenance of Army Reserve strength and readiness.

Here with me today from my office are Brigadier General Cuneo, my Deputy, and Mr. Pethtal, my Comptroller. Also with me is Brigadier General Tice from the Office of the Deputy Chief of Staff for Personnel. He is available to respond to questions on the Army ROTC, the military personnel costs of which are included in the "Reserve Personnel, Army" budget. Also with me is Brigadier General Haggerty from the Office of the Surgeon General who will respond to questions on the Health Professions Scholarship Program.

My office is responsible for the implementation and execution of approved plans, policies, and programs pertaining to the United States Army Reserve, including the preparation, justification, and execution of the budgets that provide for our direct financial support.

Our established Army Reserve mission is to furnish, in the event of war or national emergency, and at such other times as national security may require, units effectively organized, trained, and equipped in time of peace for rapid mobilization, expansion, and deployment; with such units to be of the types and numbers to meet the requirement of the Army. We are also to furnish additional qualified individual personnel for necessary replacement and expansion of the Army. All Army Reserve Units are specific requirements in Army Mobilization Plans. Our objective is to being out units and individuals to the highest state of readiness attainable—a state of readiness that will insure a minimum requirement of post-mobilization training.

The Reserve Personnel, Army budget also supports Army ROTC with an entering enrollment of 36,000 students in the Senior Division and 130,000 students in the Junior Division. The ROTC part of this budget also includes the Health Professions Scholarship Program.

Increased reliance has been placed on the Reserve Components, and we are required to attain an unprecedented level of readiness. Concurrently, the Army Reserve must make the transition from draft pressure strength input to totally volunteer strength input. We are fully mindful of the challenge we face and are determined to see it through to success.

For the Reserve Personnel, Army budget, the FY 1974 column shows $493.5 million. An amount of $452.4 million has been appropriated by the Congress to date, and $41.1 million is pending in the pay raise supplement. These funds provide for the support of an Army Reserve average strength of 231,792 and end strength of 230,350, and for ROTC Senior Division entering enrollment of 33,207.

The FY 1975 budget request is for $490.6 million, of which $456.3 million is for Army Reserve and $34.3 million is for Army ROTC. The total is a net decrease of $2.9 million from the FY 1974 column amount as follows:

Minus $20.0 million for decreased Pay Group A average strength.

Minus $11.0 million from decrease in ROTC graduate Active Duty Training Program.

Minus $2.2 million for decreased MS III and IV enrollment and Jr. ROTC female clothing requirements.

Plus $7.1 million for annualization of the October 1973 pay raise.

Plus $3.5 million for increased clothing, travel, and subsistence costs.

Plus $14.1 million for increased initial REP training.

Plus $3.2 million for increased School Training including Officer Career Development.

Plus $1.5 million in Special Training for the Battalion Affiliation Program.

Plus $.9 million in miscellaneous adjustments.

For Operation and Maintenance, Army Reserve, our budget requests direct support funds for a wide variety of requirements and some of the funds also provide essential support to the Army National Guard. The FY 1975 request of $279.7 million includes $1.6 million transferred into this appropriation as part of the Army Steadfast Reorganization. The remaining FY 1975 increase of $13.4 million is primarily to fund the equipment and logistics programs required for attainment of an increase in mobilization readiness and annualization of the civilian pay raise. Funds are included to support significant increase of modern equipment, increased readiness training, personnel recruiting, technician manpower support, and provision of training facilities. These are key factors for

readiness improvement in compliance with Public Law 90–168 and with mobilization requirements, A detailed listing of the program and fund changes between FY 1974 and FY 1975 is as follows:

	Millions
Transfers into OMAR: Conus reorganization to support reserve components	+$1.6
Army Reserve requirements:	
Annualization of Wage Board and January 1973 civilian pay and benefit increases	+6.7
Purchase of stock fund equipment	+2.9
Maintenance of real property facil ties	+3.8
Total	+15.0

The Army is determined to convert the Congressional provision of funds, manpower, and equipment into real Reserve Component readiness and mobilization reliance. The present demands on the Army Reserve are unprecedented. Never before have we strived to reach the level of mobilization readiness that has now been established as our goal.

Organization of the Army Reserve

During FY 1972 and FY 1973, the Army Reserve converted units to G/H Series TOE and alignment to a new baseline structure. There are now approximately 3,250 Company/Detachment size units in the Army Reserve, with authorized strengths ranging from 80% to 100% of TOE and with an overall average of approximately 95% of TOE.

Strength

As of 31 January 1974 the strength of the Ready Reserve was 869,000 and the Standby Reserve was 376,000. The Ready Reserve consists of those units and individuals available for immediate employment in the expansion of the active forces in the event of mobilization.

Selected Reserve Strength

For FY 1973, Public Law 92–436 required that we program to attain an average strength of not less than 261,300. Our actual average strength was 234,095, and the 30 June strength was 235,496.

For FY 1974, Public Law 93–155 requires that we program to attain a Selected Reserve or paid drill average strength of not less than 232,591. Our average strength through 31 January 1974 was 230,738, and the 31 January strength was 227,702. Addition of the REP–63 personnel enlisted since 1 July 1973 and who have not entered REP training and therefore may not be paid or counted as Selected Reserve strength brings our assigned strength to 228,613. I am confident we will attain the programed end strength of 230,350.

For FY 1975, the budget and the strength authorization request is an average of 215,842 and end strength is 201,350. This strength assumes no additional recruiting and retention incentives during FY 1975, and includes the FY 1975 impact of inactivation of units with an authorized TOE strength of 19,200. The TOE strength of 19,200 would be about 15,000 in actual Selected Reserve strength. Of this, we have estimated an FY 1975 loss of 6,250. Of the remainder, some will be an FY 1976 loss and some will be retained in other USAR units. We are 12% below the 260 thousand unit manning strength. I believe we have a good likelihood of achieving a strength well above the budgeted 201,350 for FY 1975, although the availability of attractive incentives, particularly those with special appeal to non-prior service personnel, would assure a substantial higher end strength.

Recruiting

Placing our accomplishments and our problems in better perspective is the following tabulation of personnel strength and gains and losses:

	Begin strength	Total gains	Total losses	Net change	End strength
Fiscal year—					
1972 actual [1]	263,299	43,851	71,958	−28,107	235,192
1973 actual [1]	235,192	47,218	46,911	+307	235,499
1974 estimate	235,499	38,651	43,800	−5,149	230,350
1975 budget	230,350	47,200	76,200	−29,000	201,350

[1] Includes accounting adjustment.

Promotional efforts in support of recruiting are producing good results. Direct mailing to high school seniors in January 1974 has produced nearly 50,000 responses to date, and a September 1973 mailing to members of the Individual Ready Reserve drew 10,000 replies. Special promotional programs for women greatly increased their strength in units. Direct mail efforts have been made to selected specialty categories such as Special Forces and Army Security Agency veterans.

Our retention in units of REP personnel on completion of six years has increased from 3.9% as of June 1971 to 12% by December 1973; recruitment of blacks in units has increased from 5,850 at end FY 1971 to 13,435 at end January 1974; and we have increased women in units from 956 at end FY 1971 to 3,058 at end January 1974.

A strong effort has been made to turn the Army Reserve strength upward. We have been working hard and have had great success in recruiting prior-service personnel and in steadily increasing our retention of unit personnel. However, our recruitment of non-prior service personnel has been low and is the reason our strength has been dropping. Our problems have been many, and include absence of the draft, Vietnam reaction, and lack of special incentives. I must also add that our recruiting has suffered from some lack of emphasis in the field. The Army has recognized this problem, and to add strength and emphasis throughout the chain of command has accomplished the important STEADFAST reorganization for Army Reserve Component management. General Kerwin is Commanding General of the new Forces Command, and he is bringing to major command operations of the Army Reserve a magnitude of personal drive, determination and understanding far above anything I have heretofore seen or known.

An intensified and strengthened recruiting program is necessary in the zero draft and volunteer strength environment. We urgently need continuation of our 430 recruiting technicians who are located at larger units and selected Army Reserves Centers. These recruiting specialists perform direct recruiting and provide recruiting assistance and instruction. They also coordinate and evaluate effectiveness of recruiting programs and techniques. We, likewise, need and request continuation of our recruiting advertising program which enables selective intensification of all aspects of our recruiting effort such as redirection of thrust where needed, expansion of coverage, greater effort on individual interest groups, survey and evaluation of motivational factors and programs tailored for selected geographical areas.

On the solid base of recruiting personnel and funding support now established, I am confident that we in Department of the Army together with General Kerwin and his subordinate commanders can turn the strength upward and capitalize on the high level of readiness capable of attainment within the Army Reserve. I feel that our requested recruiting program is an urgent requirement, that our separate recruiting program is critically required, that the Active Army is helping us in every practicable way, and that we are not duplicating its effort.

Reserve Enlistment Program Training Input

The estimate for REP–63 input to training for FY 1974 was 7,539 and for FY 1975 is 17,200. The Army Reserve now has about 1,000 enlisted personnel awaiting input into training.

ROTC Graduate Active Duty Training

Public Law 87–378, 4 October 1961, requires that commissioned ROTC graduates not required to serve on active duty with the Army shall instead be ordered to active duty for training for a period of three to six months. The decreasing Active Army officer strength has reduced the number of junior officers required on extended active duty during FY 1971–FY 1974. This has resulted in 5,613 new second lieutenants in FY 1971, 8,879 in FY 1972, 6,400 in FY 1973, and 5,240 in FY 1974, and 2,540 in this FY 1975 budget for odering to active duty for training for an average of three and one-half month Basic Officer Course. They are paid from Reserve Personnel, Army funds instead of Military Personnel, Army.

USAR Training Programs

Active duty for training is included for 2,600 non-unit officer students in USAR schools and for 6,400 officer and 175 enlisted mobilization designees. Individual reinforcement training is included for 3,600 officers and 37,700 enlisted personnel. This provides MOS refresher training for members of the Individual Ready Reserve who are subject to being ordered to active duty on mobilization. School

training will include 15,200 officer and 7,700 enlisted personnel, and be in Army Service Schools, Army Area Schools, Recruiting, OCS, and Basic Officers Course. Special training will provide 357,400 officer and 217,900 enlisted days of training, and includes special tours, seminars, commandpost exercises, unit members in USAR Schools, supervision of subordinate units, pre-camp conferences, and recruiting.

Unit Technicians

Unit technicians are the only full-time manpower support available to Army Reserve units and are vital for proper management, unit readiness, recruiting, maintenance of equipment, and training. The FY 1975 budget provides for 8,146 technicians and will provide manning at 90% of our FY 1975 requirement. In accord with our policy of dual-status, the technicians to be hired will be military members of the Selected Reserve. Thus, the technician program provides support to units while on Reserve duty and active duty for training, and during both peacetime and mobilization.

Equipment

This budget request will increase stock fund equipment as an essential step in the effort to increase unit and material readiness. Significant quantities of new and modern mission equipment continue to be issued to the Army Reserve. This is steadily overcoming the greatest deterrent to readiness in past years. The increase in material readiness requires additional funds for maintenance, operation, and storage of equipment. Our budget includes funds to maintain Army Reserve equipment in a fully deployable condition.

Unit Support

In Operation and Maintenance, the Mission Forces Budget Activity provides funds for the troop structure of Units to Reinforce Active Army, Division Forces, Brigades, Support to Other Services, Individual Training, and Mobilization Base and Training Units. The FY 1975 request is $147.4 million, compared with the FY 1974 program of $133.3 million. The net increase of $14.1 million is primarily for the increasing aviation program, additional stock fund equipment, maintenance of equipment, technician pay, and annualization of the 1 January 1973 pay increase.

Depot Maintenance

This Budget Activity finances depot maintenance of USAR-owned major equipment on a repair-and-return-to-user basis. $7.7 million is required for FY 1975 for this purpose, compared with the FY 1974 program on $10.9 million. The decrease results primarily from the change to an on condition maintenance program as contrasted to scheduled overhaul and a general improvement in the condition of aircraft provided the Army Reserve.

Facilities and Command Support

The Budget Activity Other Support includes Base Operations and Command activities. The Base Operations part finances the operations cost of six major Army Reserve Component installations used primarily for annual and year round training. It finances three field maintenance shops for direct support-general support maintenance of USAR equipment, and three supply and maintenance support activities funds the operation of over 1,000 home station training centers, and provides for Army Reserve field operational support. The FY 1975 request for this account is $70.9 million, compared with the FY 1974 program of $67.0 million.

The Command part finances operations of the Army Reserve program such as Office, Chief Army Reserve, CONUS Army Headquarters and Army Readiness Regions, supply management, recruiting, civilian personnel, and inspection activities.

Reserve Officers' Training Corps

The Senior Division of the ROTC produces junior officers for the Active Army and Reserve Components. The program is operated at selected civilian and military colleges.

For the Senior Division, the budget provides training for an FY 1975 entering enrollment of 36,000. We estimated commissions of approximately 5,750 junior officers at end FY 1974 and 4,819 at end FY 1975. This compared with an average of almost 16,000 a year during FY 1968–FY 1970. For the Junior Division, an average enrollment of 124,000 is budgeted for FY 1975.

My statement on the Army ROTC addresses only the budget for that program. General Tice will respond to any program and policy questions you may have on the ROTC.

Health Professions Scholarship Program

The Health Professions Scholarship Program, established in September 1972 by PL 92–426, is designed to produce officers for the Uniformed Services in the fields of Medicine, Dentistry, Veterinary Medicine, and allied health disciplines. Candidates who have been accepted by an accredited institution for professional training are selected by the Office of The Surgeon General for these scholarships. Participation requires that each individual accept a commission as a second lieutenant in the Army Reserve and that he complete 45 days Active Duty for Training each year. Upon graduation, he must serve at least one year for each year of scholarship, and in no case less than two years. This budget provides for a monthly stipend of $400 to be paid to each of the 1,850 participants and for pay and allowances for the Active Duty for Training performed anually by each student. The total cost in this budget is $12.5 million.

General Haggerty will respond to any questions you may have concerning this program.

Mr. Chairman, this completes my opening statement. We appreciate the opportunity of appearing before you to present our FY 1975 budgets.

QUESTIONS SUBMITTED BY SENATOR THURMOND

Chairman McClellan. A series of questions has been submitted by Senator Thurmond for which we would like you to respond.

General Roberts. Yes, sir.

Force Structure Reduction

Senator Thurmond. General Roberts, I understand the Secretary of Defense has directed a 48,000 force structure reduction in FY 1975. How is that reduction reflected in your current request?

General Roberts. The FY 1975 budget was based upon the assumption that the 48,000 force structure reduction would be applied proportionately, that is 60% to the Army National Guard and 40% to the Army Reserve. Therefore, our budget includes the FY 1975 impact of inactivation of units with an authorized TOE strength of 19,200. The TOE strength of 19,200 would be about 15,000 in actual Selected Reserve strength. Of this, we have estimated an FY 1975 loss of 6,250. Of the remainder, some would be an FY 1976 loss and some would be retained in other units.

Senator Thurmond. Can you provide for the Committee the units that will be eliminated from the Army Reserve program as a result of this cut?

General Roberts. A complete list of units to be eliminated by component has not yet been made. However, the reduction would be in a variety of combat service support units. I understand that a list of the total units by type has been provided to the Senate Armed Services Committee.

Senator Thurmond. Will all of these units be eliminated or will some be maintained in a less active status?

General Roberts. All units identified are to be eliminated, however, final determination has not been made on whether these units will come out of the National Guard or Army Reserve where both components have like type units. Many of these units are unique only to the USAR, therefore, we will bear the brunt of this reduction.

The only units to remain in a less active status will be the Civil Affairs units where 6,368 spaces are removed from the force structure and may remain in Reinforcement Training Units in the Individual Ready Reserve.

Release of Officers and Personnel

Senator Thurmond. General Roberts, how many officers and how many personnel would be released from the Army Reserve program as a result of this cut?

General Roberts. From an FY 1975 reduction of 19,200 structure spaces, we would release from inactivated Selected Reserve units about 2,000 officers and 8,000 enlisted in actual strength during FY 1975 and FY 1976.

Senator Thurmond. Could you identify the units by flag and location for the Committee?

General ROBERTS. The number and types of units have been determined, but the complete distribution by component—including flag and location—has not yet been made.

Senator THURMOND. Is there a requirement for units in the Army Reserve structure that are presently not a part of the force structure? If so, what are these units?

General ROBERTS. Yes, sir, there are units presently identified by type in the Total Force. The Army has identified these units as unmanned. There are approximately 83,000 structure spaces in this category consisting of Armor, Engineer, Field Artillery, Infantry and Combat Service Support units.

Senator THURMOND. How was this requirement identified and how do you justify it?

General ROBERTS. This requirement was determined by the Total Force Study Group, in the course of developing and updating contingency plans.

It is of course justified by the fact that these units are an integral part of the Total Force required to counter the threat.

Senator THURMOND. Do you consider these units necessary to meet the requirement? If so, why?

General ROBERTS. Yes, these units show up on a "Total Force Structure" which was completed by way of a study conducted by the Assistant Chief of Staff for Force Development. These units would be in an unmanned status or as a requirement to be activated upon mobilization.

Senator THURMOND. Why has the Army not requested personnel in previous bills for these units you indicate are now needed?

General ROBERTS. The Total Force Study was just recently completed and identified these new units as requirements.

Senator THURMOND. What are your views on converting the units identified in the 48,000 reduction to units of the type needed in the Reserve forces by the Department of the Army?

General ROBERTS. This is precisely what should be done in most cases. We realize that there are some units in the USAR structure which contribute only marginally to our defense and these units should be converted to units required in the Total Force. A reduction in force is not an answer to improve the readiness posture of the Reserves.

Senator THURMOND. General Roberts, if the Committee funds only to meet your current request then I presume this force structure reduction by Secretary Schlesinger would be carried out.

General ROBERTS. The FY 1975 end strength decrease of 6,250 from a 19,200 structure space reduction would equate to only about $3 million in FY 1975 RPA funds. This amount is not large enough to affect the force structure reduction one way or the other.

RECRUITING

Senator THURMOND. You indicate you could recruit to only 225,000. However, I note you are requesting 215,000. Will you explain the difference?

General ROBERTS. The difference comes from whether one uses 201,350 or 220,000 as the FY 1975 end strength. With an FY 1975 begin strength of 230,350, an end strength of 201,350 results in an average strength of 215,000 and an end strength of 220,000 results in an average strength of 225,000. I believe the Army Reserve can achieve 13,000 more enlisted gains than is assumed in the budget. Addition of the 13,000 and add-back of the 6,250 inactivation loss would give a FY 1975 end strength of 220,000.

Senator THURMOND. If the Committee funds to the 225,000 level, would this prevent the reduction of needed units?

General ROBERTS. Sir, I do not believe that the Secretary of Defense will reverse his decision to cut the Army Reserve on purely financial considerations.

National Guard Personnel, Army

Operation and Maintenance, Army National Guard

STATEMENT OF MAJ. GEN. FRANCIS S. GREENLIEF, CHIEF, NATIONAL GUARD BUREAU, DEPARTMENT OF THE ARMY

ACCOMPANIED BY:

MAJ. GEN. J. A. KJELLSTROM, DIRECTOR OF ARMY BUDGET, OFFICE, COMPTROLLER OF THE ARMY

COL. G. J. BRAUN, NATIONAL GUARD BUREAU, DEPARTMENT OF THE ARMY

JUSTIFICATION

Chairman McClellan. The next appropriations to be considered will be that for "National Guard Personnel, Army" and that for "Operation and Maintenance, Army National Guard."

At this point in the record there will appear certain Program and Financing information from the justifications.

[The justification follows:]

Justification

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

	IDENTIFICATION CODE 07-05-2050-0-1-051	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:			
	DIRECT PROGRAM:			
	1. RESERVE COMPONENT PERSONNEL	556,485	607,500	621,700
	REIMBURSABLE (TOTAL)	1,744	2,364	2,313
10	TOTAL OBLIGATIONS	558,229	609,864	624,013
	FINANCING:			
	RECEIPTS AND REIMBURSEMENTS FROM:			
11	FEDERAL FUNDS	-1,026	-1,464	-1,413
14	NON-FEDERAL SOURCES 1/	-718	-900	-900
25	UNOBLIGATED BALANCE LAPSING	27,110	.....	.....
40	BUDGET AUTHORITY (APPROPRIATION)	583,595	607,500	621,700
	BUDGET AUTHORITY:			
40	APPROPRIATION	583,595	555,900	621,700
44.30	PROPOSED SUPPLEMENTAL FOR MILITARY PAY RAISES	.....	51,600	.....
	RELATION OF OBLIGATIONS TO OUTLAYS:			
71	OBLIGATIONS INCURRED, NET	556,485	607,500	621,700
72	OBLIGATED BALANCE, START OF YEAR	95,351	87,523	117,023
74	OBLIGATED BALANCE, END OF YEAR	-87,523	-117,023	-119,723
77	ADJUSTMENTS IN EXPIRED ACCOUNTS	-19,976	.....	.....
90	OUTLAYS, EXCLUDING PAY RAISE SUPPLEMENTAL	544,337	530,600	614,800
91.30	OUTLAYS FROM MILITARY PAY RAISE SUPPLEMENTAL	.....	47,400	4,200

1/ REIMBURSEMENTS ARE DERIVED FROM SALE OF MEALS AND CLOTHING TO SERVICE MEMBERS (10 U.S.C. 4621).

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OPERATION AND MAINTENANCE, ARMY NATIONAL GUARD

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 07-10-2065-0-1-051	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:			
DIRECT PROGRAM:			
1. TRAINING OPERATIONS	120,951	137,783	140,733
2. AIR DEFENSE OPERATIONS	35,087	37,216	22,359
3. LOGISTICAL SUPPORT	266,269	333,902	405,356
4. HEADQUARTERS AND COMMAND SUPPORT	25,528	35,768	38,342
5. MEDICAL SUPPORT	1,358	1,601	1,610
TOTAL DIRECT PROGRAM	449,193	546,270	608,400
REIMBURSABLE (TOTAL)	2,088	2,170	2,170
10 TOTAL OBLIGATIONS	451,281	548,440	610,570
FINANCING:			
RECEIPTS AND REIMBURSEMENTS FROM:			
11 FEDERAL FUNDS	-2,066	-2,150	-2,150
14 NON-FEDERAL SOURCES	-22	-20	-20
21 UNOBLIGATED BALANCE AVAILABLE, START OF YEAR	-400	.....	.....
25 UNOBLIGATED BALANCE LAPSING	2,901	.....	.....
BUDGET AUTHORITY	451,694	546,270	608,400
BUDGET AUTHORITY:			
40 APPROPRIATION	451,694	524,400	608,400
44.10 PROPOSED SUPPLEMENTAL FOR WAGE-BOARD PAY RAISES	.....	5,805	.....
44.20 PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	16,065	.....

BIOGRAPHICAL SKETCH AND PREPARED STATEMENT

Chairman McCLELLAN. The principal witness for these appropriations will be Maj. Gen. Francis S. Greenlief, Chief of the National Guard Bureau. You may proceed, General.

General GREENLIEF. I have a biographical sketch and full statement, but I can give you a short summary.

Chairman McCLELLAN. Let the biographical sketch and full statement be printed in the record.

[The biographical sketch and statement follow:]

MAJ. GEN. FRANCIS STEVENS GREENLIEF, CHIEF, NATIONAL GUARD BUREAU

Maj. Gen. Francis S. Greenlief was born in Hastings, Nebraska on 27 July 1921. He completed high school there and enrolled in the University of Nebraska in 1939 to study business administration.

He enlisted in Company G, 134th Infantry, Nebraska National Guard in Hastings on 5 July 1940 and was ordered to active duty with his unit on 23 December 1940 as a Corporal. At the time of his entrance to Infantry OCS in May 1942, he was acting 1st Sergeant of the same unit.

General Greenlief was graduated from OCS and was commissioned 2LT, Infantry, on 25 August 1942. He served as platoon leader and Commanding Officer, Company L, 134th Infantry in the ETO from May 1944 until August 1945, participating in the Normandy, Northern France, Rhineland and Ardennes Campaigns. He was released from active duty on 5 January 1946.

On 3 November 1947, General Greenlief rejoined the Nebraska National Guard as Commanding Officer, Company G, 134th Infantry. He subsequently served as S–3 of the 134th Infantry Regiment; acting Assistant Adjutant General of Nebraska; and G–4 and Chief of Staff of the 34th Infantry Division.

General Greenlief was ordered to active duty in the National Guard Bureau as Army Executive Officer on 1 January 1960. He was granted Federal recognition as Brigadier General, Nebraska Army National Guard on 19 October 1962, and was given a recess appointment as a Reserve of the Army Brigadier General on 3 November 1962, and was assigned Assistant Chief, National Guard Bureau for Army National Guard.

General Greenlief was appointed as Deputy Chief, National Guard Bureau on 14 September 1963 and promoted to Major General on 19 October 1964. On 13 September 1967, he was extended for an additional four-year term. On 20 April 1970 he was appointed Director, Army National Guard in addition to his duties as Deputy Chief, National Guard Bureau. He was appointed by the President and confirmed by the Senate to be Chief, National Guard Bureau, for a four-year term and was sworn into office on 1 September 1971.

General Greenlief completed flying training and was designated an Army Aviator on 22 May 1969.

Among General Greenlief's decorations and awards are the Distinguished Service Medal, Silver Star, Bronze Star, Purple Heart with three Oakleaf Clusters, Croix de Guerre avec Etoile de Vermeil, European-African-Middle Eastern Campaign Medal with four Battle Stars, the Combat Infantry Badge and the Army Aviator Badge. The citation for the Silver Star was awarded for gallantry in action near St. Lo, Normandy, France, on 18 July 1944.

General GREENLIEF. Mr. Chairman and Members of the Committee, I welcome the opportunity to appear before you to request funds for the National Guard Personnel, Army and the Operation and Maintenance Army National Guard fiscal year 1975 appropriations. These appropriations provide pay, allowances, subsistence, clothing and travel for readiness training and civilian pay and benefits, logistical, administrative operations and support for the Army National Guard.

The fiscal year 1975 National Guard Personnel, Army budget request is $621.7 million. This will support an average strength of 379,848, an opening strength of 383,250 and ending at 371,500. Annualization of the military pay increases effective January 1973 and October 1973 are included.

OPENING AND ENDING GUARD STRENGTH

Chairman McCLELLAN. Explain why there is such a large discrepancy between the opening Guard strength of 383,250 and the ending strength of 371,500?

General GREENLIEF. Both the FY 75 opening strength of 383,250 and the ending strength of 371,500 were derived from a projection of Army National Guard declining strength trends which began in FY 72 and were assumed to extend into FY 75. The recruiting capability of the National Guard was not fully recognized by the Department of the Army and therefore a decline of 7,250 in strength was combined with the programed cut of 4,500 air defense spaces to produce the 11,750 drop in budgeted manpower. The Army National Guard now expects to be able to maintain an average paid strength in excess of 400,000 during FY 75. The additional funds to support this strength would have to be transferred from other appropriations in accordance with established reprograming procedures.

Chairman MCCLELLAN. Proceed.

STRENGTH

General GREENLIEF. On 28 February 1974, the actual assigned strength of the Army National Guard was 411,849 with a paid drill strength of 403,126.

ASSIGNED GUARD STRENGTH/PAID DRILL STRENGTH

Chairman MCCLELLAN. Why is there a difference between the assigned Guard strength and the paid drill strength?

General GREENLIEF. Department of Defense Directive 1215.6 which was implemented in the Army National Guard effective 1 July 1973 requires that nonprior service enlistees be placed in a nonpay status until entry on initial active duty for training. Accordingly, the difference between assigned strength and paid drill strength is the number of nonprior service personnel enlisted on or after 1 July 1973 who have not yet entered initial active duty for training.

Chairman MCCLELLAN. Proceed.

General GREENLIEF. The FY 1974 program average strength estimate is 380,417 with an end strength of 383,250. The paid drill strength of 403,126 exceeds the FY 74 strength plan as of 28 February 1974 by 22,621. The ARNG has the capability to maintain a strength of 400,000 for FY 75 and for the foreseeable future.

Authorized strength levels are achieved by Army National Guard units through enlistment of prior service personnel and the recruitment of nonprior service personnel who are required to take active duty training with the Army. The active duty training required for all recruits under this program varies from a minimum of four months to that period required for military occupational specialty qualification. In FY 1974, 30,109 recruits are scheduled to enter training. The average period of active duty training has been approximately five and one half months.

TRAINING

The FY 1975 program provides for the conduct of a basic level of 48 training assemblies for every ARNG unit. Our airborne units are authorized an additional 6 training assemblies for a total of 54 training assemblies. The conduct of an average of 10 multiple units training assemblies per year, almost one weekend per month, combined with the two week annual training period, continues to provide the pace to our training. To improve the quality of training, additional individual training drills are provided for selected members of battalion staffs, and for selected personnel at company level. These additional individual drills provide time for planning and preparation of training. Additional training assemblies also provide for Civil Disturbance training of junior leaders.

In 1973, the actual percentage of attendance at inactive duty training assemblies was 98.1% for officers and 94.8% for enlisted men. The FY 1974 percentage of attendance is estimated to be 96% for officers and 91% for enlisted personnel.

Our current training objective for FY 1974 is the successful completion of company-level training, culminating with company-level Army Training Tests (ATTs). The FY 75 budget provides for sustaining this level of training, and in selected units, for progressing to battalion level training and testing.

During FY 1974, about 24,300 Guardsmen will attend courses of instruction conducted at Army Service Schools and Army Area Schools. These courses vary in length from one week to ten months. The current request for FY 75 provides for approximately 21,200 students. The FY 75 decrease is due to reduction of participation in Brigade conversion.

Courses of Instruction at Army Service and Area Schools

Chairman McClellan. Describe the courses of instruction conducted at Army service and area schools. What skills are taught, and what is their cost per student?

General Greenlief. The courses of instruction at Army Service Schools cover all training for individuals in the Army, and cover all MOS (Military Occupational Specialty). These courses are conducted at active Army major school centers, such as Fort Knox, Fort Benning and Fort Leavenworth, etc. Quotas for attendance are issued on a request basis to the Army National Guard. Army National Guard appropriation costs only cover pay and allowances and other expenses for the guardsman in a student status.

The courses of instruction at Army Area Schools normally provide instruction on new equipment operation and maintenance, and those additional general military instruction subjects which are best conducted on a decentralized basis and which do not require the sophisticated instruction plant facilities of the Active Army Service Schools. Army National Guard costs only cover pay and allowances for the students.

Reduction of Participation in Brigade Conversion

Chairman McClellan. What does "reduction of participation in brigade conversion" mean?

General Greenlief. In September 1972 the Army National Guard was directed to convert the equivalent of six light infantry brigade size units to heavy mechanized or armor brigades with a capability for early deployment. The conversion required the retraining of officers and enlisted men who would be changing basic branches (i.e. from Infantry to Armor) and the retraining of enlisted personnel in MOS's to operate and maintain new types of mechanized equipment. Training for the majority of the four brigades converted in FY 74 is being accomplished in FY 74 and the FY 75 training program accommodates the remaining two brigades and carry over training from the four brigades converted in FY 74. In the FY 1974 program the estimated number of officer and enlisted personnel to participate in brigade conversion training was 4,252. The FY 1975 program reflects estimated participation of 2,653.

Chairman McClellan. Proceed.

Army National Guard Aviation

General Greenlief. At the end of FY 1973, the number of aviators on flying status increased to 3,839. In FY 1973, flying hours totaled 312,146.

The original program for FY 1974 was 325,050 flying hours but was reduced 10% to 292,545 flying hours by the Department of Defense to conserve aviation fuel. For FY 1975 the program is 260,040 flying hours. This is a 20% reduction from the original FY 1974 program established by DOD to conserve aviation fuel. During FY 1974 the Army National Guard has programed 61 students for entry into Initial Flight Training in Active Army flight school. For the past 3½ years we have directed our recruiting efforts to the Officer and Warrant Officer Aviators being released from active duty.

Flight Training

Chairman McClellan. Why is the Guard placing students in the active Army flight school for initial flight training? Are not sufficient aviators available, especially in view of the 10% increase in aviators on flying status from 1973 to 1975?

General Greenlief. The Guard is placing students in active Army flight school for initial flight training because qualified prior-service aviators, who wish to serve in the National Guard, are not available in all the geographical areas in which Guard aviation units are now assigned. It is also essential that an opportunity be provided for young men enlisting in the Army National Guard to be able to go all the way to pilot status. This type of motivation aids in our ability to recruit non-prior service personnel.

Cost of Flight Training

Chairman McClellan. What is the cost of training these 61 students in FY 1974? How many students will undertake initial flight training in FY 1975? How much will it cost?

General GREENLIEF. Initial flight training is broken down into two main categories, officer and warrant officer candidates. The average cost for officers (based on 2LT grade, average 4 years service) is $8,879 for 8½ months (includes flight pay). The average cost for warrant officer candidates (based on SGT E–5 average 6 years service) is $6,075 for 9 months (includes flight pay). The cost for 61 students is $488,343. The cost for 61 students in FY 75 should be the same.

Chairman MCCLELLAN. Proceed.

General GREENLIEF. As of the end of December 1973, there were 3,917 aviators on flying status. Program objective for end FY 1974 is 4,226, and for end FY 1975 is 4,319.

Paralleling the upswing in assigned aviators is the receipt of modern aircraft into the ARNG inventory. As of 31 December 1973 the ARNG had 2,154 modern aircraft assigned of the 2,465 total authorized.

AUTHORIZED FLYING HOUR PROGRAM

Chairman MCCLELLAN. The authorized flying hour program has decreased approximately 20 percent from FY 1973 to FY 1975 to conserve aviation fuel. During the same period, aviators on flying status have increased by 10 percent. How are these personnel utilized when not accomplishing their flying duties?

General GREENLIEF. Each aviator in the National Guard is also a member of an aviation unit. Aviation unit training schedules are designed to maximize individual participation in training classes when aviators are not performing flying duties.

MODERN AIRCRAFT

Chairman MCCELLAN. Describe the specific "modern" aircraft authorized the Guard inventory and the specific aircraft assigned as of December 1973. Also describe outmoded aircraft by type and inventory as of December 1973. What is the demarcation point between a modern aircraft and one that is not modern?

General GREENLIEF. The modern aircraft authorized the Army National Guard are the same aircraft authorized the Army. Modern aircraft are defined as jet turbine powered helicopters and twin engine airplanes. Modern aircraft assigned as of December 1973 were 2026 consisting of 267 OH–6, 584 OH–58, 1035 UH–1, 41 CH–47, 20 CH–54 helicopters and 47 OV–1, 29 U–3, 3 U–8 airplanes. Outmoded aircraft are the piston powered helicopters and single engine airplanes that are going out of the Army inventory. Outmoded aircraft assigned as of December 1973 were 128 consisting of 9 OH–13, 36 OH–23, 16 CH–34 helicopters and 10 U–1, 51 U–6, 1 U–9, 5 U–10 airplanes. Total aircraft assigned as of December 1973 was 2154. The demarcation point between a modern aircraft and one that is not modern is if the aircraft is a turbine powered helicopter or a twin engine airplane it is modern; if the aircraft is a piston powered helicopter or a single engine airplane, it is not modern.

Chairman MCCLELLAN. Proceed.

TRAINING—PAY GROUP A

General GREENLIEF. Provided within this project are the pay, allowances, clothing, subsistence, travel for both unit training assemblies and annual training. There will be 31,735 officers and 305,436 enlisted personnel participating in two weeks annual field training. During FY 1975 our request provides for approximately 1.8 mil officer man drills, 15.1 mil enlisted man drills for personnel participating in unit training assemblies at home stations and at weekend training sites.

TRAINING—RESERVE ENLISTMENT PROGRAM—PAY GROUP F

This project provides the support for pay, travel, subsistence, and clothing for the training of non-prior service personnel on active duty training of not less than four months at Army training centers. Support is provided for 31,200 non-prior service personnel to enter training in FY 1975. The FY 1975 estimate of $85.0 million is an increase of $16.1 million over the FY 1974 program of $68.9 million.

RESERVE ENLISTMENT PROGRAM—PAY GROUP F

Chairman MCCLELLAN. Explain the $16 million increase in the reserve enlistment program, pay group F. Does the number of people increase?

General GREENLIEF. Yes. In FY 1974, large numbers of prior service personnel released from the active Forces were enlisted in the Guard, greatly decreasing the need for nonprior service personnel in the Reserve Enlistment Program. This

condition will not exist in FY 1975 in that magnitude and requires a shift in recruiting emphasis, which has already begun, to nonprior service personnel required to take initial active duty for training under the Reserve Enlistment Program.

Chairman McCLELLAN. Proceed.

SCHOOL TRAINING

General GREENLIEF. This project provides support for pay, allowances, travel, and subsistence for the attendance of 21,154 personnel at Army Service and Area Schools at a cost of $34.0 million.

SCHOOL PROGRAM COSTS

Chairman McCLELLAN. Compare school training personnel and costs in FY 1975 with the personnel and costs in FY 1974.

General GREENLIEF. The school program for FY 1975 provides support for 21,154 officer and enlisted personnel with estimated costs of $34.0 million. The FY 1974 program provides for 24,293 officer and enlisted personnel with estimated costs of $37.2 million.

Chairman McCLELLAN. Proceed.

SPECIAL TRAINING

General GREENLIEF. This project provides for essential special tours of full-time training duty to maintain individual and unit capability to administer, plan and conduct training, such as pre-camp conferences, command post exercises, recruiting program, career counselors and statutory boards. These tours vary in length and permit participation of individual members as well as unit staffs in training missions essential to the overall readiness posture of the Army National Guard. The FY 1975 estimate of $23.8 million is $1.3 million less than the FY 74 amount of $25.1 million.

ADMINISTRATION AND SUPPORT

This project provides for pay and allowances of 101 Army National Guard officers on active duty tours with the Army under various statutory authorities; permanent change of station travel; death gratuities; and disability and hospitalization benefits.

The FY 1975 estimate of $5.8 million is an increase of $.3 million over FY 1974.

OPERATION AND MAINTENANCE, ARMY NATIONAL GUARD

The Fiscal Year 1975 Operation and Maintenance, Army National Guard budget request is $608.4 million dollars. This budget request will fund the following areas:

ARMY NATIONAL GUARD TECHNICIANS

The efficient and effective manner in which the Army National Guard performs unit administration, training, supply, operation of units and maintenance of assigned equipment is credited largely to the work of fulltime technician personnel. These people, through their daily diligent efforts, have been responsible for maintaining and increasing the readiness required by mobilization plans, deployment schedules, Air Defense, and civil disturbance operations.

For FY 1975 the employment authorization is 28,831 providing for 9,207 unit, 18,381 logistical, 1,012 headquarters and 231 technicians for Military Support to Civil Authorities. At a manyears total of 28,496, the total cost for technicians is $374.6 million.

ARMY NATIONAL GUARD TECHNICIANS

Chairman McCLELLAN. Compare the cost and numbers of Army National Guard technicians in FY 1975 with FY 1974. Explain the differences.

General GREENLIEF. I will supply that for the record.

(The information follows:)

NUMBER OF ARNG TECHNICIANS

Activity	End of fiscal year 1974	End of fiscal year 1975	Difference
Training operations	8,814	9,207	393
Air defense	2,714	0	(2,714)
Logistical support	15,971	18,381	2,410
Headquarters and command support	965	1,012	47
MSCA	229	231	2
Total	28,693	28,831	138

The differences in end strength for the various activities represents the best estimate of where Air Defense technicians will be reassigned in vacant positions for which they are qualified, based on their education, experience and aptitudes. An overall increase of 138 spaces is requested due to the fact that the ARNG will implement a Joint Uniform Military Pay System (JUMPS) in the 50 States, District of Columbia, Puerto Rico and the Virgin Islands effective in FY 1975. To accomplish this function, currently performed by Active Army FAO's, will require the services of 412 ARNG Technicians in lower-grade clerical positions to which Air Defense Technicians generally will not relocate.

[Dollar amounts in thousands]

Activity	Fiscal year— 1974	1975	Difference
Cost of personal service:			
Training operations	$117,455	$119,549	$2,094
Air defense	35,986	21,677	(14,219)
Logistical support	188,605	214,751	26,146
Headquarters and command support	14,485	14,855	370
MSCA	3,725	3,754	29
Total	360,166	374,586	14,420
ARNG technician man-years:			
Training operations	8,765	9,012	247
Air defense	2,692	1,467	(1,225)
Logistical support	15,513	16,798	1,285
Headquarters and command support	936	989	53
MSCA	229	230	1
Total	28,135	28,496	361

The increase in personal service cost from FY 74 to FY 75 of $14,420,000 is due to an increase in the number of manyears required to achieve the requested end strength of 28,831 ARNG Technicians, the reassignment of Air Defense technicians to other activities having a slightly different wage structure. An increase in man-year cost in each activity is limited to the annualization of the 1 October 1973 GS salary increase and wage grade increases effective throughout FY 1974.

DUTIES OF TECHNICIANS

Chairman MCCLELLAN. What mission do the 231 technicians perform for Military Support to Civil Authorities? Describe their duties.

General GREENLIEF. These technicians prepare plans for and direct the utilization and operational deployment of available military resources within each State in the event of natural or nuclear disaster; civil disturbance; or other domestic emergencies. They collaborate with State and local law enforcement officials and other agencies in the development of such plans and training programs to increase the capability of these agencies to cope with these situations.

They maintain liaison, down to the local level, with such agencies including Defense Civil Preparedness Agency and other Armed Services. They prepare and conduct plan tests and exercises, often in conjunction with the above mentioned agencies, which simulates implementation of such plans and directives. They establish and maintain statewide communications network, in coordination with State and Federal Communications Resources, to direct and support emergency operations of all forces committed to the military support mission.

A recent example of the employment of military support to civil authorities personnel was the use of 5,388 National Guardsmen in the States of Alabama, Indiana, Kentucky, Ohio and West Virginia resulting from Tornado damage to 10 States in the South and Midwest. MSCA technicians directed their operational employment, under the control of the State Adjutants General, in search and rescue operations, traffic control, debris clearance, and security within the affected areas. These missions were performed in coordination with the Defense Civil Preparedness Agency, State and local law enforcement officials, State Public Utility Commissions, and other Federal Agencies.

Additionally, the military support to Civil Authorities technicians are charged with the responsibility for supervision of physical security of issued State and Federal property. Their efforts are directed primarily toward the security of weapons and ammunition. This requirement encompasses a total of 4,833 Arms Storage Vaults in 2,800 locations, involving one-half million weapons.

Chairman McClellan. Proceed.

Other Personnel Costs

General Greenlief. This budget request will also fund the 178 Department of the Army civilians who administer the National Guard Bureau and the National Guard Computer Center in the Washington, DC area. With a manyears total of 177, the cost is $2.9 million. Added to the technician cost of $374.6 million, the total personnel cost is $377.5 million, or 62% of the total budget.

Air Defense

This budget request reflects a decrease in funds for Air Defense Operations. This is due to transfer of technicians to fill vacant positions in other technician areas due to phase out of the ARNG Air Defense Program. $0.7 million other costs is also due to the phase out.

Air Defense Technicians

Chairman McClellan. Where are air defense technicians being transferred to? Why aren't these spaces being eliminated?

General Greenlief. The 2,786 technician positions required for the air defense mission in the 11 battalions and 27 firing batteries will be abolished six months after the inactivation date of each unit, as established by ARADCOM. During this period, air defense technicians no longer required on site for supervision, shipment of equipment, administration of property records, or surveillance, will be transferred to vacant technician positions in other essential activities of their own State or other State where a current need for their education, experience and skills exist for efficient and effective performance of the National Guard mission. There is a current shortage in the number of technicians required to meet the Army National Guard's readiness objectives. Diversion of these Air Defense technicians to currently unfinanced and therefore unmanned requirements is a direct step in the solution of this problem.

Approximately 85 percent of air defense technicians are wage-grade employees. They adapt readily to the ARNG maintenance mission, especially for aviation weapons systems, avionics, and organizational or general support of signal units and/or communications components used with surface equipment. The increase in requirements from end FY 72 to that projected for end FY 75 is predominately in the Logistical Support area, to which the majority of Air Defense technicians

would be reassigned. These requirements are consistent with those considered in Congressional reviews prior to the passage of PL 92–119 and the employment levels requested are within the manpower ceiling established by PL 92–119.

Logistical Support Program

This program of $175.8 million constitutes 28.9% of the budget and will support the following: $32.9 million for Stock Fund purchases, $36.0 million for Repair Parts, $53.8 for Depot Maintenance, $21.1 million for POL, $17.6 million for Transportation of Things, $2.1 million for Communication services, $8.5 million for TDY Travel, and $3.8 million for other supplies, equipment and services.

Facilities Support

This program provides for operation, maintenance and minor construction of training facilities and logistical support facilities. $15.3 million is programed to support the training facilities and $14.8 million will support the logistical facilities. The total $30.1 million is 4.9% of the total budget.

Headquarters Command

The total program for this project is $38.3 million dollars, of which $21.5 million is for technicians and DA civilians previously mentioned. The remaining $16.8 million provides administrative services vital to the Guard's program to maintain the strength: The Recruiting Advertising Program is $5.6 million, DA Publications support is $.9 million, $2.8 million is for ADP support, $5.8 million is for postage support, $.7 million for Department of Labor injury and death benefits, $.6 million for Military Support to Civil Authorities and $.4 million for National Guard Bureau travel and other support.

Medical

The total program is $1.6 million for emergency medical supplies and other medical care.

Training

The total program is $140.7 million of which $119.5 million is for technicians previously mentioned and $15.3 million for facilities support previously mentioned. The remaining $5.9 million will support the following: $1.2 million for technicians travel cost to attend schools, $4.1 million for commercial transportation to training sites and supplies and services, $.4 million for training aids, $.1 million for support from active Army service schools And $.1 million for inspection travel by commanders.

This concludes my statement.

Army National Guard Strength

General Greenlief. Mr. Chairman, the fiscal year 1975 NGPA budget request is $621.7 million. That supports an average strength of 379,848.

Although this supports only an average strength of 379,848, the Army National Guard does have the capability of maintaining an average strength of not less than 400,000 in fiscal year 1975 and the foreseeable future.

Chairman McClellan. You have funding that will permit you to maintain that strength?

General KJELLSTROM. If I may, the Army is committed to support both the National Guard and the Army Reserve at the levels that they can recruit. Traditionally it has been 260,000 for the Army Reserve and 400,000 for the National Guard. They have had shortfalls in their enlistment programs and at the time of preparation of the budget we did not anticipate that the National Guard would have the success they do.

Accordingly, in fiscal year 1974 we have a reprograming request for $10 million to put additional money in the National Guard personnel account to pay for the additional people recruited.

Chairman MCCLELLAN. It won't come out of other funds?

General KJELLSTROM. No, sir. That is, in 1975 to meet this requirement we will be coming to you with a reprograming request when we determine what the requirement is.

Chairman MCCLELLAN. At what strength can you maintain the National Guard?

General GREENLIEF. Our initial fiscal year 1975 budget program shows an average strength in fiscal year 1975 of 379,848; however, we have the capability of maintaining an average strength in fiscal year 1975 of not less than 400,000.

Chairman MCCLELLAN. You intend to keep it around the 400,000 mark?

General GREENLIEF. Yes, sir.

General KJELLSTROM. That is the Army intent.

Chairman MCCLELLAN. Are you making requests for adequate funds to maintain the Guard at that level or do you expect to transfer funds?

General KJELLSTROM. We expect to transfer funds out of some other account in the budget if needed.

Chairman MCCLELLAN. To maintain approximately 400,000 men?

General KJELLSTROM. Yes, sir.

General GREENLIEF. And we can and will do it.

NATIONAL GUARD O. & M. REQUEST

The fiscal 1975 O. & M. National Guard budget is a request for $608.4 million. This will provide 28,673 man-years for Army National Guard technicians and Department of the Army civilian employees costing a total of $337.5 million. The logistical support program costs $175.8 million. That supports stock fund purchases, repair parts, depot maintenance, POL, transportation, communication services, travel, and other supplies and equipment services.

In reference to your question this morning and the just completed discussion about whether or not the people of the Guard are aware of their commitment, sir, at every public appearance where a general officer from the National Guard Bureau speaks, we emphasize the total support and increased reliance policy, which means our people must be expected to serve first.

In addition, it is covered in articles in the National Guard magazine. We continually express to our leadership that our people need to know and can be proud of the fact that we will serve.

Sir, that completes a very brief statement. I will be happy to answer questions.

JUSTIFICATION

Chairman McCLELLAN. At this point in the record there will appear certain information from the justifications.

[The justification follows:]

Justification

APPROPRIATION INTRODUCTION

The National Guard Personnel, Army appropriation consists of one budget program, BP 3100. The appropriation provides support for unit and individual training for the Army National Guard. This support provides for military personnel costs of pay, allowances, clothing, subsistence, and travel, and covers home station inactive duty training, annual training, training of Reserve Enlistment Program personnel by the Active Army, school training at military schools, and special training. The appropriation also provides for military personnel cost of officers on active duty under the appropriate sections of Titles 10 and 32 United States Code, and for death gratuities, disability, and hospitalization benefits for National Guardsmen killed or injured while participating in military activities. Budget Program 3100 includes Pay Group A, Pay Group F, School Training, Special Training, and Administration and Support. The amount required for FY 1975 is $621,700,000.

To fully support Army National Guard force requirements, a manning requirement exists for not less than 400,000 military personnel. The budget request presented herein would support an average of only 380,417 in FY 1974 and 379,848 in FY 1975; estimates which are based on the shortfall in strength experienced during the past fiscal year. Through a revamped recruiting program, more positive results may be achieved in obtaining a greater number of non-prior and prior service personnel. Should the Army National Guard meet with success in obtaining adequate numbers of personnel necessary to maintain units at desired manning levels, a revised funding request will be sumbitted for Congressional considerations.

SUMMARY OF REQUIREMENTS
(In Thousands of Dollars)

	Actual	Estimate	
	Fiscal Year 1973	Fiscal Year 1974	Fiscal Year 1975
Reserve Component Personnel	558,229	609,864	624,013
TOTAL PROGRAM REQUIREMENTS (Obligations)	558,229	609,864	624,013
Less Actual/Anticipated Reimbursements	-1,744	-2,364	-2,313
Unobligated balance lapsing	27,110		
Total Direct Obligations/Appropriations	583,595	607,500	621,700

DEPARTMENT OF THE ARMY
ANNUAL BUDGET ESTIMATES
JUSTIFICATION

APPROPRIATION

FY 1975 BUDGET

BUDGET PROGRAM OR BUDGET PROJECT ACCOUNT	(In Thousands of Dollars)		
3100 - National Guard Personnel	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
DIRECT OBLIGATIONS OR DIRECT BUDGET PLAN	$	$	$
Direct Program			
Training, Pay Group A	$ 429,834	$ 470,731	$ 473,173
Training, Pay Group F	81,078	68,925	84,969
School Training	25,934	37,206	34,036
Special Training	14,611	25,116	23,755
Administration Support	5,028	5,522	5,767
Total Direct Program	$ 556,485	$ 607,500	$ 621,700
Reimbursable Program			
Training, Pay Group A	1,744	2,364	2,313
Total Reimbursable Program	1,744	2,364	2,313
Total Program			
Training, Pay Group A	431,578	473,095	475,486
Training, Pay Group F	81,078	68,925	84,969
School Training	25,934	37,206	34,036
Special Training	14,611	25,116	23,755
Administration and Support	5,028	5,522	5,767
Total Obligations	$ 558,229	$ 609,864	$ 624,013

Army National Guard Personnel in Paid Status

Pay Groups	Paid Drills	Paid Days of Active Duty for Training		FY 1973 Actual Begin	FY 1973 Actual Average	FY 1973 Actual End	FY 1974 Estimate Average	FY 1974 Estimate End	FY 1975 Estimate Average	FY 1975 Estimate End
A	48	15	Off	32,821	33,725	33,863	34,145	33,863	34,145	33,863
			Enl	335,983	339,839	340,156	335,390	333,808	332,284	325,204
F	0		Enl	18,735	14,461	11,581	10,882	15,579	13,419	12,433
Paid Drill Training Plus Non-Prior Service										
TOTAL PAID STATUS			Off	32,821	33,725	33,863	34,145	33,863	34,145	33,863
			Enl	354,718	354,300	351,737	346,272	349,387	345,703	337,637
			Total	387,539	388,025	385,600	380,417	383,250	379,848	371,500

NOTE: Averages computed by doubling the end strengths of the months of July through May, adding June 30 strengths of the previous year and the year under consideration, and dividing the total by 24, except for Pay Group D. Pay Group D represents the total number of personnel participating during the fiscal year, and average and end strengths are identified in any one year.

FY 1975 STRENGTH PLAN

	Pay Group A		Total Paid Drill	Reserve Enlistment Program	Total Selected Reserve
	Off	Enl	Total		
June 30, 1974	33,863	333,808	367,671	15,579	383,250
July	34,153	331,848	366,001	15,469	381,470
August	34,473	331,083	365,556	15,159	380,715
September	34,518	330,773	365,361	14,804	380,165
October	34,443	331,718	366,161	14,309	380,470
November	34,358	334,143	368,501	13,429	381,930
December	34,318	334,763	369,081	12,954	382,035
January	34,193	334,748	368,941	12,564	381,505
February	34,053	335,010	369,063	12,147	381,210
March	33,833	334,555	368,438	11,977	380,415
April	33,758	331,687	365,445	12,020	377,465
May	33,668	327,574	361,242	12,188	373,430
June 30, 1975	33,863	325,204	359,067	12,433	371,500
(Average)	(34,145)	(332,284)	(366,429)	(13,419)	(379,848)

RESERVE COMPONENT OFFICERS ON STATUTORY TOURS OF ACTIVE DUTY

Army National Guard officers perofrming full time active duty under Sections 265, 3015, 3033, and 3496 of Title 10, United States Code and Section 708 of Title 32, United States Code:

	FY 1973 (Actual Year)			FY 1974 (Current Year)		1975 (Budget Year)	
	Begin	Average	End	Average	End	Average	End
0-8 Major General	2	2	2	2	2	2	2
0-7 Brigadier General	1	1	1	1	1	1	1
0-6 Colonel	41	44.7	46	48.7	51	52.8	55
0-5 Lieutenant Colonel	44	40.25	38	32.25	43	40.5	40
0-4 Major	3	3.75	3	3	3	3	3
Total	91	91.7	90	95.95	100	99.3	101

Section 265. Policies and regulations: participation of reserve officers in preparation and administration

"Within such numbers and in such grades and assignments as the Secretary concerned may prescribe, each armed force shall have officers of its reserve components on active duty (other than for training) at the seat of government, and at headquarters responsible for reserve affairs, to participate in preparing and administering the policies and regulations affecting those reserve components. While so serving, such an officer is an additional number of any staff with which he is serving."

Section 3015. Chief of National Guard Bureau: appointment; acting chief.

"(a) There is a National Guard Bureau, which is a Joint Bureau of the Department of the Army and the Department of the Air Force, headed by a chief who is the adviser to the Army Chief of Staff and the Air Force Chief of Staff on National Guard matters. The National Guard Bureau is the channel of communication between the departments concerned and the several States, Territories, Puerto Rico, the Canal Zone and the District of Columbia on all matters pertaining to the National Guard, the Army National Guard of the United States, and the Air National Guard of the United States."

Section 3033. Reserve components of Army; policies and regulations for government of.

"(a) Each policy or regulation affecting the following subjects shall be prepared by a committee of officers of the appropriate division or divisions of the Army General Staff and of an equal number of officers of the Army National Guard of the United States:

(1) The organization or distribution of the Army National Guard of the United States.

(2) The organization, distribution, or training of the Army National Guard.

(b) The members of each committee under subsection (a) who are officers of the Army National Guard of the United States must be selected from lists of officers of that component who are suitable for that duty, submitted by the governors of the States and Territories of whose Army National Guard they are members, respectively, and by the commanding general of the District of Columbia National Guard for the District of Columbia."

Section 3496. Army National Guard of United States: commissioned officers; duty in National Guard Bureau.

"(a) The President may, with their consent, order commissioned officers of the Army National Guard of the United States to active duty in the National Guard Bureau.

"(b) The number of officers of the Army National Guard of the United States in any grade below brigade general who are ordered to active duty in the National Guard may not be more than 40 percent of the number of officers of the Army in that grade authorized for duty in that Bureau."

Section 708. Property and fiscal officers

"(a) The governor of each State and Territory, Puerto Rico, and the Canal Zone, and the commanding general of the National Guard of the District of Columbia, shall appoint, designate or detail, subject to the approval of the Secretary of the Army and the Secretary of the Air Force, a qualified commissioned officer of the National Guard of that jurisdiction who is also a commissioned officer of the Army National Guard of the United States or the Air National Guard of the United States, as the case may be, to be the property and fiscal officer of that jurisdiction. If the officer is not on active duty, the President may order him to active duty, with his consent, to serve as a property and fiscal officer."

State National Guard Officer Candidate Schools

	FY 1973 (Actual Year)		FY 1974 (Current Year)		FY 1975 (Budget Year)	
	Input	Output	Input	Output	Input	Output
Officer Candidates	3,043	1,523	4,000	2,200	4,000	2,200

APPROPRIATION	(In Thousands of Dollars)		
National Guard Personnel, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
Budget Program 1: Reserve Component Personnel Budget Activity 1A: 3110 Training, Pay Group A	$ 429,834	$ 470,731	$ 473,173

JUSTIFICATION

Part I - Purpose and Scope

This budget activity provides for pay and allowances (including longevity and hazardous duty, administrative functions pay), clothing and gratuities, subsistence, and travel for Army National Guard officers and enlisted personnel while in a training status as follows:

1. Pay and allowances and travel for personnel participating in annual tours (normally 15 days of annual training); pay and allowances for personnel participating in multiple drill assemblies and/or weekend training in a 48 paid drill status, additional drills to improve readiness and maintain jump proficiency and for civil disturbance training and additional drills for DOD Reserve Component Study Tests, and 24 additional flying-training assemblies for aviators required to maintain flight proficiency; administrative function pay for organization commanders; and payment of per diem authorized by P.L. 90-168.

2. Payment of uniform gratuities to officers as prescribed by law (Section 415, 416, 417 Title 37, United States Code), and purchase of individual items of clothing for enlisted personnel.

3. Purchase of subsistence supplies for issue as rations to enlisted personnel participating in annual tours and multiple drills or weekend assemblies.

APPROPRIATION	(In Thousands of Dollars)		
National Guard Personnel, Army	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
BUDGET PROGRAM, PROGRAM ELEMENT, AGGREGATION, OR BUDGET PROJECT ACCOUNT			
Budge Program 1: Reserve Component Personnel Budget Activity ID: 3120 Training, Pay Group F	$ 81,078	$ 68,925	$ 84,969

JUSTIFICATION

Part I - Purpose and Scope

This budget activity provides for pay and allowances, including FICA, clothing, subsistence and travel for enlisted personnel assigned to the non-prior service training program. The purpose of this program is to recruit and train non-prior service personnel to fill specific unit vacancies not attainable from prior service enlisted sources. Individuals receive basic and technical training or on-the-job training, depending upon their aptitudes and Army specialties.

DEPARTMENT OF THE ARMY ANNUAL BUDGET ESTIMATES JUSTIFICATION	APPROPRIATION National Guard Personnel, Army	FY 1975 BUDGET

BUDGET PROGRAM OR BUDGET PROJECT ACCOUNT	(In Thousands of Dollars)		
	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
Budget Program 1: Reserve Component Personnel Budget Activity 1E: 3130 School Training			
DIRECT OBLIGATIONS OR DIRECT BUDGET PLAN	$ 25,934	$ 37,206	$ 34,056

Part I - Purpose and Scope

This budget activity provides for pay and allowances, clothing, subsistence, travel and per diem of Army National Guard officers and enlisted personnel on active duty for training to attend the various courses conducted in Army Service and Army Area Schools. It also includes subsistence requirements for State Officer Candidate Schools.

DEPARTMENT OF THE ARMY ANNUAL BUDGET ESTIMATES JUSTIFICATION	APPROPRIATION National Guard Personnel, Army	FY 1975 BUDGET

BUDGET PROGRAM OR BUDGET PROJECT ACCOUNT	(In Thousands of Dollars)		
	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
Budget Program 1: Reserve Component Personnel Budget Activity 1F: 3140 Special Training			
DIRECT OBLIGATIONS OR DIRECT BUDGET PLAN	$ 14,611	$ 25,116	$ 23,755

Part I - Purpose and Scope

This activity provides for pay and allowances, subsistence, travel and per diem of Army National Guard officers and enlisted personnel on active duty for training. These special tours include Command Post Exercises, pre-camp conferences, ferrying of aircraft, authorized Policy and Promotion Boards, DOD Reserve Component Study Tests, Marksmanship program; and recruiting program.

DEPARTMENT OF THE ARMY ANNUAL BUDGET ESTIMATES **JUSTIFICATION**	APPROPRIATION National Guard Personnel, Army	FY 1975 BUDGET

BUDGET PROGRAM OR BUDGET PROJECT ACCOUNT	(In Thousands of Dollars)		
	ACTUAL FISCAL YEAR 19 73	ESTIMATE	
		FISCAL YEAR 19 74	FISCAL YEAR 19 75
Budget Program 1: Reserve Component Personnel Budget Activity 1G: 3150 Administration and Support			
DIRECT OBLIGATIONS OR DIRECT BUDGET PLAN	$ 5,028	$ 5,522	$ 5,767

Part I - Purpose and Scope

The funds requested in this budget activity are to provide for pay and allowances, uniforms, and permanent change of station travel costs of the Army National Guard officers called to active duty (for other than training) as authorized by Sections 265, 3015, 3033, and 3496 Title 10, United States Code, and by Section 708 of Title 32, United States Code.

Funds are also requested to provide death gratuity payments to beneficiaries of the Army National Guard personnel who die while participating in or as a result of injury received or disease contracted while participating in active or inactive duty training; for pay and allowances during periods of disability and hospitalization to members of the Army National Guard who suffer injury or contract disease in line of duty while participating in active or inactive duty training.

Personnel Summary

	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Total number of permanent positions	27,645	28,871	29,009
Full time equivalent of other positions	334	-0-	-0-
Average paid employment	27,276	28,312	28,673
Average GS grade	7.2	7.2	7.2
Average GS salary	11,151	11,549	12,191
Average salary of ungraded positions	10,614	10,972	11,618

APPROPRIATION: Operation and Maintenance, Army National Guard

BUDGET PROGRAM (Number and title): 3710 - Training Operations

(In Thousands of Dollars)

BUDGET PROJECT ACCOUNT	TITLE	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
		$	$	$
3711	Personnel compensation and benefits	104,844	117,455	119,549
3712	Command inspection and Staff Visit Travel	1,953	120	146
3713	School program training material	153	146	146
3714	Training aids and materials	304	256	352
3715	Technician school travel, perdiem and tuition	663	1,274	1,180
3716	Miscellaneous training supplies and services	2,395	4,551	4,060
3717	Base operations	10,639	13,981	15,300
	TOTAL	$120,951	$137,783	$140,733

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
AVERAGE NUMBER OF ALL EMPLOYEES	8,766	8,765	9,012
NUMBER OF EMPLOYEES AT END OF YEAR	8,602	8,814	9,207
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 104,844	$ 117,455	$ 119,549

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army National Guard	3720 - Air Defense Operations

(In Thousands of Dollars)

BUDGET PROJECT ACCOUNT	TITLE	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
		$	$	$
3721	Personnel compensation and benefits	33,865	35,896	21,677
3722	Operating services and supplies and travel of personnel	224	269	83
3723	Operation and Maintenance of facilities	998	1,051	599
	TOTAL	$35,087	$37,216	$22,359

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
AVERAGE NUMBER OF ALL EMPLOYEES	2,675	2,692	1,467
NUMBER OF EMPLOYEES AT END OF YEAR	2,670	2,714	-0-
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 33,865	$ 35,896	$ 21,677

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army National Guard	3730 - Logistical Support

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
		$	$	$
3731	Personnel compensation and benefits	167,620	188,605	214,751
3732	Travel and transportation of personnel	3,661	5,867	8,494
3733	Organizational clothing and equipment	18,909	21,735	32,927
3734	Repair parts, materiels and contractual services	45,621	63,272	89,764
3735	Petroleum, oil and lubricants	10,229	18,372	21,152
3736	Transportation services	5,284	17,147	17,562
3737	Communication services	1,027	1,085	2,072
3738	Other supplies, equipment and services	3,840	3,635	3,840
3739	Base Operations	10,078	14,184	14,794
	TOTAL	$266,269	$333,902	$405,356

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
AVERAGE NUMBER OF ALL EMPLOYEES	14,454	15,513	16,798
NUMBER OF EMPLOYEES AT END OF YEAR	14,909	15,971	18,381
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11+12)	$ 167,620	$ 188,605	$ 214,751

APPROPRIATION: Operation and Maintenance, Army National Guard

BUDGET PROGRAM (Number and Title): 3740 - Headquarters and Command Support

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
		$	$	$
3741	National Guard Bureau Activities	1,742	1,874	1,912
3742	Automatic data processing operations	2,772	3,335	4,152
3743	State headquarters activities	12,105	14,485	14,855
3744	Military support to civil authorities	3,762	4,310	4,334
3745	Recruiting and publicity	1,533	5,594	5,594
3749	Other operating costs	3,614	9,380	7,495
	TOTAL	$25,528	$38,978	$38,342

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 19 73	ESTIMATE FISCAL YEAR 19 74	ESTIMATE FISCAL YEAR 19 75
AVERAGE NUMBER OF ALL EMPLOYEES	1,331	1,342	1,396
NUMBER OF EMPLOYEES AT END OF YEAR	1,289	1,372	1,421
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11 + 12)	$ 18,054	$ 21,044	$ 21,500

APPROPRIATION	BUDGET PROGRAM (Number and title)
Operation and Maintenance, Army National Guard	3750 - Medical Support

BUDGET PROJECT ACCOUNT	TITLE	(In Thousands of Dollars) ACTUAL FISCAL YEAR 1973	ESTIMATE FISCAL YEAR 1974	ESTIMATE FISCAL YEAR 1975
		$	$	$
3751	Emergency medical supplies	49	60	70
3752	Medical care in non-Federal facilities	1,309	1,541	1,540
	TOTAL	$1,358	$1,601	$1,610

PERSONNEL REQUIREMENTS	ACTUAL FISCAL YEAR 19	ESTIMATE FISCAL YEAR 19	ESTIMATE FISCAL YEAR 19
AVERAGE NUMBER OF ALL EMPLOYEES	-	-	-
NUMBER OF EMPLOYEES AT END OF YEAR	-	-	-
	(In Thousands of Dollars)		
TOTAL PERSONAL SERVICE OBLIGATIONS (Object Class 11 + 12)	$ -	$ -	$ -

NGPA

[Dollar amounts in thousands]

	Fiscal year—		
	1973	1974	1975
Pay group A (IDT/AT):			
Budget average paid drill strength	373,564	369,535	366,429
Actual/revised		385,844	392,207
Amount	$429,834	$470,731	$473,173
Pay group F (REP):			
Average man-years	(14,461)	(10,882)	(13,419)
Amount	$81,078	$68,925	$84,969
School training	$25,934	$37,206	$34,036
Special training	$14,611	$25,116	$23,755
Administrative and support	$5,028	$5,522	$5,767
Total obligational authority	$556,485	$607,500	$621,700

OMARNG

[Dollar amounts in thousands]

	Fiscal year—		
	1973	1974	1975
Technicians and DA civilians:			
End strength	27,470	28,871	29,009
Man-years	27,226	28,312	28,673
Amount	$324,383	$363,000	$377,477
Air defense (less technicians)	1,222	1,320	682
Logistical support (less technicians):			
Stock fund equipment	18,909	21,735	32,927
Maintenance and repair parts	45,621	63,272	89,764
POL	10,229	18,372	21,152
Transportation and travel	8,945	23,014	26,056
Communications and miscellaneous	4,867	4,720	5,912
Facilities support	20,717	28,165	30,094
Headquarters Command (less technicians and DAC)	7,474	17,934	16,842
Medical support	1,358	1,601	1,610
Other training support	5,468	6,347	5,884
Total obligational authority	449,193	549,480	608,400

STATEMENT OF COLONEL LOHMANN

General KJELLSTROM. Mr. Chairman, I would like to enter into the record this prepared statement of Lt. Col. Frank T. Lohmann, Director of Civilian Marksmanship, Department of the Army.

Chairman MCCLELLAN. Very well, that will be received and printed in the record at this point together with the programing and financing information from the justification.

[The statement follows:]

Colonel LOHMANN. Mr. Chairman and members of the committee, it is my privilege to once again appear before this committee to discuss the activities of the National Board for the Promotion of Rifle Practice and the Civilian Marksmanship Program, and to request funds to support these programs in fiscal year 1975.

Since fiscal year 1970, Congress substantially increased the funds allocated to these programs. The additional funds were used to finance activities that had been discussed during hearings before this committee, and included the hiring of six additional office personnel and purchase and issue of qualification medals and badges, as well as smallbore rifle targets.

Support by the Director of Civilian Marksmanship is limited to junior marksmanship activities consisting of boys between the ages of 12 and 19 years. The Civilian Marksmanship Program currently provides enrolled junior rifle clubs 300 rounds of caliber .22 ammunition per member, per year. Additionally, clubs may also purchase ammunition from the Army at cost plus handling and shipping charges. Newly enrolled clubs are also issued caliber .22 target rifles on an indefinite loan basis. No expense to the government or the club is incurred in the loan of this equipment.

EFFECT OF ELIMINATION OF APPROPRIATION

Chairman MCCLELLAN. What would be the result of eliminating this appropriation? What serious impact on the U.S. defense posture would occur?

Colonel LOHMANN. The elimination of the NBPRP appropriation would effectively terminate all the activities and programs supported by the NBPRP. There are no other agencies (or funding) which could accomplish the missions and functions of the NBPRP.

In order to understand what would be lost should the NBPRP appropriation be eliminated, it may be helpful to summarize what the NBPRP does and enumerate some of the benefits accruing from NBPRP activities and programs.

The primary missions of the NBPRP are to promote practice with rifled arms among able-bodied citizens of the United States not reached through training programs of the Armed Forces, and to formulate policy governing the Civilian Marksmanship Program and rules governing the National Trophy Matches. NBPRP, and the programs it sponsors, have been in continuous existence since their establishment and are currently authorized under Title 10, U.S. Code, Sections 4307 through 4313.

The Civilian Marksmanship Clubs have also been a key source of good marksmen for the Armed Services. Experience shows that, on the whole, the individuals who are products of the Civilian Marksmanship Program do better in marksmanship training and related activities in the Armed Services than their counterparts who have not participated in the program. Additionally, personnel who have participated in the Civilian Marksmanship Program provide a prime source of instructor personnel in the Armed Forces and contribute significantly to the enhancement of marksmanship training, overall, within the Services. We also have indications that participants in pre-service marksmanship programs tend to enlist for combat rather than administrative jobs where their civilian acquired marksmanship skills could be used better. Many such individuals continue

marksmanship competition after entering the Armed Services, and a number have represented the United States as members of shooting teams in international marksmanship competitions such as; The Olympic Games, Pan American Games, World Shooting Championships, Conseil International du Sport Militaire, and other such important events. For example, Major Lones Wigger, U.S. Army, who led the U.S. International Team in the 1972 Olympic Games in Munich by winning two Gold Medals in competition with the world's best marksmen, is a product of the Civilian Marksmanship Program and a former member of an NBPRP-sponsored Junior Marksmanship Club.

The activities and programs of the NBPRP are aimed at stimulating broad participation in organized marksmanship training and competition. These programs contribute directly to improving marksmanship training techniques and increasing the number of individuals who acquire shooting experience and skills prior to entry into military service. To this end, the objectives of the NBPRP are fully supportive of the marksmanship programs and proficiency of the Armed Services.

The NBPRP sponsors and supports a nationwide civilian marksmanship program. Throughout the years many benefits have accrued to the Armed Services, the Nation and the civilian participants from the civilian marksmanship programs sponsored by the NBPRP. As of December 1973, there were 2706 rifle clubs with 150,432 individual members enrolled in the program. The majority of the members of these clubs are young men between the ages of 12 and 19. Under the tutelage of experienced and dedicated instructors, the members are taught the fundamentals of rifle marksmanship and weapons safety. The Civilian Marksmanship Club program provides an environment in which participants can acquire and improve their shooting skills and enter into friendly competition against other club members, and may eventually represent their club, city, or state in regional and national championships. The NBPRP also supports a program in which qualified junior shooters are afforded the opportunity to train with the marksmanship training units of the US Army and the US Marine Corps to enhance their skill and qualification for future US international shooting teams.

The NBPRP sponsors major marksmanship competitions at regional and national level to provide civilian and military marksmen an opportunity to exhibit and improve their shooting skills in the higher levels of competition. In 1973, the Board sponsored 49 regional competitions in which more than 2600 shooters from most of the United States participated. Fifty regional matches are scheduled in 1974 leading to the National Trophy Matches.

The NBPRP has developed and promulgated the rules and regulations which serve as standards for all service rifle and pistol competitive shooting in the United States by both military and civilians. These rules govern all aspects of competitive marksmanship and insure fair and equitable competition for all who compete. Additionally, the standards developed by the Board have served to inspire and to provide valuable criteria for the development of rules and procedures of other marksmanship competitions in the United States.

In addition to the tangible benefits which accrue from NBPRP-sponsored activities as discussed above, the implementation and administration of NBPRP programs provides a unique opportunity for the interface of the military services with diverse and widespread elements of the Nation's youth—the prospective members of the Volunteer Armed Force. We feel that these contacts have assisted and will continue to assist our efforts to recruit individuals of the quality required to man the volunteer force.

In summary, the elimination of the NBPRP appropriation will result in the termination of programs of importance to the Nation and the Armed Forces. The adverse impact, national defense posture resulting from such an action cannot be quantified. However, it is believed that the adverse impact of such an action would far exceed the dollar savings generated.

Free Ammunition

Chairman McClellan. Please explain the reason for providing free ammunition and .22 caliber target rifles on an indefinite loan basis?

Colonel Lohmann. Sections 4307 through 4313, Title 10, United States Code, provide that the Secretary of the Army will promote marksmanship training with rifled arms among able-bodied citizens of the United States and, within the limits of available funds, will provide citizens outside the active services of the Armed Forces of the United States with means whereby they may become proficient in the use of such arms. The Secretary of the Army accomplishes this mission through the Civilian Marksmanship Program, based on the recommendations of the

NBPRP and implemented by the Office of the Director of Civilian Marksmanship (ODCM). Under this program, and pursuant to authority contained in 10 U.S.C., Sec. 4308, assistance is provided to civilian marksmanship clubs in conducting small arms marksmanship training with rifled arms, and firearms are loaned and ammunition is issued in connection therewith.

The principal program through which this charter is currently fulfilled is the Junior Marksmanship Club program. The NBPRP has channeled its support and attention toward this youth program (12-19 year old age group) to maximize the long-term benefits of the resources available to the Board to both the civilian sector and the Armed Services. The purposes, scope and benefits of the junior club program are delineated in the discussion concerning the preceding question.

Twenty-two caliber target rifles are loaned and .22 caliber ammunition is issued to junior rifle clubs to provide assistance that would otherwise not be available. Due to the cost to equip and operate a junior rifle club, many organizations would be financially unable to undertake this training program were it not for this assistance. Each newly affiliated junior rifle club is loaned four caliber .22 rifles. In addition, if more than ten eligible members are participating in the marksmanship program at the time of enrollment, one additonal rifle may be loaned for each additional five eligible members, the total rifles issued not to exceed ten to any club. The loaned firearms are caliber .22 rifles and are ideal for use in basic training in firearms safety and marksmanship. Currently, we have on loan an average of one rifle for each 7 eligible junior participants. The Army uses .22 caliber rifles in Active Army, National Guard, Army Reserve and Reserve Officer Training Corps training activities, in addition to the Civilian Marksmanship Program. The rifles loaned to junior rifle clubs are made available from within existing Army stocks.

When an enrolled club is disbanded or fails to meet the requirements established for the Civilian Marksmanship Program, the weapons are returned to designated Army depots.

Upon enrollment in the Civilian Marksmanship Program, each junior rifle club is issued 300 rounds of caliber .22 ammunition for each eligible member participating in the marksmanship program. Thereafter, on an annual basis clubs are issued 300 rounds of caliber .22 ammunition for each member who has qualified in an approved qualification course of fire during the preceding year.

As of 31 December 1973, there were 2706 rifle clubs with 150,432 individual members, enrolled in the Civilian Marksmanship Program.

The majority of the members of these junior rifle clubs are between the ages of 12 and 19. Under the tutelage of experienced and dedicated instructors, the members are taught fundamentals of rifle marksmanship and weapons safety. The Civilian Marksmanship Club program also provides an environment in which participants can acquire and improve their shooting skills and enter into friendly competition against other club members, and may eventually represent their club, city, or state in regional and national championships.

The Civilian Marksmanship Clubs have also been a key source of good marksmen for the Armed Services. Experience shows that, on the whole, the individuals who are products of the Civilian Marksmanship Program do better in marksmanship training and related activities in the Armed Services than their counterparts who have not participated in the program. Many such individuals continue marksmanship competition after entering the Armed Services, and a number have represented the United States as members of shooting teams in international marksmanship competitions.

Additionally, personnel who have participated in the Civilian Marksmanship Program provide a prime source of instructor personnel in the Armed Forces and contribute significantly to the enhancement of marksmanship training, overall, within the Services.

Ammunition Availability to Private Clubs

Chairman McClellan. Provide the amounts for fiscal years 1973–1975 contained in the ammunition, Army appropriation for procurement of caliber .22 ammunition which is furnished to Junior rifle clubs under the civilian Marksmanship Program.

Colonel Lohmann. In FY 1973 and 1974, $280,000 was made available to issue 28,000,000 of .22 caliber ammunition to eligible junior members. The request for FY 1975 is also for $280,000 in PEMA funds.

Cost of National Board Operations

Chairman McClellan. Provide the cost of the National Board operations for FY 1970 through 1975 and compare with the total number of clubs and individual members supported each year.

Colonel Lohmann. I will be glad to provide the information for the record.

[The information follows:]

	Fiscal year—					
	1970	1971	1972	1973	1974 (estimate)	1975 (estimate)
NBPRP:						
Obligations	54,000	82,000	117,000	137,000	170,000	178,000
Total number of clubs	3,183	3,081	2,792	2,725	2,735	2,800
Individual membership	192,172	175,411	146,176	139,419	151,595	160,000

Chairman McClellan. Proceed.

Colonel Lohmann. As of 30 June 1973, a total of 2,725 clubs with approximately 140,000 individual members were receiving varying degrees of support from the office of the Director of Civilian Marksmanship. The fiscal year 1975 budget request for the National Board for the Promotion of Rifle Practice is $178,000, which will provide essentially the same support as FY 1974, but includes $7,000 for the recently inaugurated Junior Shooter Program. This new program was developed to provide advanced marksmanship training to young individuals who may qualify for participation as members of U.S. International Shooting Teams.

In 1973, the National Board for the Promotion of Rifle Practice again authorized the National Rifle Association to conduct four National Trophy Matches at the 1973 NRA National Rifle and Pistol Championships held at Camp Perry, Ohio, following the policy which had been applied since 1967. During August, a total of 69 teams and 1092 individuals competed for rifle and pistol trophies and medals sponsored by the National Board. The number of competing individuals was a 10 percent increase over participation in 1972 and there was also a slight increase in the number of participating rifle and pistol teams.

The National Board for the Promotion of Rifle Practice requests continuation of the general provision to provide ammunition to the Civilian Marksmanship Program on a non-reimbursable basis from stocks of the Department of Defense as proposed in the President's budget.

Gentlemen, this concludes my statement.

PROGRAM AND FINANCING

NATIONAL BOARD FOR THE PROMOTION OF RIFLE PRACTICE, ARMY PROGRAM AND FINANCING

[In thousands of dollars]

	1973 actual	1974 estimate	1975 estimate
Program by activities: National headquarters (total obligations)	137	170	178
Financing: Unobligated balance lapsing	22		
Budget authority (appropriation)	159	170	178
Budget authority:			
Appropriation	159	159	178
Proposed supplemental for civilian pay raises		11	
Relation of obligations to outlays:			
Obligations incurred, net	137	170	178
Obligated balance, start of year	27	43	43
Obligated balance, end of year	−43	−43	−41
Adjustments in expired accounts	−2		
Outlays, excluding pay raise supplemental	119	159	180
Outlays from civilian pay raise supplemental		11	

PARTICIPATION OF WOMEN IN JUNIOR MARKSMANSHIP ACTIVITIES

Chairman MCCLELLAN. Are there any plans to extend junior marksmanship activities to women?

Colonel LOHMANN. Yes. Women are currently enrolled as members of many of the clubs participating in the program. Action is being taken to insure that the same support now provided to male members is provided to female members of the junior clubs.

JUSTIFICATION

Chairman MCCLELLAN. In addition there will be included certain information from the justifications.

[The justification follows:]

JUSTIFICATION—PERSONNEL SUMMARY

	Fiscal year 1973 actual	Fiscal year 1974 estimate	Fiscal year 1975 estimate
Total number of permanent positions	11	11	11
Average number of all employees	8	11	11
Average GS grade	5.90	6.09	6.09
Average GS salary	$10,559	$10,133	$10,295

NATIONAL BOARD FOR THE PROMOTION OF RIFLE PRACTICE (IN THOUSANDS OF DOLLARS)

	Fiscal year actual 1973	Fiscal year 1974 estimate	Fiscal year 1975 estimate
National headquarters	$137	$170	$178

The primary mission of the National Board for the Promotion of Rifle Practice is to promote marksmanship training with military type individual small arms among able-bodied citizens outside the active services of the Armed Forces, to formulate policy governing civilian marksmanship programs, and to formulate rules and regulations governing the National Trophy Matches.

The training program of the National Board is conducted through civilian shooting clubs and schools scattered throughout the United States. As of 30 June 1973, there was a total of 139,419 individuals in 2,725 clubs participating in this program. The basic budget for NBPRP for FY 1975 continues support for civilian marksmanship at the approximate FY 1974 level.

SUBCOMMITTEE RECESS

Chairman MCCLELLAN. Thank you again, gentlemen.

This concludes our hearing for today. We will resume tomorrow morning over in the Everett McKinley Dirksen Office Building at 10 o'clock in room 1223.

[Whereupon, at 3:50 p.m. Wednesday, April 3, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, April 4.]

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1975

THURSDAY, APRIL 4, 1974

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

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

Present: Senators McClellan and Young.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE ARMY

RESEARCH, DEVELOPMENT, TEST AND EVALUATION

STATEMENT OF NORMAN R. AUGUSTINE, ASSISTANT SECRETARY OF THE ARMY (RESEARCH AND DEVELOPMENT)

ACCOMPANIED BY:

LT. GEN. JOHN R. DEANE, JR., CHIEF OF RESEARCH AND DEVELOPMENT

MAJ. GEN. JOHN A. KJELLSTROM, DIRECTOR OF ARMY BUDGET, OFFICE OF THE COMPTROLLER OF THE ARMY

K. C. EMERSON, THE ASSISTANT FOR RESEARCH, THE OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY (RESEARCH AND DEVELOPMENT), AND

COL. DONALD E. KENNEY, PROGRAMS AND BUDGET DIVISION, OFFICE OF THE CHIEF OF RESEARCH AND DEVELOPMENT

PROGRAM AND FINANCING

Chairman MCCLELLAN. The subcommittee will come to order.

This morning the subcommittee will receive testimony in support of the fiscal year 1975 Army budget request for Research, Development, Test, and Evaluation and Procurement Appropriations.

At this point in the record there will appear certain program and financing information on Army research development, test, and evaluation from the justifications.

[The justifications follow:]

Justification

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, ARMY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 97-20-2040-0-1-051	BUDGET PLAN (AMOUNTS FOR RDT&E ACTIONS PROGRAMED)			OBLIGATIONS		
	1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:						
DIRECT:						
1. MILITARY SCIENCES	144,120	114,621	111,520	152,054	117,000	112,000
2. AIRCRAFT AND RELATED EQUIPMENT	192,435	290,963	269,996	203,189	286,000	270,000
3. MISSILES AND RELATED EQUIPMENT	907,757	819,026	706,418	925,024	819,000	696,000
4. MILITARY ASTRONAUTICS AND RELATED EQUIPMENT	17,009	17,501	15,832	17,224	19,000	16,000
6. ORDNANCE, COMBAT VEHICLES, AND RELATED EQUIPMENT	192,478	254,985	261,871	192,183	248,000	264,000
7. OTHER EQUIPMENT	370,616	391,765	562,491	382,681	399,000	561,000
8. PROGRAMWIDE MANAGEMENT AND SUPPORT	55,739	62,469	55,846	55,717	62,900	57,000
TOTAL DIRECT	1,884,550	1,951,330	1,985,976	1,928,071	1,950,900	1,976,000
REIMBURSABLE (TOTAL)	141,423	146,000	145,000	158,643	142,134	150,000
10 TOTAL	2,025,973	2,097,330	2,130,976	2,086,714	2,093,034	2,126,000
FINANCING:						
RECEIPTS AND REIMBURSEMENTS FROM:						
11 FEDERAL FUNDS	-137,491	-144,000	-143,000	-126,291	-144,000	-143,000
14 NON-FEDERAL SOURCES	-2,431	-2,000	-2,000	-2,484	-2,000	-2,000
21 UNOBLIGATED BALANCE AVAILABLE, START OF YEAR						
FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-167,133	-91,827	-92,623
AVAILABLE TO FINANCE NEW BUDGET PLANS	-61,500	.....	.....	-61,500	.....	.....
REPROGRAMING FROM (+) OR TO PRIOR YEAR BUDGET PLANS	-3,337	-3,500	.....	.....	.....	.....
22 UNOBLIGATED BALANCE TRANSFERRED FROM OTHER ACCOUNTS	-60,000	-3,500	.....	-60,000	-3,500	.....
23 UNOBLIGATED BALANCE TRANSFERRED TO OTHER ACCOUNTS	60,000	3,500	.....	60,000	3,500	.....
24 UNOBLIGATED BALANCE AVAILABLE, END OF YEAR						
FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	91,827	92,623	92,599
25 UNOBLIGATED BALANCE LAPSING						
UNOBLIGATED BALANCE LAPSING, BUD PLAN	3,337	.....	.....	3,337	.....	.....
BUDGET AUTHORITY	1,824,551	1,947,830	1,985,976	1,824,551	1,947,830	1,985,976
BUDGET AUTHORITY:						
40 APPROPRIATION	1,829,032	1,912,100	1,985,976	1,829,032	1,912,100	1,985,976
41 TRANSFERRED TO OTHER ACCOUNTS	-4,481	-168	.....	-4,481	-168	.....
43 APPROPRIATION (ADJUSTED)	1,824,551	1,911,932	1,985,976	1,824,551	1,911,932	1,985,976
44.10 PROPOSED SUPPLEMENTAL FOR WAGE-BOARD PAY RAISES	.....	2,078	.....	.....	2,078	.....
44.20 PROPOSED SUPPLEMENTAL FOR CIVILIAN PAY RAISES	.....	33,820	.....	.....	33,820	.....
RELATION OF OBLIGATIONS TO OUTLAYS:						
71 OBLIGATIONS INCURRED, NET				1,958,819	1,947,834	1,981,000
72 OBLIGATED BALANCE, START OF YEAR				1,037,667	1,051,867	1,076,901
74 OBLIGATED BALANCE, END OF YEAR				-1,051,867	-1,076,901	-1,118,901
77 ADJUSTMENTS IN EXPIRED ACCOUNTS				-31,725	.....	.....
90 OUTLAYS, EXCLUDING PAY RAISE SUPPLEMENTAL				1,912,894	1,889,002	1,936,100
91.10 OUTLAYS FROM WAGE-BOARD PAY RAISE SUPPLEMENTAL				.....	1,978	100
91.20 OUTLAYS FROM CIVILIAN PAY RAISE SUPPLEMENTAL				.....	31,028	2,800

Chairman McClellan. The witnesses are Mr. Norman R. Augustine, Assistant Secretary of the Army for Research and Development; Lt. Gen. John R. Deane, Jr., Chief of Research and Development, Department of the Army; and Maj. Gen. P. G. Olenchuk, Director of the Office of Materiel Acquisition, Deputy Chief of Staff for Logistics.

BIOGRAPHICAL SKETCH AND PREPARED STATEMENT

Mr. Secretary, you are the first witness.

The reporter will please insert the biographical sketch immediately following the introduction of the witness.

Your prepared statement together with questions and replies which Senator Young and I have submitted will also be included at this point in the record.

[The biographical sketch and statement follow:]

Biographical Sketch of Hon. Norman R. Augustine, Assistant Secretary of the Army (Research and Development)

Norman R. Augustine was born on July 27, 1935 in Denver, Colorado and was educated in the public schools in that city. He attended Princeton University where he majored in Aeronautical Engineering and was awarded a BSE, magna cum laude, a MSE, and was elected to membership in Tau Beta Pi, Phi Beta Kappa and Sigma Xi. After graduation he took various courses at Columbia University Graduate School of Business Administration, the University of California at Los Angeles and the University of Southern California.

Mr. Augustine's initial professional employment was on the Princeton faculty as an Assistant in Research at the James Forrestal Research Center. In 1958 he joined the Douglas Aircraft Company in Santa Monica, California where, during a period of seven years, he held positions as Research Aerodynamicist, Design Group Leader, Section Chief, Program Manager and Chief Engineer.

In 1965 he joined the federal government in Washington, D.C. in the Office of the Secretary of Defense where he held positions as Staff Assistant to the Assistant Director of Defense Research and Engineering for Strategic Defensive Systems, and as Assistant Director of Defense Research and Eingineering for Tactical Missiles and Ordnance and for Land Warfare. Upon completing his service with the government in 1970, he was presented the Secretary of Defense Meritorious Service Medal.

Mr. Augustine then joined the LTV Aerospace Corporation in Dallas, Texas where he served in such capacities as Vice President, Advanced Programs for the Vought Missiles and Space Company and as Director, Advanced Missiles and Space Systems for the Vought Systems Division.

He is an Associate Fellow of the Institute of Aeronautics and Astronautics and has served as a consultant to the Office of the Secretary of Defense, the Executive Office of the President and the Department of the Army. He has been the U.S. member of the NATO Group of Experts on Air Defense and is a licensed professional engineer in the State of Texas.

Mr. Augustine is married to the former Margareta Engman and they are the parents of a son Gregory and a daughter Rene. Mr. Augustine has held adult leadership positions in various youth programs sponsored by the Boy Scouts and the YMCA.

Mr. Augustine was sworn in as Assistant Secretary of the Army (Research and Development) on 14 September 1973.

Statement of Assistant Secretary Norman Augustine

Mr. Augustine. Mr. Chairman, and Members of the Committee, it is indeed a privilege to appear before you for the first time to present the Army's FY 1975 RDTE budget request. I would like to say at the outset that I view the defense of this Nation as a joint venture in which you, as representatives of the people of the United States, and we, who represent their Army, must work together if we are to succeed. I will endeavor, as long as I hold this position, to remove the word cooperation from the realm of overworked platitudes and make it a reality in all our dealings with the Congress.

Today General Deane and I will acquaint you with the considerations which had the most impact on our formulation of the budget request for Fiscal Year 1975, and will summarize the use to which the Army has put the appropriations authorized for FY 74.

FY 1975 RDTE Budget Request

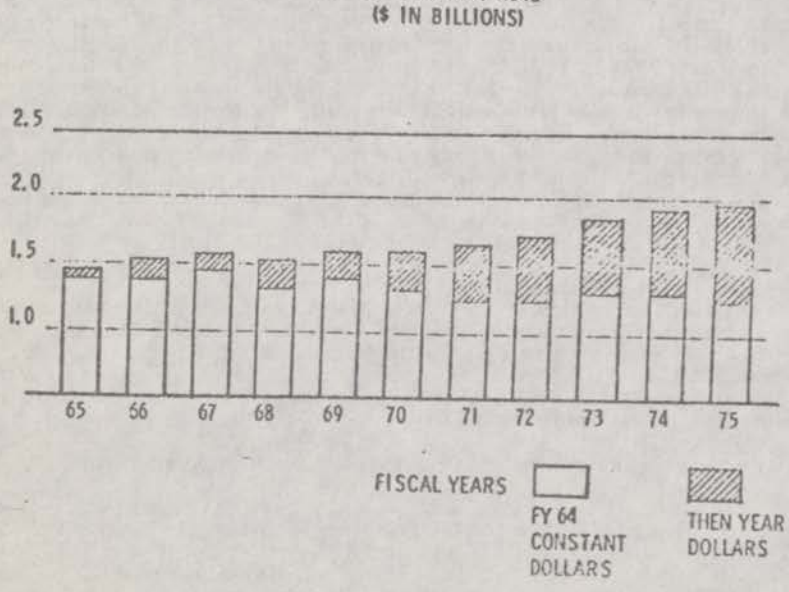
Chairman McClellan. What is the FY 1975 RDTE budget request?

Mr. Augustine. The FY 1975 RDTE budget request is $1,985,976,000.

Chairman McClellan. Proceed.

Mr. Augustine. Two questions surface frequently in discussions of the Army's RDTE. Their answers provide, I believe, the guiding philosophy behind the Army's RDTE program. Question number one is "Why, when the Soviets can field good, sturdy, effective, battlefield machinery, must we develop systems which seem to be vastly more sophisticated, complicated and often more costly?"

The answer in part is that, within the constraints of almost any foreseeable budget, on almost any conceivable battlefield of the future, our forces will be vastly outnumbered in manpower, firepower, airpower, air defense and combat vehicles. To prevail, or indeed, to survive, we must, therefore, be prepared to counter, destroy or neutralize these enemy advantages with an efficiency that requires better than the sturdy basic weapons which are equally available to all our potential future adversaries. Hence, we are developing systems whose ingenuity of design will maximize the effectiveness of the forces available to us. I use the word "ingenuity" rather than "sophistication" because the latter conjures images of complicated, delicate, hard to use equipment—a category of equipment which I strongly believe does not serve its user well. What we are striving for is the exact opposite of the above. The TOW missile is one case in point. Its ingenuity of design relieves its user of the difficult task of steering the missile in flight; he need only keep the crosshairs on the target to obtain a hit. This feature makes the TOW system simpler to employ, easier to train on and vastly more accurate than its Soviet counterpart, the Sagger. Another is the use of new phased array radar technology in a number of our systems. In the case of SAM–D, for example, this technology permits a single type of radar to replace eight different types of radar in the predecessor HERCULES and HAWK systems.

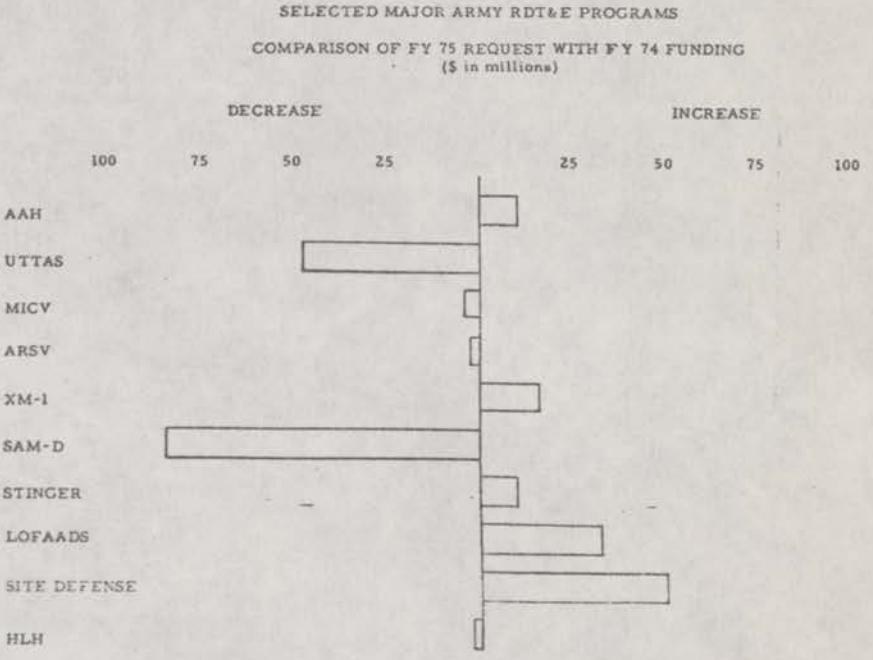


The weapons we require *are*, unfortunately, expensive; they require years to develop, and ofttimes, in attaining the required capabilities we run into problems developing them, but they represent the edge that will be crucial to our Army's chances of success should war occur. I believe it is evident to all that there is no way we can, in the foreseeable future, match the Soviets tank for tank or gun for gun.

The other question frequently raised is "why are you spending so much on RDT&E and in particular on maintaining the technology base?" The answer is that we cannot afford not to. Breakthroughs in military-related technology are occurring at increasingly shorter intervals. Systems and counter-systems race neck and neck, each gaining temporary advantages which are then overcome by opposing technology. . . . but which at any particular time can produce decisive results. Tank-anti-tank, aircraft-anti-aircraft systems and electronic warfare are examples. We cannot lag, even for a little while in developing and expanding our technology or we risk severe consequences.

Selected Major RDT&E Programs

Turning now to our budget request for this year, we are asking for $1,986 million to fund our RDT&E programs. The chart shows that over the past ten years, while our funding has increased at a rather steady but modest pace, our actual buying power, as a result of inflation, has already declined.



Inflation Rate for Weapons Systems

Chairman McClellan. What inflation rate is the Army using for various weapons systems? How and why do they differ from other services?

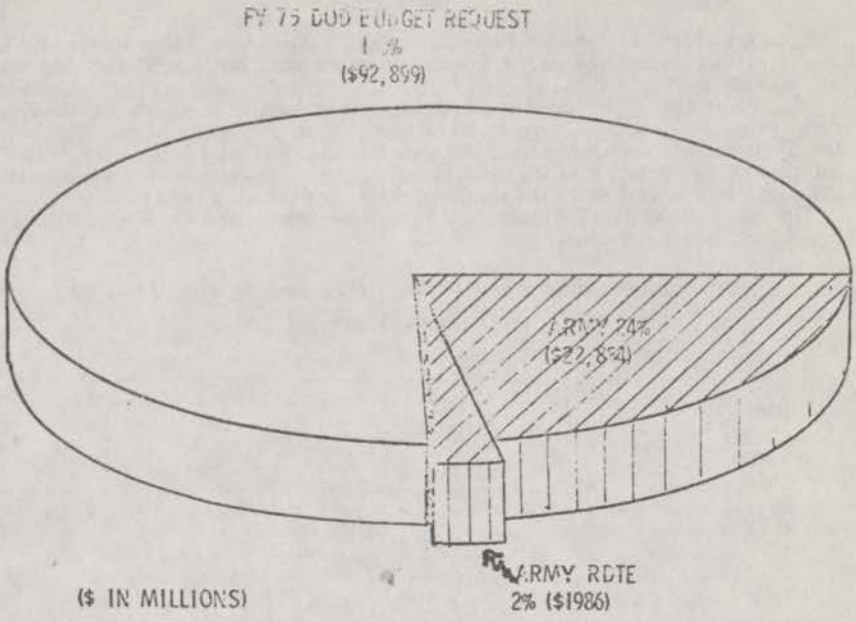
Mr. Augustine. Standard rates are prescribed by the Department of Defense. For inflation between FY 74 and FY 75 the standard rate for Research and Development was 6.8%.

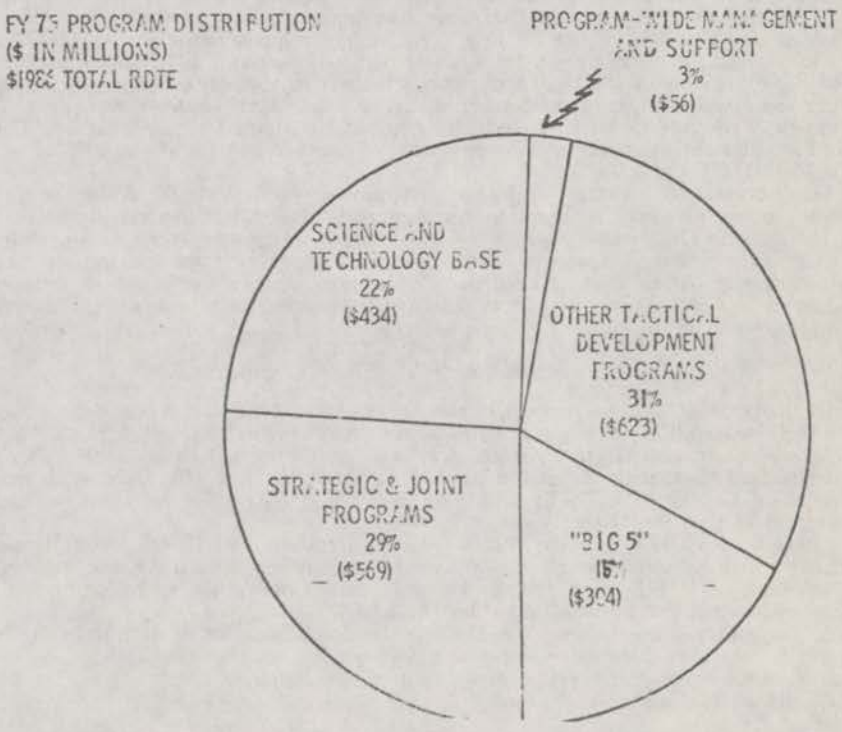
Basic price escalation indices issued by the Department of Defense are the same for all services. However, to the extent possible, inflation rates are based upon actual data for specific weapons systems. Price escalation indices are used only in the absence of specific data; consequently, inflation rates may vary among services.

Chairman McClellan. Proceed.

Mr. AUGUSTINE. In fact, in real buying power, this year's request—if fully funded—would result in the smallest RDT&E budget the Army has had in 13 years. While the total Defense RDTE budget is up by about 15% in current dollars from FY 74, the Army's portion of that increase is less than 1%. We have tried to ask only for those things we truly consider to be important. Similarly, we have tried not to ask for those things which would, in future years, build up funding demands we are unlikely to be able to sustain. This is not to say that I do not expect that there are items in this budget which will be challenged. . . . for indeed that will always be the case; but perhaps the best overall summary I could give is that we have tried to tailor this budget to where the probability that additional reductions should be made is roughly equal to the probability that like increases should be incorporated.

Our FY 1975 budget request, if discounted to the FY 74 level of purchasing power would be about $1,860 million, or 6% less than last year's appropriation. I use the measure of constant purchasing power not to minimize the overall amount of funding we are requesting, but rather because it is the true indication of how many people we can afford to pay in our nation's laboratories and how much hardware we can afford to buy for testing.


FY 75 DOD BUDGET REQUEST
1%
($92,899)
ARMY 24%
($22,854)
ARMY RDTE
2% ($1986)
($ IN MILLIONS)


FY 75 PROGRAM DISTRIBUTION
($ IN MILLIONS)
$1986 TOTAL RDTE
PROGRAM-WIDE MANAGEMENT
AND SUPPORT
3%
($56)
SCIENCE AND
TECHNOLOGY BASE
22%
($434)
OTHER TACTICAL
DEVELOPMENT
PROGRAMS
31%
($623)
STRATEGIC & JOINT
PROGRAMS
29%
($569)
"BIG 5"
15%
($304)

U.S.S.R. R&D Budget

Chairman McClellan. Mr. Secretary, what is the Soviet Union's Research and Development budget compared to ours over the past ten years? Do they have any weaknesses?

Mr. Augustine. The most meaningful comparison of research and development programs is a total defense basis rather than the Army alone. This is primarily because comparable accurate data on the RDTE effort for each Soviet military service is not available and the two nations categorize and organize their defense forces according to the unique defense needs facing each nation.

The comparative RDTE budgets of the United States and the Soviet Union are listed for the last ten years:

Comparison US and USSR, RDTE budgets, 1965–74

[1973 dollars in billions]

US:	
1965	8.74
1966	8.91
1967	9.22
1968	9.11
1969	9.17
1970	8.42
1971	7.59
1972	7.76
1973	8.69
1974	8.31
[Deleted.]	

Some of our major programs show a substantial decline in requested funding relative to last year: Anti-Ballistic Missile research and development, for example, is down by about $42 million, funding for the Big Five has declined this year by $110 million and the technological base request is lower by $6.6 million. The first pie chart shows that the Army has requested 24% of the DOD FY 75 Budget, and that 2% of the DOD FY 75 Budget request is for Army RDT&E.

The second pie chart illustrates how we plan to use our FY 75 appropriation. The Big Five, which I will treat individually later in my presentation, are generally progressing well and, in combination with our other tactical developments programs will provide us with the edge in combat to which I alluded earlier. The Big Five plus the other tactical development efforts account for about 46% of our FY 75 RDT&E program.

Mr. Augustine. Strategic and joint programs account for 29% of our funding needs we are fulfilling, in this area, our assigned mission in the strategic defense of the nation. The seesaw phenomenon of modern weapons systems is especially obvious in the field of strategic offensive and defensive weapons and tactics, and it is especially critical that we keep pace in this area. A defensive capability, either hardware or technology, must be maintained to counter the advances in offensive strategic weaponry.

Elimination of R&D Duplication

Chairman McClellan. How does the Army insure itself that it is not duplicating the research and development efforts of other Services?

Mr. Augustine. All the Armed Services have easy access to each other's development requirements and related documents through the Defense Documentation Center (DDC). In addition, the Army distributes all its approved requirement documents to the other Services.

There is also the DOD Air Munitions Requirements and Development Committee which coordinates all air-delivered non-nuclear munitions and related equipment, a DDRE High Energy Laser Review Committee, and of course all nuclear development is coordinated by the AEC.

At the materiel developer level, there is the Joint Logistic Commanders made up of the materiel developers from each Service. Within this group, there are 22 panels which cover just about every aspect of development.

Chairman McClellan. Proceed.

DEVELOPMENT OF HARDWARE VS. TECHNOLOGY

Chairman MCCLELLAN. Do you think it is better to be developing hardware instead of technology to gain an adequate defense capability?

Mr. AUGUSTINE. Technology and hardware cannot be treated on an "either . . . or" basis. The most perishable asset on our RDTE activity is the technology base, for this is the item with the longest lead time to replace.

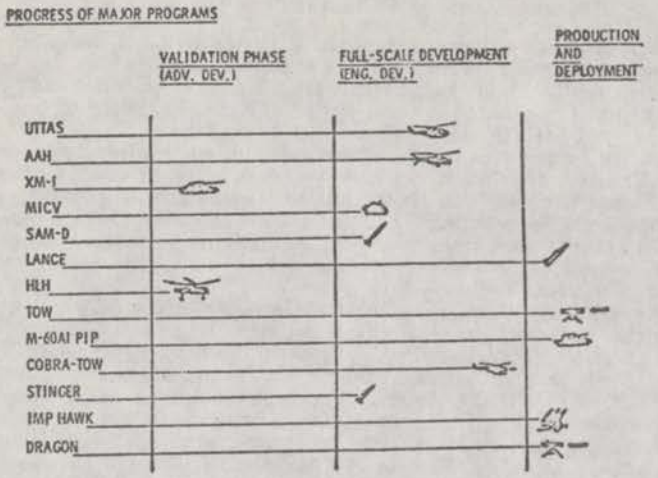
On the other hand, technology efforts should emphasize hardware experimentation. The technologist works best when directly exposed to the user. A closer coupling of the user and the technologist generates significant synergistic effects with regard to assuring the exploitation of new ideas, focusing idea-generation in areas of significant potential, and simply in motivating the efforts of the technologist.

Chairman MCCLELLAN. Proceed.

Mr. AUGUSTINE. The "unitary" threat of the early 1960's gave way to multiple reentry vehicles in recent years, multiple reentry vehicles which are now well on their way to being surpassed by Multiple Independently Targetable Reentry Vehicles (MIRV), and even this latter threat eventually may be replaced by maneuverable reentry vehicles. Augmenting these systems are continuing advances in penetration techniques. Each succeeding advance in these technologies and tactics represents a very real threat to our strategic retaliatory capability, and hence to our survival as a nation and to our ability to avoid coercion by other nations. I will address, in more detail, the specifics of our BMD programs in a few moments.

I would like to mention briefly the potential significance which the war in the Middle East could have on the RDT&E plans of both the U.S. and the Soviet Union. This war presented the occasion to take a hard look at our developing weapons systems and their potential effectiveness against Soviet weapons and tactics as employed by the Arabs. While we are still in the process of consolidating and evaluating the information we have received, a number of "lessons learned" are already apparent. One is that an effective surface-to-air missile umbrella can be a critical factor in the successful conduct of offensive and defensive ground operations. Another is that the role of electronics warfare is increasing in importance. Still another is that the tank is still the number one ground gaining instrument of field armies. Further, a capability to conduct night operations is confirmed as being crucial to modern military forces.

PROGRESS OF MAJOR PROGRAMS



SURFACE TO AIR MISSILE SYSTEMS

CHARACTERISTICS	SAM-D	IMP HAWK
ENGAGEMENT CAPABILITY	SIMULTANEOUS	FIRE SECTION LIMITED TO 1 TARGET AT A TIME
COUNTER-COUNTER MEASURE CAPABILITY	MAINTAINS EFFECTIVENESS IN SEVERE ENVIORNMENT PREDICTED FOR 1980s	SEVERLY DEGRADED IN 1980s
OPERATION AND MAINTENANCE COSTS (ANNUAL)	$2.3M*	$3.6M*
PLANNED PERSONNEL REQUIREMENTS	APP 10,000	APP 17,000

* SAM-D FIRE SECTION VS IMP HAWK BATTERY

Night Operations

Chairman McClellan. Does the Army presently have the full capacity to conduct night operations which you describe as being crucial to modern military forces?

Mr. Augustine. Not the full capacity that we require. While the U.S. Army has extensive capability with active illumination, i.e., searchlights, flares, near infrared lights and viewers; the ability to move and locate targets passively is limited to first generation light intensification devices (Starlight Scopes). The continued development and procurement of improved light intensification and thermal imaging (Passive Far Infrared) devices will give us the required capacity.

General Deane will discuss the Middle East and its impact on Army weapons development in more detail, but I would like to note at this point that each of our programs is being subjected to intense scrutiny in the light of the war, and that we have no sacred cows. We cannot afford them.

Permit me now to discuss some of our major programs and the progress we have made in them during the past year. The status of these programs is shown on the chart.

Progress in Major Programs

Surface-to-Air Missile (SAM–D)

The Army places a high priority on SAM–D, an advanced surface-to-air missile weapon system designed to replace both NIKE HERCULES and Improved HAWK in providing air defense of the Army in the field for the 1980s and beyond. We want a system that is effective and affordable. The 1950's technology inherent in HAWK and HERCULES no longer provides the flexibility to respond to an ever-changing threat.

Capability of Volunteer Army Recruit

Chairman McClellan. Mr. Secretary, with the increasing complexity of new weapons systems, i.e., SAM–D, and with increasing specialty skills necessary to operate them, how does the Volunteer Army recruit measure up to such requirements?

Mr. Augustine. Complexity of the SAM–D system decision will reduce the complexity of operation and maintenance. The use of automatic data processing will eliminate many functions which are performed by air defense system operators. The extensive use of built-in test equipment and the modular design approach of SAM–D reduces and simplifies the maintenance man's task and the required number of highly skilled mechanics is reduced. Educational opportunities (maintenance schools etc.) available to volunteer Army recruits who volunteer for air defense assignments are excellent incentives to obtain qualified personnel.

Chairman McClellan. Proceed.

Mr. Augustine. Countermeasures now demonstrated in rceent conflicts (saturation tactics, ECM, formation targets, aircraft speed and maneuver capability) dictate the need for SAM–D technology to be applied in the field. This technology will allow us to engage a significant number of targets simultaneously with each fire section and maintain our effectiveness in the face of enemy countermeasures which are now the pivotal factor to a great portion of modern weaponry.

Reduction of SAM–D Reload Time

Chairman McClellan. Does the Army have any plans to reduce the SAM–D reload time below the desired and required times specified in the Materiel Need document?

Mr. Augustine. The Army is looking for means to reduce SAM–D reload time. In looking at a more austere version of SAM–D, the Army is considering putting more missiles on launchers to reduce the frequency for reload.

Launcher Reload Capability

Chairman McClellan. During last year's hearing, the project manager stated the Army was considering the use of "A" frames to reload the launchers. It is our understanding that the contractor demonstrated reloading capability by using tractor-wrecker loaders. Is this equipment considered part of the tactical

fire section and are the costs included in the total program acquisition costs? What tests are being made or planned for this equipment to determine actual capability, mobility, etc.?

Mr. AUGUSTINE. During October of 1973, reload concept tests were conducted by Army personnel. Both "A" frame and tractor-wrecker concepts were evaluated. The conclusions of the tests were that the "A" frame concept was not a feasible solution and that the tractor-wrecker concept was satisfactory. The reload time requirements could be met with this latter concept. The Air Defense School (TRADOC) has included six of the tractor-wreckers with semi-trailer in each SAM–D battalion for reload/resupply in their latest Manning Table and Equipment List (MTEL). The costs for these items of equipment and related personnel have been incorporated into the latest program costs. There are no tests being conducted nor planned for this equipment at this time. All the equipment is standard to the Army and has been subjected to extensive testing in the past.

Chairman MCCLELLAN. Proceed.

Mr. AUGUSTINE. As you know, the Secretary of Defense has recently completed an intensive review of SAM–D and has reoriented the program to emphasize greater austerity and minimize financial commitments prior to flight verification of the guidance concept. In keeping with this decision, a system demonstration test is scheduled to begin in July of this year and extend through June of 1975. This test will provide sixteen missile firings against very difficult targets to prove the SAM–D guidance concept before committing major funds leading to completion of the development effort.

SAM–D CAPABILITIES

Chairman MCCLELLAN. Can the SAM–D missile still be considered a certified round in view of recent indications that the missile may be subjected to frequent maintenance and tests, to assure reliability?

Mr. AUGUSTINE. Yes. The SAM–D missile round is a certified round. No field environment maintenance or testing will occur. The only testing to be performed will be on storage missiles prior to their issue to the field.

Chairman MCCLELLAN. Proceed.

Mr. AUGUSTINE. A new cost effectiveness study is also being conducted to examine a fresh and austere version of SAM–D which will hopefully lead to a less expensive hardware cost per fire section; i.e., roughly comparable to that of an Improved HAWK Battery.

SAM–D RELIABILITY

Chairman MCCLELLAN. Can the SAM–D missile and ground equipment meet reliability goals if the system is subjected to a stringent operational profile which may be experienced during wartime with the system in constant operation and being emplaced up to four times a day?

Mr. AUGUSTINE. Yes. The reliability predictions are based on the war time mission profile which calls for constant operation and frequent relocations. One of the considerations for determining hardware within the missile and ground equipment is the reliability stress levels the equipment will see during its life.

Chairman MCCLELLAN. Proceed.

Mr. AUGUSTINE. The first year of full scale development (FY 73) was completed on schedule and within costs. FY 1974 marks the beginning of system demonstration tests.

CFA AND TWT CAPABILITIES

Chairman MCCLELLAN. What information does the Army have showing that a radar cross field amplifier and a traveling wave tube can be developed which will perform the necessary functions to enable the SAM–D system to meet its requirements?

Mr. AUGUSTINE. The Radar Crossed Field Amplifier (CFA) has experienced some failures due to thermal stresses when the tube was operated at full power output and maximum duty cycle. A supplementary investigation program was initiated to assess the problem. The results of this program have been incorporated into the latest CFA tube and is now being evaluated. The results of electrical test performed on this tube to date have been satisfactory.

The Radar Traveling Wave Tube (TWT) has been developed and the design frozen. The design has produced a TWT which has demonstrated 1000 hours of full power and full duty in accelerated life tests.

Chairman McCLELLAN. Proceed.

Mr. AUGUSTINE. The advanced development Fire Control Group has been converted into a demonstration fire section at White Sands Missile Range.

BEAM LEAD MICROELECTRONIC DEVICES

Chairman McCLELLAN. To what extent will the lack of beam lead microelectronic devices for use in the SAM–D degrade the system's reliability?

Mr. AUGUSTINE. Chip and wire devices will lower the system's ED reliability, but not below the established requirements. The chip and wire devices used in ED are expected to be replaced with beam lead devices in the production of SAM–D hardware.

Chairman McCLELLAN. Proceed.

Mr. AUGUSTINE. Tracking tests and control test vehicle firings are now underway in preparation for the fully guided flights which begin in July 1974.

VISUAL LINE-OF-SIGHT TECHNIQUE

Chairman McCLELLAN. To what extent will the visual line-of-sight technique planned for use in aligning the radar with the launcher group restrict system emplacement during darkness and poor visibility conditions or under condition of dense forest or rough terrain?

Mr. AUGUSTINE. A visual line-of-sight technique is being planned for use in emplacing the SAM–D fire section under all weather conditions. This technique will not restrict the system emplacement during darkness as the aiming circles and major equipment are equipped with night lighting devices. Under conditions of dense forest or rough terrain, the system elements can emplace using a common reference point when they cannot achieve line-of-sight between elements. If FCG and LG separation distances exceed the limits of visibility during fog one or more reference points will be used for LG emplacement. The simplicity of the proposed sighting technique, its ability to be effective under varied weather and terrain conditions and its low cost make it the most cost effective of the many systems examined.

Chairman McCLELLAN. Proceed.

Mr. AUGUSTINE. Approximately 275 hours of aircraft tracking have now been accomplished by the radar, and 1800 seconds of target tracking have been accomplished by captive missile flight tests. Missile performance, speed, maneuverability and aerodynamics were successfully demonstrated in a control test vehicle firing on 11 January 1974.

SAM–D CAPABILITY AGAINST TACTICAL BALLISTIC MISSILES

Chairman McCLELLAN. Will the SAM–D system, as presently configured, have any capability against tactical ballistic missiles? If so, to what extent and what is the Army's overall plan for countering the tactical ballistic missile threat?

Mr. AUGUSTINE. Some anti-TBM capability was inherent in the baseline SAM–D design. Additional software development and an improved conventional or nuclear warhead section would be required to take full advantage of the SAM–D system's potential against TBM's.

UNIT OPERATIONAL READINESS

Chairman McCLELLAN. Since the new mission profile calls for the SAM–D to be in operating and standby modes at a fewer number of hours, what impact will this have on the operational readiness of the units?

Mr. AUGUSTINE. The SAM–D mission profile is established to provide a time oriented model of movements and stress levels for Reliability, Availability and Maintainability (RAM) predictions. The profile only defines the duration of a stress; the magnitude of each stress on the system is defined in the system specifications. Since neither the operational availability nor the mean-time between failure requirements for the system have been modified as a result of the new profile, there is no impact on the operational readiness of a fielded system. There will be no impact on training routines of units as a result of the changes to the profile. The profile is as realistic as possible since it is derived from HAWK experience but the profile does not dictate to a user how to employ or operate the system once fielded.

Effect of Added Weight to Launcher Group

Chairman McClellan. What impact will the added launcher group weight resulting from the change to a diesel power unit have on the systems mobility?

Mr. Augustine. The 10KW Turbine Alternator system (2–10KW Turbine Alternators plus fuel) for the Launcher Group weighed approximately 1050 pounds. The 10KW Diesel Generator plus fuel weighs approximately 1550 pounds. The added weight did not impact the vehicle trailer since added weight on the trailer fifth wheel was desirable. No decrease in Launcher Group mobility is expected.

Chairman McClellan. Proceed.

Mr. Augustine. We will continue to take action to reduce costs and insure strong management of the SAM–D program. Past efforts have been instrumental in driving major item unit costs towards the goals established in the development contract.

Traveling Wave Tube Gassing Problem

Chairman McClellan. If extended warm-up time is necessary to counter the potential gassing problem in the traveling wave tube, what effect would this have on the time required for the system to react to a threat attack?

Mr. Augustine. A gassing problem in the TWT is not expected at this time. If necessary, degassing procedures could be applied at infrequent intervals. No effect on system reaction time would occur.

Chairman McClellan. Proceed.

Mr. Augustine. Significant cost reduction changes are closely monitored by the Requirements Control Boards, which I chair, to insure that system performance remains in consonance with requirements and that requirements do not inappropriately drive system cost.

Advanced Attack Helicopter (AAH)

The Advanced Attack Helicopter (AAH) will provide highly responsive, 24 hour a day aerial fire support for our ground tactical forces. The aircraft will possess the capability to destroy tanks and other hard point targets at long range by use of the TOW missile system. The AAH will also be able to provide other fire support by use of its 30mm gun, which can defeat lightly armored vehicles, and 2.75 inch rockets. The night vision systems for the pilot and co-pilot/gunner will allow them to conduct night and day reduced visibility operations almost as effectively as during day time clear weather conditions. The AAH will possess the latest technology available to reduce its vulnerability to gun and guided missile anti-aircraft systems. We are planning to upgrade our present attack helicopter, the AH–1Q by product improvement to provide us with an interim capability. Its inherent airframe and power restrictions preclude the addition of sufficient armor, full night operational equipment, weaponry, and fire control systems needed to counter the formidable Soviet night and adverse weather armor capability that is projected for the latter part of this decade and that exists in part even today.

The AAH development is a two-phased program. We embarked on the first phase of a competitive fly-off with the award of contracts to Bell Helicopter and Hughes Helicopter in June 1973. These contractors will complete the detailed designs and begin the fabrication of their prototypes during FY 74, and the aircraft will fly in March of 1975. The estimated production cost of the AAH will be controlled by the continued application of cost-performance tradeoffs by the contractors as well as by the pressures of a competitive development. Four characteristics of the AAH, however, have been identified as being essential to its performance and will not be traded off without Army approval.

ATTACK HELICOPTERS

Characteristics	AAH	AH–1Q
Vertical rate of climb at 4,000'/95° F with full ordnance payload.	450–500 fpm	AH–1Q cannot hover out of ground effect at these conditions.
Endurance (hours)	1.9	2.2.
Visionics	Night vision for pilot and copilot gunner.	None.
Armored against	12.7 mm	7.62 mm.
Max cruise speed (knots)	145–175	134.

Cost-Performance Trade-offs on AAH

Chairman McClellan. What cost-performance trade-offs have been made to date on the AAH?

Mr. Augustine. As the two competitive contractors have proceeded with their design efforts, there have been numerous minor refinements and modifications to the original design specification. Such things as changing the material from which a part is fabricated or the change in a manufacturing process which may result in a weight penalty but show a cost savings are examples of such changes.

Chairman McClellan. Proceed.

Mr. Augustine. These characteristics are a minimum cruise air speed of 145 knots, a minimum armament load of 8 TOW missiles and 800 rounds of 30mm ammunition, a vertical flight performance of 450 feet per minute, and an endurance of just under 2 hours.

Performance of AAH vs. Cheyenne

Chairman McClellan. What are the primary differences in the planned performance of the AAH as compared to the Cheyenne?

Mr. Augustine. The Cheyenne was designed to be a high speed attack helicopter whereas the AAH performance will be maximized in the lower speed and hover regime. The primary differences in the planned performance of the AAH as compared to the Cheyenne are shown in the following table:

Characteristic	AAH	Cheyenne
Cruise speed (knots)	145–175	196.
Endurance (hours)	1. 9–2. 5	2. 0.
Ferry range (nautical miles)	800–1,000	1,000.
Vertical flight performance (from HOGE).	4,000'/95° F/95 percent mrp/450–500 fpm rate of climb.	3,500'/95° F/100 percent mrp, no climb.

Chairman McClellan. Proceed.

Mr. Augustine. The design flexibility and competitive nature of the program, coupled with new technology, will assist in achieving an operationally acceptable aircraft at a cost equal to or less than the design to cost goal of $1.6M recurring flyaway cost expressed in constant FY 72 dollars.

Comparison of AAH/Cheyenne Costs

Chairman McClellan. How does the present estimated cost of the AAH compare to the cost of the Cheyenne program when it was cancelled?

Mr. Augustine. The estimated program unit acquisition cost of the Cheyenne at termination was $5.1 million. This cost included the sunk costs of the terminated production contract. If one were to project these costs using current inflation indices and considered the start-up costs necessary to complete the RDT&E program and transition into production, the program unit acquisition cost for the Cheyenne would be greater than $5.1 million.

The AAH program unit acquisition cost, when considering the latest inflation indices, is estimated to be $4.2 million or approximately $1 million less than the old Cheyenne cost.

Chairman McClellan. Proceed.

Utility Tactical Transport Aircraft System (UTTAS)

Mr. Augustine. The UTTAS is the Army's first squad carrying helicopter specifically designed for the assault mission. Its tasks include the movement of troops and equipment into combat, resupply of these troops while in contact, and accomplishing the associated functions of aeromedical evacuation, repositioning of reserves and other combat support missions.

UTILITY HELICOPTERS

Characteristics	UTTAS	UH-1
Endurance	2.3 hr	2.1 hr.
Cruise airspeed	145-175 ktas	105 ktas.
Payload at sea level/59°	11/2640	7/1680.
Payload at 4,000 /95° (troops/pounds)	11/2640	1/460.
Availability	82 percent	75 percent.
Maintenance man-hours/flight hour	3.8	6.7.
Prep time for air transport	6.5 hr	38.5 hr.

The UTTAS will replace the UH-1 series in the assault helicpoter, air cavalry and aeromedical evacuation units. It will be capable of carrying a fully equipped 11 man rifle squad as a unit in the temperature and altitude conditions which often reduced the Huey's capacity to 3 men in Vietnam. It can continue its mission with one engine inoperable and cannot be shot down by a single 7.62 round.

Utility Tactical Transport Aircraft

Chairman McClellan. Mr. Secretary, you state the Utility Tactical Transport Aircraft system cannot be shot down by a single 7.62 round. Why not?

Mr. Augustine. The UTTAS is invulnerable to a single 7.62mm round because of redundant or armor protected critical components.

Chairman McClellan. Proceed.

Mr. Augustine. Its twin 1500 shaft horsepower engines will enable it to reach speeds of 145–175 knots, or a minimum of a 40 knot improvement over the Huey.

In FY 74 both airframe contractors, Boeing Vertol and Sikorsky Aircraft have completed the Mock-up and Critical Design Reviews. They will also complete fabrication and commence testing of the ground test vehicle and static test articles. Bench testing of dynamic components, whirl testing of main and tail rotors are also scheduled for this fiscal year. The GE T-700 engine, which will power both the UTTAS and AAH, started test cell operation ahead of schedule and will have accumulated more than 2000 hours of testing at the end of this period. Test results to date indicate good mechanical operation characteristics, with performance exceeding the specification requirement by 64 shaft horsepower. We are continuing to seek improved management of the UTTAS program through periodic program reviews, audits of contractor's design to cost goals and independent costing reviews.

Increase in Procurement Costs

Chairman McClellan. The December 31, 1973 SAR shows an increase in procurement cost of $105.7 million attributable to a change in procurement profile. Why was this necessary? Does the estimated $105.7 million increase adequately cover the cost of the two year extended production and cost escalation?

Mr. Augustine. The increase in procurement cost arose from a change in the Low Rate Procurement schedule which extended the production another two years. Compliance with instructions contained in the new Materiel Acquisition Guidelines forced the Low Rate Procurement schedule alteration. An analysis of the two year production extension by the UTTAS Project Manager's Office and the Army Materiel Command showed a $105.7 million increase in program PEMA costs. Using the then current escalation indices, the additional cost will cover the two year extended production and cost escalation.

Chairman McClellan. Proceed.

Mr. Augustine. The Army needs the UTTAS because the Huey, representing the technology of the 50s, cannot be economically improved to incorporate the payload, speed, reliability and maintainability characteristics which are integral to the mobility we require on the modern battlefield.

Mechanized Infantry Combat Vehicle (MICV)

The Mechanized Infantry Combat Vehicle (MICV) is currently in engineering development and will fulfill the Army requirement for a fighting infantry vehicle. This vehicle represents a new concept in infantry vehicle design relative to past equipment in the U.S. inventory. The present M113A1 Armored Personnel

Carrier, which is an excellent machine, is more of a "battle taxi" than a fighting vehicle. The MICV, with its greater armor protection, firepower, speed and agility, will function as an integral part of the combined arms team.

ARMORED INFANTRY VEHICLES

Characteristics	MICV	M113A1
Hp/ton ratio	22.5	17.7.
Engine	V8 450 hp	V6 212 hp.
Speed (mph):		
Land	40–45	42.
Water	6	3.6.
Cross country	23.5	7.5.
Range (miles)	300–350	305.
Armament:		
Main	20 mm/30 mm	50 cal.
Secondary	7.62 mm mg	None.
Stabilization	Yes	No.
Individual firing positions	Yes	No.

Army 1970 Cost-Effectiveness Study

Chairman McClellan. According to the GAO staff study, the Army's 1970 cost-effectiveness study was not updated to reflect the results of the latest enemy threat assessment completed several months (June 1972) prior to OSD approval of the 1972 Development Concept Paper (DCP).

Since the assessment resulted in a [deleted] in the approved DCP and because the [deleted] was made possible not by a [deleted] enemy threat but by a [deleted] threat to the survivability of the MICV, should these changes have been reflected in an updated study?

Mr. Augustine. The Army in its 1970 cost-effectiveness study used two different threats. When the MICV DCP was approved in 1972, the alternative threat used in the study closely approximated the latest enemy threat assessment which is contained in the DCP. The study was not updated as the alternative threat contained [deleted] gun is the greater threat of the two and is equally effective against either a MICV [deleted] weapons and therefore an update of the study in 1972 was not required.

Mounted Combat Capability of MICV

Chairman McClellan. A major advantage often cited by the Army for the MICV over its current M113 series vehicles is the capability for mounted combat, i.e., infantry men are able to ride into battle firing their individual weapons through the MICV's portholes. Given the greater lethality of the enemy's weapons as well as other weapons comprising the latest assessed threat, is this still a realistic concept particularly in view of the MICV's [deleted] protection?

Mr. Augustine. The lethality of Soviet weapons has not changed enough to affect the Army's concept for employing MICV. In fact, the recent Mid-East conflict which witnesses use of the latest Soviet equipment by the Arabs, has supported the Army's plans for MICV. Initially Israeli tank counterattacks [deleted] the Israeli employment of the M113 strengthens the US operational concept of a MICV with substantial antipersonnel firepower to use against close-in infantry and antitank weaponry thus supporting accompanying tanks.

Chairman McClellan. The GAO staff study also noted the 1970 cost-effectiveness study was not updated to reflect changes in the Army's tank program, i.e., the XM803 tank was terminated and replaced by the current XM–1 tank program, the substitution of the BUSHMASTER weapon system for the MICV in lieu of the 20mm weapon considered in the study, and increased costs of the MICV since the study. Since the Army and OSD apparently believed such changes would not significantly affect the cost-effectiveness of the MICV, what is the rationale for their position?

Mr. Augustine. Several factors have changed since 1970, such as changes to the threat, design specifications and costs; even though the military force assumptions are substantially unchanged. The Army and OSD in 1972 indicated that the changes at that time were not of a magnitude to warrant updating the 1970 cost-effectiveness study prior to fabricating and testing developmental prototypes. The Army does intend to do an updated study prior to a production decision in the 1st Qtr FY 77.

Approval of 1972 DCP

Chairman McClellan. In view of the matters disclosed by GAO relative to the Army's 1970 cost-effectiveness study and OSD's approval of the 1972 DCP, does the Army and OSD believe the 1970 study still valid and the 1972 approval of the DCP still appropriate? What plans, if any, does the Army and OSD have for updating the cost-effectiveness study of the MICV prior to the next scheduled major decision point?

Mr. Augustine. The data provided in the 1970 cost-effectiveness study 1972 DCP approval were based on a valid study. This data has been sufficient to support the current development efforts. The Army plans to update the study giving consideration to any valid changes that have surfaced since the 1970 study. The updated study will be completed prior to a production decision, now scheduled for 1st Quarter FY 77.

Proven Capability of MICV

Chairman McClellan. Since the June 1972 assessment of the enemy threat was made prior to the latest war in the Mid-East, what impact, if any, did that conflict have on current thinking relative to the enemy threat and the need for the MICV?

Mr. Augustine. Based on the information available to the Army, it is the opinion that the MICV requirements have been reaffirmed by the Mid-East conflict. Reports of conversations with Israeli military personnel support the desirability of having a vehicle with MICV's mobility and protection. These reports also support the need for a BUSHMASTER type main armament system for employment against light armor vehicles and antitank rocket teams. The desired MICV performance characteristics when compared with Soviet vehicles used in the conflict, indicate that the design requirements for MICV are proper.

Chairman McClellan. Proceed.

Mr. Augustine. In FY 74 the MICV program will expend a total of $11.8 million, and fund the second increment of the full scale development contract with FMC Corporation. Significant events of FY 74 included the delivery of two test vehicles and the first complete prototype. Testing activities will be conducted in the 3d and 4th quarters of FY 74. The purpose of these tests will be to identify problems associated with reliability, design and component selection prior to the delivery of twelve full scale development vehicles in FY 75. Specific requirements are being challenged through a joint Army contractor effort to identify trade-off areas where production cost savings can be achieved.

Cost-Effectiveness Study

Chairman McClellan. Do you have any plans for a cost effectiveness study before the full-scale production decision is made?

Secretary Augustine. The Project Manager, MICV plans to conduct a cost effectiveness study prior to ASARC/DSARC II which is scheduled for August 1976.

Trade-Offs in MICV Program To Achieve Cost Savings

Chairman McClellan. What trade-offs have been and will be made in the MICV program in order to achieve cost savings?

Mr. Augustine. There have been a total of five contract modifications to reduce the cost of the present contract. The modifications, their purpose and the associated cost savings are summarized as follows:

(*a*) Conversion from automatic to manual fire suppression. Cost savings, $5,920.

(*b*) Modification of rear firing ports to a simpler design. Cost savings, $21,706.

(*c*) Performance capability modified to allow the use of a standard bilge pump. Cost savings, $10,733.

(*d*) The requirement for one ballistic hull was deleted from the Engineering Development (ED) contract. One of the ED vehicles, worn out during Government testing, will be used for destructive tests. Savings, $141,350.

(*e*) The 100 percent inspection requirement for ED vehicle parts and components has been reduced. Savings, $86,130.

Chairman McClellan. Proceed.

Mr. Augustine. The predicted procurement unit cost for this vehicle is $146.5 thousand in FY 72 dollars. Several items are being actively pursued which could result in cost savings during production.

Cost Savings During Production of MICV

Chairman McClellan. What are the items being actively pursued which could result in cost savings during production of MICV?

Mr. Augustine. MICV is now being designed with steel rather than titanium torsion bars. This is expected to provide a cost savings of about $3,500 per vehicle. Other actions include:

(*a*) The more costly unitized headlight was replaced by individual lighting units. Estimated savings in production is $125 per vehicle.

(*b*) Investigation is underway to replace the M219 machinegun with the M60C machinegun. There is an expected savings in production of $2,900 per vehicle.

(*c*) The requirement for the two rear firing ports is being challenged in discussions with the user. If the rear ports can be eliminated or reduced, the unit cost will also be reduced.

Procurement Unit Cost of MICV

Chairman McClellan. What is the predicted procurement unit cost for the MICV in FY 75 dollars?

Mr. Augustine. The MICV program cost will be $167,457 in constant FY 75 dollars.

Chairman McClellan. Proceed.

Mr. Augustine. Continuous review and assessment of the vehicle reliability program should insure us good results during development and operational testing in FY 75.

XM–1 Tank

Design to cost techniques have been used in the XM–1 Tank Program to help insure that the vehicle we are funding will be affordable as well as militarily effective. The XM–1's special armor will make it twice as survivable on the battlefield as the M60A3. Its stabilization and fire control will enable it to fire twice as accurately while on the move.

TANK SYSTEMS

Characteristics	XM–1	M60A3
Main armament	105–120 mm	105 mm.
Coaxial armament	20–30 mm	7.62 mg.
Acceleration 0–20	6–9 (sec.)	16 (sec.).
Reliability (MMBF)	320–440	290.
Availability (inherent)	89–92 percent	87 percent.

Measuring Vehicle Mobility

Chairman McClellan. What is the Army's current plan for emphasizing and successfully establishing a method of measuring vehicle mobility, especially its impact on battlefield survivability where firepower and armor protection capabilities have to be simultaneously considered with mobility?

Mr. Augustine. Over the past eighteen months, Ballistics Research Laboratory has been involved in the development of an overall tank survivability model which integrates the important aspects of armor protection, firepower, and mobility into an overall measurement of combat survivability. The Ballistics Research Laboratory has already published several interim memorandum reports and regular BRL memorandum reports on the initial phases of this study. At this point in time, models are availale which will generate vehicle paths, will threat the problem of lead angle error, and compute probability of being hit by an attacking tank. This work should be completed and reported on by late April. The remainder of this effort will treat the problem of trading off both firepower and protection for mobility to optimize on combat survivability. It is planned that this work will be completed in approximately two month intervals until the overall analysis system is completed. Some of these models have already been transmitted to the Armor School at Fort Knox, Kentucky for utilization by combat developments personnel. The results of the mobility portion of this study will be reported at the American Defense Preparedness Association Meeting at Fort Knox in early May.

Chairman McCLELLAN. Proceed.

Mr. AUGUSTINE. Contracts were negotiated and signed in June 1973 with Chrysler and General Motors, on a cost-plus-incentive-fee basis with the incentive fee on the contract cost. Both contractors and the Army feel that the vehicle can be built at the design to cost goal of $507 thousand unit hardware cost in FY 1972 base year dollars.

TRADE-OFF DECISIONS OF CONTRACTORS

Chairman McCLELLAN. If the Army is unsuccessful in establishing such a method of measuring mobility, what priorities will the Army designate for mobility, firepower and protection in the event trade-offs become necessary to stay within the established XM-1 hardware cost of $507,000?

Mr. AUGUSTINE. The guidance the Army has given the contractors to help make trade-off decisions remains valid at this time. This guidance lists crew survivability as the most important, therefore, the last trade-off. Next in importance is firepower (all aspects) and the one of the three listed to be traded off first is mobility.

Chairman McCLELLAN. Proceed.

Mr. AUGUSTINE. The FY 74 funds allocated to this program were used in four areas: (1) To begin the competitive development of the two prototypes by the prime contractors; (2) component development by two major component subcontractors; (3) foreign component test and evaluation to assist in choosing the best available technology and armor development, and (4) support for the Project Manager's office. Current Army and defense materiel acquisition policies and procedures provide for high-level review of this program at the decision milestones.

COST-EFFECTIVENESS STUDY

Chairman McCLELLAN. Will the Army base its selection of one of the two competing prototypes on a cost-effectiveness study? If so, will the selected prototype be evaluated in the cost-effectiveness study against the M60 series tanks?

Mr. AUGUSTINE. Yes, the Army will make another cost-effectiveness study prior to holding the ASARC, which precedes the DSARC. The source selection plan has not been finalized at this time; however, the cost-effectiveness study will consider each of the contractors' prototypes with the M60A3 and the LEOPARD II. This study will be provided to the ASARC, the DSARC and the Sources Selection Committee.

FULL SCALE DEVELOPMENT DECISION ON XM-1 TANK

Chairman McCLELLAN. When is the full scale development decision scheduled to be made on the XM1 tank? Do you foresee any major problems to date on the program?

Mr. AUGUSTINE. The full scale development decision is schedule to be made in June 1976. We foresee no major problems with the program at this time.

COMPARISON OF XM-1 WITH RUSSIAN COUNTERPART

Chairman McCLELLAN. How does the XM-1 compare in number and effectiveness with its Russian counterpart?

Mr. AUGUSTINE. When production of the XM-1 is completed [deleted] our total inventory will be 3312 tanks. On the other hand, by 1981 it is estimated that [deleted]. However, from the information we have to date and considering the Soviets normal technology advances, we believe the XM-1 will be superior.

Chairman McCLELLAN. Proceed.

Mr. AUGUSTINE. In addition to our Big 5, we are working on a number of other high-priority systems, most of which General Deane will describe for you shortly. I would like, however, to treat a few important aspects of some of these programs here.

BALLISTIC MISSILE DEFENSE

There are three highly distinct elements to the US BMD effort. The SAFEGUARD program is completing deployment of a single BMD site in North Dakota for the active defense of a portion of the MINUTEMAN force. The Site Defense program is a prototype demonstration of a hedge option to defend MINUTEMAN against advanced threats. The BMD technology program, performed by the Advanced Ballistic Missile Defense Agency (ABMDA), is a

vigorous components effort which embraces all aspects of BMD and guards against technological surprise.

Permit me now to treat each of these three important programs, beginning with SAFEGUARD.

The SAFEGUARD deployment at Grand Forks, North Dakota, is on schedule for an equipment readiness date of October 1974.

Tactical Capability of Safeguard

Chairman McClellan. What is the tactical capability of SAFEGUARD to (1) protect MINUTEMAN missiles against an ICBM attack, (2) protect MINUTEMAN missiles against a submarine-launched attack, (3) protect our strategic aircraft against a submarine-launched attack, and (4) protect against an accidental or unauthorized attack?

Mr. Augustine. The Grand Forks site, within its limit of 100 interceptors, could provide from about [deleted] additional MINUTEMAN survivors, depending on assumptions made about Soviet ICBM capabilities and attack tactics. SAFEGUARD does require the attacker to dedicate more than 100 reentry vehicles to exhaust the defense.

Against SLBM attacks, the protection provided to the MINUTEMAN missiles is [deleted].

For the Soviet SLBM threats until about [deleted] SAFEGUARD can defend the SAC base at Grand Forks. This provides protection for the nonalert SAC aircraft, and provides additional flyout time for the alert aircraft. [Deleted] additional SAC bases lie within SPARTAN coverage against elevated-trajectory SLBMs. [Deleted.]

The Grand Forks defense could provide substantial coverage against unauthorized or accidental ICBM attacks on MINUTEMAN and SAC alert bomber bases located under SAFEGUARD coverage. Additionally, substantial protection is provided to that portion of north-central United States within SPARTAN coverage [Deleted.]

Added Protection of Safeguard System

Chairman McClellan. What is the significance of the added protection by SAFEGUARD over an undefended, but hardened, MINUTEMAN force considering MINUTEMAN's capability to survive a first-strike attack and maintain its capability to fulfill the assured destruction role in a retaliatory attack between now and 1977, 1980 and the mid-80's?

Mr. Augustine. SAFEGUARD will provide [deleted] additional MINUTEMAN survivors over an undefended, hardened MINUTEMAN force, in a Soviet first-strike attack in the late 1970s and early 80s. This is the threat which SAFEGUARD was designed to defend against. Against larger threats which could exist by the mid-1980's, the added protection by SAFEGUARD would not be significant. However, the Site Defense System, now in prototype development, could be used to handle such larger threats.

Non-Tactical Benefits of Safeguard

Chairman McClellan. What are the major non-tactical benefits that SAFEGUARD would provide?

Mr. Augustine. The major non-tactical benefits are accrued from the experience of operating a BMD system in a realistic environment. Specifically, operating the system will provide the Government a first opportunity to validate the full spectrum of system design and planning for support of a tactically ready BMD site deployed within the CONUS. For example, site operations will prove or reshape the design of BMD for compatibility with the nation's command and control structure for defense and will verify BMD support activities related to training of personnel, manning levels, operational procedures, techniques of security and provision of logistical support. In these specific areas, experience data has not been available; yet, they are some of the major drivers of cost within a BMD program.

Chairman McClellan. Proceed.

Mr. Augustine. Installation and test of hardware at the Perimeter Acquisition Radar (PAR) and Missile Site Radar (MSR) facilities is essentially complete and subsystem testing is well along. Final versions of the radars' software

will be delivered to the Grand Forks site by the end of FY 1974. The system test program is continuing at the Kwajalein Missile Range in support of software development and validation of system models.

Safeguard Benefits in Other Missile Systems

Chairman McClellan. Are or could these benefits (that SAFEGUARD will provide) be achieved in the other ballistic missile defense programs, for example, at the Kwajalein Missile Range?

Mr. Augustine. No, the major non-tactical benefit to be derived from completing and operating the Grank Forks SAFEGUARD Site is the unique experience of operating a complete ballistic missile defense system with a missile and warhead stockpile on a continuous basis under a tactical command and control network. The tactical site at Grank Forks is the only location where we can integrate functions necessary for operation of a BMD site from which valid operational experience can be derived.

Chairman McClellan. Proceed.

Mr. Augustine. Ten system tests are planned for FY 1974. As of 21 January 1974, 6 of these 10 tests had been completed; five were successful and one was unsuccessful. The dismantlement of the Malmstrom SAFEGUARD site in Montana is scheduled for completion in the late spring of this year.

Evaluation of Non-Tactical Benefits

Chairman McClellan. Has an evaluation been made on the relative priority or importance of the non-tactical benefits? Has an evaluation been made of the benefits to be received versus the $500 million operating and indirect costs needed between late 1974 and June 1979?

Mr. Augustine. Evaluation of the relative priority and importance of non-tactical benefits of the SAFEGUARD deployment at Grank Forks has been made. We will develop operating experience concerning all phases of the operation of a BMD system. This experience will be directly applicable should it be necessary to deploy a BMD system in the future. Although the specific hardware designs of SAFEGUARD may differ widely from what we would use in any future BMD system, from a functional standpoint, the SAFEGUARD system is totally representative of BMD systems we can now envision for near to intermediate term deployment. In the initial design stages of SAFEGUARD, it was necessary to settle on certain conceptual ideas for how the SAFEGUARD system would be operated and maintained and the human interface with the system; from these concepts flowed the designs and operational procedures. All of these operational and maintenance concepts were developed without the benefit of validation of experience in the operation of system of comparable complexity and size. These concepts are not amenable to validation under laboratory or simulation conditions; these concepts are the same ones we would expect to apply to future BMD systems.

In addition to the non-tactical benefits resulting from deployment, there is, of course, some protection provided to MINUTEMAN sites in the vicinity of Grand Forks as well as the deterrent value obtained by creating uncertainty in the mind of the enemy tactical planner.

I do believe that the sum of the benefits to be gained are worth the $500 million which will be required for operating and indirect costs between late 1974 and June 1979.

Reduction of Estimated Operating and Direct Costs

Chairman McClellan. It is understood that the estimated operating and direct costs have been reduced between 1974 and June 1979. What impact does this have on the tactical capability of SAFEGUARD and also on the non-tactical benefits anticipated to be gained?

Mr. Augustine. After FY 76 the [deleted]. Regarding non-tactical benefits, the impact of reduced funding is considered to be minimal.

Development of the Grand Forks site will be completed to the extent that all subsystems will be brought to an operational status and internetted so that all modes of operation can be exercised to gain maximum experience during the operational phase. System performance will be verified in all operational modes.

Non-tactical benefits expected from the site operation can still be derived even in light of Congressional and SECDEF constraints. Validation of concepts which may be used in the design of future systems will be accomplished. Operation in a near tactical-like environment and with typical operating personnel will enable the identification and evaluation of significant factors bearing on engineering development and operational aspects of any BMD system we would subsequently consider for deployment.

Obsolescence of Safeguard System

Chairman McClellan. Is the SAFEGUARD System obsolete?

Mr. Augustine. No, SAFEGUARD is not obsolete. The principal components of the system (radars, interceptor missiles, computers and software) are the most advanced deployed in the world today. The system would be effective against the threat it was designed to handle, the threat which exists today.

Deployment at only one site with an inventory of only 100 interceptors does significantly limit the level of defense that the system can provide. In the interval since SAFEGUARD initiation and deployment authorization, we have learned more in the BMD field. Our technology has expanded and we are applying this expanded technology in the design of Site Defense to make it a more effective, less costly system for the MINUTEMAN defense mission and one which can best adapt to an expanding threat.

Chairman McClellan. Proceed.

Mr. Augustine. The Site Defense program is continuing toward prototype demonstration of system components and is on a high priority schedule that will permit visible demonstration, in the same time frame as the expiration of the Interim Offensive Agreement, of a system capable of actively defending the MINUTEMAN force in the 1980s.

Site Defense Prototype Demonstration Phase

Chairman McClellan. The Site Defense is in a prototype demonstration phase. What are the objectives of this phase?

Mr. Augustine. The purpose of the Site Defense prototype demonstration program is to develop prototype components, integrate these components at Kwalajein Missile Range, and conduct a visible demonstration of the feasibility of the Site Defense system concept for defense of MINUTEMAN. The objectives of the Site Defense prototype development program include: (1) insuring that the components of the defense can be integrated to adequately defend against the threat, (2) providing visible demonstration of our ability and intentions to preserve our deterrent, and (3) providing an option for defense of our strategic forces.

Chairman McClellan. Did Site Defense follow the DOD normal life-cycle phases prior to entering the current phase? In this regard, were the requirements for moving through the earlier phases met?

Mr. Augustine. Yes, the Site Defense program is following the normal DOD life-cycle phases. Concept formulation was conducted by USAABMDA prior to the prototype demonstration mission being assigned to the SAFEGUARD System Manager. A competitive contract definition phase was conducted for the prototype demonstration program in 1971 and, after normal source selection procedures, a prime contractor to conduct the prototype demonstration program was selected. The next phase of the program would be full scale engineering development and, if this phase should be required by the evolution of the threat to MINUTEMAN, the procedures for entering this phase will be met.

Life Cycle Cost Estimate of Program

Chairman McClellan. What is the life cycle cost estimate for this program?

Mr. Augustine. The Site Defense concept is to deploy only the required number of defense modules to assure an adequate number of MINUTEMAN silos survive an attack against an offensive threat. If the threat develops so as to require a deployment of 5 modules, the 10-year DOD life cycle cost would be about $6.25 billion; $1.85 billion development, $3.2 billion investment and 10-year operating cost of $1.2 billion. Should the threat increase in severity to require a deployment of 15 modules, the 10-year DOD cost is estimated at $12.25 billion; $1.85 billion development, $7.7 billion investment and 10-year operating costs of

$2.7 billion. The estimated costs cited are inflated dollars. The latter two phases of the program, i.e., full scale development and production/deployment, have not been recommended or authorized. The prototype demonstration phase will help validate these life cycle cost estimates.

Cost of Prototype Demonstration Phase

Chairman McClellan. What is the current cost of prototype demonstration phase?

Mr. Augustine. The current estimated direct DOD cost of the prototype demonstration phase is $895.4 million; $875 million RDTE and $20.4 million MCA.

Prototype Demonstration Cost vs Original Cost Estimate

Chairman McClellan. How does the current prototype demonstration cost compare to the original cost estimate?

Mr. Augustine. The original cost estimated for the Site Defense prototype demonstration was $815 million in FY 1972 inflated dollars, $795 million RDTE and $20 million MCA. The current estimated cost of the program is $895 million in FY 1974 inflated dollars, $875 million RDTE and $20 million MCA. The cost increase of $80 million is attributable to: (1) an increase of $58 million due to inflation, (2) an increase of $47 million due to stretchout of the original schedule (caused by funding constraints) from 60 to 72 months, and (3) a decrease of $25 million for program changes and revised estimates. The contract changes associated with the $875 million program are being negotiated and the amounts shown for each category will require refinement when the contracts are finalized.

Full Scale Development

Chairman McClellan. Will the prototype demonstration domplete what is generally referred to as full scale development?

Mr. Augustine. No, these are two separate phases of the Site Defense program. The prototype demonstration program is intended to validate: (1) the design concept; (2) the adequate solution of five technical problems being faced in the system; and (3) the cost estimates for development, production, deployment and operation of the system. Under the prototype demonstration program, design is limited to the major end item components.

Deferred Development in Site Defense Program

Chairman McClellan. Specifically, what is deferred development in the Site Defense program? What is the cost associated for deferred development? What is the scheduled start and completion dates?

Mr. Augustine. Deferred development or full scale engineering development in the Site Defense program refers to those areas of development which are required prior to production and deployment but not essential to demonstrating the system concept in the prototype program. Examples of deferred tasks are the tactical command, control and communication, the second face on the prototype radar, the peacetime software and verification testing. Costs associated with deferred development have not been examine in detail because production and deployment is not being changed at this time, but the cost of the deferred development is currently estimated at about $950 million in inflated dollars. The scheduled completion date for any deferred development is very dependent on the start date and its relation to the progress of the prototype development. Estimates of [deleted] to complete the deferred development have been used for planning purposes.

Feasibility of Site Defense System

Chairman McClellan. In order to demonstrate the Site Defense system, must both prototype demonstration and deferred development be completed? How much time would be needed to move from prototype demonstration to production and then deployment?

Mr. Augustine. No, only the prototype demonstration program is required to demonstrate that the Site Defense system concept is feasible. The deferred development is only required to do the additional development work and testing required before the system could be deployed. [Deleted.] Production lead time is [deleted].

Chairman McCLELLAN. Proceed.

Mr. AUGUSTINE. The designs of prototype components are near completion and fabrication of prototype hardware is well underway in preparation for initial testing.

PROTOTYPE DEMONSTRATION PHASE

Chairman McCLELLAN. In regard to the prototype demonstration phase, have events planned to be performed associated with the original cost estimate been deferred to another phase? If so, what are the events, significance and costs? Is the estimated cost for prototype demonstration increasing and at the same time accomplishing less work than planned which would, if not recognized, tend to underestimate the true cost increase of the program?

Mr. AUGUSTINE. Yes, as a result of the congressional reduction of $60 million to the FY 74 program request, the Site Defense program required complete realignment. The impact of the reduction, combined with application of higher inflation indices prescribed by OSD, indicated a program delay of about a year and an increased cost of about $110 million would result. This increase was unacceptable to the program management and the scope of the original program was reduced and deferred to the full scale engineering development phase in an effort to control the cost of the prototype program. This management decision was explained in detail by the SAFEGUARD System Manager in testimony before the SASC on 4 April. Principal items deferred were three SPRINT subsystem flight tests and two system flight test missions to be conducted at Kwajalein Missile Range in 1977. In addition to holding down the cost increase to $25 million, which is less than the amount added solely as a more realistic inflation allowance, the program changes reduced the schedule delay to six months.

ENGINEERING TRADE-OFFS

Chairman McCLELLAN. Have any engineering trade-offs been made in order to reduce costs for the Site Defense system?

Mr. AUGUSTINE. Several studies have been conducted by the Army over a period of years in order to arrive at the most cost-effective jterminal defense system. These studies were culminated in the MDS–II study which set forth the basic guidelines for the Site Defense system. A contract definition study effort was initiated with three major industrial teams, consisting of most of the government and contractor BMD expertise in the nation, conducting parallel investigations. Alternate design, techniques, development criteria, investment costs, operational costs, capabilities, effectiveness and major engineering trade-offs were considered in great detail. The awarding of the prototype development contract initiating the system development was the culmination of all of these efforts. During the prototype development the system integration contractor and associates, in cooperation with the Army, are continuing efforts to insure that the final design will incorporate the most cost-effective engineering technology available.

SYSTEMS TECHNOLOGY VS. COMPONENT TECHNOLOGY

Chairman McCLELLAN. The Army states the need for "systems" technology over "component" technology for Site Defense; what is the rationale for this approach?

Mr. AUGUSTINE. The only means for validating the performance of individual components in a system context is through the development of the system. This means interfacing the several components to operate as a system and requires design effort to effect the interface. The objective is to effect the integration without degrading the individual performance capabilities of the components. In addition to the design interfacing, system technology also requires the development of operational concepts and implementation in software which relate to the individual components in terms of their operational/design capabilities. The U.S. needs a second generation system technology program oriented to the current Soviet ICBM/SLBM R&D program.

OPERATIONAL EXPERIENCE IN MAJOR WEAPONS SYSTEM

Chairman McCLELLAN. Isn't one of the major reasons for deploying and operating SAFEGUARD to gain "system" experience for ballistic missile defense systems and how does this relate to the Site Defense "system" approach?

Mr. AUGUSTINE. Yes, one of the major reasons for deploying the one SAFEGUARD complex is to gain operational experience with a major weapons system. SAFEGUARD will provide experience which can be applied to the operation of Site Defense; for example, experience in command, control, and communications and the maintenance and updating of large real-time data processor software can be applied to the Site Defense system. The experience gained in integration of major subsystems into an operational system can be directly applied to a deployed Site Defense system. Potentially some of the actual operational and maintenance personnel from SAFEGUARD could be used to provide expertise and training if Site Defense were to be deployed.

CRITICAL DEVELOPMENT ISSUES

Chairman MCCLELLAN. We understand the Army has identified five critical development issues as having the potential of effecting program performance, cost and schedule objectives. What are these issues and their status?

Mr. AUGUSTINE. The Army identified five technological issues early in the Site Defense program and set about finding solutions [deleted]. These issues are system operation in a nuclear environment, bulk filtering, discrimination, development of tactical engagement software, and dormant/unmanned operation. The dormancy problem does not impact system effectiveness but only the cost of operation. The software problem is [deleted]. The conduct of subsystem tests in the CONUS and the system tests at the Kwajalein Missile Range will verify the [deleted].

SYSTEM PROBLEMS

Chairman MCCLELLAN. Many of these issues sound like they involve technological uncertainties which could result in "system" problems. For example, how have you satisfied the basic understanding of the nuclear environment in which a defense system must operate?

Mr. AUGUSTINE. The five issues were recognized as system problems at the start of the program. Each problem has been subjected to considerable investigation and analysis utilizing all known sources of data and major governmental and contract agencies with a recognized expertise in the several subject matter areas. For example, the extensive low altitude data produced during atmospheric testing and major governmental nuclear agencies such as the AEC and the Defense Nuclear Agency have been utilized and have assisted in the understanding and development of the nuclear models being used by Site Defense. Indications are that the design approaches selected to resolve these five problems will be effective. The prototype demonstration, including the subsystem tests in CONUS and the system tests at the Kwajalein Missile Range, will [deleted].

SYSTEM HARDWARE COSTS

Chairman MCCLELLAN. What percentage of the cost of the prototype demonstration phase is for building system hardware and what percent for technological research or advancement? Can this be broken out by the five critical issues? How about a breakout for the FY 75 request—hardware versus technology research?

Mr. AUGUSTINE. Approximately 40% of the cost of the Site Defense prototype demonstration phase is for component hardware development, 10% is for software development and 50% is for integration of components, development of requirements for hardware and software development, and demonstration testing. The percent allocation to the five critical issues cannot be broken out into meaningful subdivisions of the program since the issues cut across all hardware subsystems. None of the FY 75 budget request is for technology research.

FINALIZING DESIGN

Chairman MCCLELLAN. What is the risk of finalizing design much too early because of the prototype demonstration and its associated target dates?

Mr. AUGUSTINE. Recognizing that the hardware is essentially in hand, there is little risk in finalizing the Site Defense design. The interceptor involves some modification to the tested and proven SAFEGUARD SPRINT, the computer is a proven commercial product and the radar is a follow-on to the SAFEGUARD missile site radar and other phased array radars. With this much experience backing the hardware components there should be little concern over the

hardware design. The software for the system faces a less well established experience base; however, SAFEGUARD and NASA software program successes as well as other programs indicate that a large and complex program such as that required for Site Defense can be successfully produced.

System Capability

Chairman McClellan. The Secretary of Defense stated that what needs to be demonstrated is the capability of the system as a whole, including in particular the software. What is the schedule for completion of Site Defense software? Doesn't the software depend on a large part on the resolution of the other critical issues—say the bulk filtering and discrimination performance?

Mr. Augustine. No, development of software does not have to await resolution of all technical issues. The software for Site Defense is being developed in modular packages and in phases. Each phase is more complex than the preceding phase and incorporates the previous developments. The software package required to conduct the prototype system tests and to verify the engagement or battle tactics will be delivered to KMR in 1976 at the time that the other major system elements are ready for systems integration. The final software package will be completed and checked out concurrently with completion of the prototype system development. The later stage of software development does depend to some extent on resolution of schema and algorithms development for bulk filtering and discrimination. However, since the software is modular in construction, scheduling can be accomplished such that when various algorithms and schema become available they can be incorporated into the total software package.

Chairman McClellan. Proceed.

Mr. Augustine. The System Development Center, a facility designed to support development and validation of software programs through real time system simulation engagements, has been built by the prime contractor and the Site Defense computers have been installed.

Site Defense Capabilities Against Penetration Techniques

Chairman McClellan. Since Site Defense is a program of the 1980s, what is your assessment of its capabilities against penetration techniques of that time frame, even using our own existing or planned penetration and capability as an example?

Mr. Augustine. The Site Defense system has been designed to incorporate the most advanced discrimination techniques feasible in the early [deleted] time frame. [Deleted] will be used to defeat penetration aids and the [deleted]. Thus the schema may be changed in the future if the penetration tactics warrant such changes. This adaptability provides for maximum flexibility if the threat characteristics become more severe than have been predicted for the 1980s. [Deleted.]

Techniques for Overcoming Penetration Aids

Chairman McClellan. Have techniques for overcoming penetration aids been verified by flight tests? If not, when are they scheduled? If they have been tested, what are the results?

Mr. Augustine. The implementation of most of the radar hardware techniques required for Site Defense discrimination of penetration aids has been verified by flight tests at the KMR. Results indicate that the technology of implementation should not encounter any major problems. The actual hardware implementation in the Site Defense radar and the schema to be employed by the data processor software will be verified by flight tests when the prototype development system is installed and operational at KMR.

Warhead Selection for Site Defense Missile

Chairman McClellan. How far along are you in selecting a warhead for the Site Defense missile? How does the warhead design impact on the nuclear environment for Site Defense design?

Mr. Augustine. Alternate warhead studies have been conducted to determine possible warhead candidates. The W66 used in SPRINT I is adequate for the Site Defense system. Since the W66 is a large user of critical materials, studies are continuing to consider warheads that contain less critical material

and final selection will not be made until such time as a deployment decision might be considered. The specific warhead used could have some impact on the Site Defense nuclear environment. However, for all alternate warheads under consideration, the environment would be less severe than for the W66 warhead.

Obsolescence of Site Defense System

Chairman McClellan. Mr. Secretary, how can we be sure the Site Defense system will not be obsolete before deployment?

Mr. Augustine. The development of the Site Defense system is structured to permit technology upgrade to within three years of deployment. The system is configured to minimize the cost and time required to substitute or incorporate advanced performance end item components such as improved interceptor or data processor into the system. Through close coordination with the advanced technology program, we consider obsolescence before deployment to be unlikely.

Chairman McClellan. Proceed.

Mr. Augustine. The Advanced BMD technology program appears to be faced with a critical decision this year. The effort devoted to this area has decreased gradually over the last six years until it, at present, is only about 68% of the funds appropriated in 1969. It is even less when measured in purchasing power. On the other hand, working within the SALT I limitations, the Soviets are proceeding with a very active program which threatens to erode the lead we presently hold in BMD technology. Even with the strict compliance we are maintaining with the agreements, there are continuing U.S. requirements in the BMD arena. These include the avoidance of technological surprise, active assistance to the U.S. strategic offensive technology effort, and the need to continue exploration of new concepts should one day there be a need for the U.S. to develop a highly advanced BMD system.

During the past year, Congressional reviews concluded that a 27% reduction in the overall funds requested for BMD was appropriate, including a 39% reduction in the advanced BMD technology portion of that effort. To accommodate the latter reduction the advanced technology program was rebalanced, with a resulting curtailment of research efforts in certain areas, including optical sensor development, future generation radar technology, and mitigation of nuclear effects. These reductions, which were taken after careful consideration of the alternatives, represented a conscious effort to respond to the guidance of the Congress and to preserve within the current limited program our efforts to reduce still prevailing unknowns in designation and discrimination technology. This fiscal year, four ICBM flights have provided us with important data on two reentry vehicles, four decoys, two balloons, one chaff package, and a large collection of assorted debris.

In the area of optics research there appears to be promise of new solutions to traditional BMD problems—solutions which will circumvent the difficulties inherent to radar observation in a nuclear environment. The study of nuclear effects themselves is necessary to find ways to attenuate the effects of nuclear detonations. Radar technology must be advanced, with new waveforms, greater effectiveness, and greater economy of operation. It is because of the importance of maintaining a strong technological base in these and other related areas that significant revamping of the Advanced BMD program has taken place during the past year and that funds have been requested in FY 75 to restore the effort to a level between that of FY 73 and FY 74.

Thus, in the post ABM Treaty environment our strategic defensive efforts have undergone a significant change. The SALT Agreement has made possible a decrease in BMD total funding from $1.4B in FY 72 to $440M in the FY 75 request. The emphasis is no longer on the deployment of an operational system, as was the case with SAFEGUARD. It is now directed toward a vigorous research and development effort with which we will attempt to maintain for the U.S. a strong visible competence in BMD. Today we clearly stand at the crossroads. Unless we commit ourselves to a demonstration of that competence, we must stand ready to forsake our technological superiority in Ballistic Missile Defense.

AIR DEFENSE MISSILE SYSTEMS

Characteristics	Crotale	Rapier	Roland	Chaparral
Guidance	Command to line-of-sight visual and radar control			IR homing.
Conditions	All weather, day and night			Clear weather, day only.
Vehicles	2	3 towed items	1	1.
Mobility	Wheeled	Towed	Tracked	Tracked.
Missiles per fire unit	4	4	10	12.

SHORAD Missile System

This program represents a considerable departure from other Army major systems acquisition in that leading contenders to fill the gap in our all weather short range air defense system are three foreign developed systems which are either in production, or about to enter production. This is in part a reflection of the significant progress being made elsewhere in the World in the development of military hardware, and in this case offers us the opportunity to acquire an important capability with relatively modest risk. We plan to produce all hardware for this program here in the U.S. We have the opportunity to capitalize on offshore R & D expenditures with a resultant savings to the U.S., and we have an excellent opportunity to contribute to standardization of NATO equipment.

Chairman McClellan. Outline the three foreign short range air defense systems which are either in production or about to enter production. Will other NATO countries contribute to the procurement costs for these missile systems? If the answer is yes, name them.

Mr. Augustine. The three systems are the French CROTALE, the United Kingdom RAPIER BLINDFIRE, and the French-German ROLAND II. They are basically similar systems, from a mission point of view, being designed for all-weather defense of critical Army assets. Each system has an optical and a radar mode of operation. Engagement ranges and target handling capabilities are similar with minor differences. For instance, against a [deleted] the maximum engagement range is [deleted]. The RAPIER missile is smaller than CROTALE or ROLAND, weighing [deleted] pounds as opposed to [deleted] pounds respectively. The most apparent difference is in mobility, with CROTALE being of wheeled vehicle configuration, RAPIER towed, and ROLAND on a tracked vehicle.

While other NATO countries may procure these systems for their own use, procurement from the U.S. is not planned at this time.

Chairman McClellan. Proceed.

Mr. Augustine. Since the Army has little experience in a foreign acquisition of this magnitude, we are proceeding deliberately to insure that we obtain the needed performance at the least possible cost. Also, since we are just now in the process of initiating this effort, we will apply emphasis from the start in assuring that funding commitments are based on demonstrated system performance as opposed to rigid adherence to some particular time schedule. I believe the SHORAD request for proposal is one of the first ones ever to simply list a set of sequential milestones to be met rather than prescribe a calendar keyed program plan.

The $2.5 million we received in FY 74 was used to prepare Requests for Proposals, establish the necessary simulations required to evaluate contractor responses and the actual evaluation of these responses. We are requesting $35 million in FY 75 to start the initial fabrication of hardware for DT/OT II and order initial parts for equipment to be tested. Purchase of an operational system, as opposed to a complete development effort by the Army, will save us approximately $300 million.

Pershing II

In FY 1975, Advanced Development begins on the PERSHING II missile system. This new start has the objective of modernizing the current PERSHING with a highly accurate, low yield capability for the future time frame.

The Supreme Allied Commander in Europe has expressed a specific need for a PERSHING II type system which will accomplish his military objectives with minimum damage to non-military personnel and facilities. High accuracy and low

yield make this modular improvement to PERSHING potentially more politically acceptable to our NATO Allies, and thus a better deterrent, while providing new and additional capabilities for employment in the event of tactical nuclear warfare. It maintains the advantages of the original PERSHING surface-to-surface system in pre-launch survivability and penetrability.

Cobra/Tow (AH–1Q)—PIP

I mentioned, while discussing the AAH, a number of limitations which have surfaced during our operational testing of the AH–IQ (COBRA/TOW) helicopter. These limitations come about primarily as a result of the added weight of the TOW system and the operational tactics of employment. The most serious limitation is in the out-of-ground effect hover performance which is critical to nap-of-the-earth flying, particularly at locales of high altitude and temperature.

The Army is planning a product improvement program (PIP) which is designed to deal with these limitations and maximize the interim anti-armor capability this aircraft will provide. Several alternatives are being examined to achieve the desired increase in capability. One possibility is to uprate the T-53 engine from its present 1400 SHP to 1800 SHP, uprate the main transmission from 1134 HP to 1290 HP, uprate the tail rotor and tail rotor drive train, and beef-up the associated structure of the tail boom. These changes will result in significantly improved performance, particularly at increased altitude and temperature conditions.

Heavy Lift Helicopter (HLH)

The Heavy Lift Helicopter is an advanced development program to provide a crane-type helicopter with more than twice our current payload capability. It will be an integral part of the containerized logistic system, in that it will be capable of off-loading standardized containers (MILVANS) from cargo ships and delivering them directly to using units in less time than would be required by any other method.

CARGO HELICOPTERS

Characteristics	HLH	CH-54B
Design gross weight (pounds)	118,000	47,000.
Payload (tons) (sea level, 95° F	22.5	10.7.
Number engines/power (horsepower)	3/8,800	2/4,850.
Speed (knots)	130	100.
Endurance	3 hrs	2 hrs, 20 min.

HLH Payload

Chairman McClellan. Will the Heavy Lift Helicopter's primary payload be the standardized containers (MILVANS)?

Mr. Augustine. The Heavy Lift Helicopter mission concepts have not been finalized, however, one of the principal payloads will be the standardized container (MILVANS).

Precision Hover Capability of HLH

Chairman McClellan. Will the HLH be able to precision hover?

Mr. Augustine. The precision hover system will be demonstrated this spring utilizing the Boeing Vertol 347, a modified CH-47. Depending upon the cost and additional capability the precision hover system provides the HLH, the Army will make a decision to include it in the HLH configuration. This has been identified as a tradeoff area.

Chairman McClellan. Proceed.

Mr. Augustine. The HLH will substantially enhance our mobility by permitting rapid shifting of heavy weapons, vehicles and bulk quantities of ammunition or barrier materials to the areas of greatest tactical need.

The three year advanced technology program to develop critical components of the airframe by Boeing Vertol will be completed in FY 1974. Bench tests and a 200 hour integration test of the dynamic components of the drive system will also be completed this year.

Fiberglass Rotor Problems of HLH

Chairman McClellan. What are the problems you have incurred with the fiberglass rotor on the HLH?

Mr. Augustine. We do not have any significant problems. This is new technology and we have learned a lot. We have continually made minor refinements in our design and component fabrication techniques as a result of this learning.

Chairman McClellan. Proceed.

Mr. Augustine. The fly-by-wire flight control systems and cargo handling systems testing is continuing. Design of the first prototype airframe is near completion and fabrication has begun. Development of the XT701 engines to power the HLH is progressing and initial tests have been successful.

HLH Program Cost

Chairman McClellan. What is the HLH program cost to date? How much is the total program costs?

Mr. Augustine. The HLH program cost through FY 74 is $146.2 million. The total development program cost will not be known until after the special ASARC to be conducted this coming summer.

Engineering Tradeoffs for HLH

Chairman McClellan. What engineering tradeoffs have been made for the HLH to reduce procurement costs?

Mr. Augustine. We have eliminated the requirement for a variable span winch system. This approach has been verified by load stabilization wind tunnel testing. This change is estimated to reduce production aircraft weight by 440 pounds and recurring costs by $28,000.

The primary airframe structure has been changed from skin and stringer construction to bonded aluminum honeycomb construction. This change reduced weight and the number of parts, increased fatigue life and will result in lower manufacturing costs.

Reduction in the number of blades and vanes within the engine has resulted in a $9,000 decrease in the unit production cost estimate.

Cost Increases in HLH Program

Chairman McClellan. What cost increases have occurred in the HLH Program in out-year projections?

Mr. Augustine. The funding authorized for the combined ATC/Prototype Program was $189.9M. Currently, the Army is planning to add a second prototype and Reliability and Maintainability tasks to complete the Advanced Development phase of the HLH Program at a total cost of $252.0M. Definitized cost projections have not been made for the years beyond FY 76 because several program options remain available to the Army for completion of HLH development.

After the results of the ATC/prototype phases are evaluated the Army can plan an appropriate Engineering Development phase to complete HLH development.

HLH Program's Full Scale Development Decision

Chairman McClellan. When will the full scale development decision be made on the HLH program?

Mr. Augustine. That decision is presently scheduled for April 1976.

Chairman McClellan. Proceed.

Mr. Augustine. In FY 1975, we will finish fabrication of the prototype and initiate ground testing. First flight is scheduled for 1st QTR FY 1976. Reliability and endurance testing of the critical components and subsystems will continue throughout the program. Program reviews conducted this past year indicate that there is inordinate risk associated with having only one prototype in the entire flight test program; as a consequence, funding is being requested to build a second flight vehicle.

Mission Requirements for NLH

Chairman McClellan. Have the mission requirements changed for the HLH since its inception?

Mr. AUGUSTINE. Not really. We have always included the mission of discharging containerships very high in our priorities. Now the requirement to support the total containerized logistics mission is the reason we are saying we need the HLH. This includes the containership discharge mission.

USE OF CH–53E

Chairman MCCLELLAN. Will the Army be able to use the CH–53E if the HLH proves inadequate?

Mr. AUGUSTINE. No. The current CH–47C along with the UTTAS will transport everything we need to carry to provide airmobile support to our divisions. We do not need a bigger helicopter until we get one sized to support the containerized logistics mission, which would be the HLH.

HLH SECOND PROTOTYPE

Chairman MCCLELLAN. Why is it necessary to have a second prototype for the HLH?

Mr. AUGUSTINE. A second prototype provides insurance for the money invested in the program should the first prototype suffer a crash. In addition to reducing the program risk the second prototype will provide viable program options and cost savings. Additionally, a second prototype levels the overall effort, eliminating peaks and valleys in the contract and subcontract work.

CAPABILITY OF HLH LANDING GEAR

Chairman MCCLELLAN. Will the landing gear of the HLH be capable of ground loading the standardized containers (MILVANS)?

Mr. AUGUSTINE. No, the requirement to "taxi-over" the load has been deleted.

Chairman MCCLELLAN. Proceed.

Mr. AUGUSTINE. This is considered to be an essential undertaking as an element of prudent management. This second vehicle will be flight tested in the 3rd and 4th quarters of FY 1976.

HIGH ENERGY LASER TECHNOLOGY AND APPLICATION PROGRAM

The Army's High Energy Laser program is investigating the potential use of high energy lasers in a variety of military applications.

High energy lasers first became practical in the later 1960s with the introduction of flowing gas lasers. It is important to emphasize that high energy lasers are entirely different from the laser range-finders, designators and illuminators which employ solid lasers and operate at relatively low power levels.

HIGH/LOW ENERGY LASERS

Chairman MCCLELLAN. What is the difference between high and low energy lasers?

Mr. AUGUSTINE. The differences between high and low energy lasers are in the types of lasers involved as well as in their military applications. Low energy lasers normally produce less than ten watts of average laser power with ruby and glass containing neodymium lasers as examples. High energy lasers are those with the potential of producing more than ten thousand watts of average laser power with carbon dioxide and deuterium fluoride lasers as examples. Military applications of low energy lasers include range finders, designators, illuminators and communication systems. As you are aware, several of these types of laser systems are in production and many more are in engineering development. By comparison, military applications of high energy lasers include discrimination radars [deleted]. These lasers are still in [deleted]. At this time, a particular laser cannot be interchanged between both low energy laser and high energy laser military applications.

Chairman MCCLELLAN. Proceed.

HIGH ENERGY LASER TECHNOLOGY

Chairman MCCLELLAN. Do you think the basic technology of the high energy laser is sufficient to begin a [deleted].

Mr. AUGUSTINE. We do not have [deleted]. While adequate basic laser technology exists to support a [deleted]. It is these questions that the Army's high energy laser program, along with the other DOD programs, will be dedicated to answering within the next few years.

High Risk Areas in High Energy Laser Programs

Chairman McClellan. What are the high risk areas in High Energy Laser Programs?

Mr. Augustine. The high risk areas in the high energy laser program include [deleted]. The Army's FY 1975 program is directed towards reducing the risks in those four areas.

High Energy Laser Future Role

Chairman McClellan. What is the role of the HEL in the future?

Mr. Augustine. That is a very hard question to answer due to [deleted] high energy lasers will probably also find a future role as discrimination radars. These radars could be important in ballistic missile defense where they would work in conjunction with microwave radars to positively identify reentry vehicles from decoys and chaff.

Total Cost of HEL

Chairman McClellan. What is the total cost of all Army high energy laser programs?

Mr. Augustine. In FY 1975, the Army proposes to spend [deleted] Research funds and [deleted] in 6.2 Exploratory Development funds for high energy laser programs.

HEL Facilities

Chairman McClellan. Where are the Army High Energy Laser facilities located?

Mr. Augustine. The Army's High Energy Laser facilities are located at the Redstone Arsenal near Huntsville, Alabama, the Aberdeen Proving Ground, Maryland and the Atmospheric Sciences Laboratory, White Sands, New Mexico.

Personnel in HEL Program

Chairman McClellan. How many military and civilian personnel are employed in the HEL program?

Mr. Augustine. The Army HEL program at this time has 18 military positions and [deleted] civilian positions of all GS ranks.

Russian HEL R&D Program

Chairman McClellan. At what level is the Soviet Union pursuing HEL Research and Development.

Mr. Augustine. Our information on the [deleted]. They have a large group of talented laser scientists who appear to be closely following all areas of laser technology. Many of these scientists are reported to be working on projects dealing with laser fusion which parallels that work of the AEC. [deleted.]

The Army's program has been coordinated with that of the Navy, Air Force and ARPA to prevent the occurrence of undue duplication. ODDR&E, through the High Energy Laser Review Group, has facilitated this coordination on a quarterly basis and has encouraged joint Service programs where two or more Services have common interests. Recent joint Army/Air Force effects experiments are an example of the cooperation and coordination we are striving to maintain in this promising area.

Technology Coordinating Paper

Chairman McClellan. Has a Technology Coordinating Paper been prepared for the high energy laser program?

Mr. Augustine. No, a Technology Coordinating Paper has not been prepared for the DOD high energy laser work. Instead, each service has supported the Office of the Director of Defense Research and Engineering (ODDR&E) in their preparation of High Energy Laser Program Memoranda. These documents and the ODDR&E High Energy Laser Review Group are the central coordination mechanisms for this new technology within the DOD.

Chairman McClellan. Proceed.

Technology Achievements

Mr. Augustine. The Army's major development projects—the new tank, attack helicopter, SAM–D and others previously discussed—are quite visible outside the R&D community, but the new technology which supports these major systems is seldom seen and often is not fully appreciated. There are reasons for this difference in visibility. Our technology work is done in literally thousands of diverse efforts, each with a small annual investment. It is difficult to assess the effort until it is concluded, perhaps five to ten years after it starts. We cannot expect success in every effort; nor can we set a strict schedule for its progress. On the other hand, as measured in the long term, we have a right to expect a useful and important output from our expenditures in this area.

Last year, in an effort to assess the benefits derived from the technology base, we identified four goals for Army Research and Development: technical superiority, cost savings, improved reliability and maintainability and increased human effectiveness. These goals were the basis for developing a Corporate Report which focused on tangible products from Army technology and also highlighted the returns on our technology investments of prior years.

This year we developed a second Corporate Report using the previously stated goals in explaining the overall objectives of our technology base. With the continuing emphasis on cost savings as a particular target of interest, we have found that the Corporate Reports have done much to assist in understanding the contributions of the technology base and increasing the awareness of the laboratories that they are being measured in terms of their "return on investment."

One of the things we have observed in our two Corporate Reports is that the cost savings or cost avoidance resulting from technology base achievements exceed what we are spending each fiscal year on the technology base staff. This is in addition, of course, to substantial payoff in terms of militarily applicable technology.

I have selected several examples from Corporate Report II to illustrate our progress towards the four goals I mentioned a moment ago.

Elimination of Tetryl From Munitions

Tetryl is a chemical explosive that has been used extensively for many years as a required part of the initiator for many bombs, mines, and projectile warheads. The only tetryl production plant in the United States is obsolete, and its operation gives rise to unacceptable levels of air and water pollution. Modernization of this plant is estimated to cost several millions of dollars. Army research and development explosive specialists surveyed a number of alternate compositions during FY 1973 and identified a practical substitute made of other available explosives. The demonstration that tetryl can be replaced without decreasing reliability, effectiveness, availability, and maintainability, provided the basis for a Tri-Service agreement that tetryl would be eliminated from all munitions during the next few years, thereby permitting the shut-down of the tetryl plant once an adequate interim stockpile is established.

Alternate Composition Replacement for Tetryl

Chairman McClellan. What is the alternate composition replacing Tetryl for munitions?

Mr. Augustine. There are actually two alternate compositions that will replace Tetryl in munitions. These are compositions A3 and A5. Both compositions have RDX explosive as the basic component.

Chairman McClellan. Proceed.

Mr. Augustine. The major impact of this achievement falls in the areas of pollution abatement and cost avoidance. The minimum cost avoidance to be realized is about six million dollars. The cost of the research which made this possible was $180K.

Viscous Damped Mount

The viscous damped mount was developed by the Army Human Engineering Laboratory to increase the accuracy of aiming and firing anti-tank missiles such as the DRAGON, that depend upon manual tracking by the gunner.

Human Engineering Laboratory Budget Request

Senator Young. What is the FY 1975 budget request for the Army Human Engineering Laboratory?

Mr. Augustine. The RDT&E FY 1975 budget request for the Army Human Engineering Laboratory is approximately $3.7 million.

Chairman McClellan. Proceed.

Mr. Augustine. Examinations of gunner performance using the conventional free-moving mount showed that the very best possible accuracy was a half mil of error and that such accuracy was rare. Previous human research had demonstrated that performance in this kind of target tracking situation is improved if the task is performed against a small controlled amount of friction in the device. We, therefore, developed a mount which is damped in both traverse and elevation. With this mount, gunner tracking accuracy is improved by 500%. The gunner can now reliably track a moving target to one-tenth of a mil. The mount is adaptable to many uses, including the laser designator, TOW, and DRAGON. It provides us with technical superiority and increased human effectiveness in weapon system operation, as well as a reduction in the number of missiles needed for training.

Vehicle Armor

In coordination of the DOD materials program, the lead in armor materials development is taken in by the Army with close consideration of the requirements of the Air Force and Navy. Cost and weight reduction without corresponding loss in protection are the driving forces behind all armor materials development. One of the major accomplishments during the past year has been development of a new process for producing armor steel that is both cheaper and better than the current methods. The method is the electro-slag remelt (ESR) process.

ESR Process

Chairman McClellan. Is the electro-slag remelt (ESR) process planned for use in any other tracked vehicles besides the Armored Reconnaissance Scout Vehicle?

Mr. Augustine. Yes. It is planned that steel made by the ESR process will also be used in the Mechanized Infantry Combat Vehicle. In addition, considerations are being given to the use of ESR steel to replace rolled homogeneous steel in the XM–1 Tank if problems related to production capability can successfully be resolved.

Chairman McClellan. Proceed.

Mr. Augustine. Ballistic tests have shown a significant cost reduction for ESR steel armor for equal protection as compared with current steel armor. ESR steel is planned for use in the Armored Reconnaissance Scout Vehicle at a cost saving of $3,400 per vehicle.

Helicopter Seals

FY 1973 witnessed the successful development by the Army Air Mobility R & D Laboratory of an improved high-speed transmission seal for Army helicopters. The previous seal suffered from excessive oil leakage and a life cycle only one-quarter of that desired. Not only was this seal costing the taxpayer $800,000 a year in maintenance costs, it was causing the loss of ten hours of flight time each time the seal had to be replaced. As the result of technology improvements, seal life has been more than quadrupled, oil leakage has been reduced to one-quarter of the design specification, and the new seal can be used on existing helicopter transmissions without requiring special adaption kits. Specifically, the improved seal will be used on UH–1 and COBRA helicopters, and the technology is being applied in UTTAS.

Program Management

I would like, at this point, to present you with an overview of our management program.

Materiel acquisition guidelines developed in 1971 emphasized several policy areas, and we have made, I feel, considerable progress in implementing them. We

will continue to build on promising techniques developed by our predecessors while developing our own approaches to improving the complex acquisition process.

Allow me at this point to treat a few of the operative policies which are now bearing fruit.

Face-to-Face Decisionmaking

The staffing procedures formerly adhered to as part of the decision making process are giving way, in many areas, to face-to-face forums in which critical "go" or "no-go" decisions are made by high level Army managers.

Function of Army Managers

Chairman McClellan. Specifically, who are the Army Managers who make the "go" and "no-go" decisions in the critical issues of each system?

Mr. Augustine. The critical decision maker for the systems differs according to the management option of the system.

For major systems with RDT&E funds of over $50M and/or PEMA funds over $200M, the decision authority resides with the Defense Systems Acquisition Review Council (DSARC) which is chaired by the DDRE or the ASA (I&L). For other major systems which are so designated because they are critically important to the Army, complicated or controversial, the decision authority lies with the Army Systems Acquisition Review Council (ASARC) which is chaired by the Vice Chief of Staff.

For non-major systems, the decision authority lies with the materiel developer or his designee (usually, the Commander of USAMC or the project manager). For a selected group of non-major systems, the decision authority lies with the DA Staff.

Chairman McClellan. Proceed.

Mr. Augustine. These sessions avoid the ancillary minutiae of the system in question and address only the critical issues. This procedure is not only speeding up the decision making process but is facilitating the establishment of truly unified, supported positions on our major development systems. In addition, it reduces the size of headquarters staffs needed to support the acquisition process.

Delegated Management

We have delegated about 65% of our system oriented projects to materiel developers to manage. We found ourselves, in the past, being spread too thin in attempting to manage each of the hundreds of items under development. Our high level management is now concentrated on 23 major systems which account for over 69% of our system oriented RDTE funds. Focusing our managerial attention on these projects will contribute, I feel, to their more successful and efficient development. The remaining programs are managed by setting goals and monitoring deviations in progress from those goals.

Cost Control

While I believe, as I have stated before, that technical superiority of American equipment is an absolute necessity, I am aware of the consequences of overreacting to the threat and producing systems which are simply too expensive to afford or too complex to operate reliably. The goal we are striving for is to develop systems whose performance and cost fit both our needs and budget.

Design to cost goals are the backbone of this effort and are being established for all those major systems wherein the design has not already been fixed.

"Design to Cost Goal"

Chairman McClellan. What do you mean by "design to cost goal"?

Mr. Augustine. The design to cost goal is that unit cost goal established early in the development cycle of an item or system to guide the design on an equal basis with performance characteristics and schedule, so that it can be produced at or below that cost. When including such a goal in development contracts, it is usually stated in terms of hardware cost, i.e., the recurring costs associated with production of the major system equipment less Government Furnished Equipment (GFE). When establishing such a goal between OSD and the Service, it is stated in terms of flyaway cost, i.e., the recurring and nonrecurring costs associated with production of the major system equipment including GFE.

Chairman McClellan. Proceed.

Mr. AUGUSTINE. Two thirds of those eligible have goals already contractually implemented, and the remaining one-third will have design to cost objectives established as they approach full-scale development. We think we have found a good contractual approach using an award fee incentive which can be paid incrementally during development to a contractor who demonstrates that he is meeting and reducing his production cost. The real test will, however, come when we negotiate the first production contract. Recognizing this we have made it clear that such production contracts are in serious jeopardy if the design to cost goal is not met.

While we feel design to cost is a promising concept for the reduction of production costs, it will not be implemented irrespective of life cycle cost considerations, i.e., we will not trade-off long-term savings to achieve immediate cost goals. The STINGTHRIFT program is an example of this, which promises a $39.5M procurement cost savings in the STINGER for an R&D investment of $9.5M.

REQUESTS FOR PROPOSALS

My experience while working in OSD and in industry has convinced me that the Request for Proposal is a truly high leverage point in the acquisition process. We have, therefore, recently established an RFP review board for major programs at the Army Secretariat and Staff levels. The board is chaired by my Deputy and includes senior representatives from the other offices in the Secretariat and the Army Staff that are involved in the acquisition process, including the establishment of requirements. This group will review the RFP's for all programs covered by Development Concept Papers and provide guidance to the Army Materiel Command in translating DCP objectives into appropriate specifications. The board has recently completed its review of the SHORAD RFP, and was instrumental in orienting the program toward milestone attainment as I decided earlier, rather than calendar deadlines.

COMPETITIVE PROTOTYPING

One of the most effective ways of controlling the production and development cost of a weapon system, and insuring achievement of performance goals, is to maintain competition throughout the design phase, preferably up to the point of signing the production contract. We are hoping to employ competitive prototyping from the breadboard level through advance development and into the preproduction prototype stage. Competitive prototyping stimulates innovative, cost effective design approaches and provides the Government an alternative if one of the contractors does not produce what he has promised in his proposal.

COMPETITIVE PROTOTYPING

Chairman MCCLELLAN. What percentage of research and development programs are using competitive prototyping?

Mr. AUGUSTINE. Of the 24 major systems, ten (42 percent) are using competitive prototyping. Three of the "Big Five" (60 percent) are using competitive prototyping.

Chairman MCCLELLAN. Proceed.

Mr. AUGUSTINE. We are using competitive prototyping on the ARSV, BUSHMASTER, UTTAS, XM-1, and AAH programs. It would, of course, be too expensive to have competitive prototypes for programs such as SAM-D or SAFEGUARD. However, we plan to use this technique on as many programs as it is economically feasible, adapting it in case to the particular needs of the program.

TECHNICAL RISK ASSESSING COST ESTIMATE (TRACE)

One of the major problems confronting the Department of Defense in recent years has been the difficulty in obtaining accurate cost estimates. This has resulted in part from the plethora of "unknowns" inherent in modern weapons development programs.

"UNKNOWNS" IN MODERN WEAPONS DEVELOPMENT PROGRAM

Chairman MCCLELLAN. List some of the inherent "unknowns" in modern weapons development program.

Mr. AUGUSTINE. The inherent "unknowns" include such factors as acquisition cost growth, unforeseen technology blocks, and the changing nature of the threat.

These are the "known unknowns" and can be estimated or guessed at. These unknowns can be compensated for to some extent by careful planning. There are also the "unknown unknowns" about whose nature we can hardly speculate. They would include such events as a quantum jump in technology such as the advent of solid state technology or laser developments. There is no way these unknowns can be prepared for other than an overall flexibility in the management of development programs.

Chairman McCLELLAN. Proceed.

Mr. AUGUSTINE. The new approach being tested assigns risk factors to various facets of a proposed system based on their degree of departure from similar tasks which have been completed in the past. This factor is then used to adjust the basic cost estimate for the effort to be performed and an aggregate cost estimate achieved. This technique, we feel, will correct for the uncertainties which have repeatedly contributed to the gross errors in cost estimation in weapons programs of the recent past. It gives recognition to the established fact that every individual funding demand which will arise in a 6–10 year development effort simply cannot be explicitly identified in advance—but that the aggregate of those demands can be predicted with considerable statistical certainty and should, therefore, be included in program planning. By having a more realistic estimate of the probable eventual cost of a program, we will better be able to assess at the outset which particular development programs we wish to pursue and which we are best served by foregoing.

RED TEAM

After a requirement for a major weapons system has been established, we assemble a special task force of highly qualified personnel to consider available alternatives and recommend a basic approach.

PERSONNEL DISTRIBUTION

Chairman McCLELLAN. Who are the personnel assigned to the task force after a requirement for a major weapon system has been established? Does the existence of the Red Team inhibit the primary task force from considering all alternatives?

Mr. AUGUSTINE. The director of the task force is the best qualified officer for the job (project manager designee excluded) in the grade of O–6 or higher. The remainder of the task force consists of the project manager designee and representatives from the user(s) (major operational commands such as USAREUR or or USARPAC), the materiel developer (USAMC, USASA, COE, etc.), the combat developer (TRADOC, USASA, etc.), the trainer from the appropriate school, and the resource programmers from the HQDA Staff (usually OCRD).

The existence of the Red Team encourages the task force to have an open mind and consider alternatives because they know their concepts will be challenged and they must prepare for such eventualities by addressing all viable options available.

Chairman McCLELLAN. Proceed.

Mr. AUGUSTINE. Although the task force considers alternative proposals, once one is selected, it is a human tendency to become proponents of the recommended approach. To assure that top level Army decision makers receive equally strong presentations of both pros and cons of all alternatives, to include a full discussion of the recommended approach's weak points, we are utilizing on a trial basis a "Devil's Advocate" type procedure. At the same time the task force is developing the Concept Formulation Package for a system, a "Red Team" is formed whose mission is to provide an intensive critique of the task force's recommended approach by presenting its weak points and offering potentially superior alternatives, wherever they should be evident. If this procedure proves effective, we will apply it to all our major programs.

INDEPENDENCE IN TESTING

A new organization, the US Army Operational Test and Evaluation Agency, has been established to accomplish independent operational testing of all major (and selected nonmajor) systems. It will be fully operational during FY 75 and will report directly to the Chief of Staff. The Army will accomplish development testing in three series that will normally be separate from operational testing.

The testing will begin with hardware prototype materiel and end with the testing of items that are produced in limited quantities on the actual production line. The test results will be evaluated and provided to the top decision authorities of the Army as one key element in the decision governing the transition of the system from one acquisition phase to the next, for example, from validation to full-scale development.

These new test management policies and procedures are expected to provide better materiel that is more reliable and less costly to maintain when in the hands of the using troops.

The SHORAD program, which I mentioned earlier, signals a step in the direction of prying loose our developing systems from the calendar, and gearing them to the achievement of specific milestone accomplishments.

We feel specific test milestones should be established in advance and serve as gates for moving into succeeding phases of a program. Contracts should be written to remove the pressures which tend to engender a "do it fast," rather than a "do it right" approach or to force the acceptance of articles whose test history is less than satisfactory.

AMARC

The Army Materiel Acquisition Review Committee, of which I am a member of the steering group, will shortly submit its recommendations to the Secretary of the Army. The committee, composed of a number of highly experienced and distinguished individuals from outside the Army, has been tasked with ascertaining the strengths and weaknesses of the materiel acquisition system, and the submission of specific, coldly objective recommendations which will enable us to streamline and improve the mechanics of the process.

The committee has been considering issues such as personnel reduction, the need for test boards, reporting chains, independent cost estimation, and numerous other factors which impact on the acquisition process. We plan on studying the committees recommendations very carefully and swiftly implementing them where appropriate.

MANAGEMENT TOUGHNESS

By "toughness" I mean a steadfast adherence to well recognized and effective management principles, even when the easier immediate solution is not to do so. This is, of course, not a new or innovative concept—it merely recognizes a point that the Congressional Staff has indicated on a number of occasions: that had we merely adhered to our own prescribed rules many of the problems we encountered in the past would not have occurred at all.

SUMMARY

Today I have described for you the progress in an rationale behind the programs we feel are necessary to the effectiveness of the Army. I trust you will agree with me that the return on the funds allotted us during the past fiscal year has been substantial.

I have been able to report to you that by and large our major development activities are progressing quite satisfactorily. To be fully candid, I must also report to you that most of those programs are not yet to that critical point where problems become fully apparent—and the next few years will be pivotal in that regard.

I have highlighted a number of promising approaches to managing the funds entrusted to us, and have used the phrase "management toughness." It will be just that.

There is no fat in this budget request, as I see it, and, if we are to provide our troops with the equipment they need to cope with the threat we face, every dollar must count. The management approaches I described are, like the weapons they will help to produce, only as effective as the determination and purpose of the people who employ them. I hope to be able to report to you at the hearings next year that we have succeeded in attaining our objectives.

This concludes my presentation. I am now prepared to answer your questions.

Mr. AUGUSTINE. Thank you, Mr. Chairman and members of the committee. It is indeed a privilege to appear before you for the first time to present the Army's fiscal year 1975 RDTE budget requests.

It is my belief that our RDTE program may well be called upon to provide the critical edge to our Army in any future conflict. In fact, within the constraints of any foreseeable budget, it seems likely that on almost any conceivable battlefield of the future, our forces will be vastly outnumbered in manpower, firepower, airpower, air defense, and combat vehicles.

Chairman McCLELLAN. I understand your statement in regard to manpower, but how do you arrive at the conclusion we are going to be outnumbered in firepower, airpower, and air defense? That is a bit shocking to me. Over the years we have appropriated large sums for firepower and airpower particularly. I would have thought we would have been better able to hold our own in those areas than your statement indicates. If what you say is true, we are in a bad position.

Mr. AUGUSTINE. I think there is cause for considerable concern. I say that, for example, in the area of firepower, my understanding is, for example, the Warsaw Pact forces have about [deleted] tanks to about [deleted] in NATO.

Chairman McCLELLAN. You are relating this statement to NATO, assuming we were going over there to defend Europe? That is why you make this statement?

Mr. AUGUSTINE. That is one comparison. The other comparison would be to compare the U.S. inventory with the Soviet inventory.

Chairman McCLELLAN. I know, but the Soviets will not be able to employ tanks to run up and down the United States.

Mr. AUGUSTINE. I make this point because in a conflict we could be involved in someplace else in the world, we likely would be up against the Soviet equipment.

Chairman McCLELLAN. I am not arguing. I am just trying to understand the true picture.

ALL-WEATHER SURFACE-TO-AIR MISSILE BATTERIES

Mr. AUGUSTINE. I might cite one other item I just became aware of. In terms of all-weather surface-to-air missiles like Hercules and Hawk, by the end of this year the United States worldwide will have [deleted] as many batteries as the United Arab Republic will have.

Senator YOUNG. Do you mean the SA–6 type?

Mr. AUGUSTINE. They would have the SA–2, 3, 4 and 6 types, and we would have the Hercules and Hawk.

Chairman McCLELLAN. You refer to the Soviets?

Mr. AUGUSTINE. No, sir; the United States worldwide would have [deleted]; the United Arab Republic [deleted]; the Soviet Union [deleted].

Chairman McCLELLAN. That still doesn't make it clear. You are comparing our forces to those of the Arab countries first. We have [deleted].

Mr. AUGUSTINE. They would have [deleted].

Chairman McCLELLAN. You are saying we will have [deleted]?

Mr. AUGUSTINE. That is right [deleted].

Chairman McCLELLAN. They will have [deleted] at what time?

Mr. AUGUSTINE. By the end of this year, sir.

Chairman McCLELLAN. How will we compare with Russian weapons at the end of this year?

Mr. AUGUSTINE. It is a little harder to draw a comparison but the Soviet Union—I will have to leave the measure of batteries here and

go to missiles—I am told the Soviet Union has on the order of 10,000 surface-to-air missiles in Russia alone. Our fraction—I don't know the exact number but it is much, much smaller than that.

Chairman McCLELLAN. Those missiles would have to be used in Europe, would they not, for defense of Russia in the event of an invasion of Russia?

Mr. AUGUSTINE. Many of those missiles are for that purpose, although the systems that they are involved in are, by and large, systems that are either mobile or at least transportable.

Chairman McCLELLAN. Isn't that primarily for defense against China?

Mr. AUGUSTINE. No, sir; I wouldn't say so. A substantial part, of course, is; on the other hand, a very substantial part of it is westward-oriented or available for movement to the Mideast or other areas.

Chairman McCLELLAN. Such missiles do not have a capability against the Continental United States, do they?

Mr. AUGUSTINE. Those defenses don't; no, sir.

Chairman McCLELLAN. Rather they are oriented toward the defense of Russia against China and also, ostensibly, they can be used against NATO. Is that correct?

Mr. AUGUSTINE. Yes, sir; and they could be moved into other areas.

Chairman McCLELLAN. They have to be moved by land, do they not?

Mr. AUGUSTINE. I am not sure if their systems are air mobile; some could be moved by air—like the SA–7 certainly could and possibly the SA–6.

Chairman McCLELLAN. You mean they could be moved to Cuba or to the Arab countries?

Mr. AUGUSTINE. Yes, sir.

Chairman McCLELLAN. But they are not a direct threat to the United States as yet?

Mr. AUGUSTINE. I believe that would be a fair statement.

DEFENSE RESPONSIBILITY

Chairman McCLELLAN. In other words, it is just a question of how much of the responsibility for the defense of other areas in the world, such as the NATO countries, is our responsibility? Should we prepare to meet all of this challenge from Russia ourselves or should we depend on our allies in the NATO countries to do something about it, too?

Mr. AUGUSTINE. I would certainly hope we would and could depend on our allies.

Chairman McCLELLAN. Have we been able to depend on them? Have they met their responsibility?

Mr. AUGUSTINE. I think that is something you are perhaps much better able to judge than I.

Chairman McCLELLAN. I don't know that I am. I would think the Defense Department is much better able to judge than I am. We have to come to you. You come here and ask for this money and the weapons and give us a very disturbing statement. It certainly provokes a very keen interest and indicates we ought to inquire into it rather thoroughly.

Mr. AUGUSTINE. Yes, sir; I raise the point, because, if one compares in terms of quantity the materiel available to the Soviet Union and ourselves, I arrive at the conclusion that a major factor in our being

able to win any future conflict is going to depend on the quality of our equipment and, therefore, the research and development aspects of it; that is the reason I raise it. I think the research development program we have may make the difference.

Chairman McCLELLAN. When you say we are outnumbered in firepower, that includes quality, in my judgment, or at least their larger numerical strength offsets any superiority in quality we may have.

Mr. AUGUSTINE. I think my words were "outnumbered in firepower." That is really the distinction I want to make. I wouldn't want to leave the impression I think we have today qualitative inferiority.

Chairman McCLELLAN. You are talking about quantity altogether?

Mr. AUGUSTINE. Absolutely.

Chairman McCLELLAN. You are only making the point that they are greatly superior in numbers of missiles?

Mr. AUGUSTINE. We have a much smaller number than they, yes, sir.

Chairman McCLELLAN. How do we stand if effectiveness as well as numbers is included in the comparison?

Mr. AUGUSTINE. That, of course, is a much more difficult thing to answer.

Chairman McCLELLAN. That is crucial.

Mr. AUGUSTINE. It is the heart of the issue. It goes beyond being able to add, unfortunately. I guess in most areas I would look at, we still qualitatively would be superior to their equipment or, at worst, about even. Although I find, in the last few years, our rate of progress probably is less than the Soviet Union's.

Chairman McCLELLAN. Mr. Secretary—and I say this to everybody associated with the Defense Department having any major responsibility—when you present the situation as you have, we should be able to find out what our relative strength is. I refer to combat capability, destructive power, defense power, and so forth. We ought to have your expert counsel on this.

Your initial statement leaves us perplexed unless we are able to secure an expert evaluation of what this does to relative war strengths. We ought to follow through on this now. You made the statement. You said it was the first time you have appeared before the committee.

Mr. AUGUSTINE. Yes, Mr. Chairman.

Chairman McCLELLAN. You may not be prepared. I am not trying to embarrass or challenge your good intention in any way. But when something like this goes into the record, it requires some real explanation to be of substantive value.

ESTIMATE OF RELATIVE STRENGTH

Mr. AUGUSTINE. Mr. Chairman, I wonder if it would be possible to supply for the record a comparison qualitatively of some of the systems ourselves and the Soviet Union have. I can do that and perhaps an overall comparison capability that I am simply not in a position to provide personally but the Defense Department could.

Chairman McCLELLAN. I want you to take this colloquy back to the Defense Department and return with a statement to go in the record at this point, analyzing this situation and explaining it to us so that we, as laymen, can understand what your evaluation is, how you

appraise their relative army strength with respect to weaponry. Take into account all the weapons they have and all the weapons we have and give us your estimate of relative strength.

You might also relate it to another factor. Tell us what we would need just to defend the continental United States—how we would fare in that kind of a conflict with Russia with respect to the Army.

Of course, in my judgment, if we ever have that kind of conflict, it will be a nuclear war. What I am emphasizing is the fact that many of the things we are doing today are not necessarily needed for the defense of the continental United States. Much of what we are spending today for equipping and maintaining our military might is a result of our commitments to Europe, to the NATO countries, for their defense. We feel we have an interest over there and our interest must be protected; therefore we are in alliance with our NATO countries to work together to defend their defense line.

Give us that material on how we would fare, if one were to assume the Russians were to march on the NATO countries.

All of this is interesting but it also is confusing. I think at times we are going overboard and putting too much emphasis on NATO rather than on what is primarily essential for our defense over here. I think the NATO countries have relied on us to do it, and I don't think they are doing their fair share. That is the way I feel about it. Maybe I am wrong, but I know in almost everything we try to do diplomatically and in other ways three-fourths of the NATO countries oppose us. I am terribly unhappy about it.

[The information follows:]

U.S./U.S.S.R. Comparison

There are a number of ways to compare the relative strength of U.S. and Soviet armies.

I shall first present as background the comparison between the two basis U.S. Army divisions (Armored Division and Mechanized Division) and the two basic Soviet Army divisions—Tank and Motorized Rifle Divisions.

The U.S. Divisions are larger: 15,000 officers and men as compared to about 8,000 in the Soviet Tank Division and about 11,000 in the Soviet Motorized Rifle Division.

The U.S. divisions have a superior sustaining power since they have support forces which allow them to remain in combat for extended periods of time. The Soviet divisions have to be replaced by other fresh divisions more often than do U.S. divisions. Under intense combat conditions, it is felt that replacement would be required in less than a month. The U.S. divisions are superior to their Soviet counterparts in medical support. They have [deleted] more men than the Soviet units in this area. The same essentially holds true in the maintenance field [deleted].

Major items of weaponry compare as follows:

Item	United States		Soviet	
	Armed divisions	Mechanized divisions	Tank divisions	Mtzd rifle divisions
Tanks	351	243	[Deleted]	[Deleted]
Field artillery weapons	[Deleted.]			
Mortars				
Multiple-Rocket launchers				
Surface-to-Surface missiles				

[1] Nuclear capable.

The numbers of divisions and brigades, not only weaponry, must also be considered. The soviets have always maintained larger standing ground forces. Today, the USSR has [deleted] line divisions. However, some [deleted] or essentially cadre (understrength) divisions, The US Army has 13⅓ active divisions; 8 reserve divisions; and 16 reserve brigades.

Two ways of measuring potential combat effectiveness of weapons and forces are the Firepower Potential (FPP) methodology and the Weighted Unit Value (WUV) methodology. These two measures are both derived from evaluating weapons in the opposing forces and help to appraise the relative force strength with respect to weaponry.

The FPP approach aggregates the firepower potentials of all weapons in a given unit, based on their lethal areas and the number of rounds fired in a given unit of time. Thus, the following comparisons can be made assigning a value of one (1) to a US armored division.

Unit	*FPP score*
U.S. Armored Division Soviet Tank Division U.S. Mechanized Division Soviet Motorized Rifle Division	[Deleted].

The WUV approach analyzes weapons in a given unit by considering their rates of fire, mobility, survivability and other factors, and assigns numerical values (Weapons Effectiveness Indices) to them. Thus, as an example, a US M60 tank may be given a value of [deleted] while a Soviet T–55 tank may be rated [deleted]. The values are then added within a given unit to arrive at the WUV.

The following comparisons can be made, again assigning a value of one (1) to a US armored division.

Unit	*WUV score*
U.S. Armored Division Soviet Tank Division U.S. Mechanized Division Soviet Motorized Rifle Division	[Deleted].

It can be seen that US divisions possess [deleted] combat power potential than their Soviet counterparts in both the FPP and WUV concepts.

Next, you raised a specific question as to the *weaponry* of the two armies. As a rule, US weapons are considered to be generally more accurate and effective than Soviet weapons. However, Soviet weapons are sturdy and also effective. During the 1973 October Middle East War, US and Soviet weapons were put through extensive combat tests. Both performed well.

I would like to briefly compare some of the major weapons systems and comment in very general terms on their demonstrated performance and effectiveness during the Middle East War.

U.S. weapon	Soviet counterpart	Middle East war performance
(a) Main battle tank (M–60)	T–55/T–62	U.S. system generally superior to the Soviet system.
(b) APC (M–113)	BTR 60/BMP	Generally comparable; both effective. However, BMP carries a Sagger ATGM system.
(c) Artillery 155 mm, 8 in., 175 mm (SP).	122 mm, 130 mm, 152 mm (towed)	SP considered by U.S. to be an advantage; roughly comparable otherwise.
(d) Major antitank weapon (TOW)	Sagger	TOW not used; Soviet system was effective.
(e) AD weapon (Hawk)	SA–6 (Gainful)	Both effective.

With respect to line divisions in being, the Soviet weapons inventory is considerably larger than that of the U.S. As an example, the U.S. has on hand some 8,760 M48 and M60 tanks Army-wide.[1] This is contrasted with an estimated [deleted] in Soviet Army units. (Tables of Organization and Equipment Data). As a matter of interest, according to the Defense Intelligence Agency, the [deleted] by the end of 1973.

[Deleted.]

[1] Of these, 5,529 are M60A1, A2, and A3.

Based upon the Weighted Unit Value methodology which considered numbers of weapons available to all Soviet line divisions and supporting artillery units and all U.S. Active, Reserve, and National Guard maneuver and artillery units, the total potential combat effectiveness of the Soviet Army [deleted].

These comparisons do not consider such factors as training, combat service support, leadership, location of units, and other factors. They are based solely on *weapon availability* and *weapon characteristics* in the units of the two armies. Also, it must be remembered that these scores do not include the scores of allied forces, nor do they include the effects of nuclear weapons or chemical agents.

In conclusion, the U.S. Army is only one part of the integrated U.S. Defense Team, and should not be considered in isolation. The same applies to the Soviet Army.

SA–6 MISSILE

Senator YOUNG. Mr. Chairman

Chairman MCCLELLAN. Yes, Senator Young.

Senator YOUNG. Some of the NATO countries—like Germany, for instance—are building tanks; the French have a good fighter plane. Are any of the NATO countries building ground-to-air missiles such as SA–6? Are they making any of their own missiles?

Mr. AUGUSTINE. Yes, sir, they are. There are surface-to-air missiles being built by NATO countries today fairly comparable to the SA–6, for instance the German Roland, the French Crotale, and the British Rapier.

One of the things in the Army budget this year will be to conduct a research and development program so we may build a European-designed air-defense missile system in this country to save R. & D. money here. That is the German Roland, on the screen. It is [deleted] to the SA–6.

Senator YOUNG. Is it as good? The SA–6 was very good.

Mr. AUGUSTINE. It is hard for me to answer that, because I don't know the details of the SA–6. What I know of the two, [deleted].

Senator YOUNG. After the Israeli experience in the Mid-East war, I imagine all the countries will be doing their utmost to improve their ground-to-air missiles.

Mr. AUGUSTINE. I am sure that is true. The major thrust in the Army's program is to do exactly that.

General KJELLSTROM. You may want to go through the three charts.

Mr. AUGUSTINE. [Deleted.]

Chairman MCCLELLAN. What is the [Deleted.]

Mr. AUGUSTINE. [Deleted.]

Chairman MCCLELLAN. That is an adjunct to the missile tanks?

Mr. AUGUSTINE. Yes, sir; it goes with the tanks. It is, of course, an antiaircraft system, and it moves around with the tank forces.

Chairman MCCLELLAN. Is it a combat vehicle? Does it fire a missile?

Mr. AUGUSTINE. Only against aircraft.

Chairman MCCLELLAN. It is an adjunct to the system?

Mr. AUGUSTINE. Yes, sir.

Chairman MCCLELLAN. All right; let us go ahead.

Mr. AUGUSTINE. As we saw in the Middle East war last October, the Soviets have available to them not only high quality equipment but that the equipment is available in large quantities. Hence, we are developing systems whose ingenuity of design will maximize the effectiveness of the forces available to us.

I use the word "ingenuity" rather than "sophistication" because the latter conjures images of complicated, delicate, hard-to-use equipment, a category of equipment which I strongly believe would not serve us well.

CHARTS ON R.D.T & E. PROGRAM

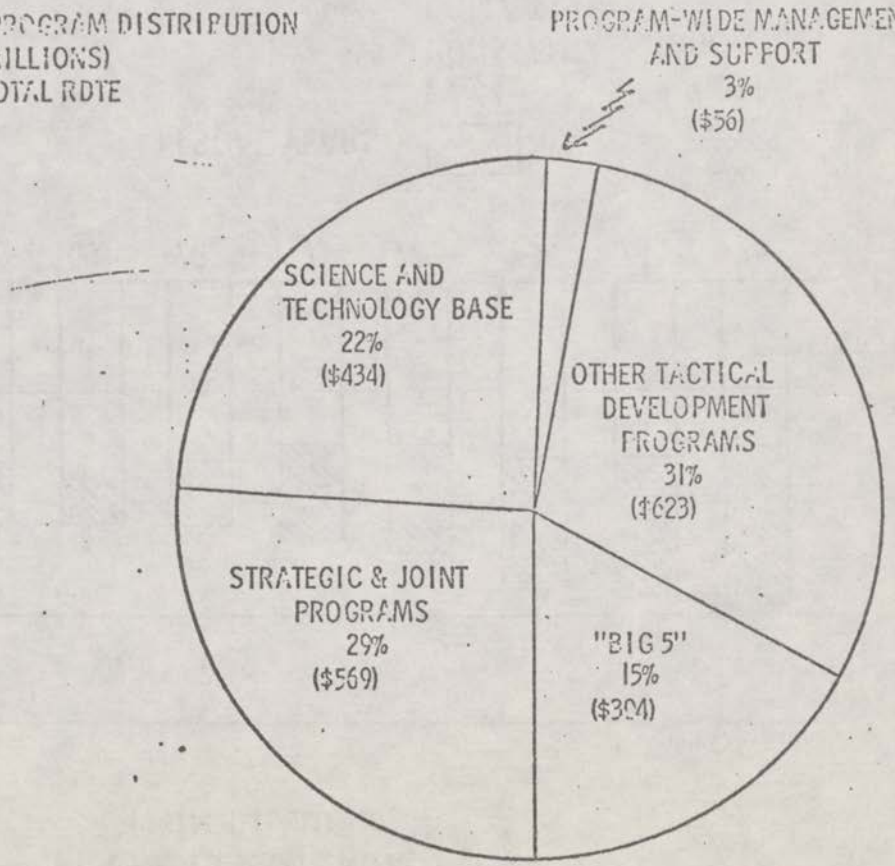
Turning now to our budget request for this year, we are asking for $1.986 billion to fund our R.D.T & E. programs. This is a large amount of money. On the other hand, we have attempted to impose considerable self-discipline in preparing our request for funding support.

The following charts show the budget breakdown by percentage and year.

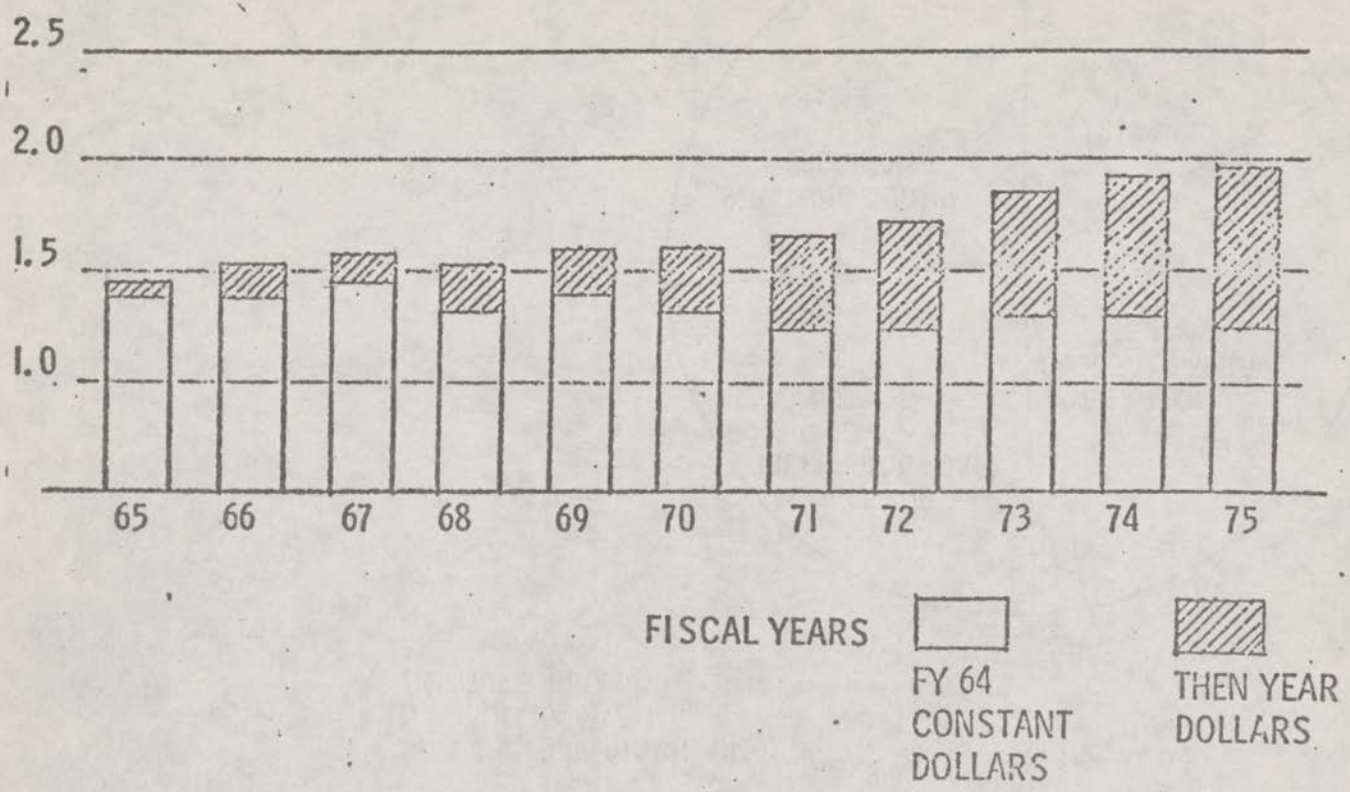
[The charts follow:]

31-558 O - 74 - pt. 2 - 34

FY [illegible] PROGRAM DISTRIBUTION
($ IN MILLIONS)
$1926 TOTAL RDTE



FY 65 - 75 ARMY RDTE
($ IN BILLIONS)



Mr. AUGUSTINE. Our fiscal year 1975 budget request, if discounted to the fiscal year 1974 level of purchasing power, would be about $1,860 million, or 6 percent less than last year's appropriation. I use the measure of constant purchasing power not to minimize the overall amount of funding we are requesting but rather because it is the true indication of how many people we can afford to pay in our Nation's laboratories and how much hardware we can afford to buy for testing.

The chart shows that, when viewed over the past 10 years, our funding has increased at a steady but modest pace yet our actual buying power, as a result of inflation, has steadily declined. In fact, in real buying power, this year's request, if fully funded, would resut in the smallest RDTE budget the Army has had in 13 years.

While the total Defense RDTE budget request is up by about 15 percent in current dollars from fiscal year 1974, the Army's portion of that increase is less than 1 percent. We have tried not to ask for those things which would in future years build up funding demands we are unlikely to be able to sustain.

The pie chart on the screen illustrates how we plan to use our fiscal year 1975 appropriations. The Big Five plus the other tactical development efforts account for about 46 percent of our fiscal year 1975 RDTE program. Strategic and joint programs account for 29 percent of our funding needs.

"BIG FIVE" PROGRAM

I would now like to discuss our Big Five programs and the progress we are making in each. The first of these is the surface-to-air missile development, the SAM–D. The Army places a very high priority on SAM–D, an advanced surface-to-air missile weapon system. We want a system that is both effective and affordable. Countermeasures actually demonstrated in recent conflicts—saturation tactics, ECM, formation targets, aircraft speed and maneuver capability—dictate the need for SAM–D technology as opposed to the technology of the 1950's inherent in the HAWK and HERCULES systems.

This new technology will allow us to engage a significant number of targets simultaneously with each fire section and maintain our effectiveness in the face of enemy countermeasures which are now the pivotal factor in the air/counterair equation.

As you know, the Secretary of Defense has recently completed an intensive review of SAM–D and has reoriented the program to emphasize greater austerity and minimize financial commitments prior to flight verification of the guidance concept.

In accordance with the Secretary of Defense's reorientation of the SAM–D program, we are requesting $111.2 million in fiscal year 1975 to support a system demonstration designed to permit early flight verification of the guidance concept. This also provides funds to complete the fabrication of the minimum number of missiles and fire-control groups required to carry on Army testing of the tactical configuration after the completion of the system demonstration tests. Thus, we will solidly demonstrate the powerful SAM–D technology before committing funds leading to production and deployment.

AUSTERE AIR DEFENSE SYSTEM

Chairman MCCLELLAN. Mr. Secretary, in view of the reduction ordered by the Secretary of Defense for the SAM–D program, how can you be assured that the planned austere air defense system at reduced

cost will meet the enemy threat and accomplish its mission requirements?

Mr. AUGUSTINE. Each proposed change to the SAM–D system will be considered in view of its impact on system performance capability and the mission requirements. A reduced cost Medium SAM was played as one candidate system in the cost and operational effectiveness analysis (COEA). Results of the COEA will be available in the near future.

AREA OF SAM–D OPERATION

Chairman MCCLELLAN. Is SAM–D being designed to operate only in a European environment?

Mr. AUGUSTINE. No. SAM–D is primarily being designed and developed to provide air defense against the expected air threat to the Army in the field regardless of where it is deployed.

CONTRIBUTION TO SAM–D PROGRAM BY NATO COUNTRIES

Chairman MCCLELLAN. Are any NATO countries contributing monetarily to the SAM–D program? If yes, how much?

Mr. AUGUSTINE. No sir, not at this time, although foreign sales are being considered when the system has completed the development phase.

EFFECT OF MID-EAST WAR ON SAM–D CREDIBILITY

Chairman MCCLELLAN. Have any changes been made in the SAM–D program as a result of the intelligence data gained from the Mideast war? If so, what are they?

Mr. AUGUSTINE. No, not at this time.

COSTS TO DATE ON SAM–D PROGRAM

Chairman MCCLELLAN. How much has been expended to date on the SAM–D program? What is the total program cost of SAM–D?

Mr. AUGUSTINE. A total of $680 million has been obligated on the SAM–D program as of March 29, 1974. The total program cost of SAM–D as of December 31, 1973 was $4899.7 million. It is expected that some change to this cost will occur as a result of recent Secretary of Defense decisions to reorient the program.

Chairman MCCLELLAN. How long will it be, do you think, before you will have the research and development on the SAM–D completed?

Mr. AUGUSTINE. Sir, we expect to complete the TVM guidance demonstration about October of [deleted]. We anticipate [deleted] initial deployment in the field would be in the [deleted].

Chairman MCCLELLAN. You won't have it ready until then?

Mr. AUGUSTINE. That is correct, sir.

Senator YOUNG. What are you using at the present time?

Mr. AUGUSTINE. Basically the HAWK system, which we are upgrading to an improved HAWK version to fill the gap until we have the SAM–D.

Chairman MCCLELLAN. Would this be employed in NATO countries?

Mr. AUGUSTINE. It would be an integral part of our field force and would be moved where the Army is operating, whether Europe or any place else.

Chairman MCCLELLAN. It is primarily for overseas defense?

Mr. AUGUSTINE. Yes, sir.

CONTRACTOR'S CURRENT ESTIMATES FOR UNIT PRICES

Chairman MCCLELLAN. What are the contractor's current estimates of hardware unit prices for the missile, radar, launcher, and weapon control group, as compared to the negotiated unit price goals established during engineering development and used for the basis of SAR estimates?

Mr. AUGUSTINE. A comparison of the contractor's hardware unit price goals with the contractor's current position expressed in 1972 constant dollars [1] is as follows:

[In thousand 1972 dollars]

	Goal	Current position
Missile	90	114.1
Radar group	2,828	2,921.6
Launcher group	250	257.2
Weapon control group	887	872.9

[1] This cost comparison is based on the contractor's latest cost-reduction report.

UTTAS

Chairman MCCLELLAN. Proceed.

Mr. AUGUSTINE. The UTTAS is the Army's first true squad-carrying helicopter designed for the assault mission through the 1980's. It will replace the UH–1 in the assault helicopter units, air cavalry squadrons, and the aeromedical evacuation units. It will maneuver agilely at nap of the earth altitudes, its critical components are either duplicated or armor plated, and it is a crash-survivable helicopter.

We need the UTTAS because the Huey cannot be economically improved to meet the payload, speed, survivability, and reliability requirements of the Army of the 1980's.

Chairman MCCLELLAN. What do you mean by crash-survivable helicopter?

Mr. AUGUSTINE. Sir, the various helicopters we have are designed to stand a certain impact velocity in a crash without killing or injuring the crew. The UTTAS will have the capability of withstanding a much higher impact velocity than the Huey.

Chairman MCCLELLAN. Does it mean that the helicopter can be salvaged and put back in use?

Mr. AUGUSTINE. Yes, sir; very often it could be, that is right. In Vietnam, in fact, the majority of helicopters that crashed were recovered and returned to use.

There is a picture of the UTTAS on the screen. There are two contractors pursuing the development—the Sikorsky version and Boeing Vertol version. Both contractors—Boeing Vertol and Sikorsky Aircraft—completed mockup program reviews in the first quarter fiscal year 1974.

Chairman McClellan. Are they using the same engine?

Mr. Augustine. Yes, sir.

The GE T700 engine has achieved 1,600 shaft horsepower, which is over its design goal, and to date has accumulated over 1,000 hours of test cell operation. First flight is scheduled for November 1974, and the competitive fly off will begin in January 1976. The fiscal year 1975 requirement for this program is $54.1 million.

UTTAS USE BY NATO

Chairman McClellan. Is the UTTAS designed for use by NATO? Will this aircraft be procured by NATO countries?

Mr. Augustine. During the concept formulation phase of the UTTAS development, the NATO situation and environment were also analyzed and, where appropriate, design features were incorporated into the UTTAS which would enhance its operational capability in that locale. The UTTAS is capable of successful utilization by NATO. At this time only informal interest in the UTTAS has been expressed by NATO countries.

FULL SCALE PROCUREMENT DATE FOR UTTAS

Chairman McClellan. What is the proposed full scale procurement date for the UTTAS?

Mr. Augustine. The full-scale production procurement contract is scheduled for March 1979.

EXPENDITURES TO DATE ON UTTAS

Chairman McClellan. How much has been expended to date on the UTTAS? What is the total program cost?

Mr. Augustine. Through fiscal year 1974, $187.2 million have been expended in R.D.T. & E. Total program cost, including development and an 1,107 production buy, is $2675.6 million.

OPERATIONAL DATE FOR UTTAS

Chairman McClellan. When will the UTTAS become operational?

Mr. Augustine. The UTTAS will achieve its initial operational capability in [deleted].

Further enhancing our mobility will be the mechanized infantry combat vehicle—MICV. This vehicle will be a highly mobile, fully tracked fighting vehicle, carrying the rifle squads of our [deleted] mechanized battalions. It will offer increased firepower and provide the capability of mounted or dismounted infantry attack.

MECHANIZED INFANTRY COMBAT VEHICLE

Chairman McClellan. To what extent are NATO countries participating in the research and development of the mechanized infantry combat vehicle (MICV)?

Mr. Augustine. There are no NATO countries participating in MICV development.

COMPARISON OF MICV WITH RUSSIAN COUNTERPART

Chairman McClellan. How does MICV compare in number and effectiveness with its Russian counterpart?

Mr. Augustine. The MICV will provide two significant qualitative advantages over the currently fielded Soviet BMP. First, it will have [deleted] capability that is superior to the BMP and secondly it will provide greater armor protection and survivability for our infantry. Later, when the main armament is selected, the firepower of the MICV should provide the required effectiveness needed to defeat the Soviet vehicle. This mobility and firepower will combine to save lives while increasing the capability of the assault forces.

The Army plans to buy 1,186 MICVs. The Soviets presently have more than [deleted] BMPs in the field. The vehicle is still in production and it is estimated that by [deleted] the Soviets will have produced more than [deleted] of them.

MICV will be an essential part of the combined arms team concept. It will have cross-country mobility and improved protection which will make it operationally compatible with our tank units. We recently separated the Bushmaster program from the MICV program. The Bushmaster is the main armament; the gun on top of the MICV.

We are now reevaluating the requirement and technical approach to the design of the Bushmaster weapon. This means the Bushmaster will not be ready to go on the MICV when it needs a weapon. Therefore, we will put a product-improved version of the M139 gun, a 20-mm gun which we now have in its basic configuration, on the first 144 MICV's produced. After our low-rate initial production of the 144 MICV's, the Bushmaster will be available to go on the high rate follow-on production.

During fiscal year 1974 two test vehicles were assembled and the first prototype was delivered for testing. Full-scale development in fiscal year 1974 consists of design verification testing to insure that all technology required to start fabrication of 12 prototype vehicles in fiscal year 1975 can be accomplished without risk.

The Army is requesting $7.8 million in fiscal year 1975 to support the second increment of MICV full scale development and $1.2 million for work on the port firing weapon.

The advanced attack helicopter—AAH—will provide the Army with a modern aerial weapons system with the adverse weather and limited visibility capability to meet the threat posed by the Soviet and Warsaw Pact armor forces. The aircraft will possess the capability to destroy tanks and the other hard point targets by use of the TOW missile system.

FULL SCALE PRODUCTION ON AAH PROGRAM

Chairman McClellan. When will the full scale production decision be made on the AAH program?

Mr. Augustine. The current planned schedule for the AAH program reflects a full-scale production decision in November 1979. This date is tentative pending approval of a change to the development concept paper for the AAH.

PRODUCTION COSTS OF AAH

Chairman McCLELLAN. What is the estimated production cost of the AAH? What is the estimated cost per unit?

Mr. AUGUSTINE. The current estimated procurement cost of the AAH is $1571.7 million, and the corresponding procurement unit cost is $3.3 million. The program unit cost, which includes development costs, is $4.2 million.

AAH PROCUREMENT

Chairman McCLELLAN. How many advanced attack helicopters do you plan to procure?

Mr. AUGUSTINE. The Army plans to procure 472 advanced attack helicopters.

The AAH will also be able to provide other fire support by use of its 30-mm gun and 2.75-inch rockets. The survivability features being designed into the AAH, in combination with its weapons and agility, will make it a tough and effective machine.

OPERATIONAL DATE OF AAH

Chairman McCLELLAN. When will the AAH become operational?

Mr. AUGUSTINE. The Initial Operational Capability (IOC) for the AAH is planned for [deleted]. This date is tentative, pending approval of a change to the development concept paper for the AAH.

COST OF UPGRADING AH–1Q

Chairman McCLELLAN. How much will be spent on upgrading the present attack helicopter, the AH–1Q, to provide an interim capability until the AAH is in production?

Mr. AUGUSTINE. The product improvement program (PIP) to improve the performance of the AH–1Q Cobra/TOW helicopter will cost $6.4 million in R.D.T. & E. funds. In addition, $20.7 million in procurement funds are required to incorporate the PIP on the 290 AH–1Q's which will be modified from the AH–1G configuration by the installation of the TOW antitank missile subsystem during fiscal year 1974 and fiscal year 1975. The Army also plans to procure 305 new Cobra's beginning in fiscal year 1975.

Chairman McCLELLAN. May I interrupt one more time?

Mr. AUGUSTINE. Yes, sir.

Chairman McCLELLAN. Again I come back to the fact that it looks to me as though much of this research is to develop weapons for NATO. Are any of the NATO countries contributing anything to this research program?

Mr. AUGUSTINE. Mr. Chairman, each of the systems I have described is really an integral part of our field Army and would operate wherever that Army operated. Certainly a major thrust is NATO. There is no question that is where the biggest threat is.

Chairman McCLELLAN. With that understanding, are the NATO countries contributing anything to this research and development program?

Mr. AUGUSTINE. [Deleted.]

Chairman McCLELLAN. I assume your answer is "No" insofar as the money that you are requesting. The NATO countries are making no contribution, except possibly a gun that will go on the new tanks?

Mr. AUGUSTINE. And the SHORAD system that I mentioned, but not to the UTTAS or the MICV, sir.

Chairman McCLELLAN. Proceed.

Mr. AUGUSTINE. Our fiscal year 1974 program is proceeding as planned. Two prime contractors will each develop and fabricate two flyable prototypes and a ground test vehicle. Design and fabrication is well underway. The $60.8 million requested in fiscal year 1975 will support the prototype airframe fabrication efforts and T–700 engine deliveries to achieve a first flight in March 1975.

In the pictures on the screen, the top is the Hughes version of the attack helicopter and the bottom is the Bell version.

Turning now to the XM1 tank, another of the Army's big five programs, this new tank development began in June 1973 with the award of contracts to Chrysler and General Motors for competitive development in the validation phase of this program. All component development work planned for fiscal year 1974 is proceeding smoothly and on schedule.

The major portion of the $68.8 million we are requesting in fiscal year 1975 will be used for labor and materials involved in fabrication of the prototype tanks and the test rigs. Most of the remaining funds will be used to support the contractor's tests and Government tests.

UNIT HARDWARE COST OF XM1 TANK

Chairman McCLELLAN. What is the unit hardware cost of the XM1 tank in fiscal year 1975 dollars?

Mr. AUGUSTINE. The unit hardware cost of the XM1 tank is $507 thousand in constant fiscal year 1972 dollars and $775 thousand in fiscal year 1975 escalated dollars.

XM1 FUNDING TO DATE

Chairman McCLELLAN. What is the XM1 tank program funding to date? How much will the total program cost?

Mr. AUGUSTINE. XM1 tank program funding to date is $61.7 million. Total program R.D.T. & E. cost will be $479.6 million.

The tank, in the Middle East war, was the primary killer of other tanks, and this program is designed to insure that the XM1 will have the capability to defeat any known Soviet tank under any terrain, weather, or visibility conditions.

DEFICIENCIES IN XM1

Chairman McCLELLAN. Mr. Secretary, what deficiencies have been detected in the XM1 tank as a result of intelligence gained from the Mid-East war?

Mr. AUGUSTINE. Preliminary indications from the analysis conducted to date are that there are currently [deleted].

CHANGES IN XM1 TANK

Chairman McCLELLAN. What changes have been made in the XM1 tank resulting from the impressive impact of hand-held missiles in the recent Mid-East conflict? Has the threat forecast for the XM1 tank changed as a result of this development?

Mr. AUGUSTINE. We have made [deleted] in the XM1 tank design as a result of the Mid-East war [deleted].

Chairman McCLELLAN. Again I ask you: Are the NATO countries contributing anything to this particular program, the tank program?

Mr. AUGUSTINE. Sir, in this program we are looking at European gun systems and we also have a chassis from the German developed Leopard tank for testing in this country. We could use it as a backup for our design. In terms of funds for this program, no, they are not.

Chairman McCLELLAN. Did they at first cooperate in the program and then back out?

Mr. AUGUSTINE. No, sir, it started as a unilateral U.S. program, and the Europeans now are making available parts of these guns that we could use.

Chairman McCLELLAN. You say you started it as a unilateral program?

Mr. AUGUSTINE. I think the point that is being raised is the Army's prior tank program, the main battle tank. That started as a joint program with the Germans and, as you know, the program was terminated by joint agreement and, I think, by equal dissatisfaction on both sides as far as I know. This new tank, the XM1, started out strictly as a U.S. tank.

Chairman McCLELLAN. We have taken over the burden of providing the tank for them?

Mr. AUGUSTINE. That would be one view. I imagine the Germans would argue they have an excellent tank, the Leopard II, which they would like us to use.

Chairman McCLELLAN. If that is true, if the NATO countries have sophisticated weapons that are adequate and modern—you say the Germans have a tank they think is adequate—why do we duplicate it over here?

Mr. AUGUSTINE. We have studied that tank a great deal. As I mentioned, we are testing the chassis of it in this country in Aberdeen now. The tank that they have costs more than the tank we are developing, by about [deleted] a copy, as best we can judge. [Deleted.] So we think the U.S. tank will be considerably more effective and slightly less costly.

Chairman McCLELLAN. Maybe it will be, but here we are supposed to have an alliance in NATO. Obviously much of our weaponry development is oriented toward NATO, toward the defense of Western Europe. I cannot understand why the United States and the NATO countries would not collaborate, concentrate by pooling their funding capabilities and working together to develop these weapons, each bearing some share of the cost.

Mr. AUGUSTINE. Mr. Chairman, I think we are trying to do that.

Chairman McCLELLAN. We have had 25 years of opportunity.

Mr. AUGUSTINE. I understand, and wouldn't profess we are doing as well as we could. We will however likely wind up with our low altitude air defense system being a European design system. We have a French antitank missile. We will possibly use a [deleted]. The Euro-

peans are using the Hawk missile we developed. I will agree their contribution is small compared with the overall program.

Chairman McClellan. In NATO we are all in it together. As long as we are, I guess we ought to be in there together, cooperating. It seems to me that there is a great waste of resources. You say the Germans will develop a tank, maybe the French will develop one, and we will develop one, and all are for the same purpose. It seems to me there should be a pooling of resources, both of funding, materials, and technicians that whenever something is developed, it serves all of NATO. Instead, Germany is going to develop one tank, we are going to provide a tank, and perhaps some of the other countries are going to provide tanks.

Whatever is developed that is superior to the previous weapon should be shared by all countries. If we and our allies would pool our development energies, it could be done more economically and we would have the best of the combined skills and ingenuity of all of the countries involved.

This situation is so haphazardly conducted it is a shame what it is doing to our country financially in order to support our military effort.

I am going to look into it further. It appears to me that aside from nuclear power, nearly all of our efforts are oriented toward a war in Europe or a land war somewhere else rather than the United States.

I think in theory this would be a wonderful thing if the countries would all work together. The strength of the United States and the combined strengths of the NATO countries could make a very formidable confrontation with Russia, whatever she has, if they would all work together.

I am disturbed that they are not working together. No one seems to be working as he should to develop an arrangement of working together that would be most economical and of overall benefit to the common cause.

Mr. Augustine. This is a topic I know General Deane has thought a lot about. I wonder if he might comment on that.

Chairman McClellan. Let's proceed. Maybe I am interrupting too much. I would like to go ahead and finish your statement, Mr. Secretary. Then, General Deane, when we get to you, you may feel completely free to comment on any question we have raised here.

BALLISTIC MISSILE DEFENSE

Mr. Augustine. The next topic I would like to discuss is Ballistic Missile Defense (BMD).

There are three highly distinct elements to our BMD effort. Safeguard is completing deployment of a single site in North Dakota for the active defense of a portion of the Minuteman force and to provide a base for obtaining operational experience. Site Defense is a prototype demonstration of a hedge option to defend Minuteman against advanced threats. The BMD technology program, performed by the Advanced Ballistic Missile Defense Agency (ABMDA) is a vigorous components and functions technology effort which embraces all aspects of BMD and guards against technological surprise.

The advanced BMD technology program appears to be faced with a critical decision this year. The effort devoted to this area has decreased gradually over the last 6 years until it, at present, comprises only about half of the buying power appropriated in 1969.

Working within the SALT I limitations, the Soviets are proceeding with a very active program which threatens to erode the lead we presently hold in BMD R. & D. Even with the strict compliance we are maintaining with the agreements, there are continuing U.S. requirements in the BMD arena, particularly with regard to the Site Defense and ABMDA programs. These include the avoidance of a major technological surprise, active assistance to the U.S. strategic offensive technology effort, and provision of a system capability for defending Minuteman should the current treaty elapse.

Senator YOUNG. Mr. Chairman?

Chairman MCCLELLAN. Yes, Senator.

Senator YOUNG. When is the Site Defense program to be completed? Is that out of your category?

Mr. AUGUSTINE. You said the Site Defense program?

Senator YOUNG. Yes.

SITE DEFENSE PROGRAM

Mr. AUGUSTINE. The Site Defense program is in a prototype stage. One prototype will be built at Kwajalein Missile Range for testing. It has not been approved for full development and for production. It is to put together a prototype and show it will work and have it available should there be a need downstream 4 to 8 years from now to enter engineering development in preparation for deployment.

Senator YOUNG. Eight years from now?

Mr. AUGUSTINE. The prototype demonstration will be completed in 1978. The first systems tests are in August of 1977. If there were a decision to deploy it, there would be an engineering development period following that and then deployment if required.

Senator YOUNG. Will you use the Sprint or Spartan missiles?

Mr. AUGUSTINE. We will use an upgraded version of the Sprint missile called Sprint II. The Spartan Missile won't be used. It was designed for long-range, high-altitude intercepts.

The SALT agreement has made possible a major change in our BMD program, decreasing total funding from $1.4 billion appropriated in fiscal year 1972 to $440 million contained in the fiscal year 1975 request. I should comment that that is in all accounts, not just the R. & D.

The emphasis no longer is principally on the deployment of an operational system, as was the case with Safeguard. It is now directed toward a vigorous research and development effort with which we will attempt to maintain the strong visible competence in BMD which, although highly perishable, has served us so well in the past.

Last week the Secretary of the Army announced completion of plans to realine the structure of our BMD management in the context of the treaty between the United States and the U.S.S.R. on the limitation of antiballistic missile systems. Highlights of the plan are:

Consolidate overall direction of all Army BMD under a single manager who will report to the Chief of Staff.

Consolidate BMD field operations into two commands, both to be located in Huntsville, Ala.

Eliminate the position of Deputy Assistant Secretary of the Army for BMD, and the Washington element of the Advanced Ballistic Missile Defense Agency.

Elimination of 36 personnel spaces in the Washington area, and transfer of 200 personnel from BMD to other essential Army missions.

Much of this is elaborated on in a statement General Leber submitted for the record.

Chairman McClellan. Has it been printed in the record?

Mr. Augustine. We would like to introduce it.

Chairman McClellan. Let it follow immediately at the conclusion of your testimony.

Mr. Augustine. In addition to our BMD programs and the "Big Five," we are also developing a variety of missiles, artillery pieces, aircraft, combat vehicles, and ordnance items which will enable us to maximize the combat capabilities of the forces available to us. We deal with these items in some detail in our statements for the record.

SUMMARY

I can report to you that by and large our major development activities are progressing quite satisfactorily. To be fully candid, I must also report to you that most of those programs are not yet to that critical point where problems become fully evident. The next few years will be pivotal in that regard.

I have attempted to be brief in this summary of my somewhat longer statement which has been submitted for the record. General Deane, the Army's Chief of Research and Development, also has a statement which has been submitted for the record. We hope to be able to report to you at the hearings next year that we have succeeded in attaining the objectives I have outlined.

We are prepared to present a brief summary of other key Army programs and show a vu graph of each if you care to proceed in that manner.

This concludes my presentation.

Chairman McClellan. Senator Young?

Senator Young. Will General Leber head up those programs?

Mr. Augustine. That is correct.

Senator Young. What relation will you have?

General Deane. He will have no relationship other than his money is in the appropriation for which I am responsible. There will be coordination between General Leber and myself as to how his requirement for funds would fit in the budget.

BIOGRAPHICAL SKETCH AND PREPARED STATEMENT OF GENERAL LEBER

Chairman. McClellan. At this point the statement and biographical sketch by General Leber will appear in the record.

[The statement follows:]

BIOGRAPHY OF LIEUTENANT GENERAL WALTER P. LEBER

General Leber was born 12 September 1918 in St. Louis, Missouri. He received a degree in Petroleum Engineering from the Missouri School of Mines in 1940. He was commissioned in the United States Army Reserve in May 1940 and in the Regular Army in June 1942. In June of 1961, General Leber received a Masters Degree in Business Administration from George Washington University.

During World War II, General Leber served in the European Theater of Operations. Subsequent to his return to the United States in 1946, he was assigned to the Manhattan District as Chief of X-10 Project. From 1947 to 1949, he served as Chief, Technical Branch, Military Liaison Committee to the Atomic Energy Commission.

From 1949 to 1950, he served as assistant to the Seattle District Engineer and Walla Walla District Engineer Executive Officer in the North Pacific Division of the Corps of Engineers. He later served as an Engineer Battalion Commander. From 1956 to 1957, he served with the Eighth US Army Korea as Deputy Engineer and as Commanding Officer, 2d Engineer Group (Cons). From 1958 to 1961, he served as Executive Officer to the Chief of Engineers. General Leber served as Lieutenant Governor of the Canal Zone and Vice President of the Panama Canal Company from June 1961 to April 1963.

After General Leber's three-year assignment as Ohio River Division Engineer, he became Director of Civil Works, Office, Chief of Engineers in July 1966 and remained in that post until February 1967 when he was appointed as Governor of the Canal Zone. He became Manager of the SAFEGUARD System on 1 April 1971.

STATEMENT OF LIEUTENANT GENERAL WALTER P. LEBER

Mr. Chairman and Members of the Committee, I appreciate this opportunity to present our FY 75 budget requests for Site Defense and advanced Ballistic Missile Defense (BMD) technology which are two primary parts of our BMD program.

I have with me Mr. Julian Davidson, my Deputy for the Site Defense program and COL William F. Boiler, Deputy Director, Advanced Ballistic Missile Defense, Office of the Chief of Research and Development.

First, I will cover the role, objectives and composition of our overall BMD program, and will follow with detailed descriptions on Site Defense and advanced technology.

BALLISTIC MISSILE DEFENSE PROGRAM

Ballistic Missile Defense is one of the US strategic force programs dedicated to deterrence of war. US strength in this field contributed to the signing of the ABM Treaty and the Interim Offensive Agreement with

the Soviets in ay 1972. We must continue an aggressive research and development program to nuture this strength and thus support our National policy of deterrence.

The broad objectives of our BMD program are to enhance adherence to the ABM Treaty, to support SALT II objectives, to be prepared to deploy additional BMD forces as necessary in the National interest, and to assist in assuring the viability of our strategic offensive force.

Our BMD program is now structured in three coordinated parts, which together work toward the BMD objectives:

SAFEGUARD deployment in the MINUTEMAN field at Grand Forks, now nearing completion, will introduce a real uncertainty in any Soviet attack planning, will protect a portion of our land-based deterrent force and will provide invaluable experience in the test and operation of a deployed tactical BMD system. The request for $60.8 million for RDT&E in FY 75 will complete research and development funding for SAFEGUARD.

The Site Defense prototype is an essential step in orderly development of a second generation system for defense of MINUTEMAN. The Site Defense effort supports SAL negotiations and at the same time provides a capability to complete the development of a sophisticated defense as a hedge against abrogation of the ABM Treaty. It also assists in design and evaluation of US strategic offensive systems. I will cover this element in more detail later in my statement.

The Advanced Technology program is a vigorous research effort embracing all components and functions technology of BMD, including advanced interceptor missiles, radar and optical sensors, computers, software and the phenomenology which must be understood to maintain our important technological lead. This program guards against technological surprise, provides the basis for upgrading our own BMD systems and assists in design and evaluation of US strategic offensive systems. I will give more detail on this program later in my statement.

This three part overall BMD program will strengthen the US deterrent by working within the limitations of the ABM Treaty and Interim Offensive Agreement, by maintaining and capitalizing on US technological superiority, by denying payoff to the Soviets should efforts to negotiate an offensive arms limitation treaty prove unsuccessful, and by providing a US capability to deploy improved BMD systems, if required.

SITE DEFENSE

The Site Defense development program is intended to provide the capability to protect MINUTEMAN against threats that could develop as early as the late 1970s as a result of qualitative improvement in Soviet offensive forces that are allowed by the Interim Offensive Agreement. The Soviets have recently demonstrated such improvement. The Secretary of Defense has made the following statement on Site Defense in his Annual Defense Department Report for FY 75:

"I believe this program is a prudent and necessary hedge. It would give us the option to defend our MINUTEMAN force against a Soviet ballistic missile attack should that become necessary, or in the event that an acceptable permanent agreement on the limitation of strategic offensive arms cannot be achieved.

"The SITE DEFENSE Program will be conducted on a very austere basis. It must be borne in mind, however, that SITE DEFENSE must be developed with 'system' applications in mind, if the demonstration of the prototype is to be of any real value. Development of the hardware, e.g., the improvements to the SPRINT missile, the new small (relative to the MSR) radar, and the data processors is well within the state-of-the-art. What needs to be demonstrated is the capability of the system as a whole, including in particular the software."

The ABM Treaty has limited the US deployment of ballistic missile defenses to two areas; one in an ICBM field and the other at the national capital. The provisions of the ABM Treaty allow the development and limited deployment of ABM systems with up to 100 interceptor missiles

at each area; the two SAFEGUARD radars under construction plus 18 smaller radars at thw ICBM deployment area and a total of 6 ABM radar complexes near Washington are also allowed. The Treaty also permits continued research and development of permanently fixed land based ballistic missile defense systems such as SAFEGUARD and Site Defense; it prohibits development, test or deployment of sea, air, space or mobile land based ABM systems, rapid reload and multiple ABM launchers, or interceptor missiles with multiple independently guided warheads.

The Interim Offensive Agreement restricts the number of ICBM and SLBM launchers the US and the Soviets may deploy; however, it does not limit improvements in accuracy or the development and deployment of Multiple Independently Targetable Reentry Vehicles (MIRV). Coupling the allowed number of Soviet strategic ballistic missiles with the qualitative improvements that have been demonstrated by the US to be technically feasible, the Soviet offensive ballistic missile force could present a severe threat, possibly within the next five years. In his Annual Defense Report for FY 75, the Secretary of Defense has summarized this matter as follows:

"In summary, the new Soviet ICBM program represents a truly massive effort--four new missiles, new bus-type dispensing systems, new MIRVed payloads, new guidance, new-type silos, new launch techniques, and probably new warheads. If all three of the new and heavier missiles are deployed, throw-weight in the Soviet ICBM force will increase from the current 6-7 million pounds to an impressive 10-12 million pounds. This throw-weight, combined with increased accuracy and MIRVs, could give the Soviets on the order of 7,000 one-to-two megaton warheads in their ICBM force alone. This very impressive program appears to have three main objectives--expanded target coverage (particularly countermilitary) with MIRVs, improved pre-launch survivability with the new hard silo designs, and the attainment of a significant hard target kill capability."

Prior to consummation of the Treaty and Interim Offensive Agreement, the US had pursued two defense options to protect MINUTEMAN against an increased accuracy in the Soviet threat: (1) further hardening of the MINUTEMAN silos and (2) the four-site SAFEGUARD defense. Against continued proliferation of Soviet ICBMs or deployment of Soviet MIRVs, we had selected the defensive option of developing Site Defense to augment the four-site SAFEGUARD defense. Our ABM forces are now constrained by the Treaty. It is technologically feasible for the Soviets, should they choose to dedicate sufficient resources, to reduce MINUTEMAN survivability to an inadequate level solely by improvement in the accuracy of their present ballistic missile systems. Therefore, it is important that we pursue the Site Defense program to achieve the capability to protect MINUTEMAN if required.

As pointed out by the Secretary of Defense, in addition to providing a dedicated defense of MINUTEMAN, the Site Defense program would also provide a base to develop a defense of the National Command Authorities (NCA) if that should be found desirable some time in the future. The FY 75 budget request does not provide for any work on the NCA option.

Review of Site Defense Program to Date

In 1971 when the Army was directed to proceed with prototype demonstration, three major contractor teams were funded to conduct competitive contract definition studies and propose a suitable demonstration program. To avoid a major in-house build-up of personnel, a System Engineering and Technical Assistance Contractor, Teledyne Brown Engineering Co., was competitively selected to provide assistance in system engineering, management and development planning. The prime contractor for the Site Defense Prototype Demonstration, McDonnell Douglas Astronautics Co. (MDAC), was competitively selected in early 1972 on the basis of a formal evaluation of the three contract definition reports and formal proposals. Major subcontractors to McDonnell Douglas Astronautics Co. are General Electric,

TRW, Control Data Corp. and GTE Sylvania. Development of a completely new interceptor missile is not required since the SPRINT missile which has been successfully tested during the SAFEGUARD program can be modified to meet the Site Defense requirements. A separate contract was awarded to Martin Marietta Corporation, the developer of the SAFEGUARD SPRINT, to make necessary modifications and provide the SPRINT II to the prime contractor.

In the remainder of FY 72 and through FY 73, the contractor's principal effort was the preparation of the detailed system specification and the design of hardware. The Site Defense system specification was published and specifications for subsystems were being prepared. We completed the preliminary design review for a deployable system and for the radar and missile subsystems and specified the portion of the development that is to be accomplished under the authorized demonstration program. The construction of the MDAC System Development Center for system simulation testing was well along. In coordination with ABMDA, a test program was initiated to gather additional specific data on the characteristics of reentry vehicles at the relatively low discrimination and intercept altitudes used by the Site Defense system. Facilities planning and design for construction of test facilities at the Kwajalein Missile Range (KMR) were initiated.

One result of the ABM Treaty was the need for a system that could be responsively deployed--i.e., deployed in a relatively short period of time--which required that the original design concept be modified. These modifications were made in FY 73 and provided for maximum factory assembly and test of components of the system, containerization and transport of large components to the site, and greatly reduced installation and checkout requirements in the field. We have changed the specification for the Site Defense bunker that will house the radar and data processor so that it can be built more simply and concurrently with the factory assembly of components, and accommodate the rapid emplacement of system components, thus avoiding the long lead time encountered in sequential conventional construction followed by the installation and checkout of equipment.

The principal program activity in FY 74 turned to the initiation of fabrication. Some components of the SPRINT II and Radar subsystems have been completed and the basic target tracking software has been coded and checked out. The System Development Center has been completed and equipment is being installed and checked out. Chart 1 displays a list of FY 74 program accomplishments. As you can see, we are sufficiently confident of our technological capability and our design solutions to proceed with major prototype fabrication.

Schedule

The Site Defense program schedule slipped six months as a result of funding limitations which necessitated restructuring to reduce the scope of the program. We have adjusted the 66-month schedule presented in testimony last year to a 72-month schedule. The two major schedule adjustments involve the delay and reduction of SPRINT II development flights and the delay and reduction of system tests. The prototype demonstration is now scheduled for completion in February 1978. A summary program schedule is at Chart 2.

In spite of the six-month slip, the major activity in each calendar year remains essentially as expressed in last year's testimony, i.e., 1972 and 1973 were the design years; 1974 began component fabrication; 1975 will be the year for completion of fabrication and the start of subsystem tests in the US. Subsystem tests at KMR will start in 1976 and the SPRINT II flight tests and system integration tests will be concluded in late 1977.

A summary of planned FY 75 tasks is shown on Chart 3. FY 75 will involve continued fabrication, assembly and the start of major testing in the US of the subsystem components. It is important to note that this program has now reached the metal bending stage where the cost and schedule of the program would be seriously perturbed by further funding reductions.

FY 74 ACCOMPLISHMENTS

Chart 1

SPRINT

- o COMPLETED FABRICATION OF PROTOTYPE OF THE MISSILE CONTROL SET SUBASSEMBLIES AND COMPONENTS AND SUBJECTED TO NUCLEAR TESTING
- o COMPLETED FABRICATION OF FIRST LIMITED ENGINEERING MODEL OF THE LAUNCH CONTROL STATION MONITOR
- o CONDUCTED FIRST STATIC FIRING OF PROTOTYPE LAUNCH EJECT GAS GENERATOR

RADAR

- o STARTED FABRICATION OF SIGNAL PROCESSOR, ANTENNA RADIATION ELEMENTS, HIGH-POWERED TRANSMITTER TUBES, RECEIVER AND DATA CONDITIONER SEMI-CONDUCTOR CIRCUIT BOARDS
- o DELIVERY OF FIRST TRANSMITTER TRAVELING WAVE TUBE
- o ESTABLISHED PILOT PRODUCTION LINE AND PRODUCED 200 PHASE SHIFTERS

COMMAND, CONTROL AND COMMUNICATIONS

- o COMPLETED EMP CABLE TEST PROGRAM
- o SELECTED AND INITIATED PROCUREMENT OF DISPLAY EQUIPMENT FOR KWAJALEIN MISSILE RANGE

DATA PROCESSING (DP)

- o CDC 6400/7600 COMPUTER DELIVERED, INSTALLED AND CHECKED OUT AT THE SYSTEM DEVELOPMENT CENTER
- o COMPLETED BASIC TARGET TRACKING SOFTWARE

FY 75 PLANNED TASKS

Chart 3

SPRINT

- o COMPLETE DEVELOPMENT VERIFICATION TEST OF MISSILE CONTROLLER SET
- o RECEIVE FIRST LAUNCH STATION FOR THE LAUNCH EJECT TEST AND INITIATE LAUNCH EJECT TESTS
- o CONDUCT 2 STATIC TESTS OF FIRST STAGE MOTOR AND INITIATE MAJOR FABRICATION OF AIR VEHICLE

RADAR

- o COMPLETE FABRICATION OF MAJOR SUBSYSTEM ASSEMBLIES
- o START MAJOR SUBSYSTEM COMPONENT TESTING
- o START ANTENNA ARRAY ASSEMBLY AND TESTING

COMMAND, CONTROL AND COMMUNICATIONS

- o COMPLETE BASELINE SUBSYSTEM SPECIFICATION

DATA PROCESSING SUBSYSTEM

- o COMPLETE DEVELOPMENT OF TARGET DETECTION AND TRACK INITIATION SOFTWARE
- o COMPLETE DESIGN OF RADAR OPERATION SOFTWARE

SITE DEFENSE DEMONSTRATION PROGRAM FUNDS
($ in Millions)

Chart 4

		FY 71-73 APPROVED	FY 74 APPROVED	FY 75 REQUESTED NOA
RDTE	SPRINT	32.9	24.3	48.1
	RADAR	19.2	28.6	29.2
	DATA PROCESSOR	24.6	22.8	31.9
	WARHEAD SUBSYSTEM	-	0.1	0.2
	COMMAND, CONTROL AND COMMUNICATIONS	3.3	1.7	2.3
	SUPPORT EQUIPMENT SUBSYSTEM	.1	1.7	1.6
	TEST & EVALUATION	17.5	2.9	14.8
	SYSTEM ENGINEERING/ PROJECT MANAGEMENT	65.7	27.2	29.8
	DATA	1.5	0.8	2.1
	TOTAL	164.8 1/	110.1	160.0
MCA		20.4		
	TOTAL	185.2		

1/ An additional $15 million FY 71 funds were expended by ABMDA for Site Defense Concept Formulation Studies.

Program Costs

The planned distribution of the funds requested for FY 75 and the prior year's funding for the demonstration program are shown on Chart 4. During the past year, we have conducted a major program review and restructuring as a result of the Congressional reduction to the FY 74 budget request and the derivative impact on the FY 75 program. Our goal has been to rebalance the program efficiently, minimizing the cost and schedule impact, while still addressing the most critical system development issues and including demonstration of a tactical prototype radar, data processor, software, and interceptor in an integrated prototype system context. The time allotted for tactical software testing has been reduced, selected subcomponents and assemblies of the radar not critically essential to the demonstration have been deleted, and the planning for deferred effort such as the tactical command, control and communications, and the warhead section design has been further reduced.

The total cost of the restructured prototype demonstration program is now estimated at about $875M. The cost increase of $25M over last year's estimate of $850M is due to the effect of inflation and stretchout. For a prototype development program with the same content as previously planned, the cost increase would have been about $100M; however, to minimize the cost, the previous program was reduced in scope and a significant increase in schedule, cost and performance risk was accepted. Any reduction below the requested $160M in FY 75 can only be absorbed by greater stretchout and resultant cost growth. The Secretary of the Army has pointed out that this program has been scrubbed to a minimum and that the full $160M requested is essential to minimize delays and to avoid much higher development costs. A reduction below the requested $160M would result in a very inefficient funding profile for the program leading to major modification of the major multi-year incentive contracts.

Funding

The incremental funding policy is in effect on this program. We do not anticipate carrying any FY 74 funds into FY 75 and our planned funding schedule will exhaust the FY 75 funds by 30 June 1975.

Summary

In summary, there are two points which should be emphasized. First, this program is considered by the Administration to be a critical and high priority program as a non-destabilizing US counter balance to Soviet strategic nuclear weapons improvements and as an inducement to the Soviets to negotiate a satisfactory arms limitation agreement. Second, the program serves its purpose as a system technology program, not as a component and phenomenology technology program, and is currently structured to achieve its objectives in the most efficient and cost effective way. We have attempted to summarize the need, the status, and the funding requirements in this opening statement and we request authorization of the full $160M FY 75 funding for this program.

BMD ADVANCED TECHNOLOGY

Next, I will discuss the Ballistic Missile Defense Advanced Technology Program.

The ABMD program has the mission to provide the advanced technology foundation for improving our Ballistic Missile Defense capability; to provide a measure of the BMD technology art to avoid technological surprise by an adversary; and to assist in the development and assessment of future US offensive systems. I will discuss this mission further, but first let me point out that although ABMD does provide an essential data base applicable to Site Defense, the principal application of the concepts and technology developed in ABMD is to later generation BMD systems, none of which are yet proposed for development.

The very broad scope covered by ABMD, as well as the intrinsic complexity of such developments calls for a significant level of effort

to assure that the technology program remains in balance and evolves over a broad front so that the advances in the various subsystems are commensurate both in time and performance. This year's budget request for ABMD is intended to restore the pace of development needed by the US to avoid falling behind in the technological race. This race has two aspects: one involves the adversary offense vs. the US defense and the other involves US defense capability vs. the defense capability of potential adversaries.

It is important to note that all advanced BMD technology activities are conducted under the basic ground rule of assuring engineering realism for application to a weapon system. Thus, all hardware and software developments take into account aspects of optimum acquisition cost, producibility, low operation and maintenance costs, and other aspects of weapon system utilization. The ABMD program has been productive in the past and must not be allowed to fall below the budget required by a viable program.

Advanced Technology Budget History

Since the inception of this program, the appropriations made toward it have varied from a high of $134.4 million in FY 1969, to the unique low voted the program in 1974 of $61.8M. (The comparison to the $134.4 million high in FY 69 is even more striking when it is recognized that the $61.8 million in FY 74 equates to $46.5 million in FY 69 dollars.) The actual RDTE amounts authorized and appropriated to this program by the Congress for each year from 1969 to date are as shown in Chart 5. The bar graph at the bottom of chart portrays the amounts appropriated in terms of both current year dollars and constant FY 69 dollars.

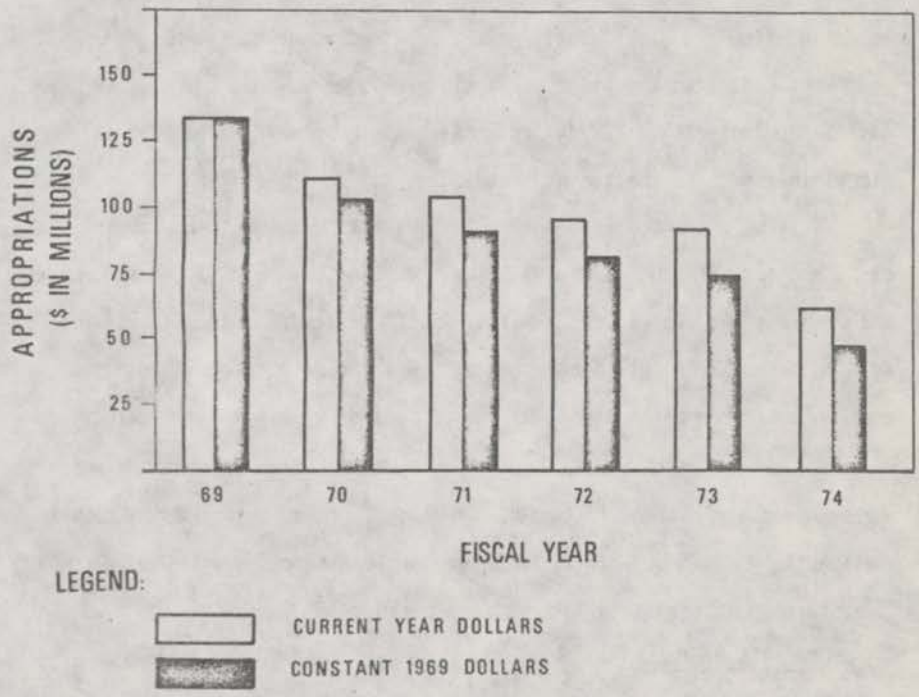
In examining this budget history it is clear that FY 1974 was quite atypical in that the Congress reduced the advanced technology effort by about 33% below the previous year and 40% below the budget request of $100.1 million. The original request for $100.1M was submitted and subdivided into two program elements: Exploratory Development $39.3M and

Advanced Development $60.8M. In testimony last year, the only year in which such a program breakout was made, we indicated the reason to be one of achieving greater precision in program breakdown. Thus, through exploratory development we could identify the research and studies necessary

(U) ABMD RDTE BUDGET HISTORY
($ IN MILLIONS)

FY	AUTHORIZATION	APPROPRIATION 1/
69	165.0	134.4
70	141.0	110.2
71	138.0	103.8
72	99.8	96.1
73	98.9	92.6
74	86.7	61.8

1/ Amounts shown include the effects of reprograming actions.



to evaluate the feasibility of solutions to BMD problems. In advanced development we could essentially identify the hardware development essential for test and evaluation. However, we found that breakout not to be distinct in a level of effort program such as advanced technology, and thus confusing as to which effort belonged in each category. As a result, in FY 75 we have returned to the traditional single program element for advanced BMD technology, and we are striving for clarity by presenting the program in technology groupings.

For FY 1975 we are requesting an aggregate of $91.4 million, an increase of $29.8M from the FY 74 level. The purpose of this increase is to resume a viable technology program responsive to our ballistic missile defense objectives.

Modification of the FY 1974 Advanced BMD Technology Effort

In planning for the FY 1974 Advanced BMD Technology Program, allocation of tasks represented a logical follow-on from FY 1973, gave emphasis to designation and discrimination, and provided a modest increase in resources dedicated to optics work, since we planned to study in some detail BMD applications using long-range exoatmospheric target detection, discrimination, and engagement techniques.

Following the Congressional decision last December to reduce the FY 74 program effort by some 40% below the budget request, we restructured the program. At the reduced level of $61.6M, certain minimum levels of funding became apparent, since much of the basic data gathering function could not be accomplished without the dedication of substantial resources.

We continued that work nearest to fruition which offered the greatest near-term contributions to our BMD knowledge. In so doing we consciously delayed many of those efforts which are of long term significance; we now plan to resume these in a later fiscal period.

FY 1975 Program

In formulating the FY 1975 program, as has previously been noted, we are planning our effort at the $91.4M level. In view of the issues

to be addressed, there are certain fundamental work areas which demand our attention. These work areas involve:

- Those new concepts and technologies which grow from the continuing search for new ideas. The whole field of ballistic missile defense tends to be idea limited because of its complexity.

- Enlargement of the data base. As in all research efforts, the advanced BMD technology foundation is a growing and expanding data base, derived either by flight experimentation or by ground test and validation under simulated conditions.

- Demonstration of capabilities of components and subsystems. Without this proof of capability, the true value of new components is not known, and the relative need for further work on any one of them is difficult to define.

- High level simulations in which the problems inherent to BMD can be addressed, the components tested, and the unknowns identified in a facility which faithfully produces the postulated environment, and broadly contributes to the validation of advanced technology efforts.

BMD Advanced Technology Program

FY 73 - FY 75

	Actual FY 73	Planned FY 74	Actual FY 74	Planned FY 75
Radar Technology	16.7	15.6	4.9	15.2
Optics Technology	10.4	15.3	4.9	9.4
Data Processing/Software Development Technology	9.0	10.4	5.9	7.2
Interceptor Technology	10.2	11.8	4.2	9.1
Discrimination Technology	38.9	34.9	37.2	36.5
New Concepts & Technology	7.4	12.1	4.5	14.0
TOTALS	92.6	100.1	61.6 1/	91.4

1/ Excludes $0.2M for Jan 73 and Oct 73 pay raises.

- Improvements to known technologies and optimization in the use of resources. In all efforts within this program, every avenue is explored to assure that the resources assigned are appropriate, and that the work contemplated is both timely and necessary.

The details of our fund request for FY 1975 with a comparison to prior fiscal year funding, is as indicated in Chart 6 - BMD Advanced Technology Program.

The Army requests funds in the amount of $91.4M for Advanced BMD Technology in FY 75. This represents an increase of $29.8 million over the approved program for FY 1974 which was an abnormally low year. The need for this increase is dictated by several factors. First, the scope of ballistic missile defense technology is extremely broad, involving six very complex technology areas, ranging from highly sophisticated radar and optical sensors to extremely high throughput data processing equipment and accompanying software.

A second factor concerns the time required to achieve established objectives in any of these technical areas. The time required is extensive because the work is complex. Furthermore, when there is a lack of resources, progress is delayed, and the capability we seek cannot be achieved as soon as required. This interrupted progress is inefficient, at best, and seriously degrades our ability to initiate long term efforts.

A third aspect in the fiscal needs of this program is the matter of minimum funding levels. Many of our efforts require extensive data gathering, either by flight tests at a remote location or by simulation in a ground facility. In such situations work teams of experts cannot be assembled, then dispersed due to lack of funds, and subsequently reassembled without great added cost. Thus, a certain funding level is required, on a regular basis, to assure reasonable progress at nominal cost.

The impact on advanced BMD technology, when it is funded at less than the optimum level, is clear. With minimum funding, projects must be

either cancelled or delayed. Since the data are required, these projects must ultimately be funded, and cost growth is inevitable. This results in serious program imbalance because resources cannot be allocated in accordance with optimum funding ratios.

Summary

It should be noted that this program pushes the state of the BMD art in at least six complex technical areas. Unless we pay the price we cannot pursue adequately these technologies, let alone stay ahead of our adversaries. It is historical fact that BMD technology has been an instrumental factor in SAL negotiations. In the foregoing presentation I have identified past year accomplishments and outlined our projected FY 75 program requirements for Site Defense and for Ballistic Missile Defense technology.

INTRODUCTORY REMARKS

Chairman McCLELLAN. Are there any other questions? Very well, General Deane is the next witness.

General Deane, you have a quite lengthy statement here.

General DEANE. Yes, sir, and it has been submitted for the record.

Chairman McCLELLAN. Do you want to highlight your statement?

General DEANE. I had not intended to. Mr. Augustine sort of covered our whole area.

Chairman McCLELLAN. The statement will be printed in the record at the conclusion of your remarks.

General DEANE. Thank you, sir.

Chairman McCLELLAN. You have heard some of the questions, General Deane, matters that have been discussed as Secretary Augustine testified. Without asking you a specific question at the moment, you heard his testimony and the questions raised. If you care to, we would be glad to have your comments.

General DEANE. Thank you, sir.

As you know, I work with General Abrams, Chief of Staff of the Army. With regard to development of equipment for the Army, his philosophy is that the only significant international power other than ourselves, which really poses a threat to us at this time, is the Soviet Union. This is despite detente. He, therefore, provides me guidance, or direction, that my equipment as—I work on the development of it—must be directed at meeting that threat.

Obviously, the most likely place we would be confronted by the Soviet Union is in the NATO region. Actually that is a secondary concern, it is really that we are designing to meet the Soviet threat regardless of where we might meet it.

Chairman McCLELLAN. But you don't anticipate, General, any Soviet assault, an attempt of invasion of the Continental United States?

General DEANE. I agree. That is why I say the most probable place would be in the NATO region.

WEAPONS DESIGNED FOR FOREIGN OPERATIONS

Chairman McCLELLAN. Most of these weapons that have been discussed by Secretary Augustine this morning are designed and will be needed, if needed at all, for our operations on foreign soil.

General DEANE. That is correct, sir.

Chairman McCLELLAN. Primarily we think in terms of NATO first.

General DEANE. You are quite correct, sir.

Chairman McCLELLAN. We can't defend ourselves in NATO countries without defending NATO countries too.

General DEANE. That is correct.

Chairman McCLELLAN. If we belong over there at all in a treaty arrangement with NATO, it is to help them defend their countries, so it should be a full partnership.

General DEANE. Yes, sir.

Chairman McCLELLAN. And to get the maximum defense and the maximum fighting capability for the protection of all, it would seem to me that it would suggest, if not compel, the full cooperation of all the partners of all the NATO countries in the research and development programs that are being pursued or that need to be pursued to provide the weapons of defense that NATO needs.

It just looks to me as though each country is going its own way, although they all look to us to do most of the financing. Am I wrong?

General DEANE. No, sir. I think you are quite right.

Chairman MCCLELLAN. This is an awful situation for us to be in.

General DEANE. It is a point I was going to address. Since Dr. Schlesinger has been Secretary of Defense, he has made considerable effort to do what you are saying. I have attended meetings he had with Minister Leber, Minister of Defense in Germany, and Lord Carrington, the Minister of Defense in Britain, and they have discussed exactly this.

It is this that led us to go out for an air defense system, which Mr. Augustine referred to in his testimony.

In addition, it is the gun we are going to look at so we will have commonality, hopefully, in our main battle tanks. This is a significant saving because whichever gun is selected, only one country will pay for the development, and we will have, hopefully, the best gun, and because of commonality of ammunition you would save money in the course of production.

In addition, we currently have on our current tank, the M–60 tank, a gun in fact designed by the British. That is not an American development. It is British development.

DAPSONE PILL

I say with some trepidation, because I am not positive of my facts, but I believe the Dapsone pill which saved so many of our soldiers from malaria in Vietnam——

Chairman MCCLELLAN. A pill?

General DEANE. Yes, sir.

Chairman MCCLELLAN. Let's talk about bullets.

General DEANE. The reason I bring this in is that this antimalaria pill has an international background.

Chairman MCCLELLAN. Was that pill developed out of malaria research funds?

General DEANE. No, sir; it was developed by the Germans in 1908 without knowing what use it might have. The British began using it to treat leprosy in 1930. In 1960 the U.S. Army noted that leprosy patients in Africa treated with Dapsone had little or no malaria. In 1964 the Army conducted a study which showed it had potential as a prophylaxis for malaria, and in 1966 began field tests in Vietnam.

This is one product resulting from international developments.

Chairman MCCLELLAN. That was not primarily a military research program, that was a health program for civilians and military alike.

General DEANE. Yes, sir; but we have to do research in military medicine, prophylaxis, because of the fact that we go to places where our people are not immune to the local diseases.

Chairman MCCLELLAN. How does that relate to the problems I have been talking about?

General DEANE. I was relating it to a benefit we have received from work done by a foreign country.

Chairman MCCLELLAN. I have no question about that. We often benefit from things they do and so forth. That is true and they in turn have benefited from medical science results developed over here.

What I am pointing out is that we are in a common cause of defense against a potential common enemy who might make war upon the NATO countries where we would have an interest and an obligation

under the NATO Treaty to be prepared to defend the NATO countries, which are considered our first line of defense.

In making preparation for this defense, it seems to me there ought to be complete cooperation of all the countries involved, including an appropriate sharing of the cost.

As it is now, it seems those countries are going their own way, while depending on the United States to do the research and development, and providing most of the weapons.

General DEANE. As I say, Dr. Schlesinger is directing great effort in this area.

Chairman MCCLELLAN. In all these 25 years, where have our wits been?

General DEANE. We have tried before, the MBT–70 tank was one effort which ran aground because of differences we had with the requirements for what should go into that tank, the difficulties of working together.

We do have from my office three efforts with regard to our allies. We have what is referred to as the Primary Standardization Office, which is staffed by British, Canadian, and Australian personnel, as well as U.S. Army personnel. We have an office in England working with the British and an office in Bonn.

The British and Germans are the two powers in NATO that do most of the work in this area. They have the greatest capability and we maintain close cooperation with them.

FRENCH R. & D.

Chairman MCCLELLAN. What is France doing in research and development?

General DEANE. France has withdrawn from the military aspect of NATO, but we maintain some contact with them. One of the missile systems we discussed here earlier and which we hope to show again and discuss more completely, that was developed by the French. That is the Crotale system developed by the French.

Chairman MCCLELLAN. We are not making these, are we?

General DEANE. No, sir, that vehicle is made by the people in France, the Thompson Co. They have given a license to the Rockwell Co. of the United States to build it here.

Chairman MCCLELLAN. We are going to build it for whom?

General DEANE. For ourselves.

Chairman MCCLELLAN. Where will we use it?

General DEANE. Wherever the field army goes. The initial deployment will be in Europe.

Chairman MCCLELLAN. NATO?

General DEANE. Yes, sir. The major part of the development effort in that will be borne by the French. That is of three candidates, one French, one British, and one German. Those were the points I wanted to address.

As Secretary Augustine mentioned earlier, we are prepared to show a few viewgraphs, five or six viewgraphs of our top programs. If you like we will go ahead with this.

Chairman MCCLELLAN. We will look at your viewgraphs for as long as possible.

Senator YOUNG. How much do the French charge for the right to make this antiaircraft tank?

General DEANE. I don't know. This has been a private arrangement between the companies and the European companies, so I can't say specifically.

In the case of one of the companies, my understanding is that they will pay initially $6 million to buy the developmental package that has been developed by the foreign country. Then I would guess that, depending on how many we procure, there will be some kind of royalty in effect. I don't know the specifics

Senator YOUNG. I share the Chairman's feeling in regard to the lack of cooperation on the part of our allies. Do we charge other countries a royalty for new weapons, new ideas or packages that we develop in military equipment?

General DEANE. We have—and General Kjellstrom can address this far better than I—we have arrangements whereby we sell equipment actually produced in this country. In the case of the HAWK Missile, it is produced in Italy. What arrangement Raytheon has with the Italian Government, or whoever they sell them to over there, I really don't know.

General KJELLSTROM. On equipment produced in this country which we sell to foreign countries, we can recoup a portion of the R. & D. costs at the time that we sell these items.

Mr. Chairman, I might mention that one of our last three major combat areas have not necessarily been in the NATO arena, they have been in Korea, Vietnam, and now, of course, equipment support for the Israelis in the Middle East. So even though our equipments are oriented toward NATO, as the Chairman indicated, we have provided our allies in other areas of the World with a great amount of support so that all our efforts are not strictly oriented toward the NATO arena.

SALE OF MILITARY EQUIPMENT

Senator YOUNG. Of course, we have a rather foolish policy of refusing to sell military equipment to many nations of the world. We would rather have Russia sell them equipment. That is true of many of the Latin American countries.

Chairman MCCLELLAN. We sell some of our military equipment, do we not?

General KJELLSTROM. The French are doing a big business in Mirage planes practically throughout the world, also other equipment. We have a strict policy governing the selling of military equipment to other countries. We are limited in the amount we can sell, and who we can sell it to.

Chairman MCCLELLAN. Don't we sell to NATO countries?

Senator YOUNG. I think we sell to NATO countries.

General KJELLSTROM. Gen. Olenchuk has made a long list of allies and other countries we are selling the TOW missile to. I think it would be good as part of his presentation to go over the list of countries to which the TOW missile is being furnished in sales arrangements. It is quite illuminating and would be good for you to know about.

Chairman MCCLELLAN. Is that the only instance we can cite where we are selling equipment and weapons?

General KJELLSTROM. No, sir, we have literally hundreds of cases.

Chairman MCCLELLAN. Let us proceed.

HEAVY LIFT HELICOPTER

General DEANE. This first slide or chart shows a heavy lift helicopter which is under development. In this program we are asking $57.7 million in fiscal 1975. This helicopter was designed to take advantage of the modernization of transportation by shipping things by container. It will lift 22½ tons and move them from point to point.

Chairman MCCLELLAN. Does this lift 22 tons?

General DEANE. 22½ tons.

Chairman MCCLELLAN. How far?

General DEANE. 25 miles, and comes back and picks up another 22½ tons and moves it 25 miles and returns to its base 25 miles away. You can lift more than that by having lighter fuel loads.

Chairman MCCLELLAN. Why only two trips?

General DEANE. Because of the fuel load. In terms of actual lifting power, it will lift 35 tons.

Chairman MCCLELLAN. What is its air speed?

General DEANE. It will go about 130 knots. It hasn't flown, but that is what we are designing it for.

Chairman MCCLELLAN. How many miles is that?

General DEANE. 150, roughly.

Senator YOUNG. When will that be in production?

General DEANE. We are just beginning to fabricate the first parts of it. The first flight will be in August, 1975.

Chairman MCCLELLAN. Is it progressing on schedule?

General DEANE. Yes, sir, it is doing very well. We had trouble with the transmission at one point but we have corrected that and we think the program is progressing quite well.

Chairman MCCLELLAN. How much are they expected to cost per copy?

General DEANE. The design to cost goal is $5.1 million.

Chairman MCCLELLAN. How many copies would we need?

General DEANE. We are going to have a meeting of the Army Systems Acquisition Review Council in July of this year, sir, to decide that sort of question. The figure of $5.1 million is based on the assumption we would buy 250 of these vehicles.

Senator YOUNG. Who would make this aircraft?

General DEANE. Boeing Vertol is developing that aircraft.

Chairman MCCLELLAN. Would these be produced for NATO?

General DEANE. If they want to buy them, yes, sir.

Chairman MCCLELLAN. Are we selling to NATO countries?

General DEANE. Not these things because this has not flown, but, yes, sir, we are selling NATO other things.

Chairman MCCLELLAN. You say we are going to need 250 of them?

General DEANE. We have under way right now a study as to what would be required in terms of numbers. That is one of the decisions to be made in July.

Chairman MCCLELLAN. In a conflict involving NATO countries, what purpose would that serve?

General DEANE. If you come to an area that has no ports, or destroyed ports, ships can lie off shore, dispersed so they don't present a great target, two or three ships here, two or three down the beach 50 miles with the container loads as indicated in the ships. The helicopter would take the container off the ship and take it to some

point inland for dispersal by smaller helicopters or to be broken down and moved by truck or train. They also serve to clear airfields. When you bring things in C–5As, for example, you bring in a lot of equipment and it is a big target and you want to get it out. They take these big loads out and disperse them in other areas for further breakdown to more forward to the troops.

Chairman McClellan. You want two of these now. You first wanted one as a prototype.?

General Deane. $14 million of this $57.7 million, is for a second prototype.

Chairman McClellan. Why do you need a second prototype?

General Deane. When I and Mr. Augustine came aboard last fall we reviewed this program and it was a $189.9 million program all told. We felt one prototype was not a wise thing to pursue. If you have catastrophic failure, you are in bad trouble.

Chairman McClellan. Why did they recommend only one previously?

General Deane. They started with this program on purely a technological basis to see if such an aircraft could be developed. It has been coming along so well we feel during the testing we should have two. Perhaps Mr. Augustine would like to elaborate.

Mr. Augustine. It is merely a matter of difference in judgment, I guess. Our predecessors who set up the program felt risk with one vehicle was an acceptable risk. As General Deane and I see it, we are talking about a machine here that has over twice the payload of any other helicopter that has ever flown in the free world. It is a substantial jump forward. The changes of having a crash in a test program like this; it happens commonly. That is one of the factors that leads to the situation where the Defense Department now has 12 aircraft programs under way and this is the only one which has only one flying article. Of these programs, four aircraft have flown to date, and two of those have lost at least one of their machines.

It is really a matter of judgment. We felt it was too big a program and too much risk to hang on one machine.

Chairman McClellan. If we have plenty of money to do it, let's do it.

Mr. Augustine. I wouldn't say it that way.

Chairman McClellan. I would. I am not opposing it. I say we have to consider priorities here with limited appropriations. If we have plenty of money to do it, it would be well to do it from the standpoint of your argument. It may be well to do it anyway, but I am emphasizing some of these things, considering the gravity of all of our problems and the funding problems we have, some things like this will have to be marginal.

Mr. Augustine. We fully understood that, Mr. Chairman, when we assessed the program from our viewpoint, looking at the management.

Chairman McClellan. Please proceed.

CANNON-LAUNCHED GUIDED MISSILE

General Deane. This is the cannon launched guided projectile, sir. We have two contracts on this projectile. One is with Martin-Marietta, the other is Texas Instruments. This will be launched from a 155 mm cannon. It will have a laser seeker in the front end of it, so that when

we put laser energy onto a tank, this artillery round will go right to the tank. The charge in it will enable it to kill a tank. That is the purpose.

Chairman McCLELLAN. Don't we splinter off too much in our efforts to build a strong defense weapons system? How many different weapons do we have now with which to defend against tanks?

TOW MISSILE

General DEANE. Well, we have a light antitank weapon, the LAW, medium antitank weapon called the Dragon, and heavy antitank weapon called TOW, and tank weapons, of course, will kill tanks. We have mines and other things. But all of these have a limited range. The TOW gives a range of 3,000 meters. With artillery you can begin to kill enemy tanks out beyond 3,000 meters, so that means you kill enemy tanks before they have a chance to deliver fire on your own troops.

Chairman McCLELLAN. The TOW won't travel 5 miles?

General DEANE. No, sir. The TOW will reach only about 2 miles.

Chairman McCLELLAN. Suppose we have enemy tanks coming in 5 miles away. What weapons do you have to reach them?

General DEANE. This will reach them. The TOW missile, if you have it on an aircraft and can get the aircraft forward and launch the TOW from the aircraft, but the range is still only 2 miles from the aircraft.

Chairman McCLELLAN. TOW is carried by helicopters, too?

General DEANE. As well as on the ground, we launch them from the ground and helicopters.

Chairman McCLELLAN. Can they be used from airplanes?

General DEANE. No, sir. The Air Force uses a bigger missile.

Chairman McCLELLAN. You shoot this from a cannon?

General DEANE. Yes, sir.

Chairman McCLELLAN. It is artillery firing?

General DEANE. Yes, sir.

Chairman McCLELLAN. How accurate is it from 5 miles away?

General DEANE. [Deleted.] Half the rounds you fire will land [delete.]

Chairman McCLELLAN. That is pretty accurate. Has that been demonstrated?

General DEANE. We are in the process of development.

Chairman McCLELLAN. That is what you hope to achieve?

General DEANE. We have demonstrated with one drop test from an aircraft, when we took a projectile such as this, dropped it from an airplane, and it guided on its own.

Chairman McCLELLAN. Will it hit a moving tank?

General DEANE. Yes, sir.

Chairman McCLELLAN. You launch from artillery?

General DEANE. Yes, sir. The man who sees the tank must keep a laser designator pointed at that tank.

Chairman McCLELLAN. It can only be shot at something one sees?

General DEANE. Whether you see it through your eyes or through a television camera, we have also demonstrated——

Chairman McCLELLAN. Why does the man who sees it have to keep his eye on it?

General DEANE. He has to keep the laser pointed at it so the laser energy is on the tank.

Chairman McCLELLAN. Can he keep that laser pointed accurately, just from sight, sufficient to guide this missile?

General DEANE. Yes, sir.

Chairman McCLELLAN. How is it employed—from an airplane?

General DEANE. It can be done that way or on the ground, in a helicopter, and in addition to that we have demonstrated it is possible to put a designator in a drone or remotely piloted vehicle where there is no man up there; he is on the ground. He has a television link and sees the target through the television link and then points the designator where the camera is pointed, they are bore sighted. He turns it on and that puts the energy on the target and guides the weapon to it.

Chairman McCLELLAN. Proceed.

PERSHING II

Mr. AUGUSTINE. The picture on the screen is a Pershing II. The Pershing IA is in our inventory, with a nuclear warhead, a surface-to-surface missile, and has a range of about 400 miles. The Pershing II will have a new nose section with guidance in it so you can internally radar guide the missile. That will reduce the CEP [delete].

To draw an analogy, you could fire this missile and have it land on a [delete] 400 miles away, that is the kind of accuracy we are talking about.

Chairman McCLELLAN. Your example would actually be a circle instead of a [deleted].

Mr. AUGUSTINE. Yes, sir; take the corners off.

Chairman McCLELLAN. Within a [deleted] circle?

Mr. AUGUSTINE. Yes, sir, like that.

The reason that we feel this is important is to reduce collateral damage. If you are using nuclear weapons, you can pick military targets and just destroy those targets and not do great damage to surrounding areas.

Chairman McCLELLAN. It carries a nuclear weapon?

Mr. AUGUSTINE. Yes, sir.

Chairman McCLELLAN. Will it damage an area of a [deleted]?

Mr. AUGUSTINE. No. It is greater than that, depending on the target, but it is much smaller——

Chairman McCLELLAN. It would depend primarily on the type of nuclear weapon; that and the warhead?

Mr. AUGUSTINE. Plus the characteristics of the targets around it.

Chairman McCLELLAN. Do you put warheads of different megatonnage on it?

Mr. AUGUSTINE. It has the capability to [delete] the threat. In addition it will have an [deleted] capability where the upper stage will [delete] confine the effects to a very small area.

General DEANE. We are just beginning advanced development on this.

The weapon system on the slide is known as the Stinger. It is a surface-to-air missile system designed for the infantry to use against attack aircraft. We have a system now called the Redeye, and this is an advanced version of that.

Chairman McCLELLAN. An improvement of it.

General Deane. Yes, sir; a vast improvement of it.

Chairman McCLELLAN. That is a soldier standing there holding it?

General DEANE. Yes, sir; the Stinger.

Chairman McCLELLAN. Does he have the ability to shoot down that aircraft out there?

General DEANE. Yes, sir. His range is [deleted] kilometers, which is about [deleted] miles.

Chairman McCLELLAN. Has that been tested?

General DEANE. Yes, sir; we have had some successful flights in the early development. We have not had many.

Senator YOUNG. The Russians have a similar one?

General DEANE. Yes, sir, the SA–7. It is [deleted].

Senator YOUNG. Theirs will shoot down a plane at [deleted] feet.

General DEANE. The SA–7 goes to [deleted] kilometers, roughly [deleted] miles, a little less than this.

If you are talking about the Sagger, that is not an antiaircraft missile.

Chairman McCLELLAN. Any further questions? Senator Young has some additional questions for Mr. Augustine.

ATTACK HELICOPTER FORCE

Senator YOUNG. Is it the intention of the Army to have an attack helicopter force consisting of two type helicopters after the advanced attack helicopter is in production? If so, what is the requirement for two after the useful life of the Cobra has been utilized?

Mr. AUGUSTINE. The Army plans to retain the AH–1Q in its force structure in addition to the AAH throughout the 1980's. The attack helicopter requirement and planned force structure has not yet been projected beyond the useful life of the Cobra.

PLANNED REDUCTION IN R.D.T. & E. ORGANIZATIONS

Senator YOUNG. In the Army's program to reduce headquarters, staff, and overhead are reductions planned in R.D.T. & E. organizations?

Mr. AUGUSTINE. The Army is taking action to reduce headquarters, staff, and overhead in R.D.T. & E. organizations. As a part of the major staff reorganizations that are to be effected on or before July 1, 1974, the Office of the Chief of Research and Development, as a principal Army staff agency, will be disestablished. Many of these functions will be redistributed to a new staff office, Deputy Chief of Staff for Research, Development, and Acquisition. Additionally the Ballistics Missile Defense (BMD) management structure is being realined to conform with the treaty between the United States and the Soviet Union on the limitation of anti-ballistic-missile systems. As a result of these changes manpower resources will be transferred as needed, or eliminated.

CIVILIAN AND MILITARY PERSONNEL ASSIGNMENTS TO R.D.T. & E.

Senator YOUNG. How many military and civilian personnel does the Army have assigned to R.D.T. & E. programs, installations, and laboratories? In other words, the total number of personnel involved in R.D.T. & E.

Mr. AUGUSTINE. The total man-years to be applied to the execution of the Army's R.D.T. & E. program for fiscal year 1973 was 35,175; the estimated man-years for fiscal year 1974 and fiscal year 1975 are 33,961 and 32,954 respectively.

REORGANIZATION OF BALLISTIC MISSILE DEFENSE PROGRAMS

Senator YOUNG. Does the Army plan to reorganize the ballistic missile defense programs? If so, what will be the relationship of the Safeguard program and site defense?

Mr. AUGUSTINE. The Army is currently completing plans to place all Army BMD activity under a single BMD program manager (PM) who will report directly to the Chief of Staff of the Army. These plans will include placing the management of the Safeguard deployment, the site defense prototype demonstration (both now under the direction of the Safeguard system manager) and the advanced technology program (now under the direction of the Chief of Research and Development) under the direction of the BMDPM. The BMDPM will also exercise general staff responsibility for the Kwajalein missile range, used for BMD testing. The objectives of this reorganization are to: (1) maintain a dynamic technological program; (2) provide a management structure conducive to attracting and keeping competent personnel; (3) enable the BMD program to speak with a single voice; (4) reduce management overhead in keeping with the overall contracting scale of effort in BMD, particularly in those activities associated with deployment; and (5) create a centralized mechanism for reporting to the BMDPM, determining requirements, establishing priorities, evaluating new concepts, and planning the overall BMD program.

As cited above, the Safeguard deployment and the site defense prototype have been, and will continue to be, managed by a single program manager. The Safeguard deployment in the Minuteman field at Grand Forks, N. Dak., will protect a portion of our land-based deterrent force and will provide invaluable experience in the operation of a deployed tactical BMD system. The site defense prototype, an essential step in orderly development of an improved system for defense of Minuteman, is expected to benefit from the experience gained by operation of the Safeguard site.

Chairman MCCLELLAN. If there is anything you would like to supplement in your testimony, please do, and submit it for the record.

General DEANE. Thank you, Mr. Chairman.

Mr. AUGUSTINE. Thank you, Mr. Chairman.

BIOGRAPHICAL SKETCH OF GENERAL DEANE

Chairman MCCLELLAN. General Deanes' biographical sketch and prepared statement along with the questions that Senator Young and I have prepared and responses will be placed in the record at this point.

Lieutenant General John R. Deane, Jr.

General Deane was born on 8 June 1919 in San Francisco, California. After serving as an enlisted man in the First Infantry Division, he entered the US Military Academy and was commissioned a Second Lieutenant in the Infantry upon graduation. He is also a graduate of the Army Command and General Staff College, the Armed Forces Staff College and the National War College. He received his Master's Degree in Business Administration from George Washington University.

General Deane has commanded the 173d Airborne Brigade in Vietnam and the 82d Airborne Division.

He has also served with the Programs and Budget Division, Office of the Chief of Research and Development; the Office of the Director of Defense Research and Engineering, Office of the Secretary of Defense; the Office of the Assistant Chief of Staff for Force Development; and the Defense Intelligence Agency.

General and Mrs. Deane (the former Betty Heard) have five children.

General Deane's Prepared Statement

General Deane. Mr. Chairman and Members of the Committee, I am honored to appear before the Committee this year to present to you the Army's FY 1975 RDT&E Budget Request. Mr. Augustine has touched briefly on the overall philosophy of Army R&D, its management, and some of the end products of the technology base. I intend to focus primarily on strategic and tactical weapons.

R&D Cycle Phases

Chairman McClellan. General Deane, would you please outline for us the chronology of events that take place during the R&D cycle?

General Deane. The R&D cycle is divided into four phases:

I. Conceptual Phase—This is where the technical, military, and economic basis for the development, and concept feasibility are established through pertinent studies and the development and evaluation of experimental hardware.

II. Validation Phase—This consists of those steps necessary to resolve or minimize special logistic problems identified during the conceptual phase, verify preliminary design and engineering, fully analyze trade-off proposals, and prepare contracts as required for full scale development. This may include the use of advanced prototypes in development and operational tests. The validation process may be conducted using competitive or single contractors or by in-house laboratories.

III. Full Scale Development Phase—During this phase a system, including all items necessary for its support, is fully developed and engineered, fabricated, tested, and initially type classified.

IV. Production and Deployment Phase—During this phase, operational units are trained, equipment is procured in necessary quantities, distributed, and logistical support is provided.

General Deane. A number of lessons were taught us by the violent clash in the Middle East last October. One was obvious, immediate and incontrovertible: Despite the hopeful progress which has been made toward detente, violent massive warfare is quite capable of occurring suddenly in many areas of the world. The other lessons we are learning result from a continuing analysis of the Soviet weapons and tactics employed by the Arabs and US weapons used by the Israelis during the conflict. Some of the results of our analysis are ominous, some are encouraging.

Results of "Big Five" System

Chairman McClellan. General Deane, would you please list some of the "ominous" as well as some of these "encouraging" results?

General Deane. [Deleted.] At this time, only preliminary reports are available which highlight some of the major lessons learned or, in fact, re-learned, as discussed below:

(a) *Close Air Support-Air Superiority*

[Deleted.]

(3) b. *Air Defense*—[Deleted].

c. *Tanks*—The Israelis rank the M–60 tank above the T–62 in performance but they report three problems. These problems result from: (1) [deleted];

(2) inflammable hydraulic fluid; and (3) [deleted]. Review of all these aspects in respect to the XM–1 development program and M–60A3 product improvement program will be made.

d. The Israelis like the M–113 APC and want as many as they can get for their infantry. [deleted.]

e. Overall, the most significant lesson from the Middle East War has been the re-validation of the combined arms concept—the importance of infantry, tanks, artillery, air defense and tactical air support working together, each complementing the other.

General DEANE. Most, I submit, merit the attention of the Committee.

The combat in the Middle East indicates, I believe, the wisdom of a continued vigorous development of the Army's "Big 5." Each of these systems is designed to afford a qualitative edge to American combat forces, an edge which will overcome the quantitative superiority in manpower, artillery, armor and tactical air available to our potential adversaries.

SUPERIORITY OF "BIG FIVE" TO ADVERSARY SYSTEM

Chairman MCCLELLAN. Explain how each of the "Big Five" will qualitatively be superior to our adversaries systems.

General DEANE. The MICV will provide two significant qualitative advantages over the Soviet BMP. First, it will have [deleted] capability that is superior to the BMP and secondly it will provide greater armor protection and survivability for our infantry. Later, when the main armament is selected, the firepower of the MICV should provide the required effectiveness needed to defeat the Soviet vehicle. This mobility and firepower will combine to save lives while increasing the capability of the assault forces.

The XM–1 tank will be qualitatively superior to our adversaries systems through incorporation of improved fire control, a stabilization system providing an improved shoot on the move capability and [deleted] that will allow the XM–1 tank to engage with relative safety enemy targets [deleted] than our current tanks. This feature will result in an increased first round hit probability. In addition to [deleted] improved mobility of the tank will also result in a more survivable weapon system.

The Advanced Attack Helicopter will be superior to the Soviet Hind A in several ways. The antitank missile system on the AAH is a [deleted] system and is believed to be [deleted] than that on the Hind A. In addition, the AAH will include night vision equipment for the pilot and copilot/gunner [deleted]. The greater [deleted] of the AAH and resulting agility along with the armor and redundant flight controls should make the AAH a more survivable helicopter in the mid-intensity battlefield. The AAH by virtue of its being designed for the attack mission will have a smaller profile with less vulnerable area exposed further enhancing its survivability.

SAM–D uses the latest technology: an electronically scanned phased array radar; digital computer control; and track-via-missile guidance. This technology permits the handling of a large number of tracks, multiple simultaneous engagements and an excellent ECCM capability. [Deleted.]

The UTTAS will exhibit a qualitative superiority over any operational utility helicopter possessed by our adversaries. The UTTAS design incorporates features which improves its survivability, transportability, crashworthiness and performance characteristics. Application of the latest state of the art technology will provide the US Army with a helicopter which has superior reliability and maintainability characteristics. The improved availability of the UTTAS will provide our forces with a helicopter that is operationally ready a greater percentage of time. [Deleted.]

Chairman MCCLELLAN. Proceed.

General DEANE. The improved performance of the Arab Armies during the war in October is attributable only partially to better training, esprit and improved Soviet weapons. The key, especially in the areas of air defense and tank/anti-tank warfare was the massive, redundant use of weaponry and manpower to achieve battle-field objectives—classic Soviet military strategy.

SATURATION STRATEGY OF SOVIET UNION

Chairman MCCLELLAN. Explain in greater detail this "saturation" strategy of the Soviet Union.

General DEANE. A ready example of Soviet strategy of mass and redundancy is the sheer number of Army divisions as shown in the table below:

	United States (Army and Marines)	Soviet
At or near full wartime strength	18⅓	[Deleted.]
75 to 50 percent of wartime strength	0	
50 to 25 percent of wartime strength	0	
Reserve	17⅓	
Total	35⅔	[Deleted.]

Mass can be seen in the 1973 Inventories of some of the major items of ground force equipment for use by these Divisions:

	United States	Soviet
Medium tanks	9,000	[Deleted.]
Armored personnel carriers	15,000	
Artillery weapons	6,000	

Redundancy can be seen when examining Soviet organizations. [Deleted.]

Should a conventional war break out in Europe we can expect the Warsaw Pact forces to employ similar tactics, and we can expect to face these same weapons and tactics if the Army is committed to lesser contingency operations in other parts of the world.

Chairman MCCLELLAN. Did the Soviets supply the Arabs with the best weaponry available?

General DEANE. [Deleted.]

COMPARISION OF U.S. AND SOVIET SYSTEMS

Chairman MCCLELLAN. How would you generally compare our present Army weapon systems to the Soviet systems?

General DEANE. [Deleted.] The US Army requirement is for quality weapons to offset enemy quantity. The more capable systems cost more money, but these are the weapons we must have if the Army is to remain small compared to potential enemies. [Deleted.]

Chairman MCCLELLAN. Proceed.

General DEANE. Our answer to their use of quantity must be quality. Our tanks, aircraft and men must be capable of defeating many times their number in enemy weapons and men, and surviving to fight again. We cannot afford technological parity of weapons systems with the Soviet bloc; our's must be superior. A viable and progressive technology base is our best insurance against breakthroughs or new developments by the Soviets which, in combination with the quantitative factor could spell defeat for our forces in a conventional or general war.

The technology base, besides being an insurance policy against surprise, and a source of improved weapons systems, is, in itself, a valuable national asset. Some of the fruits of this base, which accounts for about one fourth of our RDTE budget, have been described in some detail by Mr. Augustine and I would like like to underscore the importance we attach to our efforts in this area.

DEVELOPMENT OF TECHNOLOGY BASE

Chairman MCCLELLAN. Is the majority of our technology base being developed in "in-house" or independent laboratories?

General DEANE. The majority of our technology base (6.1 and 6.2) is being developed in-house.

Chairman MCCLELLAN. Proceed.

General DEANE. Permit me now to address the objective areas we have selected for R&D emphasis this year.

Improved Tank/Anti-Tank Systems

The war in the Middle East effectively dispelled the notion that the tank is an anachronism, a relic of past wars. Certainly its employment was limited in Vietnam; however, last fall we witnessed the biggest tank clashes since the Battle of the Bulge. Soviet tactical thought is heavily armor oriented.

Comparison of Tanks During Mideast Crisis

Chairman McClellan. How did our tanks compare with those of the British and the USSR during the Mideast crisis? How many tanks fought on each side and how many were lost? What specific weaknesses did you find with US tanks? How many additional tanks are we going to supply to Israel? How many additional tanks are we going to procure for ourselves? What kind and how many tanks are presently in our inventory? How does this compare with the Soviet Union and the other Warsaw Pact countries?

General Deane. [Deleted.]

The most recent information on numbers of tanks involved in the Mid-East War shows that the [deleted].

We have already provided [deleted] tanks to Israel; they have also ordered an additional [deleted].

From the first [deleted] tanks provided to Israel, the sales fund will give the Army the means of achieving payback production of [deleted] tanks. In addition the Army has requested 133 tanks in the FY74 Supplemental request and 510 in the FY75 Budget. The Army's outyear procurement plans are for 510 tanks in FY76, 660 in FY77 and 660 in FY78. The Army is also in the process of programing an additional 500 tanks during the FY76 through FY78 period.

As of 28 February 1974 our tank inventory was:

M48A1	2,843
M48A2C	328
M48A3	568
M60	1,876
M60A1	2,672
M60A2	391

Our most current estimates (Jan 1974) show the following tank inventories [deleted].

Chairman McClellan. Proceed.

General Deane. Within a few weeks of mobilization, Warsaw Pact forces are capable of assembling the largest armored force in the history of warfare. The Soviet antitank capability is equally formidable and employs the tactic of massive use of rocket propelled grenades, wire or radio guided missiles, and tank fired anti-tank projectiles. To counter the armor threat, we are developing the XM-1, a tank with the armor, firepower, mobility and survivability to defeat any known tank in the world today. Our ground and heliborne launched TOW missile, which was phenomenally successful against Russian-made armor toward the end of our involvement in Vietnam is in the field.

Use of TOW in Mideast Crisis

Chairman McClellan. Was the TOW used in the Mideast crisis? How was it used and what success did it have? Did the Israelis develop an inexpensive night vision device for it?

General Deane. [Deleted.] The Israelis did not develop an inexpensive night vision device for TOW per se. What they did was develop an adapter to interface the TOW day sight with a pair of infrared (IR) goggles. The adapter fits into the [deleted].

The adapter cost approximately [deleted] and the IR goggles are estimated at [deleted] a pair. [Deleted.]

Chairman McClellan. Proceed.

General Deane. The DRAGON, a medium antitank weapon, is almost ready for deployment.

Operation and Deployment of DRAGON

Chairman McClellan. How does the DRAGON operate? When will it be deployed?

General Deane. The DRAGON is a command to line of sight, wire guided missile, fired from the shoulder. The system has two main items: a round and a

tracker. The round consists of an expendable recoilless launcher and a guided missile. The tracker, which is the only nonexpendable tactical component of the system, consists of a telescope, a sensor device and an electronics package. When the round leaves the factory it is sealed. The launcher serves as the container for the missile until it is to be used in battle by the soldier at which time it then assumes its primary role as a launcher for the guided missile and is disposed of once the missile is fired. The launcher primarily consists of a smooth bore fiberglass tube and a propellant container and breech. The guided missile contains 60 small rocket motors mounted in rows around the missile body, electronic devices, an infrared source, and a small 5.4 pound shaped charge warhead.

Once the soldier aims at a target and depresses the trigger, the guided missile is launched. The sensor device in the tracker observes the missile position relative to the target and signals are automatically transmitted to the missile from the tracker via a wire link constantly bringing the missile to the line-of-sight all the way to the target. The automatic commands sent to the missile cause the small rocket motors, or side thrusters, to fire at the appropriate roll angles thereby supplying both corrective control forces and energy to sustain missile flight. The gunner has only to keep the cross-hairs of the optical sight on the target until missile impact.

The DRAGON is scheduled to begin deployment in [deleted].

We are continuing work on the advanced attack helicopter, which will be an effective anti-armor weapon even under adverse weather conditions and at night. Two of the tank/anti-tank weapons, the AAH and XM–1, are part of our Big Five, and will be dealt with in more detail later in my presentation.

Improved Mobility Systems

The Warsaw Pact ground forces facing NATO in Europe are capable of fielding, in addition to the mammoth tank force previously mentioned, over one million men, many of them carried in thousands of modern light armored combat vehicles.

Eastern Europe Military Strength

Chairman McClellan. Does the Army estimate that if there is an invasion of Europe that the East will immediately engage one million men?

General Deane. If the Soviet Union and her Warsaw Pact allies were to invade NATO Europe with a full scale air and ground attack, [deleted].

Chairman McClellan. Proceed.

General Deane. These staggering figures reflect the premium that Soviet military planning places on high speed mass armored assault on the enemy front, followed by rapid and deep penetration-exploitation. To counter a juggernaut of this size requires the capability to mass rapidly and deploy available forces and firepower to neutralize penetrations and exploit weaknesses. Four of our Big Five systems are designed to do precisely that.

Mission, Characteristics, and Cost of Big Five

Chairman McClellan. List in detail the mission, characteristics and cost of the "Big Five."

General Deane. The mission of the UTTAS is to airlift an 11-man squad into combat and resupply those troops while in contact.

Characteristics: Design Gross Weight, Approximately 15,500 lbs.; Endurance,[1] 2.3 hours; Cruise Airspeed,[1] 145–175 knots; Vertical Flight Performance, 450–550 feet per minute; Powerplant, (2) GE T–700; Armament, (2) Medium machine guns (7.62mm); Maintenance Manhour per Flight Hour, 3.8:1.

Cost: The UTTAS procurement unit cost is $2.03M.

The MICV is a lightly armored tracked vehicle which provides cross-country mobility, mounted firepower, communication and protection to the mechanized infantry squad in mounted and dismounted combat. The MICV is designed to operate with tanks as a companion vehicle and will be compatible with the new XM1 Tank System as well as currently fielded tanks with respect to mobility characteristics and complementary in terms of firepower and protection. The vehicle will have an inherent swimming capability. The vehicle's design will permit the mounting and employing of the Vehicle Rapid Fire Weapon System-Successor (VRFWS–S) as its primary armament system when it is available. This vehicle will replace the M113 series of armored personnel carriers used in combat role in selected mechanized infantry units.

[1] At 4000 ft 95° F.

Characteristics: Weight, 38,000–40,000 lbs.; Range, 300/350 miles; Armament, 20–30mm auto-gun; Firing Port Weapons, Cal 5.56 (6 ea); Swim, 4.6–6 mph; Crew, 2; Speed: Highway, 46 mph; Cross-country, 23 mph; Protection, [deleted]; No. of occupants, 12.

Cost: The procurement unit cost of the MICV is $195 thousand (esc. $).

SAM–D will replace NIKE Hercules and Improved HAWK in providing air defense of the Army in the field and CONUS. In the field army, SAM–D defenses will be complemented by short range, low altitude forward area air defense weapons and will be integrated with the US Air Force in the overall air defense of the theater of operations. In CONUS, SAM–D will provide defense of high value complexes along the periphery and will be integrated with other CONUS air defense forces.

Characteristics: [Deleted.]

Cost: The SAM–D procurement unit cost is [deleted].

The XM1 tank will provide a significant improvement to the Army's offensive ground combat power. The XM1 tank will mount a large caliber main gun and two or more complementary armament systems with improved fire control and shoot-on-the-move capabilities. Improved ballistic protection will allow the XM1 to safely engage targets [deleted] than current tanks with resultant increased first round kill capability. Higher cross-country speeds and faster acceleration will make the XM1 tank a more difficult target for opposing ground and air forces. Reduced maintenance requirements over current tanks will be realized in the XM1 due to increased emphasis on reliability, availability, maintainability and durability during engineering and test programs. The XM1 will replace M60 series tanks in selected active Army units.

Characteristics: Primary Armament, 105–120mm gun; Secondary Armament, 20–30mm coaxial cannon, cal. .50 machine gun, 7.62 machine gun; Fire Control, Stabilized; Combat Weight, 49–58 tons; Cruising Range, 275 miles; Height, [deleted]; Engine, 1500 horsepower; HP/Ton Ratio, [deleted]; Crew, 4.

Cost: The XM1 procurement unit cost is $.882 million.

The mission of the Advanced Attack Helicopter is to provide a highly mobile and responsive aerial antitank weapon system capable of fighting and surviving in a mid-intensity conflict. It will be capable of performing its mission during daylight, at night and under adverse weather conditions.

Characteristics: Speed (knots, true airspeed), 145–175; Endurance (hours), 1.9–2.5; Vertical Flight & Hover Performance, Hover Out of Ground Effect at 4000 ft, 95°F and Climb 450–500 feet per minute using 95% military rated power at mission gross weight; Armament, 8–12 TOW missiles, 800–1000 rounds 30mm ammunition; Night Capability, Separate night vision system for pilot and copilot/gunner; Armor Protection, Armored against 12.7mm projectiles for crew and vital components; On-board Navigation Aids, LORAN D standard common user navigation system.

Cost: The AAH procurement unit cost is $3.3M.

Chairman McClellan. Proceed.

General Deane. The UTTAS and MICV will enable the commander to rapidly shift infantry around the battlefield while the XM–1 and AAH will provide highly mobile heavy firepower. All, of course must be supported by artillery, close air support and air defense weapons.

Improved Air Defense

The Army's Air Defense Systems must be capable of coping with the threat posed by the numerical superiority of combat aircraft possessed by the Soviet block, especially in Europe.

The Warsaw Pact nations are capable of assembling within a short period of time, a force of several thousand combat aircraft with advanced electronic countermeasures capability. In order to protect and provide freedom of action for our ground forces and helicopters and free our Air Force for offensive missions, we are developing SAM–D, a medium to high altitude anti-aircraft missile system with multiple engagement capabilities and high resistance to ECM.

Chairman McClellan. Please identify by type, number and mission a numerical comparison between the United States and the Soviet Union combat aircraft.

General Deane. With respect to NATO and Warsaw Pact tactical air forces, the following tables reflect the comparative capabilities of the US and the USSR for Central Europe and the Southern Flank (the US does not maintain forces in the Northern Flank of Europe). Since SAM–D is a medium to high altitude weapon,

this comparison is stated in terms of the kinds of aircraft that the SAM–D would be used against—primarily tactical aircraft of the type used by the US Air Force in the NATO countries. Accordingly, the following compares only US Air Force tactical aircraft with similar aircraft of the USSR, as of 2 January 1974.

[The information follows:]

Central Europe ..... } [Deleted.]
Southern Florida ..... }

Austere Version of SAM–D

Chairman McClellan. Has the Secretary decided to develop an austere version of the "SAM–D"?

General Deane. The Secretary of Defense has directed the Army to reexamine and redirect the SAM–D program to emphasize greater austerity and permit early flight verification of the guidance concept. In complying with this direction, the Army is looking at changes to SAM–D to define a lower unit cost version. These proposed changes will be submitted to the ASARC and DSARC for approval and decision.

Chairman McClellan. Proceed.

General Deane. To fill the existing void in all weather, low altitude air defense we plan to develop a mobile Short Range Air Defense (SHORAD) missile system.

SHORAD System

Chairman McClellan. Please give us more detail on the necessity of a SHORAD system? Will it necessarily be foreign? When will the system be chosen? When will it be operational? Why are we not developing our own system? What is the estimated cost of a) the development of this system and b) the procurement of the system? How does the mission of SAM–D fit in with the mission of SHORADS and STINGER?

General Deane. The system will not necessarily be foreign: however, the maturity of each of the three foreign systems being considered gives them a substantial advantage over any conceptual system. We except to select a system for Developmental Testing/Operational Testing (DT/OT) II during the first quarter FY 1975, and have operational units by first quarter [deleted]. We believe that we can realize substantial RDTE savings in both costs and development time by capitalizing on R&D efforts of our allies which are already nearly complete. The estimated RDTE program is $100 to $150 million and the procurement of [deleted] is estimated to cost $550 to $610 million. SAM–D, a SHORAD system, and STINGER would constitute a potent family of air defense missiles. SAM–D would engage medium and high altitude aircraft at long ranges, providing large area coverage, the SHORAD would complement SAM–D's fire power by filing in gaps in radar coverage caused by terrain irregularities and earth curvature, and STINGER will provide a self-defense capability for very low level attack on front line combat units. Each of the three systems complement each other, and each, along with Air Force air defense aircraft and probably a future air defense gun is necessary to preclude leaving open any portion of air space which could be exploited by enemy air.

Chairman McClellan. Proceed.

General Deane. STINGER, a highly reliable man-portable successor to the REDEYE will complement SAM–D and deal with low flying tactical aircraft and helicopters.

Redeye and Stinger Tests Under Extreme Weather

Chairman McClellan. What success have you had with the REDEYE and STINGER in extreme weather conditions? What comparable system does the Soviet Union have to the STINGER? Have these systems been tested with our aircraft and will they be tested with the A–10?

General Deane. STINGER has not yet been tested as a system in extreme environments. The results of component testing at both high and low temperatures are very encouraging. No significant problems have been encountered and none are anticipated. REDEYE was given the Army's full gamut of environmental testing to include Arctic and Tropic firings. It performed very well and has been purchased by Sweden. We know of no Soviet development comparable to STINGER. REDEYE has been tested against one full scale drone aircraft, the QF–9, and one

droned helicopter, the QH–13. STINGER will be fired against the [deleted] droned aircraft. Subscale targets will be used for the majority of test firings. The Army knows of no plans to have the [deleted] available as a droned target aircraft.

Chairman McCLELLAN. Proceed.

General DEANE. Finally, a comprehensive, multi-faceted effort is underway to define the best approach to upgrade our air-defense gun capabilities.

The Middle East War demonstrated the ability of air defense to provide a relatively high degree of protection for ground units even in the absence of friendly air cover, and established air defense as an integral component of offensive land forces. The salient factor in this success was the sheer volume of missiles fired, not just their quality.

MISSILE FIRINGS BY ARABS

Chairman McCLELLAN. How many missiles were fired by the Arabs?

General DEANE. Intelligence has estimated that about [deleted].

Chairman McCLELLAN. Proceed.

BALLISTIC MISSILE DEFENSE

General DEANE. The agreement on the ABM Treaty in May of 1972 resulted in a shifting of emphasis in the BMD program toward a vigorous research and development effort.

PROVISIONS OF ABM TREATY OF 1972

Chairman McCLELLAN. Please list the provisions of the ABM Treaty of 1972. What effect has this treaty had on our BMD program?

General DEANE. The principal provisions of the treaty which affect the BMD program include:

1. Neither the USSR nor the U.S. will undertake to deploy ABM systems for the territory of its country nor provide a base for such a deployment, nor will an ABM deployment be made from the defense of an individual region except for one deployment to protect ICBM launch sites and another centered on the nation's capital (the NCA). (Fifteen ABM launchers are authorized at test ranges.)
2. Each authorized deployment is limited to one-hundred ABM launchers and missiles and an area of not greater than 150 kilometers.
3. At the NCA, no more than six radar complexes are permitted while two large phased array radars and eighteen smaller radars are permitted at the ICBM field deployment.
4. Only static, land-based ABM systems may be developed, tested, and deployed.
5. An ABM capability cannot be given to systems other than the authorized ABM systems.
6. Sites in existence but not authorized by the treaty must be dismantled or destroyed.
7. Each party to the treaty may use national means of verification to provide assurance that the treaty is being followed and neither party may interfere with these national technical means of verification nor use deliberate concealment measures to impede these means.
8. The treaty is of unlimited duration; however, it will be reviewed by the parties together every five years and either party can withdraw from the treaty "if it decides that extraordinary events related to the subject matter of the treaty have jeopardized its supreme interests."

In accordance with the treaty, the U.S. has limited its SAFEGUARD defense of ICBM to the Grand Forks site and completed about 90% of the dismantlement of the Malmstrom SAFEGUARD site. Since only one SAFEGUARD site is authorized, the overall logistic support will be provided by a contractor instead of by a dedicated logistics command. SAFEGUARD production is being terminated and Site Defense has become the primary U.S. option for insuring the continued survivability of MINUTEMAN. The ABM Treaty caused no changes to the technical performance requirements of the Site Defense development program.

COSTS TO U.S. ARMY OF BMD

Chairman McCLELLAN. How much money has the United States Army spent for BMD?

General DEANE. Overall Army BMD costs, FY 56 through FY 74, are about $10.0 billion. This is made up of direct cost of $9.7 billion plus $.3 billion BMD share of range support.

Chairman McClellan. Proceed.

General Deane. This effort will minimize the time needed to produce the necessary hardware in the event of SAL abrogation or modification and guard against technological surprise.

Lead Time of BMD Projects

Chairman McClellan. Compare the lead time of BMD projects to other R&D areas.

General Deane. Based on a very limited historical sample, we find that about 10 years may be required to take an advanced BMD technology concept from its exploratory research stage through engineering development to final incorporation in a complex BMD system. This can be compared to a typical R&D lead time of about 7 to 10 years for other non-BMD programs, depending on their complexity. The BMD lead time is driven essentially by the complexity of the BMD problem wherein highly advanced systems for tracking, discrimination, interception and data processing must be welded together via detailed and extensive software programs to operate effectively against a varied and time sensitive threat with very little assistance from man. As is often the case we believe that this lead time could be significantly shorter given the experience base of SAFEGUARD and a pressing national need and resolve to deploy a system.

R&D Technological Programs

Chairman McClellan. What major R&D technological programs are being undertaken in the BMD area?

General Deane. It is difficult to categorically state which technological program is a major one, all of the programs are considered important. However, the following programs are considered key programs:

a. *Solid State Radar Technology*—This program is keyed to providing solid state electronic components that would make possible a smaller, more reliable, lower cost phased array radar for BMD application.

b. *Nuclear Hardened Optical Sensors*—Hardened optical sensors are critical technology items that must be available if a homing interceptor is to be feasible.

c. *Fly Along Infrared (FAIR) II*—This program is gathering in-flight [deleted]. Such data is invaluable to the offensive side of the DOD Ballistic Missile program as well.

d. *Advanced Interceptor Technology*—This program is geared to providing the necessary technology base for a [deleted].

e. *Parallel Element Processing Ensemble (PEPE)*—This is an advanced computer adjunct that would permit very high throughput data processing, thereby greatly enhancing computer capacity.

f. *Bulk Filter and Discrimination Technology*—This program is geared to providing improved [deleted].

g. *Software Technology*—The most critical and often the pacing item in a development of a defensive system is the system software most of which must work in real time. This effort is directed toward developing more timely, efficient, and economical methods of creating software.

h. *Nuclear Mitigation*—This program is geared to developing techniques to provide a [deleted].

i. *Laser Applications*—This program is exploring the use of lasers as [deleted].

j. *Signature of Fragmented Tanks (SOFT)*—This technology program is investigating the properties and characteristics of [deleted.]

k. *Ballistic Missile Defense Target Program (BMDTP)*—This program will provide necessary reentry radar data to evaluate and measure the effectiveness of a variety of alternative bulk filtering techniques.

Chairman McClellan. Proceed.

General Deane. R&D lead times in the high-technology BMD area indicate the inadvisability of a lag in the expansion of the BMD technology base.

Reorganization of BMD Program

Chairman McClellan. Explain the new reorganization of the Army's BMD program. How will this improve our present system?

General Deane. All of the Army's BMD activity will be placed under a single BMD Program Manager (PM) who reports to the Chief of Staff of the Army.

This will combine the management of the SAFEGUARD system deployment and the Site Defense protype demonstration (now managed by the SAFEGUARD System Manager) and advanced BMD technology (now managed by the Chief of Research and Development).

This new organization will: (1) Create a centralized mechanism for reporting to the BMDPM, determining requirements, establishing priorities, evaluating new concepts and planning the overall BMD program; (2) reduce management overhead in keeping with the overall contracting scale of effort in BMD, particularly in those activities associated with deployment; and (3) enable the BMD program to speak with a single voice.

Personnel Employed in BMD and Salaries

Chairman McClellan. How many military and civilians are employed in this area? What is the BMD budget request? How much of this goes to salaries?

General Deane. At the end of FY 1974 there will be 506 military and 1915 government civilian personnel authorized for the Army's BMD program. By the end of FY 1975 it is projected that there will be 655 military and 1056 government civilian personnel authorized for the Army's BMD program. The increase in military personnel is attributed to the initial tactical manning of the Grand Forks SAFEGUARD site in FY 1975. The decrease in government civilian manning reflects the reorganization of the BMD management structure.

The FY 1975 BMD budget request is:

(Dollars in millions)

Site Defense	160. 0
Safeguard	145. 7
ABMDA	91. 4
Total	397. 1

In FY 1975 an estimated $29.5 million will go to Site Defense, SAFEGUARD and ABMDA Government civilian salaries and direct fringe benefits. Military pay will total about $7 million. The cost and manpower estimates do not include costs such as travel, office expense and overhead and indirect benefits such as those provided by the National Ranges.

U.S. vs. Russian Expenditures

Chairman McClellan. How do we compare with the Soviets in this area both in the amount of funds spent and technology achieved?

General Deane. Direct or accurate comparison of BMD funding is difficult because of the closed nature of the Soviet society; however, we do have a number of visible indications of Soviet achievements in deployment and R&D on BMD systems and components. The Soviets currently have an operational ABM defense located in the Moscow area with a network of early warning radars deployed around the Soviet Union. Construction of this system was started in 1962 or 1963 and it has been operational since about 1968. Thus, the Soviets are ahead of us in terms of field experience with a deployed ABM system. This ABM system near Moscow, exclusive of R&D and the early warning network, is estimated to have cost about $2 billion although such estimates are rough at best. In terms of technology, the SAFEGUARD system represents a more advanced radar, interceptor and data processing technology than we associate with the Moscow ABM system, but it must be remembered that the Moscow system will have been operational for about seven years before the SAFEGUARD operational date.

With regard to Soviet R&D activities, we do see an extensive and continuing series of flight tests and experiments at their ABM R&D test range, plus the appearance of new and improved major ABM components that indicate that their R&D program is funded at a level greater than ours. We believe that our current ABM component technology is at least equal to that of the Soviets; however, we must be cautious and conservative in such judgments because we do not become aware of their new technology advances until they appear in some visible form such as prototypes for test at their missile test range. For example, if the Soviets were to develop a high aeceleration interceptor similar to the SPRINT interceptor versions used in SAFEGUARD and Site Defense, we would not typically become aware of it until full-scale flight tests were begun. Such testing does not occur until late in the development cycle.

PROGRAM AREAS AND FUNDS

Chairman MCCLELLAN. Please identify in detail the programs, their purpose and the amount of funds to be spent for (a) optical and radar sensors; (b) discrimination techniques; (c) data processing; and (d) advanced interceptor concepts.

General DEANE. The program areas and funds requested by BMD Advanced Technology are as shown below:

[Dollars in Millions]

Radar Technology	$15.2
Optics Technology	9.4
Data Processing/Software Development Technology	7.2
Interceptor Technology	9.1
Discrimination Technology	36.5
New Concepts and Technology	14.0
Total Advanced Technology Program	91.4

The purpose of this program is to provide the advanced technology foundation for improving our Ballistic Missile Defense capability; to provide a measure of the BMD technology art to avoid technological surprise by an adversary; and to assist in the development and assessment of future offensive systems. Our objectives in the specific technology areas of the program are as follows:

Optic and Radar Technology—Investigate techniques which will allow development of sensors which are more cost effective and responsive to the evolving threat.

Data Processing/Software Technology—Devise methods of performing the data processing task so as to maximize computer throughput utilization; devise more cost-effective methods of writing the accompanying software.

Interceptor Technology—Push the state of the art of interceptor technology so as to achieve very high velocity with maximum reductions in response time, thereby permitting lower commit altitude, and improving the means of combatting advanced threats.

Discrimination Technology—Develop and evaluate alternative means by which both optical and radar sensors can reliably detect and discriminate a warhead vehicle in the midst of accompanying clutter. Accumulate basic radar and optical signature data on a wide variety of threat objects. Conduct field and laboratory experiments and simulations to define basic physical phenomena important in defensive and offensive system operation.

New Concepts and Technology—Conduct an orderly search for new ideas and concepts applicable to ballistic missile defense technology. Evaluate all such new ideas, and incorporate those which show promise of major contribution to BMD.

SITE DEFENSE AND SAFEGUARD REQUESTS

Chairman MCCLELLAN. What is your FY 1975 request for Site Defense and SAFEGUARD?

General DEANE. The FY 1975 budget request for Site Defense and SAFEGUARD is:

[Dollars in millions]

Site Defense:	
R.D.T. & E	$160.00
Total	160.00
Safeguard:	
R.D.T. & E	60.8
Procurement	3.0
OMA	75.0
MPA	6.9
Total	145.7

PROBLEMS IN SITE DEFENSE PROGRAM

Chairman MCCLELLAN. What problems have you incurred in the Site Defense program?

General DEANE. All problems which have been identified in the program including the five critical areas have been resolved at least to the design approach

level of solution. The five critical areas are: (1) operation in a nuclear environment, (2) bulk filtering, (3) discrimination, (4) software development, and (5) dormancy and unmanned operation. Satisfactory approaches to these issues are within the capability of current technology and are being addressed in the prototype demonstration program.

Fund for Program Completion

Chairman McClellan. How much will be needed to complete this program?

General Deane. About $440 million in R.D.T. & E. funds after fiscal year 1975 will be needed to complete the prototype demonstration.

AFAR System

Chairman McClellan. What is the AFAR System?

General Deane. AFAR is an acronym for Advanced Field Array Radar. It is a technology effort that involves the development of solid state radar components, and an Advanced Digital Signal Processor (DSP). Such a radar shows promise for highly reliable and low cost operation which in combination with an advanced data processor and new software technologies could handle the sophisticated threats forecast for the future.

MARV Program

Chairman McClellan. Explain MARV and what we are doing and spending for in this program.

General Deane. MARV is an acronym for a Maneuvering Reentry Vehicle. [Deleted.] ABMDA is not developing a MARV. Any such development would only be undertaken by ABRES for the strategic offense. However, the defense must evaluate methods of coping with such stressing threats. [Deleted.]

Top 25 BMD Programs

Chairman McClellan. List for us the top 25 BMD programs, who is performing the contracts and when will they be completed.

General Deane. Following is a listing of the 25 highest dollar value active contracts awarded by the US Army SAFEGUARD System Command for accomplishment of effort associated with Ballistic Missile Defense:

Effort	CONTRACTOR	Dollars (millions)	Completion date
SAFEGUARD			
SAFEGUARD BMD production	Western Electric	$2,035	December 1974
SAFEGUARD BMD development	do	915	July 1975
Perimeter acquisition radar	do	167	October 1974
SAFEGUARD training program	do	52	July 1974
SAFEGUARD logistics support	do	15	October 1974
Facilities for RDTE effort	do	14	September 1975
SPARTAN motor loading	Thiokol Chemical	13	March 1975
SPRINT motor loading	Hercules, Inc	11	November 1974
Requirements investigations	Stanford Research	9	January 1975
Software verification and validation	Science Applications	8	June 1974
SPARTAN motor production preparation	Thiokol Chemical	5	November 1974
SITE DEFENSE			
Site defense prototype demonstration	McDonnell-Douglas	445	August 1978
SPRINT II missile	Martin-Marietta	187	Do
System engineering and technical assistance	Teledyne Brown	13	October 1974
KWAJALEIN MISSILE RANGE			
Range logistics support	Global Associates	136	September 1974
Range technical support	Kentron-Hawaii	29	Do
Signature and metric measurements (ALCOR)	RCA	22	Do
Signature and metric measurements (ALTAIR)	GTE Sylvania	11	Do
ADVANCED BALLISTIC MISSILE DEFENSE			
Hit-to-kill Homer ground test	LTV Aerospace	22	August 1977
Signature of fragmented tanks	Boeing Co	19	October 1974
Advanced field array radar	RCA	15	July 1977
FAIR II measurement program	Philco Corp	15	July 1974
Real Time advanced processing ensemble (PEPE)	System Development Corp	10	June 1976
Re-entry physics/hypervelocity measurements	General Motors	6	September 1974
Exoatmospheric target designation	Philco Corp	5	June 1974

Chairman McCLELLAN. Proceed.

General DEANE. Site Defense, our principal hedge against SAL abrogation, is becoming an increasingly crucial program, especially in light of the current round of SAL negotiations and of the new threat to our MINUTEMAN retaliatory forces posed by Soviet advances in MIRV techniques.

Development of SAFEGUARD is continuing and will be essentially completed at the Grand Forks site by the equipment readiness date of October 1974. Integration of the subsystems and system level testing in netted modes will then begin.

The advanced BMD technology program will continue in several critical areas including optical and radar sensors, discrimination techniques, data processing and advanced interceptor concepts.

I believe that it is hardly an exaggeration to state that this area of research is crucial to the welfare of this nation, both as a deterrent to war and as insurance of our ability to destroy an attacking enemy in the event of war.

ARTILLERY

Our development effort in this area is directed toward coping with the numerical and range superiority of Soviet and Warsaw Pact artillery.

SOVIET AND WARSAW PACT ARTILLERY

Chairman McCLELLAN. Explain the numerical and range superiority of Soviet and Warsaw Pact Artillery.

General DEANE. A number of classified and unclassified studies have indicated that in the early stages of a war in Europe the Soviets would deploy more artillery tubes by a margin exceeding two to one. In addition to this numerical superiority, current Soviet weapons in general have longer range than US weapons of comparable caliber, although US developmental weapons and ammunition should close the gap.

Chairman McCLELLAN. Proceed.

General DEANE. We are continuing work on the XM-198, XM-204 and M110E2 howitzers which will have improved range and reliability.

COSTS OF XM198

Chairman McCLELLAN. How much has been spent on the XM198? Do you have an operating prototype? Have you looked into ammunition alternatives?

General DEANE. We have spent $27.6M through FY73 on the XM198 and are spending $6.0M in FY74. Our FY75 request is for $6.1M. We currently have three operating prototypes. Ten thousand rounds were fired on the first two, and then design changes incorporated into prototype three. We have fired over 7,000 rounds on prototype three, and anticipate completion of a full 15,000 round test this year. As far as ammunition, a number of alternatives have been examined. The current charges are not considered acceptable because they do not achieve the required range, and would necessitate additional supercharges. The current charges also have "sticker" problems when used in the larger combustion chambers of the new extended range M109A1 and XM198 howitzers. The old charges do not generate under all conditions a sufficiently high peak pressure to propel the projectile, thus causing a "sticker". We have also looked at UK propellants which are stick propellants instead of granular propellants. High cost and higher pressures which will affect cannon fatigue life are major disadvantages of the UK charges, but we are experimenting to see if we can overcome these problems. In choosing the XM164/201/203 granular propelling charges for the future family of extended range 155mm howitzers a number of different alternatives were examined. The problem of obtaining the extended range yet maintaining velocity uniformity was a delicate one, and the charge solution was accepted only after extensive experimentation and testing. We are continuing to work with these charges, and are testing a modification to the XM201 charge that promises to significantly reduce costs. In the projectile area we have tested alternatives to the XM708 HE projectile and considered modification of the 30 year old M107 projectile to make it compatible with the XM198. The XM708 appears to be the optimum solution in terms of cost and performance. We are, however, continuing with the evaluation of the Space Research Corporation for projectile design for both 8-inch and 155mm application as discussed with the Senate Appropriations Committee last year.

Chairman McCLELLAN. Proceed.

General DEANE. We are also investigating both rocket assisted projectiles and low drag unassisted projectiles to further enhance our range capabilities. Since the Soviets are reportedly developing extended range rounds with similar technology, continued intense effort on our part in this area is clearly required to gain and maintain range superiority, especially in view of the 3–1 advantage in the number of artillery tubes available to them in Europe.

DATA ON ARTILLERY PIECES

Chairman MCCLELLAN. Provide for the Committee a list of all artillery pieces, what ammunition they use, their range, cost and mission.

General DEANE. The attached chart provides the requested information:

Model	Caliber	Max. range (m)	Propelling charges	Projectiles (see code below)	Primary mission	Unit cost [1]
M101A1	105 mm	11,000	M67	1, 2, 4, 5, 7, 8	Direct spt	$57, 982
M102	105 mm	11,500	M67	1, 2, 4, 5, 7, 8	Direct spt	56, 927
M109	155 mm (SP)	14,600 w/o RAP; 19,400 w/RAP.	M3, M4	1, 2, 3, 4, 5, 6	Direct spt	226, 475
M114A1	155 mm	14,600	M3, M4	1, 3, 4, 5	General spt	90, 610
M109A1	155 mm (SP)	18,000 w/o RAP; 24,000 w/RAP.	M3, M4, M119 or XM164/XM201.	1, 2, 3, 4, 5, 6	Direct spt	245, 000
XM198	155 mm	24,000 w/o RAP; 30,000 w/RAP.	XM164/XM201/XM 203.	1, 2, 3, 4, 5, 6	General spt	125, 828
M107	175 mm (SP)	32,600	M86A2	1	General spt	293, 542
M110	8 inch (SP)	18,600 w/o RAP; 20,800 w/RAP.	M1, M2	1, 2, 3, 4, 5	General spt	326, 500
M110E2	8 inch (SP)	[deleted]	M1, M2, XM188E1	1, 2, 3, 4, 5	General spt	[2] 49, 108
XM204	105 mm	[deleted]	M67, XM200	1, 2, 4, 5, 7, 8	Direct spt	deleted

[1] Costs will vary with quantity procured.
[2] Mod kit.

Code: 1—HE non-RAP; 2—RAP; 3—Nuclear; 4—Chemical; 5—Improved conventional munition; 6—Scatterable mines; 7—Direct fire, antitank; 8—Direct fire, anti personnel.

PROPOSED REDUCTION OF 155MM DEVELOPMENT FUNDS

Chairman MCCLELLAN. Since our allies are developing new 155mm ammunition items which are to be ballistically similar to our own, why don't we combine our development programs to reduce costs?

General DEANE. The approach to standardization in 155mm ammunition by the US and its allies has been to standardize requirements and specifications but develop independently. There are various reasons for this. Projectile and propellant R&D costs are relatively small ($2.2M for the XM164/201 propelling charges, $8.8M for the XM708 projectile). Much of the R&D cost is for testing which would normally be required by each country because of differing standards of instrumentation, analysis and safety. Finally, there are different production materials and processes in each country which tend to preclude joint development. As an example the British use stick propellants while the US production base is geared to granular charges. Similarly, the US and UK use different steels in projectile production.

Chairman MCCLELLAN. Proceed.

General DEANE. Test firings of the 155mm Cannon Launched Guided Projectile are proceeding. This concept will provide our artillery with the capability of single round neutralization of stationary or moving targets by employing terminally guided projectiles.

Work on binary chemical munitions and improved conventional munitions is continuing.

BINARY CHEMICAL MUNITIONS

Chairman MCCLELLAN. What are "Binary Chemical Munitions"?

General DEANE. A binary chemical munition is one in which the toxic agent is produced from two non-lethal compounds by means of a chemical reaction occurring during the time of flight of the munition to the target. Until this reaction takes place, there will be no lethal chemical hazards associated with the munition which will permit it being handled in the same manner that conventional ammunition is handled today. The munitions will be so designed as to permit rapid,

simple and safe assembly of the components at advanced supply points. Development of such a system will preclude the problems of disposal that we are experiencing today.

General DEANE. Artillery delivered anti-tank/antipersonnel mines currently undergoing development are designed to slow an enemy advance.

ANTITANK AND ANTIPERSONNEL MINE DEVELOPMENT

Chairman MCCLELLAN. What antitank and antipersonnel mines are we developing? How much are we spending in this area? How do we compare with the Soviets? What success did we have with our mines in Southeast Asia?

General DEANE. The current development program is oriented on a family of scatterable antitank and antipersonnel mines deliverable by artillery, rotary and fixed wing aircraft and ground vehicle dispenser. The mines all feature a self-destruct, antidisturbance capability with two different time options. The Area Denial Artillery Munition (ADAM) XM692E1/XM731, is an antipersonnel mine which will be delivered by 155mm artillery. The XM718/XM741, Artillery Delivered Antitank Mine, is also to be delivered by 155mm artillery and is to match the ADAM. A ground dispensed system has just entered engineering development. This system will employ a towable vehicle which will dispense antitank and/or antipersonnel mines at a rate of [deleted] mines/per minute. The Army is also participating in the Joint Service Mine Program (GATOR) to develop an antitank and antipersonnel mine system which has a delivery capability by high performance fixed wing or rotary wing aircraft.

The funding for research and development in FY75 in Program Element 6.46.19.A, Mine Systems, is $15.8 million. [Deleted] while the US Army has a single type, the M57. The US Army has accepted the M56 helicopter dispensed scatterable antitank mine system which has an integral self-destruct, antidisturbance capability. [Deleted.]

The employment of mines was of relatively low priority to the US Army in Vietnam primarily because of its counter-insurgency role. Mines were used to provide protection to outposts and defensive positions at night and not employed to delay, deny or canalize the enemy in accordance with Army doctrine. Although there was no real measure of success for the mines under the conditions employed, they served their purpose in a satisfactory manner.

After a selected period of time they will neutralize themselves, allowing movement of friendly forces through the area and reducing the possibility of civilian casualties after hostilities have ceased.

SURVEILLANCE, TARGET ACQUISITION AND NIGHT OBSERVATION

As a counter to the formidable Soviet artillery threat, work is continuing on the development of reliable automatic radar systems for the detection and location of enemy mortars and artillery.

A high percentage of Warsaw Pact exercises are conducted at night, and Soviet equipped Arab Armies demonstrated this capability during the October war.

NIGHT MISSION WARFARE

Chairman MCCLELLAN. How do we compare with the Soviets in night mission warfare?

General DEANE. Although there are some minor differences we are about equal to the Soviets. Their capability is primarily active Infrared with a few passive light intensification devices (Starlight Scopes). Current US equipment in the field is superior in quality.

PREVENTION OF DUPLICATIVE EFFORTS

Chairman MCCLELLAN. What steps has the Army taken not to be duplicative with the other services in this area?

General DEANE. The Army together with the Air Force and Navy are members of a Joint Technical Coordinating Group (JTCG) under the Joint Logistics Commanders of the Services. This group has as one of its responsibilities the development of a coordinated procurement plan, for Thermal Imaging systems. Joint reviews are also held by DDRE throughout the year to exchange information, coordinate efforts, preclude unnecessary duplication of research and development and to take maximum advantage of each service's expertise in satisfying requirements.

Automatic Radar Systems

Chairman McClellan. List all our "Automatic Radar Systems" and how, where and when they will be used.

General Deane. The two "Automatic Radar Systems" for detection and location of enemy mortars and artillery are the AN/TPQ–36 Mortar Locating Radar and the AN/TPQ–37 Artillery Locating Radar, both under development. They will be located near and used in conjunction with U.S. Artillery Units whose mission includes the destruction of hostile artillery and mortars. Appropriate employment of the radars will be dependent upon the tactical situation at any given point in time.

Chairman McClellan. Proceed.

General Deane. We possess strong night vision technology and are proceeding with development of a variety of infrared detection and night vision and sighting devices which are being integrated into existing systems, including TOW and DRAGON.

FY 74 Budget

Before discussing the individual budget activities and their programs let us consider the chart below, which compares the funds actually appropriated in FY 74 with our budget request for FY 75. We are requesting $1985.9 million for this fiscal year, a smaller figure than last year's request, but slightly larger than the amount we received.

Budget Activity Increase and Decrease

Chairman McClellan. Please explain the reasons for either the increase or decrease, by budget activity, between FY 74 and FY 75.

General Deane. The following are the reasons for increase or decrease by budget activity:

In Budget Activity 1, Military Sciences, the decrease of $5.1 million was primarily due to the further implementation of the Single Program Element Funding (SPEF) concept which caused some funds to be transferred to Program Elements in other budget activities to comply with budget definitions.

In Budget Activity 2, Aircraft and Related Equipment, a net decrease of $25.9 million is due to a sharp decrease in funds for the UTTAS program where the long lead time items for prototype fabrication were purchased in FY 74. This decrease was partially offset by increases in the Aerial Scout, which is a new start, and in the AAH where prototype fabrication is proceeding at a higher level of effort.

In Budget Activity 3, Missiles and Related Equipment, the net dercease of $114.9 million is due primarily to transfer of WSMR funds to Budget Activity 7; a sharp decrease in funds for SAM–D during the current austere engineering development phase; and a reduction in Safeguard funds, only partially offset by increases in Site Defense, Advanced Ballistic Misslie Defense and Hardened Ballistic Missile Defense Materiels. These large decreases mask increased funding in low altitude air defense systems both new, such as LOFAADS, and improved, such as Hawk, and also for terminal guidance programs being started, such as Pershing II, or entering advanced development, such as the Air Defense Suppression Missile.

In Budget Activity 4, Military Astronautics and Related Equipment, the net decrease of $1.7 million is due primarily to a lower level of contract effort on the ground terminals for the Defense Satellite Communications System as major items are completed, partially offset by increases in the NAVSTAR Global Positioning System where Army peculiar user equipment will enter advanced development.

In Budget Activity 6, Ordnance, Combat Vehicles and Related Equipment, the net increase of $8.9 million is due primarily to the increased level of contractor activity in the XM–1 tank development program. Other lesser increases in TOW, the Tank Gun Evaluation, Mine Systems and other programs were offset by decreases in programs including Weapons Technology, MICV, and Bushmaster.

In Budget Activity 7, Other Equipment, the net increase of $160.9 million is due primarily to a management change in the test and evaluation activities funding which resulted in an additional $106 million for standardized funding of T&E facilities that were consolidated in this budget activity. Other significant increases are in the AN/TTC–39 Switch program which enters its first full year of engineer-

ing development, the Electronics Warfare area in which there is a net increase of over $10 million, other communications developments and night vision equipment development.

In Budget Activity 8, Programwide Management and Support, the reduction of $6.7 million results from transferring costs of the Army Missile Test and Evaluation activity and Yuma Proving Ground to Budget Activity 7 for institutional funding of the major test and evaluation activities ($9.5 million) partially offset by increases for RDT&E pro rata share of overhead costs at Army Materiel Command subordinate headquarters and relocation costs associated with the move of Harry Diamond Laboratories to White Oak, Maryland.

Chairman McCLELLAN. Proceed.

R.D.T.E. BY BUDGET ACTIVITY (BA)

[In millions of dollars]

Budget activity—title	Fiscal year 1974	Fiscal year 1975
1—Military sciences	$116.6	$111.5
2—Aircraft	296.0	270.0
3—Missiles	821.3	706.4
4—Military astronautics	17.5	15.8
5—Ships	0	0
6—Ordnance	255.0	263.9
7—Other equipment	401.6	562.5
8—Management and support	62.5	55.8
Total	1,970.5	1,985.9

General DEANE. Isolated on the chart below are our Big Five systems plus Site Defense. Funding requests for the Attack Helicopter and the tank are up from last year, while UTTAS, SAM-D, and MICV are down. These changes generally reflect projected funding profiles, except for SAM-D. Our original FY 75 SAM-D program required $166.2 million; the revised program, as described by Mr. Augustine, needs $111.2 million, a reduction of $55 million. Site Defense is moving into a critical period leading to testing, evaluation and system integration.

[In millions of dollars]

	Fiscal year 1974	Fiscal year 1975
AAH	$49.3	$60.8
UTTAS	102.7	54.1
SAM-D	194.4	111.2
MICV	11.8	7.8
XM-1	54.0	68.8
Site defense	110.1	160.0
Total	522.3	462.7

BIG FIVE MISSIONS

Chairman McCLELLAN. Explain the mission of each of the "Big Five", the amount of funds expended to date, the amount necessary for completing the major contractors involved, their location, and the number of military and civilian employees working on each progam.

General DEANE. The mission of the UTTAS is to airlift an 11 man squad into combat and resupply those troops while in contact.

Funds expended to date, fiscal year 1974 and prior (millions) $187.2
Amount necessary for completion of contracts (millions) $226.9

Contractor locations—General Electric, Lynn, MA, Boeing Vertol, Morton, PA, Sikorsky, Stratford, CT.

Total civilian employees 1800
Total Government employees 80

The mission and description of the XM-1 tank is as follows: The XM-1 tank will provide a significant improvement to the Army's offensive ground combat power. The XM-1 tank will mount a large caliber main gun and two or more

complementary armament systems with improved fire control and shoot-on-the-move capabilities. Improved ballistic protection will allow the XM-1 to safety engage targets at shorter ranges than current tanks with resultant increase first round kill capability. Higher cross country speeds and faster acceleration will make the XM-1 tank a more difficult target for opposing ground and air forces. Reduced maintenance requirements over current tanks will be realized in the XM-1 due to increased emphasis on reliability, availability, maintainability and durability during engineering and test programs. The XM-1 will replace M60 series tanks in selected active Army units.

Funds expended to date, fiscal year 1974 and prior (millions)..... $95. 5
Amount necessary to complete validation phase (millions)..... 101. 6

Contractor Locations—Chrysler Corporation, Detroit, MI, General Motors, Indianapolis, IN.

Total civilian employees..... 749
Total Government employees..... 54

SAM-D will replace NIKE Hercules and Improved HAWK in providing air defense of the Army in the field and continental US. In the field army, SAM-D defenses will be complemented by short range, low altitude forward area air defense weapons and will be integrated with the US Air Force in the overall air defense of the theater of operations. In continental US, SAM-D will provide defense of high value complexes along the periphery and will be integrated with other continental US air defense forces.

Funds expended to date, fiscal year 1974 and prior (millions)..... $752. 2
Amount necessary to complete contracts..... Unknown

(Contract is being restructured in accordance with OSD directed reorientation of the program.)

Contractor Locations—Raytheon Company, Bedford, MA, Martin-Marietta, Orlando, FL.

Total civilian employees..... 3600
Total Government employees..... 194

The mission of the AAH is to provide a highly mobile and responsive aerial antitank weapon system capable of fighting and surviving in a mid-intensity conflict. It will be capable of performing its mission during daylight, at night and during adverse weather conditions.

Funds expended to date, fiscal year 1974 and prior (million)..... $69. 3
Amount necessary to complete Phase I contracts (million)..... $73. 5

Contractor Locations—Bell Helicopters, Ft. Worth, TX, Hughes Helicopters, Culver City, CA, Hughes Aircraft Co., Culver City, CA, General Electric, Lynn, MA.

Total civilian employees..... 1640
Total Government employees..... 11•

The MICV is a lightly armored tracked vehicle which provides cross-country mobility, mounted firepower, communication and protection to the mechanized infantry squad in mounted and dismounted combat. The MICV is designed to operate with tanks as a companion vehicle and will be compatible with the new XMI Tank System as well as currently fielded tanks with respect to mobility characteristics and complementary in terms of firepower and protection. The vehicle will have an inherent swimming capability. The vehicle's design will permit the mounting and employing of the Vehicle Rapid Fire Weapon System-Successor (VRFWS-S) as its primary armament system. This vehicle will replace the M113 series of armored personnel carriers used in combat role in selected mechanized infantry units.

Funds expended to date, fiscal year 1974 and prior (million)..... $30. 5
Amount necessary to complete contract (million)..... 7. 7

Contractor locations—FMC Corporation, San Jose, CA.

Total civilian employees..... 102
Total Government employees..... 40

Chairman McClellan. Proceed.

General Deane. I would now like to describe for you some selected efforts we are pursuing in each of the budget activities, beginning with Military Sciences.

Military Sciences

The Military Sciences budget activity is a technology oriented effort. Sixty-five percent of this budget activity is under the Technology Coordinating Paper (TCP) concept of the Department of Defense.

TCP Concept

Chairman McClellan. Explain the TCP concept.

General Deane. The Technology Coordinating Paper is a management aid to the technical experts and knowledgeable managers of the technology base program and provides objective overviews of long term goals in the specific technology areas. It serves to demonstrate how the various programs of the Services fit together and complement each other in fulfilling these goals. The documents can be used to provide Service coordinated technology programs to Congress.

The Technology Coordinating Paper as a technology base program management aid:

Systematically identifies—as program objectives—needs for new technology for potential use in future military systems or devices.

Outlines and displays on a comparable basis the programs planned by each Service to reach these objectives.

Projects, as realistically as possible, the funding planned by each Service to support work toward each program objective. Technological opportunities and additional funding needs are identified.

Establishes broad guidelines for management by each Service of its Technology Base programs.

Based on experience to date the Technology Coordinating Paper process has greatly improved interservice communication in a technology program and has been an effective mechanism for addressing the extremely broad scope of the Services' technology base programs.

Chairman McClellan. Proceed.

General Deane. An additional fifteen percent is concerned with weapons technology and doctrinal studies not covered by the current TCP structure. This means that only the remaining twenty percent of the Military Sciences budget activity is concerned with what may be referred to as general military sciences.

Decision on Order of Project Priority

Chairman McClellan. How do you decide which projects should be undertaken?

General Deane. The dominant factors in selection of projects are: the potential response of the project to a need or a requirement, the anticipated payoff of the project, and the cost. In selecting new projects to be performed under contract the quality of the proposal, the confidence of the investigator, and cost versus expected payoff are additional factors influencing the selection. For the projects to be performed in-house all of the above factors are considered, however, the decision to undertake a project is influenced by the availability of qualified personnel and of supporting experimental equipment.

Chairman McClellan. Proceed.

General Deane. We are continuing to make each of our efforts in this portion of Military Sciences as relevant as possible to future Army technology base goals and objectives. We are also continuing to emphasize, for this entire budget activity, the four goals we spelled out last year; that is: cost avoidance; improved reliability, availability, and maintainability; increased human effectiveness; and technical superiority. Particular emphasis is being placed on identifying programs leading to cost avoidance or cost savings.

For discussion purposes I have divided the primary goals and objectives of the Military Sciences Program into five groups: applied technologies, soldier support, general military sciences, environment, and, doctrine and studies.

Applied Technologies

Approximately 40% of the Military Sciences budget activity is used for such applied technologies as explosives, gun propellants, materials, rotary wing aerodynamics, aircraft structure and propulsion, night vision devices, military electronics and ballistics research.

Major Programs in Applied Technology Field

Chairman McClellan. List the major programs in this applied technology field and their purpose. When are they expected to be completed?

General Deane. Programs which are in the applied technology field are part of the technology base and as such are continuing efforts. The major programs and their purposes in this field are:

PROGRAM AND PURPOSE

Electronics: Investigations of electronic processes, performance feasibility of new electronic devices, and critical Army electronic problems.

Materials: To develop and characterize new material products for development of advanced Army hardware systems.

Mechanics: To develop basic technology for application to design and fabrication of Army materiel.

Energy Conversion: Provide fundamental knowledge for development of communication, surveillance, and fuzing devices.

Aeronautical Sciences: Continuing research to develop the technology base in support of advanced Army aircraft systems.

Fluidic Technology Investigations: Investigation of fluidic systems for use in Army materiel.

Nuclear Weapons Effects Research: Research and tests in nuclear weapons effects on Army materiel and systems.

Energy Pulse Applications: Investigation of susceptibility, application, and potential components.

Chairman McClellan. Proceed.

General Deane. Each of these technologies is focused on some firm, timely, impact-producing goal. Objectives such as cheaper explosive fills, reduced gun tube temperatures and erosion, decreased aircraft fuel consumption, reduced cost and increased effectiveness of night vision and electronics devices dominate our efforts. Investigations in nuclear technology are directed toward better stability in nuclear effects. A whole range of advancements in new electron devices and in microminiaturization has opened the door to new technologies in electronic warfare.

Use of Microminiaturization in Electronic Warfare

Chairman McClellan. How has microminiaturization specifically assisted in electronic warfare?

General Deane. Microminiaturization is proving to be invaluable in a number of electronic warfare areas. Expendable communications jammers are being constructed from inexpensive, miniature, and highly efficient solid state transmitter devices. Receivers which rapidly scan large segments of the frequency spectrum for exploitable signals as well as analyzers to process signals of interest can be made compact for field use as a result of large scale integrated circuits. Cost reduction is possible since integrated circuits are batch produced items and initial designs are computer aided. The entire field of remote sensors would still be in a primitive technological state were it not for the low power consumption, ruggedness, reliability, and low cost of modern microminiature, solid-state electronic devices and circuits. These are but a few examples of how microminiaturization and the benefits that come with it are providing the leading edge for improved electronic warfare equipment and capabilities.

Dollar Amount for Applied Techology

Chairman McClellan. What dollar amount is being requested for applied technology? Where is the majority of this work performed?

General Deane. The Army has requested $43.8M for applied technology programs. The majority of the work is performed at Harry Diamond Laboratories, Washington, DC; US Army Electronics Command, Ft Monmouth, NJ; Army Materials and Mechanics Research Center, Watertown, MA; and Army Air Mobility Research and Development Laboratory, Moffett Field, CA.

Overall, the primary objective of these applied technologies is to either simplify the components in our weapons or to reduce their vulnerability.

Soldier Support

The second largest effort in the Military Sciences budget activity is in support of the individual soldier. The pay-off is in terms of improved health care, protection, survival, training, and leadership for our fighting men. No other area of military sciences funding provides such a high return on our investment, both in terms of dollars and increased human effectiveness.

R & D Funds for Support of Soldiers

Chairman McClellan. How much R & D funds are being requested for the support of the soldiers? Provide a detailed list of the programs this includes and where they are being performed.

General Deane. The total amount is 23.7 million dollars. The programs and performers are:

Program Sub-Element 6.11.02.A, Behavioral & Social Sciences. This work is performed at the US Army Human Engineering Laboratory, Aberdeen Proving Ground, MD; the US Army Research Institute for the Behavioral and Social Sciences, Arlington, VA; and by various contractors.

Program Sub-Element 6.11.02.A, Biological-Medical Sciences. The work is performed at Walter Reed Army Institute of Research, Washington, DC; US Army Institute of Dental Research, Washington, DC; US Army Natick Laboratories, Natick, MA; US Army Research Institute of Environmental Medicine, Natick, MA; US Army Edgewood Arsenal, MD; US Army Medical Research Institute of Infectious Diseases, Fort Detrick, MD; US Army Medical Research and Nutrition Laboratories, Denver, CO; US Army Medical Research Laboratory, Fort Knox, KY; Joint Laser Safety Team, Frankfort Arsenal, PA; US Army Institute of Surgical Research, Fort Sam Houston, TX; Letterman Army Institute of Research, San Francisco, CA; US Army Medical Research Unit, Balboa Heights, CZ; and by contracts with universities, nonprofit organizations and industry.

Program Element 6.21.10.A, Surgical Investigations. The work is performed at US Army Institute for Surgical Research, Fort Sam Houston, TX; US Army Medical Bioengineering Research and Development Laboratory, Fort Detrick, MD; Walter Reed Army Institute of Research, Washington, DC; US Army Medical Research Laboratory, Fort Knox, KY; Letterman Army Institute of Research, San Francisco, CA; US Army Institute of Dental Research, Washington, DC; US Army Medical Research and Nutrition Laboratory, Denver, CO; and by contracts with universities, nonprofit organizations and industry.

Chairman McClellan. Proceed.

General Military Sciences

General Deane. Twenty percent of this budget activity is specifically identified with research in what most people consider some of the general sciences: physics, chemistry, and mathematics. Army support of the In-House Laboratory Independent Research and information sciences programs is also included under the category of general military sciences. These efforts represent the fundamental science and technology that is pertinent to solving key technological problems relating to known Army problem areas.

Funding Request for General Sciences

Chairman McClellan. What funds are being requested for general sciences? Where and by whom is this work being performed. Provide a list of all "in-house laboratories"—"in-house laboratory research programs" and their locations and the number of persons employed.

General Deane. a. Funds requested for general sciences (chemistry, physics and mathematics) are as follows:

Program element:	*Funding*
6.11.01A (ILIR)	$11, 250, 000
6.11.02A (defense research sciences)	11, 259, 000
Total	22, 509, 000

b. Distribution of 6.11.01A (In-House Laboratory Independent Research) funds for FY 74 c. List of "in-house laboratories"—in-house laboratory research programs and their locations and the number of persons employed follow:

IN-HOUSE LABORATORY INDEPENDENT RESEARCH

Army Materiel Command	FY 1974 Allocation
Armaments Command	
Benet Weapons Laboratory	$625,000
Edgewood R&D Laboratories	525,000
Frankford R&D Laboratories	275,000
Picatinny R&D Laboratories	600,000
Rock Island R&D Laboratories	170,000
Aviation Command	
Air Mobility R&D Center	70,000
Central Laboratories	
Ballistics Research Laboratories	885,000
Harry Diamond Laboratories	915,000
Human Engineering Laboratories	165,000
Materials & Mechanics Research Center	500,000
Electronics Command	
Atmospheric Science Laboratory	190,000
Avionics Laboratory	70,000
Combat Surv. & Target A. Laboratory	60,000
Communications & ADPS Laboratory	285,000
Electronics T&D Laboratory	660,000
Electronic Warfare Laboratory	70,000
Night Vision Laboratory	80,000
Missile Command	
R&D Laboratories	830,000
Tank & Automotive Command	
R&D Laboratories	450,000

Test & Evaluation Command	
Arctic Test Center	0
Deseret Test Center	100,000
Electronic Proving Ground	15,000
Tropic Test Center	45,000
White Sands Missile Range	35,000
Troop Support Command	
Mobility Equipment R&D Center	330,000
Natick Laboratories	290,000
Chief of Engineers	
Cold Regions R&E Laboratory	100,000
Construction Engr Rsch Laboratory	100,000
Topographic Laboratory	120,000
Waterways Exper Station	350,000
Chief of Research & Development	
Research Institute for B&SS	120,000
Medical R&D Command	
Aeromedical Research Laboratory	110,000
Med. Bio-Engr R&D Laboratory	60,000
Institute of Dental Research	15,000
Institute of Infectious Diseases	120,000
Institute of Surgical Research	60,000
Letterman Army Institute of Research	70,000
Research Institute of Environmental Medicine	140,000
Research Lab (Ft. Knox)	20,000
Research and Nutrition Laboratory	145,000
Walter Reed Institute of Research	980,000
TOTAL	$10,750,000

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ARMY MATERIEL COMMAND

Personnel Data
(Military/Civilian)

Corporate Laboratories

9/597	Army Materials and Mechanics Research Center, Watertown, MA
66/826	Ballistic Research Laboratories - Aberdeen, MD
9/1578	Harry Diamond Laboratories - Washington, DC
30/100	Human Engineering Laboratories - Aberdeen, MD
16/110	Land Warfare Laboratory - Aberdeen Proving Ground, MD

Commodity Command Laboratories

Aviation Systems Command:

40/598	Air Mobility Research and Development Laboratory - Moffett Field, CA Also at Cleveland, OH, Ft Eustis, VA, and Langley, VA.

Electronics Command:

	Avionics Laboratory - Ft Monmouth, NJ
467/281	Atmospheric Sciences Laboratory - White Sands Missile Range, NM
23/320	Combat Surveillance and Target Acquisition Laboratory, Ft Monmouth, NJ
12/394	Communications/Automatic Data Processing Laboratory - Ft Monmouth, NJ
6/377	Electronics Technology and Devices Laboratory - Ft Monmouth, NJ
50/417	Electronic Warfare Laboratory - Ft Monmouth, NJ

Personnel Data (Military/Civilian)	
51/396	Night Vision Laboratory - Ft Belvoir, VA
Missile Command:	
40/1226	Directorate for Research, Development, Engineering and Missile Systems Laboratory - Redstone Arsenal, AL
Troop Support Command:	
71/1494	Mobility Equipment Research and Development Center - Ft Belvoir, VA
126/1183	Natick Laboratories - Natick, MA
Armament Systems Command	(Combined from Munitions and Weapons Commands)
219/1183	Edgewood Arsenal Laboratories - Edgewood Arsenal, MD
34/1666	Frankford Arsenal - Philadelphia, PA
71/2403	Picatinny Arsenal Laboratories - Dover, NJ
7/390	Benet Laboratory - Watervliet Arsenal, NY
7/390	Rodman Laboratory - Rock Island, IL
Tank-Automotive Command:	
35/922	Mobility Systems Laboratory - Warren, MI
CHIEF OF ENGINEERS	
41/242	Cold Regions Research and Engineering Laboratory - Hanover, NH
8/177	Construction Engineering Research Laboratory - Champaign, IL
20/310	Engineer Topographic Laboratories - Ft Belvoir, VA

Personnel Data (Military/Civilian)	
58/1247	Waterways Experiment Station - Vicksburg, MS
CHIEF OF RESEARCH AND DEVELOPMENT	
28/144	Army Research Institute for the Behavioral and Social Sciences - Arlington, VA
THE SURGEON GENERAL	
82/76	US Army Medical Research and Development Command - Washington, DC
50/28	Aeromedical Research Laboratory - Ft Rucker, AL
56/26	Institute of Dental Research - Washington, DC
134/80	Institute of Surgical Research - Ft Sam Houston, TX
91/22	Letterman Army Institute of Research - San Francisco, CA
27/64	Medical Bioengineering Research and Development Laboratory - Ft Detrick, MD
358/229	Medical Research Institute of Infectious Diseases - Ft Detrick, MD
8/0	Medical Research Unit, Malaysia - Kuala Lumpur, Malaysia
10/11	Medical Research Unit, Panama - Canal Zone, Panama
84/102	Research Institute of Environmental Medicine, Natick, MA
479/577	Walter Reed Army Institute of Research - Washington, DC

Environment

Chairman McClellan. Proceed.

General Deane. Ten percent of the Military Sciences budget activity is about equally split between learning about the environment and deciding how to improve military operations in varied environments. We are motivated by the urgent need to have real time, real place atmospheric and terrestrial data because it improves the accuracy of our artillery and missile firings and our battlefield mobility. We also need terrain data to improve our newly developed mobility model techniques for simulating Army vehicle operations over all types of terrain.

DOD Expenditures on Environment

Chairman McClellan. How much is the Army spending on the environment? Who coordinates these programs with others in DOD? What relationship does the Army have with civilian agencies?

General Deane. The Army plans to spend 28.4 million dollars in FY 75 to maintain its technology base in atmospheric, terrestrial and topographic sciences, to develop meteorological and topographic equipment needed for use in the field army and to provide meteorological data required in development of weapons systems. The program is coordinated in DOD by the Office, Director of Defense Research and Engineering, which conducts formal defense-wide topical reviews, program reviews and apportionment hearings as well as continuing liaison with and between the Services. Topographic Sciences efforts are coordinated by the Defense Mapping Agency and Director of Defense Research and Engineering. In addition, the Army provides a member to the Joint Environmental Satellite Coordinating Group, a tri-service working group that also interfaces with the National Aeronautics and Space Administration. Cooperative exchange and interface with other civilian agencies is accomplished through: the Interdepartmental Committee on Atmospheric Sciences (ICAS) under the Federal Council of Science Technlogy; Interagency Arctic Research Coordinating Committee; the Committee on Rock Mechanics and the Committee on Seismology, both under the National Academy of Sciences and an informal Interagency Geophysics Discussion Group.

Chairman McClellan. Proceed.

Doctrine and Studies

General Deane. The smallest part of the Military Sciences budget activity, just nine percent, is used for performing studies and analyses of new doctrine, policies, tactics, and strategies. Many factors are forcing the Army to take a new look at deployment of forces, weapons utilization and distribution, future combat tactics, and force structure. Such factors as the decreased size of the Army, differences in training of personnel, cost of weapons, consolidation of units, new weapons now under development, and changing international situations all require intensive analysis.

Chairman McClellan. Has the Mideast crisis upgraded the importance of the "doctrine and studies" area?

General Deane. Most certainly. A $2.0 million supplemental request was submitted to conduct operational analyses of the war in the Middle East. The purpose of the initial analyses is to exploit information on operational effectiveness of systems, doctrine, tactics and organizations so as to make immediate improvements in the interest of readiness.

Chairman McClellan. Proceed.

Aircraft

General Deane. The second budget activity, Aircraft, continues to receive high priority within the Army's R&D effort. The activity has $270 million programmed in FY 75, and contains two of our "Big Five" development programs. This essential R&D effort insures an effective airmobile capability for our ground forces on the mid-intensity battlefield.

Mid-Intensity Battlefield

Chairman McClellan. What do you mean by "mid-intensity battlefield"?

General Deane. The mid-intensity battlefield is characterized by armed conflict between belligerents in which the total resources of the belligerents, excluding nuclear weapons are employed.

Chairman McClellan. Proceed.

General Deane. The Middle East war graphically demonstrated the increasing battlefield threat to Army aircraft operations due to the technological advances and proliferation of air defense weapons.

Lack of Air Concept in Mideast

Chairman McClellan. Why were helicopters and air mobility concepts not employed in the Mid-East?

General Deane. Primarily because neither combatants had a sufficient inventory of helicopters to conduct an airmobile operation such as we developed in Southeast Asia.

Chairman McClellan. Proceed.

General Deane. While helicopters and air-mobility concepts as we know them were not employed by either side, such a capability could have significantly changed the outcome of the battle—particularly if attack helicopter teams had been employed against tanks and in conjunction with airmobile operations during the latter stages of the war. To counter the increasing air defense threat and insure a high probability of mission success, we must continue to pursue developments in infrared suppression, improved armor protection, noise reduction, and aircraft survivability.

Infrared Suppression Programs

Chairman McClellan. What major infrared suppression programs are being undertaken? How much are you spending in this area? Are you coordinating with the other services?

General Deane. We have a large program in Advanced Development and another in Engineering Development that addresses the entire Aircraft Survivability problem. Within each of these programs we are developing hardward for IR suppression. We are developing components [deleted].

During fiscal year 1974 we spent a total of about $1.1M for infrared suppression, and in fiscal year 1975 plan to spend approximately $4.5M.

Yes, our Product Manager for Aircraft Survivability coordinates continuously with the other services regarding requirements for, and progress of, development efforts.

Chairman McClellan. Proceed.

General Deane. This budget activity develops the tactical assault aircraft, anti-tank attack helicopters and their weapons systems, logistical support aircraft, and ancillary equipment that supports the Army's airmobile concept.

In FY 74 the major portion of the development and systems integration of the TOW missile system for use on the Cobra helicopter was completed. While the Cobra/TOW cannot perform the job for which the Advanced Attack Helicopter is being developed, it will provide us with an interim tank killing capability until the AAH can be fielded.

Missions and Requirements of Cobra/TOW and AAH

Chairman McClellan. How do the missions and requirements of the Cobra/TOW and the AAH differ?

General Deane. The primary difference in this respect between the Cobra/TOW and the AAH is in the capabilities that each helicopter possesses. The AAH will be able to carry as many as 16 TOW and 1200 rounds of 30mm cannon ammunition over a wide range of climatic conditions. The maximum number of TOW that can be carried on the Cobra/TOW is eight, and when operating at high altitudes or temperature a tradeoff in fuel or armament payload is necessary. Additionally, the AAH will have systems that will enable it to perform its mission at night and during periods of adverse weather. Finally, and most importantly the AAH will have survivability features to include necessary armor protection,

redundant flight controls and, due to its high engine power to aircraft weight ratio, the agility required for a mid-intensity conflict.

Chairman McClellan. Proceed.

General Deane. It will then take its place as the "low" in the "hi-low" mix we envisage for our Attack Helicopter.

Problems With AAH

Chairman McClellan. What problems have you had with the AAH? When will it be deployed and in what numbers? How does the A–10 fit in with the AAH?

General Deane. Thus far, the AAH development program has proceeded smoothly with no significant problems. The Initial Operational Capability (IOC) date is presently planned for [deleted]. This date is tentative, pending approval of a proposed change to the Development Concept Paper. The A–10 and the AAH are complementary weapon systems. The AAH will provide an aerial weapons system which is under the direct control and is immediately responsive to the ground commander. The A–10 in its close support role will provide the versatile overall air support to the battlefield.

Chairman McClellan. Proceed.

General Deane. Synthetic Flight Trainer Systems demonstrated their application to helicopter training, with the capability to reduce flying hours and cost. Simulator contracts have been made for the AH–1 and CH–47, and programs for the AAH and UTTAS are to be initiated.

Before discussing individual aircraft programs, I would like to mention some areas that individually do not represent large dollar expenditures, but collectively reach a substantial amount.

A machine has been developed that fabricates composite rotor blades and other aircraft structures. It reduces rotor blade fabrication time from 300 hours, using hand labor, to less than eight hours.

Development of Machine

Chairman McClellan. By whom, when, and where was this machine developed? How much does it cost and are the other services using it?

General Deane. The automated tape layup machine was fabricated by Goldsworthy Engineering at Torrance, California for the Army. The $815,000 machine was delivered for acceptance in January 1974. The Navy has shown interest in using the machine.

Chairman McClellan. Proceed.

General Deane. The composite blades are much more survivable and durable than existing blades.

Helicopter Use of Fiberglass Blades

Chairman McClellan. Eventually, will all helicopters use fiberglass blades?

General Deane. Fiberglass blades will provide an increase in helicopter survivability and decrease life cycle costs. The success of this developmental program will provide the impetus for the increasing utilization of fiberglass in the construction of helicopter rotor blades.

Chairman McClellan. Proceed.

General Deane. Full size, structural component technology demonstration programs, such as composite transmission housing and multi-tube spar rotor blades, are providing the confidence needed for proceeding to engineering development with minimum risk. Similarly, in the propulsion area, the Army, in its role as the major proponent of small size gas turbines, is proceeding with the Small Turbine Advanced Gas Generator (STAGG) program to demonstrate small full-scale gas turbine components technology. This program is the follow-on demonstration engine type program that led to the development of the T–700 engine now planned for the UTTAS and AAH.

Backup Engines for AAH and UTTAS

Chairman McClellan. Is there going to be a back-up engine for the AAH and the UTTAS?

General Deane. The prospect for a back-up engine development program is currently under consideration. The primary engine, the General Electric T–700, is presently on test and meeting all performance goals.

Chairman McClellan. Proceed.

General DEANE. Another area in which the Army has made major advances is in understanding the complex aerodynamics environment of rotary wings. Technology demonstration programs in this area are the Joint Army/NASA Tilt Rotor and Rotor Systems Research Aircraft programs, the Advancing Blade Concept program, and the fan-in-fin demonstrator aircraft.

ROTOR SYSTEMS RESEARCH AIRCRAFT (RSRA)

Chairman MCCLELLAN. Describe this joint Army/NASA program.

General DEANE. The RSRA Project is a joint development between NASA and the Army to develop two versatile flight vehicles to permit economical flight research of a wide variety of promising new rotor concepts, and verification of new rotorcraft technology offering potential solutions to existing or future problem areas. Overall program management responsibility is shared by the Office of Aeronautics and Space Technology, NASA Headquarters, and the Office of the Chief of Research and Development, Department of the Army. Responsibility for the project has been further assigned to the Director, Military Aircraft Program Office, NASA, and to the Director, U.S. Army Air Mobility Research and Development Laboratory, Moffett Field, California. A competitive predesign study was conducted and a cost-plus-incentive/award fee contract was awarded Sikorsky Division of United Aircraft Corporation in November 1973 for design, fabrication, and testing of two aircraft. Project costs estimated at $29.5 million over fiscal years 1972 through 1976 and will be shared equally by NASA and the Army.

TILT ROTOR RESEARCH AIRCRAFT

The Tilt Rotor Aircraft, X–15A, is also a joint NASA/Army project with the management and funding shared equally as described for the RSRA. The program objectives for this V/STOL tilt rotor aircraft are to conduct advanced flight research in the areas of handling qualities and performance; develop and evaluate near-terminal operational landing techniques; determine V/STOL navigation requirements and evaluate automatic landing systems; evaluate potential applicability to Army Air Mobility missions; and assess alternate or advanced rotor concepts. Bell Helicopter Company is developing the two X–15A aircraft. Total project costs are estimated at $40 million and are to be shared equally with NASA.

Chairman MCCLELLAN. Proceed.

General DEANE. Reliability and maintainability efforts are stressed to reduce costs, maintenance, and manpower requirements with a view toward obtaining data with which to write better specifications and contracts. Work in diagnostic and test equipment is directed toward insuring high aircraft availability rates, and making aircraft safer to fly and easier to maintain. In avionics, we require a capability to conduct low level operations and fly nap of the earth, at night, and during periods of reduced visibility. Navigation programs are being pursued to improve positioning capabilities through the use of tactical Loran, and to improve our ability to land during adverse weather conditions.

LORAN PROGRAM

Chairman MCCLELLAN. Describe the LORAN program and which systems use it.

General DEANE. [Deleted.] The Army is developing a Loran D Airborne Navigation Subsystem for use in helicopters and other low speed aircraft which will provide access to the common user Loran D ground station being developed by the Air Force. The Loran D navigation system will be compatible with existing Loran C equipment. The Army Loran D Airborne Navigation equipment is being developed using the competitive design to unit cost (DTUC) engineering development philosophy. Competitive engineering development contracts with a $20,000 DTUC target ceiling were awarded in May 1973. Army aircraft systems presently identified to use Loran C/D Airborne Navigation Subsystem are 100% AAH, 100% UTTAS, 100% CH–47C, and 10% UH–1 helicopters.

Chairman MCCLELLAN. Proceed.

General DEANE. Continuing programs are conducted to improve our airdrop capability and airborne weapons systems. We are also developing lighter weight guns with improved firing capabilitites, ammunition mixes, and ammunition types.

I will turn now to the individual systems and highlight four of the most significant aircraft programs.

UTILITY TACTICAL TRANSPORT AIRCRAFT SYSTEM (UTTAS)

The UTTAS is the Army's first true squad carrying helicopter designed for the assault mission through the 1980s.

LORAN AIRBORNE AND NAVIGATION SYSTEM

Chairman MCCLELLAN. How many Loran Airborne sets will the UTTAS carry? How many Loran airborne navigation subsystems will we procure?

General DEANE. Each UTTAS will be equipped with one Loran C/D Airborne Navigation Subsystem. The Army presently plans to procure 2412 Loran C/D airborne navigation equipments.

Chairman MCCLELLAN. Proceed.

General DEANE. It will replace the UH–1 in the assault helicopter units, air cavalry squadrons, and the aeromedical evacuation units. The Army requires an aerial tactical squad carrier whose performance will not be drastically curtailed by high altitude and ambient temperature conditions. The UTTAS will be able to carry its full payload under conditions which severely affected the UH–1's performance in Vietnam.

UH–1'S IN INVENTORY

Chairman MCCLELLAN. How many UH–1's are presently in the inventory? Will all of these be replaced by UTTAS? Compare the R&M of UH–1 to UTTAS. Have there been problems with the rotor blades?

General DEANE. There are presently 3,974 UH–1's in the Army inventory. The UTTAS will replace the UH–1's only in the assault helicopter, air cavalry and aero medical evacuation units. In terms of Mean Time Between Failure (MTBF), the UH–1H exhibits a current value of 2.6 hours. The UTTAS program goal is 4.0 hours. There have been no significant technical problems to date with the design and fabrication of the UTTAS main rotor blades.

The UTTAS has been designed to operate not only in a low intensity, hostile environment but mid-intensities as well. It will maneuver agilely at nap of the earth altitudes, its critical components are either duplicated or armor plated, and it is a crash-survivable helicopter. The reduced maintenance requirement of the new engine is a major improvement over existing aircraft engines. The design is greatly simplified, being in four separable modules for ease of maintenance or replacement. A mechanic in the field needs only ten tools from his common tool kit to work on the engine.

Both contractors, Boeing Vertol and Sikorsky Aircraft, completed mock-up program reviews in the 1st Quarter FY 74.

STRUCTURE OF UTTAS PROGRAM

Chairman MCCLELLAN. Why was this program originally put on a competitive basis?

General DEANE. The UTTAS program was structured as a competitive development to maximize future savings in the form of lower production and operating costs. A primary goal of the UTTAS program is a low cost of ownership helicopter for the Army. By carrying the competition all the way to the production decision, the Army will obtain the best possible unit production price.

The GE T700 engine, has achieved 1600 shaft horsepower, which is over its design goal, and has accumulated over 1000 hours of test cell operation. The Static Test Article (a non-flyable airframe used for ground structure tests) will also begin its testing in April 1974 when the ground test engines are delivered to both contractors. First flight is scheduled for November 1974 and the competitive fly-off will begin in January 1976. The UTTAS design will provide the Army with a utility helicopter of increased payload capability, reliability, maintainability, and survivability. The FY 75 requirement for this program is $54.1 million.

Heavy Lift Helicopter (HLH)

This is an advanced technology program to develop a "crane type" helicopter with more than double the lift capacity of the largest US helicopter in the current inventory.

Transmission Failure of HLH

Chairman McClellan. Why do we need an HLH? Discuss the transmission failure of the HLH. Give the stated requirements of the engine and specifically how they are being met.

General Deane. The Heavy Lift Helicopter fulfills a Department of Defense requirement to move tactical and logistical loads of heavy bulky equipment and supplies. Missions include the offshore discharge of containerships, air terminal clearance, retail logistics support, and a limited gap crossing capability (35 tons) for all tactical equipment short of tanks.

As for the transmission, on 2 December 1973, the HLH aft transmission suffered a major failure while undergoing bench testing. The transmission had accumulated 15 1/2 hours total test time up to that point. The failure was attributed to the combined effects of an unequal load distribution across the gear face and resonance close to the operating RPM. Two corrective actions have been taken. First provisions for increased damping are incorporated in the aft transmission. This transmission commenced testing on 30 February 1974. Further, as a more permanent fix, the input pinion gear was redesigned and is scheduled to go into the new test transmission and should begin testing in April 1974. All data indicates that the transmission design is sound.

The basic engine requirements are for a 1,179-pound engine to turn out 8,079 Shaft Horsepower at a Specific Fuel Consumption of .471. Currently the engine weight and Specific Fuel Consumption are below target and the demonstrated horsepower is 8,700.

Logistics operations will be improved with the capability to rapidly move containerized cargo from ship to shore and to swiftly clear cargo from aerial ports.

In FY 74, the three-year Advanced Technology Component development program will be complete. The contractors have met all significant contract milestones except the start of a 200-hour integrated dynamic components test was delayed eight weeks due to a transmission failure. A "first" for helicopters occurred in September 1973, when the "fly-by-wire" flight control system (an electronic system which replaces the conventional mechanical linkage) was successfully flight demonstrated. Design of the first flying prototype continued in FY 74 as well as development of the engines to power the prototype. Initial cell testing of this Allison engine was highly successful and performance parameters are being met or exceeded.

In FY 75 the $57.7 million requested will be used to complete the fabrication of the first prototype and to conduct ground testing of the engines and airframe. First flight is scheduled for August 1975. A review of the program in mid-FY 74 concluded the risks involved in having only one prototype for testing were inordinate.

Request for Prototype

Chairman McClellan. Why is it an inordinate risk to have one prototype? Why didn't the Army request an additional one to begin with? What high risk areas still exist for this program?

General Deane. It is not an unusual occurrence to lose or sustain major damage to a prototype during the early stages of the flight test program. For example, on another advanced technology effort, the Advancing Blade Concept, we suffered an aircraft crash last year. Currently there are twelve aircraft development programs in DOD. All but the HLH program includes more than one flyable prototype. A second prototype provides insurance against excessive cost and delay caused by loss, or damage to, the first prototype.

This program was started as a pure technology effort to see if such an aircraft could be developed. The Advanced Technology Component program progressed satisfactorily and led the Army to propose and receive approval to fund a single austere prototype in FY 73. This effort is on track and heading towards a first flight in 1975. The addition of the second prototype was based on a management review of the HLH program by our Assistant Secretary of the Army (R&D). He considered the development of a second prototype to be prudent in light of the magnitude of the program investment. The technical progress supports this con-

cept. We now believe that a second prototype will provide the program insurance I just discussed.

The HLH program has never been a high risk effort. It has, rather, been structured in the moderate risk category with emphasis on advanced technology to build large payload helicopter components. The HLH Advanced Technology Component development program has successfully reduced the technology risk element which originally existed. Although we have some minor problems they are not considered to be technology oriented, but rather, typical areas requiring design refinements as found in any normal development program.

To insure availability of the second prototype within an acceptable time frame, ordering of long-lead time items and initiation of design must be started early in FY 75.

Extensive reliability and endurance testing on the critical components will continue.

Advanced Attack Helicopter

Soviet and Warsaw Pact doctrine relies heavily on a strong armored offense. The Advanced Attack Helicopter (AAH) will provide the Army with a modern aerial weapons system with the adverse weather and limited visibility capability to meet this threat.

Crew and Weapon System of AAH

Chairman McClellan. What weapon system will the AAH carry? How many crew members will it have?

General Deane. The AAH will be equipped with the TOW antitank missile subsystem and a 30mm Automatic Cannon. It will also be capable of carrying 2.75 inch rockets. The AAH will have a crew of two.

Chairman McClellan. Proceed.

General Deane. The AAH development program is designed to provide an effective weapons system at an affordable cost.

Cost Level of AAH

Chairman McClellan. At what cost level will the AAH be cost ineffective?

General Deane. The cost level at which the AAH will be cost ineffective has not been established as such. However, the Army and OSD have established several specific cost thresholds, which, if breached, will necessitate a re-evaluation of the program to determine whether or not to proceed.

Perhaps most significant of these is the higher value of the design to cost goal; $1.6 million recurring flyaway (FY 72 $).

Chairman McClellan. Proceed.

General Deane. While intended to provide an antitank capability, the AAH will incorporate other weapons systems which will permit its employment in a variety of attack helicopter roles such as escort missions or for air cavalry operations.

Requirement Changes

Chairman McClellan. Have there been any requirement changes since this program was initiated?

General Deane. The requirement as stated in the Materiel Need document has not changed since this program was initiated.

Chairman McClellan. Proceed.

General Deane. The survivability features being designed into the AAH, in combination with its weapons and agility will make it a tough and effective machine.

Our FY 74 program is proceeding as planned. Contracts have been initiated with two prime contractors for the development and fabrication of two flyable prototype aircraft and a ground test vehicle by each.

Prototype Competition

Chairman McClellan. Why is there a prototype competition?

General Deane. There are several significant advantages associated with a prototype competition. First is the potential cost savings which can be realized. While the total early development costs may be somewhat higher than with a single prototype program, the competing contractors are forced to develop the

best aircraft possible for the lowest procurement cost. Since the procurement costs are significantly greater than development costs in a program of this type, the savings in overall program cost can be substantial. By allowing the contractor freedom for cost-performance tradeoffs such as in the AAH program, we can exploit the competitive atmosphere to the fullest degree. In addition the risk involved in a competitive program is lower than with a single prototype since the success of the program is not totally dependent on the success of a single effort.

Chairman McClellan. Proceed.

General Deane. Design and fabrication are well underway. The $60.8 million requested in FY 75 will support the prototype airframe fabrication effort and T–700 engine deliveries to achieve a first flight in March 1975. Following the prototypes first flight, contractor developmental flight testing will be conducted in preparation for the Army competitive fly-off scheduled to begin in the 2d Quarter FY 76.

Prime Contractors

Chairman McClellan. Who are the prime contractors, what funds have they received to date, and how many employees are working on the project?

General Deane. The prime airframe contractors on the AAH program are Bell Helicopter Company and Hughes Helicopters in association with Hughes Aircraft Company. General Electric is the engine contractor. The funding status of the AAH contractors as of this date is shown in the following table:

[In millions of dollars]

	Obligated	Expended
Bell	22.1	7.0
Hughes Helicopters	30.9	12.8
Hughes Aircraft	.6	.4
General Electric	8.1	.8

The balance of the $69.3 million RDTE funds appropriated thru FY 74 is $7.6 million for government in-house costs.

The estimated number of employees working on the project including both contractor and government personnel is 1750.

Chairman McClellan. Proceed.

General Deane. The current contracts will carry us through this fly-off, after which it is planned to select a single airframe contractor and proceed with a contract for full weapons system development and integration.

Aerial Scout

The effectiveness of the Light Observation Helicopters employed as aerial scouts in Vietnam is well known.

History and Funding of Program

Chairman McClellan. Please discuss the history and funding of this program.

General Deane. The Army's effort to develop an Aerial Scout helicopter began in FY 1972 as an element of the New Initiatives package. The program was structured as a feasibility demonstration to examine improvements to current Light Observation Helicopters (LOHs) by fabricating and testing prototype aircraft which incorporated such improvements as stabilized optics, a night vision system, a computerized navigation system, laser equipment and improved survivability aspects. Contracts were signed with the producers of the LOHs, Bell Helicopter Company and Hughes Tool Company, in May 1972, requiring each to deliver three prototype aircraft. This program was subsequently terminated in November 1972 when Congress disallowed the FY 1973 budget request stating that the Army had deviated from the program as earlier briefed. It is noteworthy that none of the Congressional Committees questioned the requirement for an Aerial Scout, but their attention focused upon New Initiatives Aerial Scout program methodology. The Army was instructed to re-evaluate and redirect the program. However, it was not feasible to continue the contracted effort without FY 1973 funds.

A requirement exists for an aerial scout helicopter which can be employed to acquire and hand-off targets, a new research and development program is being formulated during FY 1974. A Scout Helicopter Task Force has been underway since 5 March 1974 at Fort Knox, Kentucky. The missions of the Task Force are (1) refine the Aerial Scout requirements, (2) select the best technical approach to satisfy those refined requirements, and (3) prepare program documentation. The Task Force will present its recommendations to the Army Systems Acquisition Review Council in July 1974. Release of the request for proposals to industry is planned for 1st Quarter and contract award is anticipated during 3rd Quarter FY 1975.

A total of $6.1 million FY 1973 funds was required for termination of the FY 1972 Aerial Scout program. As no funds were provided in FY 1973 Appropriations Bill, this amount was reprogrammed by the Army, and was submitted for Congressional approval. In compliance with Congressional guidance, the FY 1974 program formulation efforts are being funded for $800 thousand in Program Element 6.22.06A, Aircraft Systems Synthesis Analysis, rather than through the Aerial Scout Program element. Fiscal Year 1975 funding of $6.0 million is required to allow in-house activities to include evaluation of contractors' responses to the request for proposals, and to allow contract award during 3rd Quarter 1975.

Chairman McCLELLAN. Proceed.

General DEANE. The scout and its teammate, the attack helicopter, greatly extended and enhanced the capabilities of our ground combat forces.

MISSION OF SCOUT

Chairman McCLELLAN. Describe the mission of the scout and how it will work with the AAH.

General DEANE. The light, highly survivable, agile Aerial Scout Helicopter will conduct battlefield reconnaissance around the clock in all intensities of warfare. Particular attention is directed to acquiring targets and then providing for their speedy hand-off during darkness and under conditions of reduced visibility. The Scout will extend the eyes of the Advanced Attack Helicopter (AAH) providing increased responsiveness, and reduced exposure of our weapon delivery means. This team approach will do a better job at less cost than the AAH in a dual role.

Chairman McCLELLAN. Proceed.

General DEANE. We want to take advantage of lessons learned about the scout-attack helicopter team and apply these concepts to the European type combat environment.

AERIAL SCOUT WEAPON SYSTEM

Chairman McCLELLAN. What weapon system will the Aerial Scout carry?

General DEANE. The Required Operational Capability document specifies that a light suppressive fire subsystem is desired. The Scout Helicopter Task Force, now underway at Fort Knox, Kentucky will validate the requirement for such a subsystem. Trade-off analysis by the Task Force will determine whether the Aerial Scout final configuration will include the light suppressive fire subsystem.

NATO WEAPON

Chairman McCLELLAN. Will this be primarily a weapon for NATO?

General DEANE. The new Aerial Scout helicopter will be designed to accomplish its mission in any mid-intensity combat environment such as that anticipated for Europe and that recently experienced in the Middle East War.

Chairman McCLELLAN. Proceed.

General DEANE. To do this, a scout helicopter is needed which will have the agility, the performance, the survivability, and the around-the-clock capability to operate with the AAH.

"AROUND-THE-CLOCK" CAPABILITY

Chairman McCLELLAN. What do you mean by "around-the-clock" capability?

General DEANE. Around-the-clock capability means the new scout helicopter will be able to perform its aerial scout mission during daylight conditions and during the hours of darkness.

Procurement Numbers

Chairman McClellan. How many do we intend to procure?

General Deane. The Scout Helicopter Task Force, as part of its program formulation efforts, will determine procurement requirements.

Chairman McClellan. Proceed.

General Deane. In FY 1974, we will complete the program formulation and program refinement undertaken by an Army multicommand task force. Contract award will be made in the 4th Quarter of FY 1975. The FY 1975 budget request for this program is $6.0 million which will allow us to maintain the Project Manager's office and to initiate design and fabrication of development prototypes

Funds Required for Program Completion

Chairman McClellan. What funds are needed to complete the program?

General Deane. The Scout Helicopter Task Force is analyzing three technical approaches by which the Army's requirements for a new Aerial Scout Helicopter will be satisfied. They are: modification of existing Army helicopters; military adaptation of commercial airframes, and; a completely new development. The funds needed to complete the program will depend on the best technical approach as selected by the Task Force.

Administrative Expenses

Chairman McClellan. How much of your request is for administrative expenses?

General Deane. Requirements for $640 thousand in-house funds to support the Project Manager's Office and to evaluate contractors' responses to requests for proposal have been determined.

Chairman McClellan. Proceed.

Missiles

General Deane. A wide variety of missile systems, strategic and tactical, surface-to-air, air-to-surface, and surface-to-surface is funded in this activity.

Chart on Army Missiles

Chairman McClellan. Provide a chart with a listing of all Army missiles, their characteristics, their mission and cost (specifically designate what R&D missiles will replace existing inventory).

General Deane. Yes, sir.

[The chart follows:]

System and mission	Msl wt (lb)	Range (km)	Alt (km)	Guidance	Msl proc unit cost w/o WHD ($1,000)	Replaces
Redeye: Self-defense air defense shoulder-fired missile system. Employed by company-sized units of forward combat elements. Used by USMC.	18	[Deleted]		Passive infrared	[Deleted]	0.50 cal. machinegun.
Stinger: Self-defense air defense shoulder-fired missile system. Employed by company-sized units of forward combat elements. USMC plans to use.	22	[Deleted]		Passive infrared	[Deleted]	Redeye.

System name and mission	Msl wt (lb)	Range	WHD	Type guidance	Msl proc unit cost	System replace
Honest John: Tactical free rocket employed in general support/gun support reinforcing role by division and corps.	4,332	5-38 Km	[Deleted] Kt HE 1,625 lb.	None (free rocket)	[Deleted]	None.
Sergeant: Tactical missile systems employed by corps artillery units in gen support/gen support reinforcing role.	8,500	[Deleted] Km	[Deleted] Kt	Inertial	[Deleted]	None.
Lance: Same as Sergeant	2,365	[Deleted]		DC Automet	$146,000	Honest John and Sergeant.
Pershing 1A: Strategic nuclear delivery system for quick reaction alert and Army general support mission.	10,226	100-400 nau mi	[Deleted]	Inertial	$1,273,070	Redstone.
Pershing: Same as Pershing IA II	10,367	[Deleted]		RADAG	[Deleted] (current 74$).	Pershing 1A.

ANTIARMOR

System and mission	System wt (lb)	Range meters)	Penetrate (in)	Guidance	Msl proc unit cost ($1,000)	Replaces
Dragon: Platoon level medium antitank/assault weapon (MAW), Rifle platoon and company antitank system. Shoulder fired.	31.9	1,000	[Deleted	Wire	3.857	90 mm recoilless rifle.
Tow Battalion level heavy antitank/assault weapon (HAW) use by infantry, airborne infantry air mobile, and mechanized infantry battalions. Can be fired air to surface from AH-1G and AAH.	228.0	3,000	[Deleted]	Wire	[Deleted]	106 mm recoilless rifle.

AIR TO SURFACE

System and mission	Msl wt (lb)	Range (meters)	Launch aircraft	Guidance	Msl proc unit cost	Replaces
Hellfire: Provide antiarmor/point target capability to ground commander through use of Army aircraft. Hellfire laser only can engage and destroy armor day and night. System is common airframe with provision for family of seeker/guidance units.	55–75	[Deleted]	AAH	Laser homing	[Deleted]	Replaces and/or complements Tow.
Air defense suppression missile (ADSM): Provide ground commander with capability of engaging [deleted].	55–75	[Deleted]	AAH	Passive radio frequency/infrared homing.	Undetermined	None.

SURFACE TO AIR

System and mission	Msl wt (lb)	Range (km)	Alt (km)	Guidance	Msl proc unit cost w/o WHD ($1,000)	Replaces
Nike Hercules: Air defense for Conus and Field Army to defend against medium to high altitude bomber aircraft. Capable of both HE and nuclear warheads. Can be fired in surface to surface role.	10,680 w/booster.	[Deleted.]		Command	[Deleted.]	Nike Ajax.
Hawk: Air defense for Conus and Field Army to defend against low to medium altitude ground attack aircraft. HE warhead only. Used by USMC.	1,306			Semiactive radar homing.		75 mm gun.
Improved Hawk: Air defense for Conus and Field Army against low to medium altitide ground attack aircraft. HE warhead only.	1,399			Semiactive radar homing.		Hawk.
SAM–D: Air defense for Field Army and Conus to defend against medium alt attack aircraft. Excellent low and high altitude engagement capabilities. HE warhead only.	1,990			Command/TVM		Improved Hawk, Nike Hercules.
Chaparral: Air defense for Army division and Corps elements. Provides area defense against low flying aircraft. Clear weather only.	187			Passive infrared		40 mm Duster.
Crotale, Rapier Blind-fire, Roland: All-weather short range air defense of division and crops units. Provide defense against low alt aircraft.	185, 96, 138			Command to line of sight.		Replace and complement Chaparral and Vulcan.

General DEANE. We are requesting $706.4 million for missile funding in FY 1975.

MISSILE FUNDING OVER PAST TEN YEARS

Chairman MCCLELLAN. Provide a chart which lists annually for the past 10 years the amount of funds spent for missiles.

General DEANE. The following amounts were spent for missiles in the last 10 years:

Fiscal year:	*Millions*
1973	$907.8
1972	840.4
1971	848.5
1970	857.9
1969	759.3
1968	658.0
1967	715.5
1966	698.9
1965	660.2
1964	594.8

Chairman MCCLELLAN. Proceed.

General DEANE. I have selected a number of programs in this activity to highlight for you at this time.

PERSHING II

Pershing II is a new start in FY 1975 which has the objective of modernizing the current Pershing missile by incorporating a Radar Area Correlation Guidance system. The vastly improved accuracy which results allows use of a low yield warhead which could be used to attack hardened threat-posing targets without collateral damage to civilian populations and urban areas.

PERSHING USE

Chairman MCCLELLAN. Please identify in what scenario the Pershing will be used.

General DEANE. The Pershing is currently deployed in the European theater in a Quick Reaction Alert (QRA) role. If massive nuclear retaliation is called for, Pershing would respond by attacking General Strike Plan targets in Warsaw Pact countries. Upon completion of QRA Pershing would revert to general support of the Field Army.

The Supreme Allied Commander Europe (Saceur) could opt to use Pershing in a selective release role. [Deleted.]

Chairman MCCLELLAN. Proceed.

General DEANE. This capability enhances the political acceptability of the missile in NATO countries and reduces the threat to NATO forces by providing an accurate and devasting deterrent to the initiation of tactical nuclear warfare.

USE OF SYSTEM BY NATO COUNTRIES

Chairman MCCLELLAN. Is this system primarily developed for NATO? What NATO Countries have purchased the weapon and have they paid any R&D costs?

General DEANE. The Pershing system was developed primarily for US employment on NATO territory. The Federal Republic of Germany has purchased the Pershing system and currently has [deleted] German Air Force Wings deployed. They have not participated in the R&D program. There is no plan for German participation in the Pershing II R&D program however, it is expected that they will again share in the procurement of the system.

Chairman MCCLELLAN. Proceed.

General DEANE. The FY 74 RADAG effort is directed toward component design and fabrication of a reentry vehicle.

RADAG EFFORT

Chairman MCCLELLAN. Explain the Radag effort.

General DEANE. The RADAG effort began in FY 72 as a non-system oriented technology program. The technique involves comparison of a radar picture of a target area with a prestored radar picture. In a missile delivery system successive

comparisons are made and guidance corrections are generated until accurate correlation occurs. The results is a very accurate, all weather, terminal guidance technique. To date the radar area correlator has successfully demonstrated this accuracy (20–40 meters) in over two thousand helicopter captive flight tests. The final step in the RADAG effort is to demonstrate the system in a dynamic environment on board a high performance fixed wing aircraft. The Pershing II advanced development program will demonstrate the technology through complete missile flight tests.

Chairman McClellan. Proceed.

General Deane. We had originally planned to captive flight test the Radag package on high performance aircraft in this fiscal year, however this was not accomplished because the program was held up pending a decision by the DSARC on Pershing II. The program is now moving again, and we plan to perform these flight tests in FY 75. The Pershing II effort in FY 75 will also include bench testing and early component integration testing prior to flight qualification and missile testing.

Ballistic Missile Defense

Since concluding the ABM Treaty in May of 1972, our emphasis in BMD has significantly shifted. In the present SALT environment, we see a continuing need for vigorous research and development programs to maintain our technological lead and system capabilities. The two main R&D thrusts of post SALT BMD programs are to provide hedge options and to guard against technological surprise.

Chairman McClellan. How do you prepare against "technological surprise"?

General Deane. Technological surprise can be avoided by vigorously pushing the state of the art in various BMD technology disciplines and in vigorously generating and evaluating new BMD technology concepts which are in laboratories in an early state of development. Thus, a position of technical superiority can be maintained and an evaluation made of the potential impact of technology developments both in the area of BMD and in the area of offensive penetration techniques. An illustration is the development and study of [deleted].

Another example is seen in the modernization of the Range radars [deleted]. This effort provides an estimate of the future BMD radars that our offensive systems might have to penetrate.

Finally, ABMDA also investigates very advanced concepts such as [deleted] to see if such [deleted] may be practical in the foreseeable future.

Chairman McClellan. Proceed.

General Deane. Since our strategic defense posture is predicated on the current SAL agreements, our research and development must include hedge options against possible future SAL developments. The principal Army hedge for the ontinued survivability of Minuteman retaliatory force is the Site Defense Program. As we look beyond system developments, our res arch is oriented toward new concepts and technology. These programs must be strong and viable not only to insure our continued security, but also to motivate the Soviet Union at SALT.

A major breakthrough by the Soviets in either offensive or defensive techn logy could tempt them to deploy a system that would drastically alter the strategic balance. R&D lead times are such that we cannot wait to react to such a breakthrough after it becomes visible in a test program. Therefore, it is imperative to continue to advance the state of our knowledge across the entire spectrum of the BMD technology base. This is the only way to determine what advances are possible and guard against the destabilizing effects of strategic technological surprise.

Another important aspect of our BMD research effort is assistance in the design and evaluation of US strategic offensive systems. The Army's Advanced Balli tic Missile Defense Agency and its Air Force counterpart organization work very closely in the development and evaluation of their opposing technologies.

Current Funding Level of ABMDA

Chairman McClellan. How does ABMDA evaluate strategic offensive missions? What is the current funding level of ABMDA?

General Deane. BMD research assists in the design and evaluation of US strategic offensive systems by providing [deleted]. When the Air Force fires one of their missiles into the Kwajalein area the Range provides information with respect to trajectory impact point and fuzing. ABMDA supplies analyses of the

reentry data which indicates to the Air Force the signature features of their mis iles and penetration aids concepts which may be part of the flight test.

ABMDA also works cooperatively with the Air Force to support flight test programs which provide data to both the offense and defense communities. For example, in the FAIR program a [deleted]. On other programs such as the Signature of Fragmented Tanks (SOFT), ABMDA will fly a [deleted] for purposes of acquiring essential BMD information. The burden created by such a [deleted] and the information acquired can be used by the Air Force to assess the success of such a technique against Soviet defenses.

In the Army's Special Targets Program (ASTP), ABMDA is flying a number of targets which systematically vary body shapes, materials, reentry conditions and viewing aspects to the radar. This matrix of data is used by the Air Force in evaluating the performance of hypothetical designs. [Deleted.]

ABMDA and the Air Force ABRES organization meet at intervals throughout the year to compa e programs and developments to assure crossfertilization and to assure program compatibility.

The current funding history of ABMDA is:

	fiscal years 1969 through 1974	Requested fiscal year 1974	Total
R.D.T. & E.	598.9	91.4	690.3
M.C.A.	10.0	0	10.0
Total	608.9	91.4	700.3

Chairman McClellan. Proceed.

General Deane. Each agency benefits from the advances made by the other.

Our FY 1975 BMD research and development will support the completion of the Safeguard deployment in North Dakota, continue the Site Defense demonstration as a hedge option and continue our Advanced BMD technology development effort.

Prime Contractor on Safeguard

Chairman McClellan. Who is the prime contractor on Safeguard? How much have we spent to date on the system? How much is estimated to complete it? How many military and civilian employees are working on this system? Do you anticipate that a second site will be chosen for deployment?

General Deane. The prime contractor for Safeguard is Western Electric Company. The approved program for Safeguard (all appropriations) through FY 74 is $5.8 billion of which $5.5 billion was obligated and $4.8 billion expended as of February 1974. Currently, it is estimated that $60.8 million of FY 75 funding will be required to complete the acquisition of the Grand Forks site and that annual operating costs will average somewhat under $100 million.

At the end of FY 74 there will be 468 military and 1673 government civilian personnel authorized for the Safeguard program. By the end of FY 75 it is projected that there will be 620 military and 790 government civilian personnel authorized for Safeguard. The increase in military personnel is attributed to the initial tactical manning of the Grand Forks Safeguard site in FY 75. The decrease in government civilian manning reflects the reorganization of the BMD management structure.

In response to the last part of the question, no, the Army does not now plan that a second site will be chosen for Safeguard deployment.

Chairman McClellan. Proceed.

General Deane. SAFEGUARD RDTE efforts will culminate in FY 1975 with emphasis on completion of subsystem and system testing leading to final acceptance of the weapons system from the contractor. The system test program will be completed in early FY 1975.

Weaknesses in Safeguard System

Chairman McClellan. In your opinion, what are the weaknesses of the system? How does Safeguard compare with its Soviet counterpart?

General Deane. The Safeguard system is capable of providing defense against the threat it was designed to meet. Against more sophisticated, penetration-aided

attacks the effectiveness of Safeguard is limited; however, [deleted]. The other obvious relative weakness in Safeguard is the limitation of a one-site deployment caused by the ABM Treaty. A single site deployment has no mutual support as provided in the original Safeguard deployment plans.

The BMD of Moscow was originally not as technologically sophisticated as Safeguard. However, the USSR has over ten years of operational experience with that deployment and are continuing an aggressive and extensive R&D program to either upgrade the Moscow deployment or develop advanced systems using new technological approaches.

Chairman McClellan. Proceed.

General Deane. Safeguard development of all subsystems will be essentially complete at the Grand Forks equipment readiness date of October 1974. Subsystems will then be integrated and the systems overall capability verified through testing in various modes of netted operation.

FY 1975 will be a critical year for the Site Defense program. The requested $160 million will support the continuation of efforts leading to evaluation of the prototype radar, data processor and Sprint II interceptor and of system integration testing to be conducted at the Kwajalein Missile Range, currently scheduled to begin in 1977, in the same time frame as the expiration of the SAL Interim Offensive Agreement. Fabrication and testing of the radar and data processor in the Continental United States and development and fabrication of a prototype of the Sprint II interceptor will continue through FY 1975.

Characteristics of Sprint I and II

Chairman McClellan. Compare the characteristics of Sprint I and II.

General Deane. The basic differences are that in the Sprint II the aft skirts and nozzles of the missile have been modified, the secondary structure will be more hardened against nuclear effects and the electronics of the missile controller set have been upgraded and nuclear hardening increased. Other design changes were incorporated to reduce total operating costs and increase reliability, such as a secure cell and integrated circuit electronics to reduce acquisition and maintenance cost.

Chairman McClellan. Proceed.

General Deane. The Advanced BMD technology program is dedicated to the resolution of those technological uncertainties which would preclude a successful active BMD at some future time. The program addresses BMD issues in terms of technology efforts designed to provide answers. For example, we need to know how to achieve a lethal intercept of an ICBM warhead at extended range, in order to gain battle space and to move the engagement away from friendly territory.

ICBM Intercept

Chairman McClellan. What major effort are we making to intercept ICBMs at extended ranges? How do we test the nuclear environment on systems of this type?

General Deane. [Deleted.]

Another task is propagation studies and the development of techniques that allow very long range tracking of targets where the radar is forced to view very close to the earth's horizon. The ability to make accurate tracks at long ranges permits the early commitment of interceptors.

In the case of optical sensors we are able to put the sensor systems, including the mirror detectors and electronics, in underground nuclear environments to test their performance. [Deleted.]

BMD Program Priority

Chairman McClellan. On a priority basis, where would the Army place our BMD program?

General Deane. This is a program crucial to the nation's defense, and therefore, commands a high priority. A strategic defensive capability should be maintained to counter the advances in offensive strategic weapons.

Each element of the BMD program, Safeguard, Site Defense and Advanced Technology, has an associated level of importance based on its contribution to the Army's mission in the strategic defense of the nation.

Site Defense, our principal hedge against the breakdown of SAL agreements, is critically needed, especially in light of the current round of SAL negotiations

and of the new threat to our Minuteman retaliatory forces posed by Soviet advances in MIRV techniques. The Secretary of Defense has expressed his belief that the Site Defense program is a prudent and necessary hedge against the inability to arrive at an acceptable arms limitation agreement with the Soviet Union.

Development of Safeguard will strengthen our deterrent posture, and provide valuable experience in the installation, testing and operation of BMD systems.

Finally, the BMD Advanced Technology program is a vigorous components effort which embraces all aspects of BMD and guards against technological surprise.

Even with the strict compliance we are maintaining with the SAL agreements, there are continuing US requirements in the BMD area. These include the avoidance of technological surprise, active assistance to the US strategic offensive technology effort, and the need to continue exploration of new concepts should one day there be a need for the US to develop an advanced BMD system.

Chairman McClellan. Proceed.

General Deane. To resolve this issue, we must study methods of kill outside the atmosphere and strive for non-nuclear intercept, thereby avoiding adverse effects on our own communications satellites. We also need to develop an optical homing sensor which can function despite the presence of nuclear blackout. We will study fuzing of warheads, a very complex matter at the high closing velocities encountered in a ballistic missile defense engagement.

Another major endeavor is our program to improve performance and reduce cost of BMD components. We have subdivided this effort into three primary thrusts—improved and highly advanced radar components; enhanced interceptor technology; and methods for more efficient development and evaluation of computer software, normally a very expensive process.

Through technology efforts, such as these, we will continue to work to reduce the uncertainties and resolve the issues of BMD to assure that we are abreast of the technological possibilities and maintain our technological lead over potential adversaries.

Stinger

The objective of this program is to develop and field a man-portable air defense system to replace Redeye. While highly accurate and reliable, Redeye has limitations that will degrade its effectiveness against future threats.

Stinger Performance

Chairman McClellan. What is the basis for the prediction that Stinger's performance will not be degraded more than X percent in countermeasure environment?

General Deane. The Stinger [deleted]. Captive flight tests will be performed using Stinger seekers. Our projection will be verified by actual firings against droned full scale aircraft employing infra red countermeasures.

Chairman McClellan. Proceed.

General Deane. Stinger will be similar to Redeye in size and weight but will have a much improved capability

Operational Effectiveness of Stinger

Chairman McClellan. Will Stinger be able to engage threat aircraft that will be operational at the time Stinger becomes operational?

General Deane. Yes. The Stinger is being designed to cope with the [deleted].

Chairman McClellan. Proceed.

General Deane. In FY 1974, the unguided engineering design subsystem flight test program was completed and the guided test vehicle firings initiated.

Testing Schedule of Stinger

Chairman McClellan. What assurance does the Army have that the technical problems associated with the testing delays related to reliability and safety will be overcome within established cost, schedule, and performance goals?

General Deane. No significant technical problems exist with Stinger. Propulsion system presafety and qualification/reliability testing is currently behind schedule. This testing was delayed due to various problems which have been solved. The solutions were funded out of the management reserve within the prime contract The presafety and qualification/reliability tests must be completed before Stinger

can be shoulder fired. The tests are scheduled to be completed by 30 September 1974. The first shoulder firing is scheduled for January 1975.

Chairman McCLELLAN. Proceed.

General DEANE. The first guided test vehicle or complete Stinger was fired at a target drone on 30 November 1973. A direct hit was attained and all test flight objectives successfully achieved. With the $33.7 million in FY 75 funds, we will complete the majority of the flight test programs conducted by the contractor under Project Manager supervision. During FY 74 a detailed review of Stinger development was conducted by Project Manager to determine if the procurement costs could be reduced. This review revealed seven areas in which redesign, costing about $9.5 million in development funds should save about $39.5 million in procurement costs. This design to cost review was given the title "Stingthrift", and its implementation directed in FY 74.

STINGTHRIFT PROGRAM

Chairman McCLELLAN. What is the current cost, schedule and performance status of the Stingthrift program approved by Army on February 7, 1974?

General DEANE. Stingthrift was a value engineering exercise conducted early in the Stinger development cycle. It identified various component and design changes which will result in reduced procurement costs. No changes in Stinger performance will result from Stingthrift Change orders to the basic Stinger contract have been implemented to accommodate Stingthrift with the $7.7 million RDTE increase noted in the Army approval of Stingthrift. Stingthrift implementation will result in an eight month program slip. The new hardware design concepts have been finalized. Fabrication of the first unit will be completed this month and our first flight of a Stingthrift configured missile is scheduled for August 1974.

BRITISH BLOWPIPE MISSILE

Chairman McCLELLAN. In selecting Stinger, what consideration was given to the British Blowpipe missile's performance in a countermeasure environment and its dual capability to engage ground as well as air targets?

General DEANE. Blowpipe was given full consideration. While it is not susceptible to infrared countermeasures and can be fired at ground targets, these two positive capabilities did not outweigh Blowpipe's very [deleted] than we have with Redeye or expect to have with Stinger.

Chairman McCELLAN. Proceed.

LOFAADS MISSILE

General DEANE. This project will result in the fielding of a missile system that will fill the all weather, low altitude void that presently exists in the field army. A formal requirement for such a system was established in August 1973.

LOFAADS SYSTEM

Chairman McCLELLAN. Provide the Committee with the specific requirements of a LOFAADS system in 1973.

General DEANE. The Required Operational Capability (ROC) for an all-weather short range air defense (Shorad) missile system calls for a system which can provide balanced, integrated, low altitude air defense of selected assets in the division and corps areas and communications zone. The system must be capable of intercepting targets from [deleted] slant ranges, flying at speeds from [deleted] meters per second while performing maneuvers of up to [deleted] at altitudes from [deleted]. The system is required to operate world-wide, be transportable by C–141 class aircraft, and retain more than [deleted] when operating in an electronic countermeasures environment.

Chairman McCLELLAN. Proceed.

General DEANE. Requests for proposals are scheduled for issue in April of this year. At least three systems, Crotale, Rapier-Blindfire, and Roland II will be evaluated at contenders. If one of the foreign systems is selected, it will be produced by a US licensee.

Contractor Obligations to RFP

Chairman McClellan. Procedurally, how does a U.S. licensee provide such a system to the Army?

General Deane. Just as any defense contractor. The Army will issue requests for proposals (RFP) which will describe the problem to industry. The contractor responses will be evaluated and the best overall proposal selected, regardless of whether the response is from a licensee or another qualified industrial firm.

A full scale development contract is scheduled for award in July 1974 for the fabrication of five fire units for development and operational testing. These units and in-house expenses will be funded by the $35.1 million we are requesting.

Development of System

Chairman McClellan. When will the chosen system be ready for deployment?

General Deane. We are placing primary emphasis on demonstrated performance in this program as opposed to a hard and fast schedule, but we expect to be able to deploy a Shorad system no later than [deleted].

Countermeasures to Soviet Systems

Chairman McClellan. What research are we doing to provide effective countermeasures to Soviet systems?

General Deane. Research to develop countermeasures is a continual process. We have been aided in these efforts by technical [deleted]. Our research includes [deleted].

Chairman McClellan. Proceed.

SAM-D

General Deane. SAM–D is being developed to replace both the Nike Hercules and Improved Hawk in the 1980s. The use of SAMs in Vietnam and the Middle East War have caused air attackers to develop sophisticated tactical and electronic countermeasures. In order to maintain our air defense effectiveness we must apply new technology to our ground based air defense systems. SAM–D, which maintains a high multiple simultaneous engagement capability in the face of sophisticated countermeasures, offers us a means of defeating the threat while reducing significantly our manpower and maintenance requirements. FY 74 funds were spent for the design and fabrication of prototype missiles and Fire Control Groups as well as the conversion of advanced development hardware to a demonstration fire section at White Sands Missile Range.

In accordance with the Secretary of Defense's reorientation of the SAM–D program we are requesting $111.2 million in FY 75 to support a system demonstration designed to permit early flight verification of the guidance concept. Sixteen missiles will be fired between July 1974 and June 1975 to verify system capabilities against a variety of target and environmental characteristics. The FY 1975 request also provides funds to complete the fabrication of a minimum number of missiles and Fire Control Groups required to carry on Army testing of the tactical configuration after the completion of the system demonstration tests. Thus, we will solidly demonstrate the powerful SAM–D technology before committing funds leading to production and deployment. A new cost effectiveness study is also being conducted to examine a fresh and austere version of SAM–Ds which will hopefully lead to a less expensive hardware cost per fire section.

Cost-Effectiveness Study

Chairman McClellan. Please provide a copy of all documents, articles, questions and correspondence related to the cost-effectiveness study requested by this committee to be submitted on March 31, 1974.

General Deane. It is my understanding that OSD has provided an interim status report on the cost effectiveness study to you and will submit the finalized report in mid April.

Chairman McClellan. Proceed.

Laser Designators

General Deane. We are developing a tripod-mounted laser designator for use by ground forces and an airborne laser designator for use with our aviation weapon systems.

Laser Designator

Chairman McClellan. Explain the practical operation of a laser designator.

General Deane. A Laser Designator is pointed at a target and turned on. When turned on the laser energy strikes the target and is reflected. Munitions equipped with laser seekers are fired at the target and these laser seekers "home" on the centroid of the reflected laser energy.

Chairman McClellan. Proceed.

General Deane. These laser designators will provide target marking for Army terminal homing munitions such as the HELLFIRE and CLGP weapon systems.

HELLFIRE Development

Chairman McClellan. Does the Army intend to continue the development of the Hellfire?

General Deane. Yes. We have reoriented the program to remain in Advanced Development an additional two years.

Chairman McClellan. Proceed.

General Deane. These laser designators will also be compatible with the Navy's 8-inch guided projectile program, and the Air Force's laser guided close air support missile.

Laser Designation Program

Chairman McClellan. How is the Army coordinating its laser designation program with others of the DOD?

General Deane. In September of 1972 the Army was designated by the Director of Defense Research and Engineering as lead service for the development of ground laser designators. As lead service we must insure that Army development efforts for ground laser designators consider all other service ground designator requirements. In our airborne laser designator program for helicopters we have capitalized on previous technology efforts of the other services such as the Air Force PAVE-SPIKE and PAVE-KNIFE Airborne Laser Designators for their high performance aircraft. Through interservice working groups and symposia we are constantly seeking ways to achieve commonality and avoid duplication in the Army laser designator programs.

Chairman McClellan. Proceed.

General Deane. Our ongoing FY 74 program includes the competitive evaluation of advanced development prototype models of the ground and airborne laser designators.

Contractors Working on Competitive Evaluation

Chairman McClellan. What contractors are working on this competitive evaluation?

General Deane. Hughes Aircraft Company, Canoga Park, California, and Philco-Ford teamed with International Laser Systems Incorporated of Newport Beach, California and Orlando, Florida respectively.

Chairman McClellan. Proceed.

General Deane. We will enter full scale development with the ground laser designator during this fiscal year. Our airborne laser designator will enter full scale development in FY 76.

We are requesting $10.5 million in FY 75 to fund contract costs for the ground and airborne laser designators, and to support continuing in-house efforts in laser countermeasure work.

Cannon Launched Guided Projectile (CLGP)

The Cannon Launched Guided Projectile will give the artillery the capability of achieving first round hits against moving point targets such as tanks and APC's, and fortified stationary point targets such as reinforced bunkers.

Funding Level of CLGP

Chairman McClellan. Explain the CLGP. When was this program originated? What has been and what will be its funding level?

General Deane. The CLGP is a 155mm projectile that is fired out of standard howitzers. It differs from conventional projectiles in that during the terminal trajectory the projectile has a seeker and control surfaces to guide to targets

illuminated by a laser designator. This gives the artillery a precision munition suitable for the attack of moving and stationary point targets (tanks, APC's, bunkers) with a high probability of first round hit. The project was initiated in FY 71 with $1.6M emergency funds. In February 1972 contracts were let with Texas Instruments and Martin Marietta for a competitive feasibility demonstration. This effort will be completed in FY 75, and if successful, one of the contractors will be selected for an engineering development contract. Funding through FY 73 totaled $18.1M. We are spending $6.4M in FY 74 and requesting $12.6M for FY 75. Estimated additional cost to completion is $65.0M.

Chairman McClellan. Proceed.

General Deane. Attack of these targets today achieves only marginal results by random hits using area fire techniques, or methodical precision fire methods. With CLGP a forward observer will illuminate the target with a narrow beam laser when the projectile is approximately ten seconds from the target. The CLGP then homes in on the reflected laser energy with a high probability of a first round hit. In FY 74, the CLGP will initiate the concept feasibility demonstration by firing twelve projectiles from each of two competing contractors.

Contractors on CLGP

Chairman McClellan. Who are the competitive contractors for the CLGP program?

General Deane. The competitive contractors are Martin Marietta and Texas Instruments.

Chairman McClellan. Proceed.

General Deane. In addition, field tests of the tactical concept and a cost effectiveness analysis have already begun. These efforts will continue through FY 75. The successful contractor will then initiate fabrication of projectiles for engineering design tests.

Hellfire and ADSM

The Army is developing the Hellfire Modular Missile System to provide a more effective and versatile heliborne antitank capability. The basic Hellfire missile, with a different seeker, is being developed for air defense suppression.

Hellfire Program

Chairman McClellan. What is the Hellfire Program? Has this program slipped? How does the Hellfire laser operate? Who will use this system? What high risk areas still exist in its development? What contractor is developing the system? How much have we spent on it to date? Where will the system be deployed?

General Deane. The restructured Hellfire Laser-only program consists of an anti-armor missile to be fired from an attack helicopter. This missile will include a laser seeker head for homing on targets designated by a laser source. The laser source, or designator, is being developed under a separate program, and will be both ground and helicopter mounted.

We have combined all of our heliborne terminal homing missile efforts under single management, and call the entire system the Hellfire Modular Missile System. The common Hellfire missile airframe is being designed to accommodate not only the laser seeker, but the other seekers being developed. [deleted].

The program has slipped approximately two years. We plan to enter ED in [deleted] with the Hellfire Laser system.

Without getting technical, the Hellfire Laser system must have two basic components to provide the flight guidance. First the target must be designated, or targeted, with a laser beam originating from either a ground mounted source, or from a designator within an aircraft. This laser spot must remain on the target until missile impact. Then secondly, of course, there must be a seeker head on the missile that automatically tracks to that laser spot on the target.

The doctrine and tactics of employment of Hellfire Laser are still being studied. [Deleted].

We do not consider that any areas are high risk at this time. The primary operational uncertainties being addressed in the Advanced Development testing include the [Deleted].

Rockwell International of Columbus, Ohio, has done our laser seeker development so far. We are presently awaiting competitive proposals from several contractors to finalize development of the common missile airframe.

Through FY 74 we will have spent $16.3M.

The system will be deployed as necessary as a deterrent to the enemy armor threat.

Chairman McClellan. Proceed.

General Deane. The Hellfire Laser-Only portion of the program was originally scheduled to proceed into full scale development during FY 1974. However, several operational questions surfaced furing Military Potential Testing that indicated additional development and tests were needed. The operational uncertainties center around questions concerning the degree of vulnerability of the ground laser designator, system cost effectiveness, and a dependence upon laser only terminal homing versus a true fire and forget missile. The laser guided missile system has fully demonstrated its technical feasibility in both accuracy and range. This additional work is directed toward resolving these uncertainties. $11.2 million was originally programed to support the Hellfire Laser-Only program in FY 1974 and $17.2 million for FY 1975. After the program was reoriented, the Congress was informed and only $6.3 million was appropriated for FY 1974. The FY 1975 program requires $9.0 million.

Concurrently, validation phase efforts are being initiated with increased emphasis on a radio frequency/infrared (RF/IR) seeker module that combines with the HELLFIRE modular airframe to give us an Air Defense Suppression Missile (ADSM). This dual mode seeker has the capability of locking on a radar beam for launch and initial flight guidance, and then homing on to impact using the infrared emissions from a target. Ten prototype firings of the RF/IR seeker options have provided the feasibility of this concept. During the recent Middle East conflict the Soviet SAM systems denied considerable freedom of movement to the Israeli Air Force. This ADSM is designed to counter SAM systems, thus making it a weapon of increasing importance.

The $6.3 million requested for FY 1975 will support development of a common modular airframe that will be used with all the modular seekers being developed, to include those true fire and forget seekers that will be developed in the future.

Military Astronautics

In the area of satellite communications, the Army is responsible for the development of ground terminals for all Services.

Ground Terminals

Chairman McClellan. Explain "ground terminals" and why the Army is responsible for developing them for all services.

General Deane. Satellite communications uses orbiting communications satellites to relay messages sent from one earth terminal to another. An earth terminal may be mounted in an aircraft, on a ship, or on the ground. The term ground terminal refers to satellite communications radio stations which operate on the ground from fixed installations, vehicles (jeep, truck, or van) or manpacks.

The Deputy Secretary of Defense memorandum of September 3, 1968 defines the Military Departments responsibilities for the development of satellite communications. In that memorandum the U.S. Army Satellite Communications Agency is assigned responsibility for research and development, engineering, procurement, installation, and logistical support of Defense Satellite Communications ground terminals. This policy was reaffirmed in an Assistant Secretary of Defense Telecommunications memorandum, dated September 19, 1973. This policy was established to reduce unnecessary duplication in the development process.

Chairman McClellan. Proceed.

General Deane. To meet this responsibility we have efforts ongoing in the development of strategic and tactical equipment. In both cases our objective is to provide highly flexible and reliable means of communications for the command and control of forces deployed under a wide range of situations in various geographic areas.

Strategic communications systems include the Worldwide Command and Control System, the National Communications System, and the Defense Communications System (DCS).

Communications Systems

Chairman McClellan. Explain (a) the Worldwide Command and Control System, (b) the National Communications System, and (c) the Defense communications System.

General DEANE. (a) The Worldwide Military Command and Control System (WWMCCS) is the system that provides the means for operational direction and technical administrative support involved in the function of command and control of US Military Forces.

(b) The National Communications System (NCS) is a system that provides communications facilities and components for various Federal agencies. The Secretary of Defense was designated the Executive Agent for this system.

(c) The Defense Communications System (DCS) is a worldwide complex of communications facilities, personnel, and materiel managed by and under the operational direction of the Defense Communications Agency.

Chairman MCCLELLAN. Proceed.

General DEANE. Our strategic effort is devoted to the development of ground terminals in support of Phase II of the Defense Satellite Communications System (DSCS), a subsystem of the DCS. This equipment is characterized by reliability, high capacity and security. In Phase II new heavy and medium terminals have been developed.

HEAVY AND MEDIUM TERMINALS

Chairman MCCLELLAN. What is the difference between "heavy and medium terminals"?

General DEANE. The major difference between heavy and medium terminals is the antenna size. The antenna for the heavy terminal is 60-foot in diameter and weighs approximately 340 tons. The 38-foot medium terminal antenna will be lighter in weight, quicker to install and have roughly one half the channel capacity.

Chairman MCCLELLAN. Proceed.

General DEANE. The prototype terminals were tested and accepted by the Government in FY 73. In FY 74 we are continuing to develop the modulation equipment associated with these terminals in order to provide a digital capability.

DIGITAL CAPABILITY

Chairman MCCLELLAN. What is a digital capability?

General DEANE. Digital capability is the ability to process data signals, a train of pulses arranged in some sort of code. In a typical binary system, for example, digits 1 and 0 are represented by two different pulse amplitudes.

Chairman MCCLELLAN. Proceed.

General DEANE. We will initiate Development Testing II/Operational Testing II on a light terminal (2-½ ton truck mounted) to provide the DSCS with highly mobile equipment suitable for strategic contingency requirements.

STRATEGIC AND TACTICAL OPERATIONS OF EQUIPMENT

Chairman MCCLELLAN. Explain the difference between the strategic and tactical operations of this equipment.

General DEANE. Strategic communications support the long distance links between higher headquarters. Strategic Communications equipment compared with tactical communications equipment generally is larger in size, capacity, and complexity and requires more time and resources to install, operate, and transport. Tactical communications support units which engage in combat operations. As such, tactical communications equipment is characterized by being simple, lightweight, mobile, and rugged.

Chairman MCCLELLAN. Proceed.

General DEANE. We are requesting $6.3 million for this project in FY 75.

The Army, along with other Services, requires a family of manpack and vehicular-mounted tactical ground terminals. The emphasis in the development of these terminals is toward mobility rather than high capacity. We are continuing the full scale development of vehicular-mounted super-high frequency terminals. In FY 74 full scale development has also been initiated on a communications control facility and on digital subsystems for these terminals. In FY 75 Development Testing II/Operational Testing II will be initiated on this equipment. We are requesting $4.9 million for this project in FY 75.

ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT

Funded within this budget activity is research and development of combat vehicles, including two of our Big Five, artillery, mines, nuclear projectiles and related equipment. We are requesting $263.9 million for programs in this activity, some of which I will now describe.

Improved 8–Inch Artillery Fired Atomic Projectiles (AFAP)

Artillery fired atomic projectiles enable the field Commander to bring accurate and responsive nuclear fires on enemy targets in close proximity to the front lines.

Range of M422 and AFAP

Chairman McClellan. Compare the range of the M422 and the AFAP.

General Deane. When fired from the up-gunned M110E2 Self Propelled Howitzer, the Improved 8–Inch Artillery Fired Atomic Projectile (AFAP) will achieve a range of approximately [deleted] the range of the currently fielded 8–Inch M422 Nuclear Projectile, [deleted] kilometers.

Chairman McClellan. Proceed.

General Deane. The current 8-inch nuclear projectile (M422) represented the best technology available when it was developed, but recent advances now permit us to develop a new projectile vastly superior to the M422. The new round has features which reduce preparation time by 97%. A highly accurate fuze will preclude fallout and in combination with the new warhead provides increased effectiveness and reduced collateral damage. When fired from the improved 8–inch howitzer, this round has twice the range of the M422. Another significant feature of the new projectile is its commonality with the conventional 8–inch high explosive round.

During FY 1974, the fuze, programmer, projectile body, and rocket motor developed for the cancelled XM–673 projectile were examined for incorporation into the new improved 8–inch AFAP design.

Cancellation of XM–673

Chairman McClellan. Why was the XM–673 program cancelled?

General Deane. The Joint Committee on Atomic Energy, citing a "pedantic" approach to development, terminated the AEC's warhead development program in June 1973.

Chairman McClellan. Proceed.

General Deane. The funds we are requesting for FY 75 will permit us to enter full scale development. Efforts will include flight testing, structural evaluation, fuze development, equipment handling and trainer design.

Contractors

Chairman McClellan. What contractors are developing this program?

General Deane. The Army's Picatinny Arsenal and Harry Diamond Laboratories, with contract to Motorola of Scottsdale, Arizona, is developing the fuzing, safing, and arming system while the AEC's Lawrence Livermore Laboratories and Sandia Laboratories, Livermore will be responsible for developing the nuclear warhead.

Chairman McClellan. Proceed.

M102

General Deane. The Army has two 105mm howitzers in the inventory. The M101A1 was developed in World War II. It has a range of 11km, and still serves as a highly reliable field piece used by our allies and reserve forces. The lightweight M102 howitzer has been used by our regular forces since the mid 1960s. It has a range of 11.5 km and is helicopter transportable; however, it did experience some stability problems in Vietnam.

Stability Problems of M102

Chairman McClellan. What were the stability problems of the M102 experienced in Vietnam?

General Deane. The M102 has a tendency to shift during firing in soft, wet ground or soft, dry sand. Once the stake holes to hold the weapon down have enlarged appreciably, it becomes necessary to move the weapon to a new position. These stability problems proved troublesome in Vietnam.

Chairman McClellan. Proceed.

General Deane. Both of these weapons are outranged by the Soviet 122mm howitzer D–30, which fires to a range of 15.3 km.

U.S. Weapon Comparability to Soviet D-30

Chairman McClellan. What other weapons in the inventory do we have that meet the range of the Soviet D-30?

General Deane. The current M114A1 155mm towed howitzer and M109 self-propelled (SP) 155mm howitzer have a range of 14.6 km. The product improved M109A1 SP 155mm howitzer has a range of 18 km without rocket assisted projectiles (RAP) and 24 km with RAP. The M110 8-inch SP howitzer has a range of 18.6 km and the M107 SP 175mm gun fires to 32.6 km. The product improved M110E2 8-inch howitzer will have a range of [Deleted] without RAP and [Deleted] with RAP.

Chairman McClellan. Proceed.

General Deane. The towed 105mm XM204 howitzer will provide the Army with a light artillery piece with increased range, higher reliability, and greater stability than the current M102 or M101A1. This is achieved by a new recoil system technology called fire out of battery. When fired, the tube is allowed to travel forward before ignition so that the firing momentum is balanced by the forward movement of the tube. This significantly reduces recoil forces, permitting greater reliability and eliminating the need for trails or ground anchors for stability. In FY 74, the first two engineering design prototypes have been delivered and are undergoing durability, maintenance and transportability tests. Test results to date have been outstanding in every respect. In FY 1975, fabrication of prototypes three through eight will be completed and DT/OT II initiated. We are requesting $5.9 million for this effort.

XM198

The towed 155mm howitzer XM198 will replace the current M114A1 towed 155mm howitzer which has a range of 14.6 km and has been in the inventory since 1942.

Necessity of XM198

Chairman McClellan. Please explain the necessity of the XM198.

General Deane. Our current 155mm towed howitzer, the M114A1, has been in service since 1942. It has been a remarkable field artillery piece in three wars, but can no longer compete with more modern Soviet weapons of comparable weight and caliber which have ranges of 23.9 km (122mm D-74) and 27 km (130mm M46) compared to 14.6 km for the M114A1. The XM198 will achieve a range of 24 km without rocket assist and 30 km with rocket assisted projectiles. It will achieve these ranges without sacrificing reliability, availability and maintainability (RAM) and will be transportable by the CH47C tactical helicopter. The combination of extended range, improved RAM, and air transportability will make the XM198 unique among artillery pieces in the world.

Funds Extended to Date

Chairman McClellan. How much money has been spent on this program to date and how much will be needed for its completion?

General Deane. Through FY73 we have spent $27.6M on this program. Our program for FY74 is $6.0M. We are asking $6.1M in FY 1975 which will complete the program.

Chairman McClellan. Proceed.

General Deane. The XM198 has a range of 24 km with high explosive projectiles, and 28-30 km with rocket assisted projectiles in the inventory, or low drag projectiles currently being extensively tested by the Army. The XM198, with its higher propelling charges and new projectiles, can achieve ranges superior to Soviet medium artillery. During testing in FY 1973, we had some durability problems and an ammunition ignition malfunction caused an explosion.

Ammunition Ignition Problem of XM198

Chairman McClellan. How did you correct the ammunition ignition problem of the XM198?

General Deane. After extensive investigation, a number of changes were made to correct the ignition problem in the XM198. The XM119 primer was replaced by the M82 primer to reduce the possibility of over ignition of the base igniter pad. Positive standoff of the base of the propelling charge from the breech spindle

was established by stiffening the walls of the charge. The base of the charge was made more rigid to prohibit malalignment of the center core igniter tube and the base pad, and the center core igniter tube strengthened to prevent blockages in the propellant train.

Chairman McClellan. Proceed.

General Deane. The problems were corrected, and a 15,000 round test initiated, which will be completed in FY 1974. The first 6,000 round testing increment has produced better than expected results. In FY 1975, six additional prototypes will be delivered for initiation of DT/OT II. These will be tested for performance and field operation involving the firing of 35,000 rounds. We are requesting $6.1 million for this program.

Ammunition Alternatives

Chairman McClellan. Has the Army investigated alternative possibilities to this ammunition as suggested by the Senate last year?

General Deane. I presume you are referring to the low drag projectile design of the Space Research Corporation (SRC). You will recall that the SRC projectile is not a substitute for the XM198 and its higher energy propelling charges since, regardless of the projectile used, the Army's rocket assisted M549 projectile or the SRC round, the XM198 and XM203 zone 8 supercharge are required to meet the Army's range requirements. We have an extensive evaluation of the SRC concept underway. We will have spent approximately $2.5M on this evaluation by next August when our testing is complete. The major uncertainties in the SRC concept are troop safety because of the discarding rotating band, and durability and production engineering of the bore riding nubs.

Chairman McClellan. Proceed.

Lightweight Company Mortar System

General Deane. The 60mm, 45 pound, lightweight company mortar will replace the infantry's 93 pound 81mm company mortar.

Lightweight Company Mortar (LWCM)

Chairman McClellan. Will the lightweight company mortar (LWCM) completely replace the 81mm mortar?

General Deane. No, Sir: The LWCM will replace the 81mm mortar in the infantry companies of the airborne, airmobile, and light infantry battalions. It will not replace the 81mm mortar in the mechanized infantry companies nor will it replace 81mm mortars at battalion level.

Total Inventory of 81mm Mortars

Chairman McClellan. How many 81mm mortars do we have in the inventory?

General Deane. The Army currently has 4157 81mm mortars in the inventory.

Chairman McClellan. Proceed.

General Deane. The LWCM provides high rates of fire, water resistant ammunition, and lethality comparable to that of the 81mm.

LWCM Procurement

Chairman McClellan. How many LWCM's do we intend to procure?

General Deane. The Army intends to procure [Deleted] LWCM's which includes contingency stocks and war reserves.

Chairman McClellan. Proceed.

General Deane. Breakthroughs in solid state electronics technology and automated assembly techniques have enabled us to provide the infantryman with an inexpensive standard round which can be dialed, in combat, to produce an airburst, near-surface burst, surface burst or delay.

Weapon Advantage

Chairman McClellan. Is the greatest advantage of the weapon the reduction in weight?

General Deane. Yes, Sir. The reduced weight will provide greater manportability, and this is the greatest advantage. However, there is an additional bonus in increased range, lethality, and reliability of the ammunition.

LWCM Weight Reduction

Chairman McClellan. How was this reduction achieved?

General Deane. The reduction in weight for the LWCM has been achieved primarily through a reduction in the caliber of the weapon. The mortar currently in use in the infantry company is 81mm. The LWCM is 60mm, which means that the size of the mortar components is reduced. Also, the use of lighter material in mortar components has contributed to weight reduction.

Chairman McClellan. Proceed.

General Deane. The point detonating ordnance used in the past lost much of its effectiveness when fired into soft ground such as mud or sand because of the smothering effect.

Use of Ammo From Existing Inventory

Chairman McClellan. Will it take the ammo from existing inventory?

General Deane. Yes, Sir. The LWCM will be able to fire 60mm ammunition from existing inventories. However, new ammunition is being developed to provide greater range, lethality and reliability.

Chairman McClellan. Proceed.

General Deane. Giving the infantryman the ability to instantly switch to other burst options in a similar environment will vastly enhance his combat effectiveness. FY 1974 funds of $7.1 million paid for engineering, design tests, and fabrication of part of the FY 1975 DT II/OT II weapons and ammunitions. Design and system characteristics were determined in 5,000 firings.

Unit Cost of LWCM

Chairman McClellan. What will be the unit cost of this weapon?

General Deane. The procurement unit cost of the LWCM will be [Deleted].

Total Funding of Weapon

Chairman McClellan. How much have we spent on this program to date and how much is required for its completion?

General Deane. Through FY 74 the Army has spent $8.47 million dollars in this program. $5.01 million is required in FY 75 for the completion of the weapon, sight unit, HE cartridge, and multi-option fuze.

Chairman McClellan. Proceed.

General Deane. In FY 1975, the $5.0 million we are requesting will support fabrication of the balance of the DT/OT II hardware, and the DT II/OT II. During the tests, about 20,000 rounds will be fired to determine the extent to which requirements are met; to establish reliability, availability and maintainability characteristics; and to determine infantry acceptance. The mortar is scheduled for type classification during the latter part of FY 1975.

Mechanized Infantry Combat Vehicle (MICV)

The Mechanized Infantry Combat Vehicle (MICV) which is one of the Army's Big Five programs, will be a highly mobile, fully tracked fighting vehicle, carrying the rifle squads of our European mechanized battalions.

Crew Requirements of MICV

Chairman McClellan. What will be its crew?

General Deane. It will have a two man crew; the driver and the gunner.

MICV Weapon System

Chairman McClellan. What weapon system will it carry?

General Deane. The MICV will have a 20 to 30mm main armament. This will be an automatic cannon with an instantaneous ammunition selection capability. There will be a 7.62mm M219 coaxial machinegun mounted in the stabilized turret and six port firing weapons in the personnel compartment.

Chairman McClellan. Proceed.

General Deane. It will offer increased firepower from a stabilized 20–30mm automatic cannon and provide the capability of mounted or dismounted infantry attack. MICV will be an essential part of the combined arms team concept. It

will have cross-country mobility and improved protection which make it operationally compatible with our tank units. This combined arms team can be expected to encounter, in addition to the huge Warsaw Pact tank force, a wide spectrum of modern lightly armored combat and reconnaissance vehicles.

MICV Comparisons

Chairman McClellan. Compare the MICV with its counterparts in the US inventory and with the similar Soviet vehicle.

General Deane. The chart below provides a comparison of some of the salient characteristics of the MICV, the M113A1, and the Soviet BMP.

	MICV	M113A1
Weight (tons)	20	12.
Range	300–350 mi.	300 mi.
Armament	20–30 mm cannon	Cal 50 mg.
Speed	46	42.
Number of occupants	12	13.
Swim capability	Yes	Yes.
Armor protection	[Deleted].	
Firing ports	6	0.

Chairman McClellan. Proceed.

General Deane. Our MICV's must be able to help overcome this threat by directing accurate firepower on these type vehicles as well as on personnel and antitank systems available to the enemy. The MICV will provide greater reliability, durability and maintainability than previously found in armored vehicles.

Vehicle Comparisons

Chairman McClellan. Compare the R&M of the MICV to similar vehicles.

General Deane. The comparative Reliability and Maintainability for the MICV vs the M113 are compared as shown below:

	MICV	M113
Reliability (50-mi mission):		
(a) System	0.86	NA
(b) Automotive	.95	0.96
(c) Weapon station	.95	NA
(d) Primary weapon	.95	NA
Maintenance ratio	0–.4	.3
Durability—Engine/power train (no replacement in 6,000 mi)	.5	.39
Durability—Depot rebuild at 6,000 mi	.9	NA

Program Problems

Chairman McClellan. What major problems have been encountered with this program? Has there been any change in its requirement since the program was initiated?

General Deane. 1. The MICV development is experiencing what is considered the normal number of minor early development failures. Some of these early problems are expected as they generate basic information needed to uncover what causes the failure mode and from these what corrections can be applied. The major early problems have been:

(*a*) *Transmission.*—Problems with the HMPT-500 transmission (2–1 shift, thermostat and make-up-oil) have resulted in a current achieved reliability of 2364 mean miles between failure (MMBF) which is below the required value of 8000 MMBF. Correction for each problem listed has been identified and are currently being prepared for testing.

(*b*) *Shock absorbers.*—The pressure in the shock absorber when running cross-country builds up until it blows the end plug out of the reservoir shock absorbers. A correction has been made but is still undergoing test.

(*c*) *System weight.*—The system weight has exceeded the specifications. In itself, this weight is not significant, except as it effects the vehicle trim when swimming. Additional flotation is being added to compensate for the additional weight.

2. There have been several minor changes to the MICV Materiel Need (MN), the most significant changes are:

(*a*) Weight limit changed from a band of (35,000–38,000 lbs) to a band of (38,000–40,000 lbs).

(*b*) The performance of the gunners sight was adjusted to agree with the modified M36 sight.

Chairman McCLELLAN. Proceed.

General DEANE. During the full scale development phase in FY 74 several positive steps were taken. Two test vehicles were assembled and testing initiated, and the first complete prototype was delivered and is undergoing test. Full scale development in FY 74 consists of design verification testing to insure that all technology required to start fabrication of 12 prototype vehicles in FY 75 can be accomplished without risk.

PROCUREMENT OF PROTOTYPES

Chairman McCLELLAN. Why do you need 12 prototypes? Eventually how many do we intend to procure?

General DEANE. 1. The 12 prototype vehicles are required for testing during the Development Test II and to establish validity of the System Specification's reliability and durability. This requirement is consistent with the variety of tests required by the Army and allows the Program to remain within the guide lines of minimum fund expenditure and time for testing, yet will provide maximum information for evaluation purposes.

(*a*) Moreover, the Army regulations stipulate that "development tests must provide sufficient data to permit identification of trends in equipment failure rates and the determination of applicable statistical distribution for RAM analysis."

(*b*) Durability incentive in particular is based on a sample of eleven vehicles. It would be statistically impractical to consider a reduction of this sample without a like reduction in the confidence that the requirement was achieved.

2. The breakout of the prototype vehicles and their intended use is as follows:

(*a*) *One* vehicle will be retained at the Contractor's plant for armament and automotive testing. This testing will be used to evaluate initial reliability and durability of the ED vehicles. It will also be used to evaluate all system improvements and part/component corrections.

(*b*) *One* vehicle is designated for desert testing and will also be used at the Contractor's plant for evaluation of the preliminary draft manuals and user operator and maintenance training. Upon completion of this, the vehicle will require refurbishment and then be sent to Yuma Proving Ground for the Desert Test.

(*c*) *Three* vehicles will be sent to Aberdeen Proving Ground for evaluation of armament and automotive performance reliability, durability, safety and human factor characteristics to determine the degree to which the vehicle and its associated kits meet the requirements of the MICV System Specification. Upon completion of the testing two vehicles will be ballistically evaluated using small arms and various mines. The third vehicle will be sent to the US Army Communications and Electronics Board at Fort Bragg, North Carolina, to determine the suitability of the MICV for Phase III Internal Air Portability and Airborne Operations.

(*d*) *Two* vehicles will be sent to the US Army Armor School, Fort Knox, Kentucky, to determine the degree the system and its associated training and maintenance test packages conform to the requirements and standards established in the System Specification. Automotive and armament performance, reliability and durability will be determined. All armored vehicle automotive and armament testing has previously been accomplished at Fort Knox, therefore testing for comparison data is required.

(*e*) *Four* vehicles will be sent to Fort Benning, Georgia, to the US Army Infantry School to evaluate system performance, durability, reliability, maintainability, safety, training requirements, human factors, publications and special kits and tools. This number of vehicles is the smallest tactical unit permissable for tactical interface testing.

(*f*) *One* vehicle will be sent to Aberheen Proving Ground for cold room testing of armament and automotive performance and then to the Arctic Test Center, Fort Greeley, Alaska, for Arctic Environmental Testing.

3. The total number of test rigs and prototype vehicles amounts to 19. Currently we have two test rigs and the first prototype undergoing test by the MICV

project office. Later, following the Development Tests (DT) with twelve prototypes, four pilot test vehicles will be constructed and will incorporate any changes resulting from the DT II tests. These vehicles are considered essential to avoid costly retrofit of production vehicles of the kind that has been experienced in the past because of producibility problems. This quantity of four vehicles represents the minimum essential required to accomplish this objective. Testing of these vehicles will check and "proof" the producibility of the data, product changes made to the hardware as a result of prior tests, and will assure that the hardware has not been degraded prior to commencing low rate initial production of vehicles where high retrofit costs would otherwise be encountered.

Chairman McCLELLAN. Proceed.

General DEANE. The main considerations of the FY 74 and FY 75 program efforts will be directed toward the reduction of manufacturing and design costs.

UNIT COST

Chairman McCLELLAN. What will be the unit cost?

General DEANE. The procurement unit cost of the MICV is estimated to be $195 thousand in escalated dollars.

Chairman McCLELLAN. Proceed.

General DEANE. Extensive cost design analysis will be continued in FY 75 to assist the Army in its program decisions. The Army is requesting $7.8 million in FY 75 to support the second increment of MICV full scale development and $1.2 million for the work on the port firing weapon.

ARMORED RECONNAISSANCE SCOUT VEHICLE (ARSV)

Since late in 1971 the Army has been developing an Armored Reconnaissance Scout Vehicle.

SCOUT PROGRAM

Chairman McCLELLAN. In 1966, the Scout program was initiated because of the many deficiencies of the predecessor vehicle—the M114A1. Although project officials considered the Scout program ready to enter the validation phase of development in January 1969, the Army deferred the program for over 2½ years due to low funding priorities and other administrative reasons. However, the program was approved for validation in October 1971 despite the lack of valid updated cost effectiveness study. Since this action indicates a greater urgency of need for the Scout than previously indicated by prior deferment actions, what transpired or changed to make the Scout more urgently needed in 1971 than before?

General DEANE. The five additional years from 1966 to 1971 aggravated an already unsatisfactory situation of operational readiness, maintenance and support requirements for the M114 Command and Reconnaissance Carrier and thus made replacement more urgent. The phase-down of the Vietnam War also allowed the Army to again concentrate on modernizing its combat vehicles.

Chairman McCLELLAN. At the time of the October 1971 validation approval, an alternative considered and discarded by DOD was the use of existing or modified vehicles for the Scout role. Recently, however, the Army decided to replace M114s in Europe-positioned units with M551s and M113s. Does this action represent a change in thinking relative to the need and urgency of the Scout requirement? Also, in view of the deployment of these vehicles, can the Scout program now be deferred if necessary?

General DEANE. No. The replacement of M114s by M551s in selected Europe-positioned forces and M113s in many active Army units is an interim measure made possible by the availability of Vietnam phase-down as sets. It does not represent a change in doctrine but an interim tailoring of forces to increase the readiness of the Army by purging a totally unsatisfactory system, the M114. Readiness improvement includes mobility, realiability and combat power of tank killing capability. The ARSV program cannot be deferred based on these interim vehicle substitutions above; but, the substitution will provide time for the Army to examine in detail the requirement for a reconnaissance vehicle.

Chairman McCLELLAN. Proceed.

General DEANE. This vehicle is designed as a small, three man, lightly armored, highly mobile, quiet vehicle with an inherent swimming capability. By FY 72 the Scout program had progressed to the competitive prototyping phase of development with two contractors. FMC Corporation had developed a tracked, and Lockheed Corporation a wheeled prototype.

In November 1973, each contractor delivered three vehicles for competitive testing. This testing is currently ongoing at Aberdeen Proving Ground where we are evaluating ruggedness, automotive, operational and RAM characteristics in an attempt to determine user acceptance.

Now, however, the Army has stepped back to take another look at its requirements. Certain reservations have surfaced since the Middle East War and these required re-examination of our need for a special purpose vehicle to perform the scout mission, particularly when we would like to reduce the number and type vehicles in combat units.

Deployment of M551s and M113s

Chairman McClellan. Are the M551s and M113s being deployed to meet the Scout's primary role of reconnaissance or its secondary role of security—or both?

General Deane. The M551s primary mission is to provide a tank killing capability in execution of its primary role of security. It will also perform, to a lesser degree, the reconnaissance mission. The M113A1s deployed in the scout role will basically be utilized in the primary role of reconnaissance and can perform a reduced security mission.

Chairman McClellan. In respect to the Scout's secondary role of security, it is apparent the features needed for this role, i.e., firepower and armor protection, are the principal causes of the Scout's relatively high weight and cost. In view of the unsuccessful experience with the M114's reliability and mobility, why is the Scout a heavier vehicle?

General Deane. The Army recognizes the conflicting requirements in developing a dual purpose reconnaissance and security vehicle. USATRADOC is taking this into consideration in the ARSV requirements study. At this time the Army does not know if the reconnaissance vehicle requirements will require a dual purpose vehicle or optimize the requirements for a reconnaissance vehicle and a security vehicle.

Chairman McClellan, Proceed.

General Deane. Secondly, there exists some question as to the ability of a three man crew to perform the mission on a 24 hour basis and also whether this vehicle would provide the most cost effective method for performing the scout role. Prior to answering these questions, it will be necessary to examine other possible alternative vehicle systems.

It is the Army's plan to continue the current tests until the existing contracts expire in September 1974. This will permit the Army to obtain the maximum technical information from the current competitive test and provide the greatest benefit from funds already invested in the program. It is estimated that a delay of approximately 9 months will result from our decision to re-examine the program.

Detection Probabilities in "Sneak and Peek" Operations

Chairman McClellan. Obviously, firepower and armor protection are nice to have features in the event of detection during reconnaissance missions. However, what are the probabilities of detection in "sneak and peek" operations?

Why not concentrate on producing a highly mobile, quite and reliable vehicle for reconnaissance and rely on combat vehicles such as the M551 and M60A1 for security?

General Deane. In January 1974, the Training and Doctrine Command (TRADOC) was assigned the responsibility for evaluating the cost-effectiveness of the Scout. Since this is a relatively recent development in the Army's plans for establishing the cost-effectiveness of the Scout, what impact, if any, will this assignment have on the DSARC II decision scheduled for October 1974.

Chairman McClellan. Will the results of TRADOC's study be available in sufficient time to support the DSARC II decision as to whether or not the Scout program should be approved for full-scale development?

General Deane. USATRADOC is conducting a requirements study, a Field Test and Evaluation and a Cost Operational Effectiveness Study. This effort was started in February 1974 and is scheduled for completion in March 1975. The DSARC IIa scheduled for September 1974 has been cancelled. Based upon the TRADOC input, received by DA in March 1975, the Army will then propose a scout vehicle program.

Comprehensive Study by TRADOC

Chairman McClellan. Will the time frame be sufficient to enable TRADOC to perform a comprehensive study providing answers to the foregoing questions as well as others raised by GAO's staff study? For example, will any of the potential Scout candidates identified by GAO be considered in the study?

General Deane. The schedule prepared by the Army for re-examination of the ARSV program will provide sufficient time to complete a comprehensive study. This effort was initiated by the Army prior to receipt of the GAO Staff Study and comments. All potential Scout candidates identified by the GAO will be examined except for the M151 ¼-ton truck which was eliminated in the preliminary examination of potential Scout candidates.

Chairman McClellan. Proceed.

XM1

General Deane. The XM1 Tank is another of the Army's Big Five programs. The current standard tank, the M60A1, was designed using technology of the 1950s. We now have the knowledge necessary to build a tank far more capable and survivable than the M60s which served the Israelis well in the Middle East War against the Soviet T–62s. The Soviets are producing a new tank which is superior to the T–62 in many important respects. These improvements will give the Soviets the qualitative as well as the quantitative edge on the Free World tank forces. The introduction of the XM1 into our units will restore the qualitative advantage to us. Only in this way can we hope to preserve sufficient ground gaining and holding capability for the NATO alliance.

This new tank development began in June 1973 with the award of contracts to Chrysler and General Motors for competitive development in the validation phase of this program. All component development work planned for FY 74 is proceeding smoothly and on schedule.

In FY 75 $68.8 million is required to support the prime contractor and remain on schedule. Of this amount, the major portion is for labor and materials to fabricate the prototype tanks and the test rigs. Most of the remaining funds will be used to support the contractor's tests and Government tests at Government facilities.

Requirements of XM1 Tank

Chairman McClellan. List in detail the requirements of the XM1, the cost of the tank, all GFE equipment for the tank, the weapon systems it will use and their costs. Provide the Committee with the estimated unit cost of the tank fully equipped and ready for deployment.

General Deane. The following table provides the significant requirements of the XM1 tank:

FIREPOWER

Item	*Requirement*
Weapons:	
Main armament	105–120 mm [deleted].
Coaxial armament	20–30mm.
Tank commander's weapon	.50 cal. MG.
Loaders Weapon	7.62mm MG.
Fire control:	
Rangefinder	Laser.
Ballistic computer	Solid state.
Stabilization system	Yes (type not stated).
Night sight (passive)	[Deleted.]
Stowed ammunition load:	
Main armament	40–50 rounds.
Coaxial armament	500–700 rounds.
Tank commander's weapon	[Deleted.]
Loaders weapon	[Deleted.]

MOBILITY

Item	*Requirement*
Acceleration 0–20 MPH forward and reverse.	6–9 seconds.
Sustained speed	35–40 MPH.
Cross-country speed	25–30 MPH.
Braking from max speed	4–6 seconds.
Ground clearance	17–23 inches.
Height	90–95 inches.
Width	120–144 inches.
Weight	49–58 tons combat loaded.

RAM–D

Reliability:	
Mobility system	500–750 MMBF (mean miles between failure).
Overall system (tank)	320–440 MMBF.
Durability (time between rebuild):	
Vehicle	6,000 miles.
Power train	4,000 miles.
Availability:	
Inherent availability	89–92 percent.
Maintenance ratio (maintenance hours/operations hours).	.66–1.25.

The design to cost of the tank in FY75 escalated dollars in $775,000.[1]

The following is a listing of expected Government Furnished Equipment (GEF) on the XMI tanks:

Item number and description:	*Quantity*
1 Gun, 105mm, M68	1 each
2 Machine Gun, 20–30 mm	1 each
3 Machine Gun, Cal .50 M85	1 each
4 Radio/Intercom	2 each
5 Radiological Warning Device AN/VDR–1 (Radiac)	1 each
6 Chemical Agent Detector	1 each
7 Chemical Agent Point Source Alarm	1 each
8 Collective Protection Unit (CPU)	1 each
9 OEM Package (Troop installed only)	1 lot
10 Universal Drivers Viewer	1 each
11 Smoke Projectors	16 rounds
12 Machine Gun, M60D, 7.62mm	1 each

The weapons systems are as listed in the requirements above. Cost of the 50 cal, M85 machinegun is $6,500 and the 7.62mm, M60D machinegun is $1,000;[2] however, the final main and coaxial armament systems have not yet been determined. The estimated unit cost of the tank fully equipped and ready for deployment is $882,000 (procurement unit cost, SAR definition).[1]

Chairman McClellan. Proceed.

General Deane. After action reports on the tank battles which took place in the Middle East are being carefully studied to insure the XMI will have the capability to defeat any known Soviet tank under any terrain, weather or visibility conditions.

Comparison Table on XMI and XM803 Tanks

Chairman McClellan. How does this tank compare with the previous Main Battle tank in characteristics and ultimate costs?

[1] December 1973 indicies.
[2] Fiscal year 1972 dollars.

General DEANE. The following table provides a comparison of the XMI with the previous XM803 tank:

Automotive:	
XM 803	1,250 hp engine; hydropneumatic suspension system with variable height feature.
XM1	1,500 hp engine; either tube-over-bar or hydropneumatic (without variable height).
Armament:	
XM 803	Stabilized 152 mm gun/launcher firing KE round and Shillelagh missile with automatic loader; 7.62 mm and stabilized cal .50 machineguns for secondary armament.
XM1	Stabilized 105 mm gun with [deleted] and loading assist mechanism; 20–30 mm coaxial weapon plus 7.62 mm and cal .50 machineguns.
Fire control:	
XM 803	Shillelagh G. & C. components, sophisticated ballistics computer, pulse-gated laser illuminated gunner's night sight, image intensification commander's sight (both sights stabilized), with high degree of redundancy between commander and gunner stations.
XM1	[Deleted] thermal imaging day/night sight for commander and gunner, laser rangefinder.

Expressed in constant FY 72 dollars, the unit hardware cost of the XM1 is $507,000. On the same basis the XM803 would cost $595,000.

Chairman MCCLELLAN. Compare existing US and Soviet tank and both development vehicles.

General DEANE. I will provide the information. (The information follows:)

Characteristics	XM–1	M60A1
Weight (tons)	47–58	54.8.
Horsepower/ton	26	13.6.
Engine (horsepower)	1,500	750.
Crew	4	4.
Road (miles per hour)	35–40	30.
Cross-country (miles per hour)	25–30	12–13.
Range (miles)	275–325	300.
Main arm (millimeters)	105–120	105.
Secondary (millimeters)	20–30	7.62.
Complementary (millimeters)	cal .50 mg, 7.62 mg	Cal .50 mg.
Stabilized weapon	Yes	Yes.

Chairman MCCLELLAN. Proceed.

OTHER EQUIPMENT

General DEANE. In this activity are funded the research and development of all materiel and equipment required for combat and combat support which are not included in the other budget activities. $562.5 million is required to support this budget activity in FY 75.

Permit me now to highlight some of the more significant programs.

ARTILLERY LOCATING RADAR

Current Soviet doctrine places major emphasis on the use of massive concentrations of artillery and rockets to support both offensive and defensive operations. Our ability to locate the firing positions of hostile artillery and rockets is very limited, especially when multiple firings occur. Experience in Vietnam has vividly indicated the importance we must place on improving our capability in this area. There is evidence that the Soviets are strenuously pursuing efforts along these lines.

We have expedited development of an artillery locating radar which will automatically detect and locate enemy artillery and rockets.

Chairman McCLELLAN. Explain how the artillery locating radar works?

General DEANE. The AN/TPQ–37 Artillery Locating Radar emits very narrow beams or pulses of energy which [deleted] throughout the [deleted] search sector several times each second. An artillery or rocket round that goes through the [deleted] will cause energy to be reflected to the radar. Additional energy is radiated to areas from which reflected energy is received in order to differentiate between artillery or rocket rounds and false targets such as birds, rain and aircraft. The radar computer uses the reflected energy pulses to determine such things as velocity, direction and drag of the target. If the target is determined to be an artillery or rocket round, additional energy pulses are radiated along the path or or trajectory of the artillery or rocket round until the computer has sufficient information to accurately compute the location from which the round was fired. Coordinates will then be automatically printed out and the location displayed on the operator's map. After verification of the target altitude by the radar operator, the target will be automatically transmitted to TACFIRE so friendly artillery can attack the hostile artillery or rocket unit. The AN/TPQ–37 radar has the capability to [deleted] while continuing to search the entire sector.

Chairman McCLELLAN. Proceed.

General DEANE. In FY 72 we initiated a two contractor competitive validation phase program. Contracts were awarded late in FY 72 and during FY 73 the two selected contractors began work on building fully operational models of the radar system. The $8.6 million FY 74 funds were used to continue fabrication of the radars. In FY 75 fabrication and R&D Acceptance Testing of the radars will be completed and competitive development and operational testing will be conducted. The $7.8 million requested for FY 75 will be used to complete incremental funding of contract costs and to support the testing.

ROCKET LOCATING RADARS

Chairman McCLELLAN. Don't we have existing rocket locating radars?

General DEANE. [Deleted] due to manual operation, a low probability of detection against rockets, narrow 25° sector of search and very [deleted].

Chairman McCLELLAN. What are the Soviets doing in this area?

General DEANE. [Deleted.]

Chairman McCLELLAN. Proceed.

MORTAR LOCATING RADAR

General DEANE. The Soviets have a very large number of mortars organic to units within the division. The manually operated AN/MPQ–4 Countermortar Radar is inadequate to cope with the threat they pose.

INADEQUACY OF EXISTING RADAR

Chairman McCLELLAN. Why is our existing radar inadequate?

General DEANE. As I said earlier, the Soviets have a very significant mortar capability. The manual operation of the current AN/MPQ–4A radar makes it [deleted]. This would render the AN/MPQ–4A [deleted] such as artillery and mortar preparations prior to an attack. The current [deleted]. The above factors, coupled with the narrow sector coverage (25°), detection problems in adverse weather, relatively show transmission of target data to the fire unit and its relatively large size and weight, make the current mortar locating radar, the [deleted]. The AN/TPQ–36 is being designed to solve the above listed problems.

Chairman McCLELLAN. Proceed.

General DEANE. Presently, we are developing a highly mobile, automatic radar system to detect and locate hostile mortars.

MORTAR LOCATING RADAR

Chairman McCLELLAN. Explain the operation of the Mortar Locating Radar.

General DEANE. The AN/TPQ–36 Mortar Locating Radar emits very narrow beams or pulses of energy which [deleted] throughout the [deleted] search sector several times each second. A mortar or rocket round that goes through the [deleted] will cause energy to be reflected to the radar. Additional energy is radiated to areas from which reflected energy is received in order to differentiate between mortar or rocket rounds and false targets such as birds, rain and aircraft. The radar computer uses the reflected energy pulses to determine such things as velocity and direction of the target. If the target is determined to

be a mortar or rocket round, additional energy pulses are radiated along the path or trajectory of the mortar or rocket round until the computer has sufficient information to accurately compute the location from which the round was fired. Coordinates will then be automatically printed out and the location displayed on the operator's map. After verification of the target altitude by the radar operator, the target will be automatically transmitted to Tacfire so friendly artillery can attack the hostile mortar or rocket unit. The AN/TPQ-36 radar has the capability to [deleted] while continuing to search the entire [deleted] sector.

Chairman McCLELLAN. When was this program initiated?

General DEANE. A contractor, (Hughes Aircraft Company), for the current AN/TPQ-36 Mortar Locating Radar program was selected in June 1972. However, protests by the losing contractors delayed contract award until 26 October 1973, at which time work on this program actually began.

Chairman McCLELLAN. Proceed.

General DEANE. Contract on this project was held up for a period of 17 months due to litigation on contractor protests, however, a full scale development contract was finally awarded in FY 74 for five models of the radar. These five models will provide the most practical and cost effective method of completing the comprehensive test schedule of the mortar locating radar program in a reasonable amount of time. The five radars will undergo operational, development, environmental and electronic warfare testing.

The bulk of the FY 74 funds are being used for contractual efforts on long-lead time items, design efforts, with emphasis on reducing production costs, and manufacture of the models.

COST REQUIREMENTS OF PROGRAM

Chairman McCLELLAN. How much have we spent on this program and how much will be required for its completion?

General DEANE. $8.6 Million will be spent through FY 1974, with an additional $18.8 Million required from FY 1975 until completion of the research and development phase of the program.

Chairman McCLELLAN. Proceed.

General DEANE. The $5.5 million requested for FY 75 is for manufacture of the five radars to be delivered for testing in FY 76. Fielding of the countermortar radar is scheduled for FY 79.

UNITS REQUIRED

Chairman McCLELLAN. How many units do we intend to procure?

General DEANE. 114 Units is the current projected requirement.

Chairman McCLELLAN. Proceed.

REMBASS

General DEANE. The objective of this program is to develop a family of unattended ground sensors and associated data communications and readout equipment called REMBASS, which can be tailored in various system configurations to provide field commanders a continuous, all weather surveillance and target acquisition capability that will complement and supplement other manned and unmanned surveillance systems.

INVENTORY COMPARABLE TO REMBASS

Chairman McCLELLAN. What is in inventory that is comparable to REMBASS?

General DEANE. The Unattended Ground Sensors, which were developed for use in Southeast Asia and were subsequently type classified. Collectively, these items are called the Southeast Asia Operational Sensor System or SEAOPSS.

Chairman McCLELLAN. How does REMBASS improve this system?

General DEANE. The major impetus of REMBASS is to provide improvement in six major areas over SEAOPSS: reduction of false alarms, target classification, target position location, a data transmission system, frequency change, and low temperature operation.

Chairman McCLELLAN. Proceed.

General DEANE. The components that comprise REMBASS are in varying stages of development with the overall system in the validation phase which will extend through FY 1974 to mid-FY 1975.

Components of REMBASS

Chairman McClellan. List all the components of REMBASS and the contractor handling the project.

General Deane. A REMBASS work breakdown structure including 36 configuration end items was developed to provide a basis for the Baseline Cost Estimate and for further systems engineering and definition. It will be modified extensively by means of systems engineering analyses and the results of the advanced development and validation testing programs. The 36 items are:

1. Hand Emplaced/Low Power/Non Commandable/Seismic Sensor.
2. Hand Emplaced/Low Power/Non Commandable/Magnetic Sensor.
3. Hand Emplaced/Low Power/Non Commandable/Electromagnetic Sensor.
4. Hand Emplaced /Low Power/Non Commandable/Acoustic Sensor.
5. Hand Emplaced/High Power/Non Commandable/Seismic Sensor.
6. Hand Emplaced/High Power/Non Commandable/Magnetic Sensor.
7. Hand Emplaced/High Power/Non Commandable/Seismic/Magnetic/Acoustic Sensor.
8. Hand Emplaced/High Power/Commandable/Acoustic Sensor.
9. Hand Emplaced/High Power/Commandable/Seismic/Magnetic/Acoustic Sensor
10. Hand Emplaced/High Power/Commandable/Infrared Sensor.
11. Hand Emplaced/High Power/Commandable/Imaging Sensor.
12. Air Emplaced/High Power/Non Commandable/Seismic Sensor.
13. Air Emplaced/High Power/Non Commandable/Seismic/Acoustic Sensor.
14. Air Emplaced/High Power/Commandable/Acoustic Sensor.
15. Ballistically Emplaced/High Power/Non Commandable/Seismic Sensor.
16. Hand Emplaced/High Power/Non Commandable/Variable Resistance Line Sensor.
17. Hand Emplaced/High Power/Non Commandable/Magnetic-Strain Line Sensor.
18. Hand Emplaced/High Power/Non Commandable/Strain Line Sensor.
19. Sensor Control Module.
20. Hand Emplaced/Digital/Single Channel/Radio Relay.
21. Hand Emplaced/Digital-Analog/Single Channel/Radio Relay.
22. Hand Emplaced/Digital/Multiple Channel/Radio Relay.
23. Air Emplaced/Digital/Single Channel/Radio Relay.
24. Ballistically Emplaced/Digital/Single Channel/Radio Relay.
25. Universal Control Receiver.
26. Universal Control Receiver/Transmitter Module.
27. Sensor Reporting Unit (SRU)/Central Processor Unit (CPU).
28. SRU Interface Box.
29. SRU Recorder.
30. SRU Cathode Ray Tube Display.
31. SRU Map Situation Display.
32. SRU Page Printer.
33. SRU Power Source.
34. SRU Antenna Group.
35. Battery Group.
36. Rembass Training Simulator.

The 16 currently active Rembass contractors are: Mitre Corp., Virginia; Analytics, Pennsylvania; GTE Sylvania, California; Interdata, New Jersey; Honeywell, Minnesota; Power Conversion, Inc., New York; Eagle Pitcher, Missouri; TR-Mallory, New York; Ensco, Virginia; Dorsett, Oklahoma; Virginia Instrument, and Scope, Virginia; Environmental Research Institute, Michigan; Southwest Research, Texas; Philips Broadcasting Corp., New Jersey; and Brown Engineering, Alabama.

Chairman McClellan. Proceed.

General Deane. The main efforts of this phase are to complete the Cost and Operational Effectiveness Analysis and find solutions to the target recognition and accuracy problems.

Cost and Operational Effectiveness Analysis

Chairman McClellan. Explain a "Cost and Operational Effectiveness Analysis".

General Deane. The objective of a Cost and Operational Effectiveness Analysis is to demonstrate that a proposed system provides a major increase in capa-

bility to meet the Army's operational needs at an acceptable cost. The Rembass Cost and Operational Effectiveness Analysis is considering three alternative approaches for providing surveillance and target acquisition capabilities for the Army. These are (1) use of existing and proposed Surveillance Target Acquisition Night Observation (STANO) equipment with no unattended ground sensors, (2) use of the existing Southeast Asia Operational Sensor System (SEAOPSS) equipment to augment STANO equipment, and (3) a fully developed Rembass to augment STANO equipment. In addition a sensitivity analysis will be conducted to determine the effectiveness of modified SEAOPSS sensors to augment existing STANO equipment.

Chairman McCLELLAN. Proceed.

General DEANE. The solutions will be confirmed by DT I/OT I, using brassboard models, as the prerequisite to entering a five year full scale development. There is one small subsystem of Rembass that is outside the main stream of the development cycle. This is a small unit (Platoon) early earning system consisting of components that are well advanced in the development cycle.

"PLATOON" UNIT

Chairman McCLELLAN. Describe in greater detail the "Platoon" unit.

General DEANE. The Platoon Early Warning System consists of a receiver (readout) unit, nine sensors of combinatorial types, a wire module, and a carrying bag. The system will provide an early warning alert capability for platoon size units. Although being developed under the management of PM (Rembass) because of its remote monitoring feature, this is a complete system for small unit protection and no direct Rembass electronic interface is required.

Chairman McCLELLAN. Proceed.

General DEANE. A contract will be let in FY 1974 to fabricate full scale development models. We are requesting $7.3 million in FY 1975.

TOTAL PROGRAM COSTS

Chairman McCLELLAN. What will be the total program cost?

General DEANE. The total estimated RDTE and PEMA funds required to initially equip a 13 division force is $198m. (FY 74 Inflated $). These estimates are based on the present work breakdown structure and base line cost estimates and will be revised upon completion of the on-going system definition effort.

Chairman McCLELLAN. How many of these sensors will we procure and what will be their unit cost?

General DEANE. We are presently planning to purchase about 8,600 Platoon Early Systems. The design-to-unit production cost goal for each system is [deleted] (FY 73 dollars).

Chairman McCLELLAN. Proceed.

NIGHT VISION

General DEANE. The purpose of this program is to develop night vision equipment to satisfy our various tactical needs.

NIGHT VISION PROGRAMS

Chairman McCLELLAN. Please list all night vision programs presently being carried on by the Army, their purpose and cost.

General DEANE. The major effort in FY 75 in the night vision area is carried out under four programs shown below together with the requested amount for each. These efforts are for Basic and Exploratory research and for the Advanced and Engineering Development of night vision devices which are not part of weapon systems.

Program element:	*(Thousands)*
6.11.02.A313	$2, 900
6.27.09DH95	4, 000
6.37.19DK70	12, 600
6.47.23DL70	4, 500

There are four additional efforts to develop night sights for specific weapon systems where the funding is included in the total system request.

Night sights:	(Thousands)
Chaparral/Vulcan (2.21.53)	$2, 200
Tow Night Sight (2.36.24)	5, 500
Dragon Night Sight (2.36.27)	1, 900
Tank Thermal Sight (6.46.15)	1, 900

Chairman McCLELLAN. Proceed.

General DEANE. The FY 74 program includes direct and remote view image intensifier tubes, infrared detectors, light sources, and associated power supplies to assist in combat vehicle operations, target detection and location, aviation operations, and task to support the individual soldier. This effort is the base for developing Night Vision Sights that are to be integrated into major systems such as Tow and Dragon. This will give these systems a 24-hour operational capability. This work will continue in FY 1975, with major effort on standardizing component modules for Thermal Imaging Systems.

"THERMAL IMAGING SYSTEMS"

Chairman McCLELLAN. Please explain in greater detail "Thermal Imaging Systems".

General DEANE. The term "Thermal Imaging Systems", is a classification of infrared sensors which use the natural heat or temperature differences of objects to present a "picture" of the area of interest. The heat or thermal radiation occurs naturally in a band of frequencies between visible light and radio or radar frequencies, so that the radiation must be converted to visible light to provide an image made up of temperature differences. Since military targets such as men, tanks, trucks, aircraft, etc., are generally much "hotter" than their surroundings, the images stand-our clearly both day and night and even when concealed to the unaided, eye by smoke, haze, or light camouflage. Since it is difficult to "hide" this heat coming from targets and it occurs without any active or external illumination; thermal imaging generally gives better range capability than image intensification devices such as the Starlight Scopes.

Chairman McCLELLAN. Proceed.

General DEANE. Approximately seventy percent of the cost of Thermal Imaging Systems is related to components which are common to all systems. By standardizing these components a substantial savings (est. $250 million) in procurement costs can be realized. The remaining thirty percent of the cost involves front-end optics and the visual display which can be changed to satisfy particular night vision requirements. We are requesting $24.1 million in FY 1975 for this program.

CHEMICAL WARFARE

The objective of our chemical warfare policy and programs is to deter the use of chemical weapons and to have the capability to retaliate in kind if they are used against us.

INTERNATIONAL AGREEMENTS ON USE OF CW

Chairman McCLELLAN. List any international agreements on the restrictions of using CW.

General DEANE. The only international agreement restricting the use of Chemical Warfare is the Geneva Protocol of 1925 which prohibits the first use in war of "asphyxiating, poisonous or other gases and bacteriological methods of warfare."

Chairman McCLELLAN. Proceed.

General DEANE. In light of the threat and in support of national policy we must develop an adequate defensive system to ensure a capability to protect ourselves against the employment of CB agents and also develop chemical munitions to provide a retaliatory capability should deterrence fail.

R&D EXPENDITURES ON CHEMICAL WEAPONS

Chairman McCLELLAN. How much has the U.S. Army spent in the area (annually) for the last 10 years?

General DEANE. The research and development expenditures on chemical weapons and chemical defense for the last ten fiscal years are as follows:

	Millions
1964	$47.7
1965	41.6
1966	42.1
1967	39.4
1968	36.2
1969	32.9
1970	27.8
1971	28.4
1972	31.5
1973	26.1

Chairman MCCLELLAN. Proceed.

General DEANE. To accomplish this goal, research is proceeding to develop and upgrade necessary chemical defense equipment and materiel in the areas of: detection and warning, protection, sampling and identification, decontamination, and prophylaxis and therapy.

R & D WORK ASSIGNMENTS

Chairman MCCLELLAN. Where is the work being performed and by whom?

General DEANE. The research and development work is being performed at Edgewood Arsenal, Maryland. The testing is conducted at Dugway Proving Ground, Dugway, Utah.

Chairman MCCLELLAN. Proceed.

General DEANE. The principal defense items in development are modular collective protection system, a chemical agent detector, a liquid agent detector, a protective mask and a chemical area scanning alarm.

Offensively, research and development is continuing on the development of the 155mm binary GB chemical munition and the 8-inch binary VX chemical munition that will ensure safety in production and assembly, storage, transportation, use and virtually eliminate all future disposal problems.

MAJOR PROJECTS AND PURPOSE

Chairman MCCLELLAN. List all major projects going on in this area and their purpose.

General DEANE. The major projects and their purpose are as follows:

a. There are two lethal chemical weapon systems under development: The 155mm GB Binary Projectile and an 8-Inch VX Binary Projectile. This is a modernization effort to insure compatability of chemical munitions with the new family of artillery tubes. The binary rounds will reduce hazards associated with manufacture, storage, transportation, deployment and disposal of chemical munitions.

b. The major defensive projects are: (1) Area scanning chemical alarm to perform initial distant discovery of a chemical attack and notification to personnel.

(2) Modular collective protective equipment adaptable to standard military command vehicles and vans providing collective physical protection from chemical agents.

(3) Chemical agent detector kit to provide a reliable and simplified capability for chemical agent identification to determine safe unmasking time, extent of contamination and the thoroughness of decontamination.

(4) Protective mask to provide individual protection against chemical agents. The new mask will replace the current tankers', air crewmans' and field protective mask. The new mask will provide an improved operational capability, reduce the logistics associated with the current mask, and have improved performance, storage and visual characteristics.

(5) Decontamination investigations aimed at identifying new decontaminants and coverings and coatings to prevent contamination and/or facilitate decontamination.

(6) Medical investigations are proceeding in the area of prevention or treatment of casualties from chemical agents by application or administration of protective compounds, drugs, or vaccines.

Chairman MCCLELLAN. Proceed.

General DEANE. The Fiscal year 1975 budget request for research and development of chemical munitions and chemical defense equipment is $19.1 million

COMMAND, CONTROL AND COMMUNICATIONS

The Soviets have been very active and have exhibited a measured degree of success in the development and production/deployment of strategic and tactical command and communications systems. Our objective is to develop a multi-channel interoperable command and communications system utilizing interchangeable hardware and procedures for use by all US forces and those of our allies. To this end, we are developing digital transmission, trunking, and switching facilities, as well as a family of Army Tactical Data Systems which includes the Tactical Fire Control System (Tacfire) and the Tactical Operations System (TOS).

OPERATION OF TACFIRE AND TOS

Chairman MCCLELLAN. Explain in detail the operation of Tacfire and TOS and how much it has cost us. When will the system be totally deployed? What funds are required to complete this program?

General DEANE. The Tactical Fire Direction System (Tacfire) and the Tactical Operations System (TOS) are both computer-based systems designed to facilitate timely and effective tactical decision making and significantly improve command and control through the provision of secure, responsive automatic data processing support to ground force commanders. These two systems will be interoperable and complementary. Both will employ digital data communications using contemporary tactical communications equipment.

Tacfire, the lead system of the two, performs selected tactical and technical fire control functions for the field artillery. Computer centers will be fielded at battalion echelon and above, and field artillery firing batteries will have remote display units for receipts of computer-derived firing data. Fire Support Officers with supported maneuver units from company through division will be equipped with remote devices to communicate with fire direction centers. TOS is visualized as a division-level system with computer centers at the division and brigade echelons. Maneuver companies and battalions will have remote devices for the input and receipt of tactical information. While seventeen tactical functions are being considered for the eventually fielded system, only two, the friendly and the enemy situations, are being developed for the TOS Operable Segment (TOS^2), an austere, division-slice prototype system which we will test at Fort Hood, Texas in fiscal years 1976 and 1977. These tests will validate a TOS concept and allow us to develop the best configuration for the system prior to our entering into full scale development.

Through FY 1973 we had invested $63.4 million RDT&E and $2.4 million PEMA in Tacfire and $20.1 million RDT&E in TOS^2. Our total program acquisition costs for Tacfire are estimated at $80.1 million RDT&E and $202.3 million in PEMA. We currently estimate development costs for TOS^2 at $43.5 million RDT&E. Procurement costs for TOS have not been fixed pending the results of our Fort Hood, Texas testing and the determination of the best, most efficient and operationally-sound configuration.

Fielding is scheduled to be completed for Tacfire in [deleted] and for TOS in [deleted].

Chairman MCCLELLAN. Proceed.

General DEANE. These developments will provide a reliable interface with current and future equipments in the tactical, strategic, and civil systems. Major efforts are being programmed to develop electronic counter-countermeasure (ECCM) techniques and to harden and improve equipment to withstand nuclear effects in order to reduce the susceptibility of our command, control and communications systems. These programs are of prime importance in the development of the Army's new tactical radios for the 1980s.

TRI-TAC

Under this DOD program of Joint Tactical Communications development the Army has been tasked by the Assistant Secretary of Defense (Telecommunications) with the development and procurement of a hybrid analog/digital circuit and message switch for use by all Services. This AN/TTC-39 or Model A switch will accommodate the Services' inventory of equipments in the current predominately analog environment during the transition to the future digital environment.

Tri-Tac Program

Chairman McClellan. Explain in detail the TRI-TAC Program.

General Deane. The Joint Tactical Communications (TRI-TAC) Program was established in May 1971 to achieve interoperability among service telecommunications systems and to procure common tactical multichannel trunking and switching equipment for use by all the Services. In October 1970, the Deputy Secretary of Defense announced the discontinuance of U.S. involvement in Project Mallard because of the inherent turbulence of international development programs and inadequate joint U.S. service participation. The establishment of the TRI-TAC Program was directed, stressing the need for better tactical multichannel communications for U.S. Forces.

A TRI-TAC Office has been established at Fort Monmouth, New Jersey and is under the direct control of the Director, Telecommunications and Command and Control Systems (DTACCS), Office of the Secretary of Defense. Military representatives are provided by the Army, Navy, Air Force and Marine Corps on an equal Departmental basis.

The TRI-TAC Program has a number of major objectives. Foremost is the desire to achieve interoperability among Service telecommunications systems and to procure common tactical multichannel trunking and switching equipment for use by all Services. Other objectives are to eliminate duplication in development of Service equipment and to obtain the above objectives in the most cost effective manner.

As the tactical communications system architect, the TRI-TAC Office has prepared system design plans for land and sea oriented tactical communications systems. Through the implementation of these plans, the present service telecommunications systems will be transformed on an evolutionary basis to a predominately digital communications system in the 1980's. The system architecture will provide a joint Service tactical switching and trunking capability for voice and record communications and for data communications to support the employment of evolving computerized weapon systems. Advances in integrated circuit technology and the increasing availability of low cost, wide band transmission media will be exploited to obtain: (1) a faster rate of information transfer; (2) a higher degree of transmission security; (3) better mobility through size and weight reductions; and (4) improved reliability and maintainability.

Equipment development tasks in support of the system design have been assigned to the Department of the Army for automatic, voice and message switching equipment and an associated control facility, a family of digital group multiplexers and mobile subscriber access communications equipment. NSA has been assigned the development of a secure telephone terminal and communications security equipment associated with the Army developed switch. Other task assignments include assignment to the Department of the Air Force for the development of a lightweight tropo terminal, a composition and editing display, a data adapter, a short range wideband radio and a family of tactical communications control facilities, excluding the model assigned to the Army, to provide subscriber and link circuit management. The Department of the Navy has been assigned responsibility for the development of a lightweight tactical digital facsimile. The Marine Corps has been assigned the development of a family of small or "unit level" switchboards, compatible with the Army developed switch for use at division level and below.

Under the foregoing program, hardware specifications are to be jointly approved and the division of development tasks among the Services serves to reinforce and emphasize the joint nature of the TRI-TAC Program.

In FY 72 (June 72) we initiated two contractor competitive contracts for an 18-month validation phase prototype (Phase I) program. This effort includes incremental funding of $5.0 million in FY 74. In April of 1974 the winning prototype will be selected, and a Phase II full scale development contract will be initiated with an additional $7.9 million of FY 74 funds. In FY 75 the Phase II contractor will continue to fabricate full scale development models. We are requesting $26.9 million for the AN/TTC–39 effort in FY 75.

Tacfire

During FY 1974, development continued on the Tactical Fire Direction System (Tacfire). Tacfire is a real-time, computer-based command and control system to automate selected field artillery tactical and technical fire control functions. The original full scale development contract for Tacfire was modified in the

spring of 1973 to provide an eighteen-month extension in the development and test phase during which the contractor corrected system deficiencies and developed selected new equipments needed to improve the operational performance of the prototype system. DT II/OT II will begin in April 1974 to be completed in October 1974. $4.7 million is requested in FY 1975 to support the continuation of the testing and the development phase.

Tactical Operation System (TOS)

The Tactical Operation System (TOS) is a Division level computer assisted command and control system utilizing militarized components. It will receive, process, store, retrieve, display and disseminate selected information. In June of 1972 a contract was let to provide for a TOS Operable Segment (TOS^2) as a militarized testbed which would be a representative slice of a division system. FY 74 funds in the amount of $7.2 million will be expended primarily for hardware procurement and software development. The software is being developed in-house by Computer Systems Command and hands-on testing will be conducted under field conditions. A total of $6.0 million has been requested for FY 75 primarily to continue hardware development and provide for software support.

Programwide Management and Support

The Programwide Management and Support Budget Activity provides for those costs that cannot be identified to specific projects in other budget activities. This program provides resources to finance the general and administrative RDT&E expenses at major command headquarters (except Department of the Army headquarters); the operation and maintenance of selected general purpose research and development activities; minor construction; and procurement of special purpose equipment. In FY 75, we have requested $55.8 million.

Summary

My presentation has been designed to provide you with a description of the programs we will pursue in FY 75, and the reasons why we consider these programs necessary to the effectiveness of the Army.

Throughout my presentation, I have made frequent references to Soviet capabilities and the threat they pose. My intention, in this regard, is not to employ "scare" tactics. I intend only to depict as accurately and graphically as I can the mass of armament and manpower our Army will face in the event of a future conflict. I believe the war in the Middle East is a warning we cannot ignore.

Our RDT&E effort takes cognizance of this warning. It is designed to provide the American Soldier the tools he needs to meet the threat. We seek your support. This concludes my statement. I am now prepared to answer your questions.

JUSTIFICATION

Chairman McClellan. At this point in the record, there will appear certain information from the justifications.

[The justification follows:]

Justification

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, ARMY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS) — 1975 FISCAL YEAR PROGRAM

IDENTIFICATION CODE 07-20-2040-0-1-051	BUDGET PLAN (AMOUNTS FOR RDT&E ACTIONS PROGRAMED)			OBLIGATIONS		
	1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:						
DIRECT:						
1. MILITARY SCIENCES			111,520			109,326
2. AIRCRAFT AND RELATED EQUIPMENT			269,996			253,821
3. MISSILES AND RELATED EQUIPMENT			706,418			679,833
4. MILITARY ASTRONAUTICS AND RELATED EQUIPMENT			15,832			14,894
6. ORDNANCE, COMBAT VEHICLES, AND RELATED EQUIPMENT			263,871			253,011
7. OTHER EQUIPMENT			562,493			542,065
8. PROGRAMWIDE MANAGEMENT AND SUPPORT			55,846			54,427
TOTAL DIRECT			1,985,976			1,907,377
REIMBURSABLE (TOTAL)			145,000			126,000
10 TOTAL			2,130,976			2,033,377
FINANCING:						
RECEIPTS AND REIMBURSEMENTS FROM:						
11 FEDERAL FUNDS			-143,000			-143,000
14 NON-FEDERAL SOURCES			-2,000			-2,000
24 UNOBLIGATED BALANCE AVAILABLE, END OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS						97,599
BUDGET AUTHORITY			1,985,976			1,985,976

PERSONNEL SUMMARY

TOTAL NUMBER OF PERMANENT POSITIONS			16,898	15,987	16,729
FULL-TIME EQUIVALENT OF OTHER POSITIONS			578	598	598
AVERAGE PAID EMPLOYMENT			17,804	16,724	16,940
AVERAGE GS GRADE			9.6	9.5	9.5
AVERAGE GS SALARY			$16,195	$17,215	$17,430
AVERAGE SALARY OF UNGRADED POSITIONS			$10,260	$11,118	$11,458

PROJECT LISTING
SUMMARY BY BUDGET ACTIVITY
($ IN THOUSANDS)

	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE
1. Military Sciences	113,172	116,621	111,520
2. Aircraft and Related Equipment	189,254	295,963	269,996
3. Missiles and Related Equipment	905,107	821,326	706,418
4. Military Astronautics and Related Equipment	17,005	17,501	15,832
6. Ordnance, Combat Vehicles and Related Equipment	205,721	254,985	263,871
7. Other Equipment	395,024	401,565	562,493
8. Programwide Management and Support	55,768	62,514	55,846
TOTAL RDTE - DIRECT	1,881,051	1,970,475	1,985,976
Reimbursements	141,423	146,000	145,000
TOTAL PROGRAM	2,022,474	2,116,475	2,130,976

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PROJECT LISTING
SUMMARY BY PROGRAM CATEGORY
($ IN THOUSANDS)

		FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE
6.1	Research	76,851	78,776	73,474
6.2	Exploratory Development	295,179	282,792	257,527
6.3	Advanced Development	396,169	482,144	671,349
6.4	Engineering Development	420,726	559,548	471,126
6.5	Management and Support	303,317	302,788	344,600
	Total Research and Development (Program 6)	1,492,242	1,706,048	1,818,076
	Total Operational Systems Program	388,809	264,427	167,900
	TOTAL RDTE - DIRECT	1,881,051	1,970,475	1,985,976
	Reimbursements	141,423	146,000	145,000
	TOTAL PROGRAM	2,022,474	2,116,475	2,130,976

PROJECT LISTING

1. MILITARY SCIENCES

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.1	RESEARCH					
6.11.01.A		IN-HOUSE LABORATORY INDEPENDENT RESEARCH	10,735	11,170	11,250	1
6.11.02.A		DEFENSE RESEARCH SCIENCES	66,116	67,606	62,224	5
		General Physics	5,866	6,025	4,739	9
		Chemistry	2,973	2,421	2,440	12
		Mathematical Science	3,854	4,210	4,080	15
		Electronics	7,539	7,335	7,650	18
		Materials	6,795	5,780	5,590	21
		Mechanics	6,349	7,140	5,830	24
		Energy Conversion	1,433	1,591	1,135	27
		Aeronautical Sciences	5,640	6,025	6,030	30
		Terrestrial Sciences	2,648	3,550	3,350	33
		Atmospheric Science	3,413	3,470	3,182	36
		Biological Medical Sciences	17,504	17,769	15,878	39
		Behavioral and Social Sciences	2,102	2,290	2,320	42
		Subtotal Research Category	76,851	78,776	73,474	
6.2		EXPLORATORY DEVELOPMENT				
6.21.05.A		MATERIALS	9,280	9,930	9,610	45
	AH84-01	Advanced Materials for Aircraft	2,738	2,947	2,884	
	AH84-02	Advanced Materials for Armament	2,702	2,846	2,890	
	AH84-03	Advanced Materials for Armor	2,870	2,930	2,904	
	AH84-04	Advanced Materials for Missiles	416	444	490	
	AH84-05	Advanced Materials for Special Problem Solutions	554	763	442	

PROJECT LISTING

1. MILITARY SCIENCES (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT (Continued)				
6.21.10.A		SURGICAL INVESTIGATIONS	6,355	5,440	5,500	48
	A816	Military Medical Material	1,185	1,070	1,000	
	A821	Combat Surgery	4,068	3,270	3,300	51
	A825	Oral and Maxillo/Facial Sciences	720	600	700	
	A830	Military Dognostic Improvement	382	500	500	
6.21.11.A		ATMOSPHERIC INVESTIGATIONS	3,450	3,970	4,212	54
	AH71-01	Atmospheric Environment of Military Systems	350	300	500	
	AH71-02	Meteorological Satellite Technology	1,300	1,345	1,265	
	AH71-03	Atmospheric Meteorological Technology	525	775	1,262	
	AH71-04	Atmospheric Sensing Techniques	725	1,000	1,015	
	AH71-05	Meteorology of Transport and Diffusion	550	550	170	
6.21.12.A		TERRESTRIAL AND CONSTRUCTION INVESTIGATIONS	1,214	1,280	1,020	57
	A528	Environmental Effects on Material Development	1,214	1,280	1,020	
6.21.14.A		FLUIDIC TECHNOLOGY INVESTIGATIONS	1,250	1,140	1,149	59
	AH73	Fluidic Technology Investigations	1,250	1,140	1,149	
6.21.18.A		NUCLEAR WEAPONS EFFECTS RESEARCH - TEST	[Deleted]	[Deleted]	[Deleted]	
	AH75-01	Nuclear Effects Simulators				
	AH75-02	Nuclear Weapons Effects for Army Applications				
	AH75-03	Defense Against Nuclear Weapons Effects				

PROJECT LISTING

1. MILITARY SCIENCES (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT (Continued)				
6.21.22.A		ENERGY PULSE APPLICATION	---	---	[Deleted]	68
	AD53-02	Energy Pulse Technology	---	---	[Deleted]	
		Subtotal Exploratory Development Category	26,451	26,695	28,346	
6.5		MANAGEMENT AND SUPPORT				
6.51.01.A		STUDIES AND ANALYSES	5,690	8,200	6,500	70
	M710	Scientific and Technical Studies and Support	168	900	1,300	
	M746	Manpower and Personnel	1,282	1,300	1,300	
	M747	Concepts and Plans	1,682	1,500	1,700	
	M748	Operations and Force Structure	1,718	4,100	1,900	
	M749	Logistics	840	400	300	
6.51.02.A		TRAINING AND DOCTRINE COMMAND (TRADOC) STUDIES AND ANALYSES	4,170	2,950	3,200	73
	M980	Science and Technology	440	400	600	
	M981	Concepts and Plans	2,272	1,200	1,200	
	M982	Operations and Force Structure	1,383	1,200	1,200	
	M983	Logistics	75	150	200	
		Subtotal Management and Support Category	9,860	11,150	9,700	
		TOTAL MILITARY SCIENCES - DIRECT	113,172	116,621	111,520	

PROJECT LISTING

2. AIRCRAFT AND RELATED EQUIPMENT

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT				
6.22.01.A		AIRCRAFT WEAPONS TECHNOLOGY	1,950	1,445	1,430	76
	DH96-01	Fire Control	600	625	530	
	DH96-02	Gun Type Aerial Weapons	450	555	550	
	DH96-03	Aerial Weapons Warheads	265	265	350	
	DH96-04	Aircraft Weapons Systems Effects	635	---	---	
6.22.02.A		AIRCRAFT AVIONICS TECHNOLOGY	5,339	4,980	6,500	79
	AH85-01	Aviation Communications	200	125	600	
	AH85-02	Instrumentation	255	150	590	
	AH85-03	Navigation and Positioning	500	370	960	
	AH85-04	Air Traffic Management	400	385	850	
	AH85-05	Landing Guidance	300	350	640	
	AH85-06	Low Level Night Operations	1,603	1,630	---	
	AH85-07	Environmental Sensing	891	780	1,510	
	AH85-08	Flight Control Systems	350	164	490	
	AH85-09	National Landing Systems	840	---	---	
	AH85-10	Aircraft Avionics Systems Analysis	---	1,026	800	
	AH85-11	Digital/Modular Avionics	---	---	60	
6.22.09.A		AERONAUTICAL TECHNOLOGY	15,519	15,315	16,874	82
	AH76-01	Aerodynamics	1,800	1,380	1,500	
	AH76-02	Structures	2,700	2,900	3,900	85
	AH76-03	Propulsion	2,900	3,500	3,000	88
	AH76-04	Reliability and Maintainability	3,170	2,325	2,950	
	AH76-05	Safety and Survivability	2,640	2,400	2,480	
	AH76-06	Mission Support	1,409	1,890	2,144	
	AH76-07	Aircraft System Synthesis	900	920	900	
		Subtotal Exploratory Development Category	22,808	21,740	24,804	

PROJECT LISTING

2. AIRCRAFT AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.3		ADVANCED DEVELOPMENT				
6.32.01.A		AIRCRAFT POWER PLANTS AND PROPULSION	3,350	3,010	2,320	91
	DB72	Propulsion Components	---	---	200	
	D447	Demonstrator Engines	3,350	3,010	2,120	
6.32.03.A		HEAVY LIFT HELICOPTER	38,000	59,915	57,725	93
	DB75	Heavy Lift Helicopter Engines	11,600	20,585	15,600	96
	D156	Heavy Lift Helicopter Airframe	26,400	39,330	42,125	99
6.32.05.A		AERIAL SCOUT	6,100	---	6,000	102
	D281	Aerial Scout	6,100	---	6,000	
6.32.06.A		AIRCRAFT WEAPONS	5,312	7,060	5,000	104
	DK62	Selected Effects Armament Subsystems	1,450	4,800	500	
	D043	Evaluation of Aircraft Weapon Fire Control	2,081	1,210	2,600	
	D044	Evaluation of Aircraft Gun Type Weapons	1,780	1,050	1,900	
	D050	Aircraft Missiles and Rockets	1	---	---	
6.32.07.A		AIRCRAFT AVIONICS EQUIPMENT	3,408	1,840	2,971	107
	DB96	Aircraft Navigation and Construction Equipment	1,294	50	57	
	DB97	Avionics Equipment	1,475	1,790	2,914	
	DB99	Low Cost Ownership Development	639	---	---	
6.32.08.A		AIRCRAFT SURVIVABILITY CONCEPTS	4,495	4,050	3,825	109
	DB52	Aircraft Survivability Concepts	4,495	4,050	3,825	112

PROJECT LISTING

2. AIRCRAFT AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.3		ADVANCED DEVELOPMENT (Continued)				
6.32.09.A		AIR MOBILITY SUPPORT	6,201	2,554	7,525	115
	DB32	Ground Support Equipment	35	250	---	
	DB33	Aerial Delivery and Cargo Handling Equipment	858	722	755	
	DB38	Reliability and Maintainability	3,398	1,010	1,650	
	DB39	Synthetic Flight Training System	---	---	400	
	DB66	Diagnostics and Inspection Equipment	---	572	4,720	118
	D177	Tactical Aircraft Guidance System	1,910	---	---	
6.32.11.A		ROTARY WING RESEARCH AIRCRAFT	4,223	4,930	3,825	120
	DB41	Advanced Structures	---	720	1,323	
	D157	Advanced Rotary Flight Control	4,223	4,210	2,502	
6.32.12.A		TILT ROTOR RESEARCH AIRCRAFT	3,600	4,600	5,750	122
	DB74	Tilt Rotor Research Aircraft	3,600	4,600	5,750	
6.32.13.A		ROTOR SYSTEMS RESEARCH AIRCRAFT	300	6,020	6,770	125
	DB36	Rotor Systems Research Aircraft	300	6,020	6,770	
6.32.14.A		CH-47 PRODUCT IMPROVEMENT PROGRAM	---	5,000	3,000	128
	DB37	CH-47 Product Improvement Program	---	5,000	3,000	
		Subtotal Advanced Development Category	74,989	98,979	104,711	

PROJECT LISTING

2. AIRCRAFT AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.4		ENGINEERING DEVELOPMENT				
6.42.01.A		AIRCRAFT AVIONICS	8,376	8,439	9,920	130
	DC96	Aircraft Navigation and Control Systems	6,851	6,139	6,265	132
	DC97	Avionics Systems	1,525	2,300	3,655	134
6.42.02.A		AIRCRAFT WEAPONS	1,000	1,714	1,529	136
	D133	Aircraft Gun Type Weapons	610	1,249	1,529	
	D136	Aerial Weapons Delivery Systems	390	465	---	
6.42.04.A		AIR MOBILITY SUPPORT EQUIPMENT	3,763	4,993	6,994	139
	DC31	Aircraft Subsystems and Components	---	600	2,100	
	DC32	Aircraft Ground Support Equipment	1,600	234	350	
	DC33	Aerial Delivery and Cargo Handling Equipment	1,088	917	1,214	
	D275	Synthetic Flight Training System (SFTS)	1,075	3,242	3,330	142
6.42.06.A		UTILITY TACTICAL TRANSPORT AIRCRAFT SYSTEM (UTTAS)	50,400	102,725	54,060	145
	D189	Utility Tactical Transport Aircraft System Engine	8,488	14,900	12,000	148
	D378	Utility Tactical Transport Aircraft System (UTTAS)	41,912	87,825	42,060	150
6.42.07.A		ADVANCED ATTACK HELICOPTER	20,000	49,300	60,780	153
	D425	Advanced Attack Helicopter	20,000	49,300	60,780	

PROJECT LISTING

2. AIRCRAFT AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.4		ENGINEERING DEVELOPMENT (Continued)				
6.42.09.A		AIRCRAFT SURVIVABILITY EQUIPMENT	623	853	7,198	156
	DC52	Aircraft Survivability Equipment	623	853	7,198	158
6.42.12.A		COBRA TOW	7,295	7,220	---	
	D639	COBRA TOW	7,295	7,220	---	
		Subtotal Engineering Development Category	91,457	175,244	140,481	
		TOTAL AIRCRAFT AND RELATED EQUIPMENT - DIRECT	189,254	295,963	269,996	

PROJECT LISTING

3. MISSILES AND RELATED EQUIPMENT

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
		STRATEGIC FORCES				
1.25.14.A		SAFEGUARD DEFENSE SYSTEM	299,400	181,820	60,794	160
	D990	SAFEGUARD Defense System	299,400	181,820	60,794	
		Subtotal Strategic Forces Category	299,400	181,820	60,794	
		GENERAL PURPOSE FORCES				
2.21.52.A		SURFACE-TO-AIR MISSILE HAWK/HAWK IMPROVEMENT PROGRAM	7,411	3,291	8,491	3
	D690	Surface-to-Air Missile HAWK/HAWK Improvement Program	7,411	3,291	8,491	
2.21.53.A		CHAPARRAL/VULCAN	3,741	3,240	7,229	167
	D697	CHAPARRAL/VULCAN	3,741	3,240	7,229	
2.21.60.A		DIVISION SUPPORT MISSILE - LANCE	7,520	---	---	
	D231	Division General Support Missile - LANCE	4,704	---	---	
	D232	Adaption Kit Division General Support - LANCE	1,642	---	---	
	D268	Nonnuclear Warhead LANCE	1,174	---	---	
2.21.62.A		SURFACE-TO-SURFACE MISSILE - PERSHING	6,600	5,700	---	
	D678	Surface-to-Surface Missile - PERSHING	6,600	5,700	---	
2.36.23.A		LAND COMBAT SUPPORT SYSTEM (LCSS)	793	543	200	170
	D677	Land Combat Support System (LCSS)	793	543	200	
		Subtotal General Purpose Forces Category	26,065	12,774	15,920	

PROJECT LISTING

3. MISSILES AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT				
6.23.03.A		MISSILE TECHNOLOGY	20,811	20,760	25,532	173
	A214-01	Sensors	2,800	2,100	3,000	176
	A214-02	Guidance and Control	1,929	1,116	1,362	
	A214-03	Terminal Guidance	4,200	3,600	5,420	178
	A214-04	Propulsion	3,647	2,695	2,362	
	A214-05	Aerodynamics	2,167	1,641	1,355	
	A214-06	Ground Support Technology	600	431	558	
	A214-07	Nuclear Weapons	98	143	225	
	A214-08	Structures	674	710	724	
	A214-09	Experimental Systems	3,800	5,800	3,100	181
	A214-10	System Concept Analysis	896	474	786	
	A214-11	Hybrid Microelectronics	---	429	810	
	A214-12	Simulation Research	---	1,500	5,200	184
	A214-13	Laser Technology	---	121	180	
	A214-14	Research in Missiles	---	---	450	
6.23.06.A		HARDENED BALLISTIC MISSILE DEFENSE MATERIALS	3,640	4,189	4,520	186
	AH72-01	Ballistic Missile Defense Analyses and Synthesis	330	320	300	
	AH72-02	Damage Mechanism Phenomenology Ballistic Missile Defense Systems	660	600	600	
	AH72-03	Reduction of Vulnerability Ballistic Missile Defense Systems	2,650	2,569	2,070	
	AH72-04	Ballistic Missile Defense Hardened Electronic Materials	---	100	350	
	AH72-05	Scale-Up Ballistic Missile Defense Materials	---	600	1,200	
		Subtotal Exploratory Development Category	24,451	24,949	30,052	

PROJECT LISTING

3. MISSILES AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.3		ADVANCED DEVELOPMENT				
6.33.01.A		ADVANCED FORWARD AREA AIR DEFENSE SYSTEM	5,712	13,450	44,668	189
	D303	Man Portable Air Defense System	---	6,030	3,124	192
	D647	Low Altitude Forward Area Air Defense System Missile	---	2,520	35,058	193
	D648	Low Altitude Forward Area Air Defense System Gun	1,200	4,800	6,386	195
	D699	Evaluation of Foreign Weapons Systems	4,512	100	100	
6.33.04.A		ADVANCED BALLISTIC MISSILE DEFENSE	92,620	61,830	91,410	197
	D215	Advanced Ballistic Missile Defense	92,620	61,830	91,410	
6.33.06.A		TERMINAL HOMING SYSTEMS	11,000	20,060	16,020	200
	D070	Long Range Precision Designators	5,000	8,100	4,000	203
	D077	Radar Area Correlation	6,000	11,960	12,020	205
6.33.07.A		MISSILE EFFECTIVENESS EVALUATION	4,710	7,055	16,088	208
	DB60	Air Defense Suppression Missile	1,000	1,731	6,300	211
	D047	Air Defense Systems Components	---	1,440	4,534	214
	D238	Target Missiles	3,710	3,884	5,254	217
6.33.08.A		SITE DEFENSE	80,060	110,133	160,000	220
	D991	Site Defense	80,060	110,133	160,000	
6.33.09.A		CANNON LAUNCHED GUIDED PROJECTILE	9,275	6,447	12,556	224
	D073	Cannon Launched Guided Projectile	9,275	6,447	12,556	

PROJECT LISTING

3. MISSILES AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.3		ADVANCED DEVELOPMENT (Continued)				
6.33.10.A		HELIBORNE MISSILE - HELLFIRE	5,000	6,281	8,971	227
	D074	Heliborne Missile - HELLFIRE	5,000	6,281	8,971	
6.33.11.A		PERSHING II	---	---	11,200	231
	D599	PERSHING II	---	---	11,200	
6.33.12.A		NONNUCLEAR WARHEADS	250	1,810	1,500	234
	D691	Nonnuclear Warheads	250	1,810	1,500	
		Subtotal Advanced Development Category	208,627	227,066	362,413	
6.4		ENGINEERING DEVELOPMENT				
6.43.02.A		AIR DEFENSE CONTROL COORDINATION SYSTEM	3,399	2,419	1,210	237
	D233	Air Defense Control Coordination System	3,399	2,419	1,210	
6.43.06.A		STINGER	19,990	24,680	33,730	239
	D646	STINGER	19,990	24,680	33,730	
6.43.07.A		SURFACE-TO-AIR MISSILE DEVELOPMENT (SAM-D)	171,100	194,429	111,215	242
	D212	Surface-to-Air Missile Development (SAM-D)	171,100	194,429	111,215	

PROJECT LISTING

3. MISSILES AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.4		ENGINEERING DEVELOPMENT (Continued)				
6.43.08.A		PRECISION LASER DESIGNATOR	---	7,120	6,530	246
	D075	Precision Laser Designator	---	7,120	6,530	
		Subtotal Engineering Development Category	194,489	228,648	152,685	
6.5		MANAGEMENT AND SUPPORT				
6.53.01.A		KWAJALEIN MISSILE RANGE	75,870	70,789	84,554	2
	D614	Kwajalein Missile Range	75,870	70,789	84,554	
6.53.02.A		WHITE SANDS MISSILE RANGE	76,205	75,280	---	
	D240	White Sands Missile Range	76,205	75,280	---	
		Subtotal Management and Support Category	152,075	146,069	84,554	
		TOTAL MISSILES AND RELATED EQUIPMENT - DIRECT	905,107	821,326	706,418	

PROJECT LISTING

4. MILITARY ASTRONAUTICS AND RELATED EQUIPMENT

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
		INTELLIGENCE AND COMMUNICATIONS				
3.31.42.A		SATELLITE COMMUNICATIONS GROUND ENVIRONMENT	15,000	15,601	11,832	251
	D253	Defense Satellite Communications System - Defense Communications System (Phase II)	8,300	7,251	6,252	254
	D450	Satellite Communications	700	400	700	
	D456	Tactical Satellite Communications System	6,000	7,950	4,880	257
		Subtotal Intelligence and Communications Category	15,000	15,601	11,832	
6.3		ADVANCED DEVELOPMENT				
6.34.03.A		NAVSTAR GLOBAL POSITIONING SYSTEM	2,005	1,900	4,000	260
	D656	NAVSTAR Global Positioning System	2,005	1,900	4,000	
		Subtotal Advanced Development Category	2,005	1,900	4,000	
		TOTAL MILITARY ASTRONAUTICS AND RELATED EQUIPMENT - DIRECT	17,005	17,501	15,832	

PROJECT LISTING

6. ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
		GENERAL PURPOSE FORCES				
2.36.18.A		SHILLELAGH	230	---	---	
	D334	SHILLELAGH	230	---	---	
2.36.24.A		ANTITANK ASSAULT WEAPON (TOW)	743	6,520	10,716	263
	D336	Heavy Antitank Assault Weapon - TOW	743	6,520	10,716	
2.36.27.A		MEDIUM ANTITANK ASSAULT WEAPON (DRAGON)	4,618	723	---	
	D306	Medium Antitank Assault Weapon - DRAGON	4,618	723	---	
2.36.35.A		M60A1 TANK PRODUCT IMPROVEMENT PROGRAM	7,399	3,708	6,000	266
	DE01	M60A1 Tank Product Improvement Program	7,399	3,708	6,000	
		Subtotal General Purpose Forces Category	12,990	10,951	16,716	
6.2		EXPLORATORY DEVELOPMENT				
6.26.01.A		TANK AND AUTOMOTIVE TECHNOLOGY	6,914	6,919	6,186	269
	AH91-01	Vehicle Armor Systems	650	655	540	
	AH91-02	Validation and Extension of Mobility Evaluation Technology	1,035	1,035	670	
	AH91-03	High Mobility Combat Vehicle Systems	600	600	815	
	AH91-04	High Mobility Tactical Vehicle Systems	400	400	600	
	AH91-05	Special Purpose Vehicles	500	500	400	

PROJECT LISTING

6. ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT (Continued)				
6.26.01.A		TANK AND AUTOMOTIVE TECHNOLOGY (Continued)				
	AH91-06	Advanced Military Power Plants	71	71	100	
	AH91-07	Compliance with Regulatory Requirements	51	51	200	
	AH91-08	Component Development	1,150	1,150	910	
	AH91-09	Suspension Technology	1,457	1,457	1,100	
	AH91-10	Diagnostic Techniques for Automotive Equipment	400	400	251	
	AH91-11	Surface Mobility Studies	600	600	600	
6.26.03.A		FIREPOWER OTHER THAN MISSILES	12,029	13,768	9,821	272
	AH78-01	Automatic Cannon Technology	1,078	1,911	2,125	
	AH78-02	Field Artillery Systems Technology	1,795	1,650	979	
	AH78-03	Infantry Support Weapons Systems Technology	1,079	950	100	
	AH78-04	Surface Mobile Firepower Systems Technology	3,574	3,446	1,800	
	AH78-05	Semi-Ballistic Guided Gun Projectile Technology	1,203	1,186	612	
	AH78-06	Cannon Launched Guided Projectile Technology	---	1,000	600	
	AH78-07	Armor Weapons System Sabot Technology	300	275	300	
	AH78-08	Requirements of Weapon Systems in Urban Conflicts	---	---	200	
	AH78-09	Armor Plate Technology	---	100	455	
	AH78-10	Army Small Arms Program	3,000	3,250	2,650	
6.26.11.A		FUELS AND LUBRICANTS	1,950	1,957	1,700	275
	AH69-01	Liquid Hydrocarbon Fuels and Combustion	895	857	700	
	AH69-02	Lubricants, Friction and Wear	650	600	550	
	AH69-03	Power Transmission Fluids	205	300	250	
	AH69-04	Corrosion Preventive and Specialty Compounds	200	200	200	

PROJECT LISTING

6. ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT (Continued)				
6.26.15.A		NUCLEAR MUNITIONS	994	1,337	1,620	278
	AH74-01	Nuclear Munitions Safety and Survivability Technology	600	855	530	
	AH74-02	Nuclear Munitions Effects and Systems	394	482	740	
	AH74-03	Nuclear Munitions Reliability and Maintainability Technology	---	---	350	
6.26.16.A		FUZE TECHNOLOGY	4,815	5,120	2,620	281
	AH77-01	Electronic Fuze Technology	3,515	3,820	2,120	
	AH77-02	Mechanical and Explosive Fuzes Technology	1,300	1,300	500	
6.26.17.A		MUNITIONS TECHNOLOGY	8,571	6,424	5,151	284
	AH79-01	Scatterable Mines Research	---	---	400	
	AH79-02	Materials Engineer for Munitions Materiels	560	385	200	
	AH79-04	Improved Conventional Munitions	905	704	530	
	AH79-05	Gun Propellants	455	415	400	
	AH79-06	Explosives	2,775	2,275	1,480	
	AH79-07	Nonnuclear Warheads for Guided Missiles and Rockets	3,026	1,545	1,217	
	AH79-08	Demolition Technology	850	1,100	924	

PROJECT LISTING

6. ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT (Continued)				
6.26.18.A		BALLISTICS TECHNOLOGY	7,700	8,515	8,592	287
	AH80-01	Vulnerability Program	4,095	4,840	3,682	289
	AH80-02	Wind Tunnels	1,630	1,650	1,500	
	AH80-03	Firing Tables	970	1,000	921	
	AH80-04	Future Attack and Assault Weapons	1,005	1,025	569	
	AH80-05	Ballistic Technology	---	---	1,920	
6.26.19.A		CHEMICAL COMBAT SUPPORT	2,710	2,395	1,790	291
	AD13	Riot Control Agent Investigations	400	400	350	
	AD16	Riot Control Agent Materiel Technology	275	405	260	
	AD22	Medical Effects of Riot Control Agents	630	665	720	
	AD28	Vegetation Control Chemical Investigations	900	410	---	
	A065	Flame and Incendiary Technology	505	515	460	
6.26.20.A		CHEMICAL MUNITIONS TECHNOLOGY	1,900	1,595	1,730	293
	AD11	Lethal Chemical Agents Investigations	650	365	500	
	AD12	Incapacitating Chemical Agent Investigations	300	425	410	
	AD14	Lethal Chemical Weapons Technology	750	505	520	
	AD17	Incapacitating Chemical Weapons Technology	200	300	300	
6.26.21.A		LASER TECHNOLOGY AND APPLICATION	[Deleted]	[Deleted]	[Deleted]	
	AH81-01	Laser Technology				
	AH81-02	Test Unit				
		Subtotal Exploratory Development Category	59,483	66,990	61,170	

PROJECT LISTING

6. ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT (Continued) ($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.3		ADVANCED DEVELOPMENT				
6.36.01.A		POWER SYSTEMS AND CONVERTERS	911	435	524	305
	D380	Tank Turrent Components Development/Control System and Integration	310	---	---	
	D395	Vehicle Transmission/Steering Unit Development	601	435	524	
6.36.04.A		NUCLEAR MUNITIONS AND RADIACS	2,444	1,457	2,725	307
	D443	Nuclear Projectiles	---	---	750	
	D444	Atomic Demolition Munitions XM50	1,774	1,137	1,369	
	D445	Adaption Kit Surface-to-Surface Missile	365	220	206	
	D446	Adaption Kit Surface-to-Air Missile	300	---	---	
	D483	Radiological Detection and Measuring Equipment	5	100	400	
6.36.06.A		MINE WARFARE	5,000	6,150	2,725	310
	D006	Mine Systems Development	5,000	6,150	2,725	
6.36.07.A		ARMY SMALL ARMS PROGRAM	4,228	4,895	3,925	312
	D013	Individual Weapons Systems Development	1,568	1,060	839	
	D455	Civil Disturbance Control System	---	275	311	
	D627	Small Arms Components	500	600	702	
	D640	Crew Served Weapons Development	1,847	1,710	1,073	
	D642	Special Purpose Weapons	313	1,250	1,000	

PROJECT LISTING

6. ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.3		ADVANCED DEVELOPMENT (Continued)				
6.36.08.A		WEAPONS AND AMMUNITION	2,544	3,570	7,306	314
	DE71	Tactical CS Materiel	---	250	---	
	DG21	Tank Ammunition	---	2,050	2,170	
	D007	Ammunitions	1,624	1,150	1,236	
	D008	Field Artillery Weapon Development	---	120	---	
	D009	Lightweight Company Mortar System	510	---	---	
	D060	Tank Gun Evaluation	---	---	3,900	317
	D276	Improved Conventional Ammunition	410	---	---	
6.36.13.A		ADVANCED FUZE DESIGN	600	360	625	320
	DE55	Advanced Artillery and Mortar Fuzing	600	360	625	
6.36.14.A		INCAPACITATING CHEMICAL MUNITIONS CONCEPTS	850	760	110	322
	DE73	Incapacitating Chemical Materiel	600	500	---	
	DE74	Incapacitating Chemical Agent Processes	250	260	110	
6.36.15.A		LETHAL CHEMICAL MUNITIONS CONCEPTS	2,890	1,310	1,025	324
	DE76	Lethal Chemical Materiel	2,640	1,060	725	
	DE77	Lethal Chemical Agent Processes	250	250	300	
6.36.19.A		MINE NEUTRALIZATION/DETECTION	2,841	2,974	3,270	326
	D606	Mine Neutralization/Detection	2,841	2,974	3,270	
6.36.20.A		TANK SYSTEMS	21,550	54,000	68,790	328
	DG20	Tank XM-1	21,550	54,000	68,790	

PROJECT LISTING

6. ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT (Continued) ($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.3		ADVANCED DEVELOPMENT (Continued)				
6.36.21.A		VEHICLE ENGINE DEVELOPMENT	7,252	6,550	5,025	331
	DG07	Vehicle Engine Development	7,252	6,550	5,025	
6.36.22.A		AUTOMOTIVE TEST EQUIPMENT	4,158	3,667	2,213	333
	DH16	Generator, Starter, Alternator, Regulator, Rectifier Test Stands (GSARRTS)	175	230	550	
	AJ29	Testing, Measuring, and Diagnostic Equipment	890	802	469	
	D063	Vehicle Engineer Audit	1,000	1,040	84	
	D632	Automatic Test Equipment for Internal Combustion Engine Powered Materiel	1,993	951	1,010	
	D651	Automatic Caliber System	100	644	100	
		Subtotal Advanced Development Category	55,268	86,128	98,263	
6.4		ENGINEERING DEVELOPMENT				
6.46.01.A		INFANTRY SUPPORT WEAPONS SYSTEMS	1,529	7,195	5,013	336
	DF98	Incendiary Emergency Document Destruction	---	75	---	
	D029	Lightweight Company Mortar System	1,350	7,120	5,013	
	D191	Flame Weapons and Equipment	179	---	---	
6.46.02.A		WEAPONS AND AMMUNITION	12,382	10,419	11,869	339
	D028	Field Artillery Ammunition	5,232	199	352	
	D369	Improved Conventional Ammunition	2,705	1,350	4,420	341
	D373	Ammunition for Cannon, 155mm Howitzer	2,079	1,145	748	
	D389	8-Inch Howitzer, Self-Propelled M110E2	2,120	3,095	525	

PROJECT LISTING

6. ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT (Continued) ($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.4		ENGINEERING DEVELOPMENT (Continued)				
6.46.02.A		WEAPONS AND AMMUNITION (Continued)				
	D454	Fuze XM578	---	1,100	1,900	
	D524	152mm Ammunition	246	755	524	
	D666	8-Inch High Explosive Rocket Assisted Projectile	---	2,775	3,400	343
6.46.03.A		NUCLEAR MUNITIONS	[Deleted]	[Deleted]	[Deleted]	
	D385	155mm Projectile XM517				
	D388	Nuclear Projectile M422 Modification				
	D663	Improved 8-Inch Nuclear Projectile XM673				
6.46.04.A		MOBILITY	2,071	995	930	351
	DH07	Vehicle Engine Development	1,721	995	930	
	D403	Trucks, Military Transport	350	---	---	
6.46.05.A		HOWITZER LIGHT 105MM XM204	2,187	6,196	5,874	353
	D376	Howitzer Light 105mm XM204	2,187	6,196	5,874	
6.46.06.A		FORTIFICATIONS AND OBSTACLES	631	552	430	355
	D021	Demolition Systems	631	258	430	
	D516	Mine Detector AN/PSS-11	---	294	---	
6.46.08.A		ARMY SMALL ARMS PROGRAM	---	1,790	2,290	357
	D307	Machine Gun	---	1,040	1,590	
	D566	Civil Disturbance Control Weapons	---	750	700	

PROJECT LISTING

6. ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT (Continued) ($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.4		ENGINEERING DEVELOPMENT (Continued)				
6.46.09.A		RIOT CONTROL AGENT SYSTEM	741	680	930	359
	DF96	Tactical Riot Control Agent Munitions	295	320	269	
	D638	Civil Disturbance Control Systems	446	360	661	
6.46.10.A		LETHAL CHEMICAL MUNITIONS	1,100	2,635	4,894	361
	DF94	Lethal Chemical Ground Munitions	1,100	2,635	4,894	
6.46.12.A		MINE NEUTRALIZATION/DETECTION	1,221	1,976	2,527	363
	D415	Mine Neutralization/Detection	1,221	1,976	2,527	
6.46.13.A		INCAPACITATING CHEMICAL MUNITIONS	---	199	987	365
	DF91	Incapacitating Chemical Ground Munitions	---	199	987	
6.46.14.A		HOWITZER, MEDIUM 155MM XM198	14,333	5,986	6,111	367
	D379	Howitzer, Medium 155mm XM198	14,333	5,986	6,111	
6.46.15.A		TANK THERMAL SIGHT	900	4,310	1,859	370
	DE25	Tank Thermal Sight	900	4,310	1,859	
6.46.16.A		MECHANIZED INFANTRY COMBAT VEHICLE XM723	8,100	11,766	9,011	372
	D258	Mechanized Infantry Combat Vehicle XM723	8,100	11,766	7,761	375
	D460	Firing Port Weapon - MICV	---	---	1,250	

PROJECT LISTING

6. ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.4		ENGINEERING DEVELOPMENT (Continued)				
6.46.17.A		VEHICLE RAPID FIRE WEAPON SYSTEM - BUSHMASTER	2,072	9,886	7,030	378
	D340	Vehicle Rapid Fire Weapon System - BUSHMASTER	2,072	9,886	7,030	
6.46.18.A		ARMORED RECONNAISSANCE SCOUT VEHICLE XM800	11,948	10,401	8,062	381
	D417	Armored Reconnaissance Scout Vehicle XM800	11,948	10,401	8,062	
6.46.19.A		MINE SYSTEMS	9,375	9,410	15,808	383
	D016	Mine Systems	325	680	2,848	
	D377	Antipersonnel Artillery Mine XM692E1	5,950	3,000	---	
	D407	Antitank Artillery Mine XM718	2,800	3,880	5,395	386
	D568	Surface Dispensing System	---	1,550	7,565	388
	D569	Helicopter Dispensing System XM56	300	300	---	
		Subtotal Engineering Development Category	77,980	90,916	87,722	
		TOTAL ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT - DIRECT	205,721	254,985	263,871	

PROJECT LISTING

7. OTHER EQUIPMENT

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
		GENERAL PURPOSE FORCES				
2.36.26.A		TACTICAL FIRE DIRECTION SYSTEM (TACFIRE)	7,299	8,000	4,700	390
	D322	Tactical Fire Direction System (TACFIRE)	7,299	8,000	4,700	
2.80.10.A		TRI-SERVICE TACTICAL COMMUNICATIONS PROGRAM	13,433	19,134	37,273	393
	D104	Tri-Service Tactical Communications Office	2,907	4,387	4,800	396
	D110	Mobile Subscriber Access Communication	---	---	100	
	D111	Multichannel Equipment	695	1,653	2,246	
	D152	Electronics Command Support of TRI-TAC	1,008	202	207	
	D222	Automatic Communications Central Office, AN/TTC-39	8,823	12,892	29,920	398
		Subtotal General Purpose Forces Category	20,732	27,134	41,973	
		INTELLIGENCE AND COMMUNICATIONS				
3.10.11.A		CRYPTOLOGIC ACTIVITIES	[Deleted]	[Deleted]	[Deleted]	401
	D902	Exploratory Development in Signal Intelligence				
	D908	Advanced Development in Signal Intelligence				404
	D910	Engineering Development in Signal Intelligence				407
3.34.01.A		COMMUNICATIONS SECURITY (COMSEC) EQUIPMENT				416
	D491	Communications Security Equipment and Techniques				418
	D901	Signal Security Activities				
		Subtotal Intelligence and Communications Category	[Deleted]	[Deleted]	[Deleted]	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT				
6.27.01.A		COMMUNICATIONS ELECTRONICS	4,536	3,900	2,722	420
	AH92-01	Net Communications Technology	1,451	2,000	1,000	
	AH92-02	Multichannel Technology	600	---	100	
	AH92-03	Terminal Devices Technology	500	---	50	
	AH92-04	ADP Technology	695	755	622	
	AH92-05	Signal Processing Technology	605	645	550	
	AH92-06	EMC (Compatibility) Technology	350	500	400	
	AH92-07	Communications and ADP Systems Engineering Technology	80	---	---	
	AH92-08	Switching Technology	255	---	---	
6.27.03.A		COMBAT SURVEILLANCE TARGET ACQUISITION AND IDENTIFICATION	4,670	4,995	4,440	423
	AH93-01	Weapons Location Technology	1,200	1,540	1,505	
	AH93-02	Personnel and Vehicular Detection Technology	1,770	1,845	1,740	
	AH93-03	Ranging, Designation and Tracking Technology	1,100	1,075	670	
	AH93-04	General Laser Technology	200	295	225	
	AH93-05	Radiac Technology	300	200	300	
	AH93-06	Identification, Friend, Foe (IFF) Technology	100	40	---	
6.27.05.A		ELECTRONICS AND ELECTRONIC DEVICES	11,588	10,880	10,650	426
	AH94-01	Displays	689	540	555	
	AH94-02	Electron Tube and Technology	903	890	960	
	AH94-03	Frequency Control	1,175	1,096	938	
	AH94-04	Integrated Electronics	1,663	1,658	1,645	
	AH94-05	Microwave Semiconductor Devices and Circuits	1,763	1,671	1,710	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued) ($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT (Continued)				
6.27.05.A		ELECTRONICS AND ELECTRONIC DEVICES (Continued)				
	AH94-06	Microwave Tube Hybrid Devices	1,308	1,070	1,010	
	AH94-07	Microwave Transmissions and Acoustic Devices	1,006	747	931	
	AH94-08	Power Sources and Systems	940	1,040	765	
	AH94-09	Reliability	832	821	885	
	AH94-10	Switching and Memory Devices	218	210	161	
	AH94-11	Test, Measurement, Diagnostic Equipment	120	242	150	
	AH94-12	Wire and Cable	321	345	340	
	AH94-13	Quantum Electronic Devices	650	550	600	
6.27.07.A		MAPPING AND GEODESY	3,140	3,125	3,450	429
	A576	Field Army Mapping and Surveying	330	410	610	
	A852	Mapping and Geodetic Research	371	300	450	
	D853	Mapping and Geodesy Development	1,279	1,230	1,140	
	A854	Military Geographic Analysis	1,160	1,100	1,250	
	A974	Improved Topographic Support System	---	85	---	
6.27.08.A		COMBAT SUPPORT TECHNOLOGY	5,743	4,894	3,249	432
	AH67-01	Construction and Transportation Equipment	1,960	1,695	976	
	AH67-02	Camouflage Technology	1,222	900	807	
	AH67-03	Water and Waste Management	95	75	60	
	AH67-04	Fuels Handling	799	790	650	
	AH67-05	Energy Systems	1,667	1,434	756	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT (Continued)				
6.27.09.A		NIGHT VISION INVESTIGATIONS	4,800	4,460	3,970	435
	DH95-01	Far Infrared	720	980	980	
	DH95-02	Engineering Studies and Investigations of Night Vision	120	120	120	
	DH95-03	Visionics	1,400	1,460	1,470	
	DH95-04	Radiation Sources	460	116	116	
	DH95-05	Image Intensification	2,100	1,784	1,284	
6.27.10.A		DEFENSE AGAINST CHEMICAL AGENTS	7,005	7,570	7,043	437
	AD25	Medical Defense Against Chemical Agents	2,199	2,050	2,030	
	AD27	Chemical Agent Alarm Technology	1,225	1,500	1,350	
	AD29	Chemical Detection and Identification Technology	701	695	800	
	AD60	Chemical Decontamination Investigations	200	385	400	
	AD61	Technical Assessment of Foreign Chemical Warfare Potential	250	360	463	
	AD62	Chemical Training Agents and Equipment Investigations	300	370	300	
	AD63	Chemical Safety Investigations	275	355	200	
	A095	Physical Protection Against Chemical Agents	1,855	1,855	1,500	
6.27.11.A		DEFENSE AGAINST BIOLOGICAL AGENTS	765	1,650	1,363	439
	AD34	Physical Defense Against Biological Attack	615	1,350	1,100	
	AD36	Technical Assessment of Foreign Biological Threat	150	300	263	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued) ($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT (Continued)				
6.27.12.A		COUNTERMINE AND BARRIER TECHNIQUES	5,034	4,004	3,851	441
	AH66-01	Mine Detection	2,145	1,405	1,407	
	AH66-02	Mine Neutralization	2,096	1,799	1,736	
	AH66-03	Barriers	793	800	708	
6.27.14.A		INFORMATION PROCESSING	300	500	300	444
	A754	Intelligence Information Processing Technology	300	500	300	
6.27.15.A		ELECTRONIC WARFARE	2,327	2,080	2,040	446
	A042	Studies Investigation Electronic Warfare	1,500	1,220	1,020	
	A904	Exploratory Development Electric Countermeasures/ Electronic Support Measures	827	860	1,020	
6.27.16.A		HUMAN FACTORS IN MILITARY SYSTEMS	2,335	1,560	1,650	449
	AH70	Army Human Factors Engineering	2,335	1,560	1,650	
6.27.17.A		MANPOWER AND HUMAN RESOURCES TECHNOLOGY	5,728	5,265	4,729	452
	A712	Army Leadership Research	333	445	600	
	A721	Surveillance Systems	638	650	650	
	A722	Selection and Behavioral Evaluation	700	400	500	
	A723	Human Performance in Military Systems	727	640	709	
	A732	Image Characteristics and Interpreter Performance	244	380	100	
	A740	Applied Research on Social Change Affecting the Army	564	1,000	1,000	
	A745	Army Training Research	1,970	820	820	
	A751	Motivation and Morale	552	930	350	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued) ($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT (Continued)				
6.27.18.A		GENERAL CHEMICAL INVESTIGATIONS	3,820	4,230	4,290	455
	AD10	Search for Potential Chemical Agents	600	540	500	
	AD19	Technology Evaluation Effects of Chemicals	530	500	300	
	AD21	Medical Effects of Chemical Agents	1,420	1,719	1,790	
	A081	Chemical Dissemination and Dispersion Techniques	400	400	500	
	A083	Chemical Agent Process Technology	300	465	400	
	A084	Chemical Test and Assessment Technology	370	506	500	
	A092	System Analysis Chemical Defense and Weapons	200	100	300	
6.27.19.A		MILITARY CONSTRUCTION AND ENGINEERING TECHNOLOGY	5,770	7,505	7,506	457
	AT01	Development of Automated Procedures for Military Construction	380	815	815	
	AT02	Development of Industrialized Construction for Military Facilities	80	185	185	
	AT03	Architectural Research and Development in Support of Military Facilities	85	245	245	
	AT04	Research and Development on Pavements, Soils and Foundations for Military Construction	700	355	480	
	AT05	Initial Investigations in Military Construction Technology	540	310	435	
	AT06	Military Construction and Maintenance in Cold Regions	624	916	800	
	AT30	Research for Protective Structures in Theaters of Operation	435	910	550	
	AT31	Research for LOC Facilities in Theaters of Operation	1,205	1,150	900	
	AT32	Research for Engineer Applications of Nuclear and Nonnuclear Explosives	610	1,170	1,324	
	AT33	Research for Base Development in Theaters of Operation	376	594	732	
	AT60	Permanent Hardened Facilities Research	395	465	400	
	A886	Nuclear Power Applications	300	300	300	
	A897	Construction Engineering Materials	40	90	340	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued) ($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT (Continued)				
6.27.20.A		ENVIRONMENTAL QUALITY TECHNOLOGY	6,251	7,233	9,777	460
	A048	Environmental Quality	970	1,184	3,307	463
	A835	Environmental Quality Protection	3,059	4,310	4,510	466
	A896	Environmental Construction and Operations	2,222	1,739	1,960	
6.27.21.A		COMPUTER AIDED DESIGN AND ENGINEERING	1,557	2,285	2,949	468
	A090	Computer Aided Design and Engineering	1,557	2,285	2,949	
6.27.23.A		CLOTHING, EQUIPMENT AND PACKAGING TECHNOLOGY	3,664	3,282	2,220	473
	AH98-01	Clothing and Equipment	3,374	2,906	1,936	
	AH98-02	Packaging	290	376	284	
6.27.24.A		FOOD TECHNOLOGY	6,085	6,465	5,986	476
	AH99-01	Food Technology, Minus Radiation Preservation of Food	4,935	5,337	4,895	479
	AH99-02	Radiation Preservation of Food	1,150	1,128	1,091	
6.27.58.A		MILITARY MEDICAL INVESTIGATIONS	10,748	9,015	8,200	482
	A819	Army Aviation Medicine	2,204	1,950	1,700	
	A823	Military Psychiatry	483	850	300	
	A824	Radiation Injury and Protection	1,426	1,100	1,200	
	A827	Environmental Medicine	1,821	1,615	1,700	
	A833	Biomedical Factors in Drug Abuse	4,814	3,500	3,300	484

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7. OTHER EQUIPMENT (Continued) ($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.2		EXPLORATORY DEVELOPMENT (Continued)				
6.27.59.A		TROPICAL MEDICINE	11,758	10,180	9,910	487
	A829	Malaria Prophylaxis	7,747	6,080	5,810	490
	A831	Other Tropical Medicine	4,011	4,100	4,100	493
6.27.60.A		INFECTIOUS DISEASE INVESTIGATIONS	10,932	13,360	12,860	495
	A806	Military Preventive Medicine	---	1,000	1,000	
	A822	Military Internal Medicine	3,324	3,110	3,200	498
	A834	Medical Defense Against Biological Agents	7,608	9,250	8,660	501
		Subtotal Exploratory Development Category	118,556	118,438	113,155	
6.3		ADVANCED DEVELOPMENT				
6.37.01.A		LAND WARFARE LABORATORY	6,360	4,193	---	
	D718	Land Warfare Laboratory	6,360	4,193	---	
6.37.02.A		ELECTRIC POWER SOURCES	3,262	2,200	3,325	504
	DG10	Electro-Chemical Power Source Development	1,016	782	887	
	DG11	Electro-Mechanical Power Source Systems Development	2,246	1,418	2,438	
6.37.03.A		AUTOMATIC DATA SYSTEMS FIELD ARMY	1,212	1,135	755	507
	D654	Automatic Data Processing Equipment Development	1,212	1,135	755	
6.37.06.A		IDENTIFICATION, FRIEND OR FOE DEVELOPMENTS	300	50	---	
	D243	Identification, Friend or Foe Developments	300	50	---	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.3		ADVANCED DEVELOPMENT (Continued)				
6.37.07.A		COMMUNICATIONS DEVELOPMENT	1,475	3,170	7,895	510
	D244	Communications-Electronics Development	360	450	675	
	D245	Strategic Communications Development	114	200	100	
	D246	Tactical Communications Development	300	250	100	
	D437	Tactical Radio Communication System	701	2,270	7,020	512
6.37.11.A		ELECTRONIC WARFARE	[Deleted]	[Deleted]	[Deleted]	515
	D251	Protective Electronic Warfare Equipment				
	D653	Aircraft Electronic Warfare Self-Protection Equipment				518
	D905	General Support of Electronic Warfare Equipment				521
6.37.12.A		MAPPING AND GEODESY	844	820	1,320	529
	D580	Field Army Mapping	100	100	400	
	D673	Field Army Surveying	340	510	310	
	D855	Global Mapping and Geodesy	284	---	---	
	D862	Army Terrain Information System	120	210	610	
6.37.15.A		SUBSYSTEM RELIABILITY	1,451	---	---	
	D091	Application of Automation Technology to Engineering and Testing	1,451	---	---	
6.37.18.A		ELECTRONIC WARFARE VULNERABILITY/SUSCEPTIBILITY	[Deleted]	[Deleted]	[Deleted]	532
	D267	Missile Vulnerability/Susceptibility				535
	D626	Non-Missile Vulnerability/Susceptibility				

PROJECT LISTING

7. OTHER EQUIPMENT (Continued) ($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.3		ADVANCED DEVELOPMENT (Continued)				
6.37.19.A		SURVEILLANCE, TARGET ACQUISITION, AND NIGHT OBSERVATION SYSTEMS	17,362	15,620	15,398	540
	DK70	Night Vision Devices	10,218	7,967	12,645	542
	DK71	Special Purpose Detectors	300	---	---	
	DK72	RADARS	1,230	1,010	453	
	DK73	Unattended Ground Sensors	5,614	6,400	2,300	
	DK82	Physical Security	---	243	---	
6.37.20.A		BIOLOGICAL DEFENSE MATERIEL CONCEPTS	1,705	1,795	1,170	545
	D165	Biological Detection and Warning Materiel	1,705	1,795	1,170	
6.37.21.A		CHEMICAL DEFENSE MATERIEL CONCEPTS	1,310	1,180	1,153	547
	DE80	Individual Chemical Protective Materiel	---	---	1,153	
	D601	Chemical Detection and Warning Materiel	1,310	1,180	---	
6.37.22.A		TACTICAL OPERATIONS SYSTEM (TOS)	8,400	7,166	6,013	549
	D494	Tactical Operations System (TOS)	8,400	7,166	6,013	
6.37.23.A		COMMAND AND CONTROL	4,619	3,905	6,605	552
	DB98	Land Navigation and Control Equipment	1,132	---	213	
	D101	Integration of Army Tactical Data Systems (ARTADS)	3,487	3,905	6,392	555
6.37.24.A		LOW COST OWNERSHIP DEVELOPMENT	500	---	---	
	D534	Low Cost Ownership Development	500	---	---	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.3		ADVANCED DEVELOPMENT (Continued)				
6.37.25.A		REMOTELY PILOTED VEHICLES AND DRONES	2,050	3,510	5,520	558
	DK61	Remotely Piloted Vehicles and Drones	2,050	3,510	5,520	
6.37.26.A		COMBAT SUPPORT EQUIPMENT	5,523	6,953	5,299	560
	DG14	Supply Distribution and Materials Handling Equipment Development	1,162	1,040	759	
	DK39	General Support Equipment	260	210	107	
	DK41	Petroleum, Oils and Lubricants Distribution Systems	21	246	95	
	D471	Camouflage	3,157	3,007	3,044	563
	D526	Container Support Logistics System	196	441	900	
	D669	Clothing and Equipment	727	2,009	394	
6.37.29.A		COUNTER BATTERY RADAR	7,050	8,550	7,750	565
	DK83	Counter Battery Radar	7,050	8,550	7,750	
6.37.31.A		MANPOWER AND HUMAN RESOURCES DEVELOPMENT	5,739	7,345	8,419	567
	A733	Advanced Techniques in Training and Education	488	665	1,200	
	A734	Computer Administered Instruction	1,133	1,650	1,350	
	A743	Race Harmony Performance Program	652	600	700	
	A752	Drug Abuse Preventive Program	628	670	910	
	A753	Improvement of Psychological Operations of Civil Affairs Operations	656	250	250	
	A755	Manpower and Training System Development	300	650	650	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.3		ADVANCED DEVELOPMENT (Continued)				
6.37.31.A		MANPOWER AND HUMAN RESOURCES DEVELOPMENT (Continued)				
	A756	Development of Troop-Community Relations Program	146	300	350	
	A757	Training Systems Application	235	1,645	1,660	
	A762	Combat Arms Training Board	1,501	675	925	
	A763	Research-Man-Machine-Field-Test and Evaluation	---	240	424	
		Subtotal Advanced Development Category	98,700	92,051	101,962	
6.4		ENGINEERING DEVELOPMENT				
6.47.01.A		COMMUNICATIONS-ENGINEERING DEVELOPMENT	5,405	6,611	7,313	570
	D149	Army Support of Defense Communications System	1,444	2,915	3,691	572
	D481	Strategic Communications	122	100	100	
	D487	Tactical Multichannel Communications	2,774	3,106	2,910	
	D488	Tactical Net Radio Communications	435	290	434	
	D535	Communication-Electronic Items for Special Warfare	500	---	---	
	D536	Supporting Development for Communications-Electronics	130	200	178	
6.47.06.A		NUCLEAR SURVEILLANCE SURVEY	995	685	1,100	574
	D517	Radiological Detection and Measurement Equipment	995	685	1,100	
6.47.09.A		IDENTIFICATION, FRIEND OR FOE EQUIPMENT	2,418	545	---	
	D530	Air Traffic Control Beacon, Radar, Identification, Friend or Foe, MARK XII System	2,418	545	---	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.4		ENGINEERING DEVELOPMENT (Continued)				
6.47.11.A		ELECTRONIC WARFARE	[Deleted]	[Deleted]	[Deleted]	577
	D540	Protective Electronic Warfare Systems				
	D665	Aircraft Electronic Warfare Self-Protection Systems				580
	D906	General Support of Electronic Warfare Systems				585
6.47.12.A		JOINT ADVANCED TACTICAL COMMAND, CONTROL, AND COMMUNICATIONS PROGRAM	2,973	3,000	5,970	592
	D321	Joint Advanced Tactical Command, Control, and Communications Program	2,973	3,000	5,970	595
6.47.13.A		COMBAT FEEDING, CLOTHING AND EQUIPMENT	3,937	3,320	4,395	597
	DL40	Clothing and Equipment	1,644	1,155	781	
	DL42	Personnel Armor System	393	123	1,520	
	DL47	Wholesomeness Testing of Irradicated Foods	1,000	981	984	
	D548	Military Subsistence Systems	900	1,061	1,110	
6.47.15.A		MANPOWER RESOURCES AND TRAINING APPLICATION	1,450	2,350	1,429	599
	A572	Non-Systems Training Devices	900	1,750	729	
	A573	Army Support for Naval Training Device Center	550	600	700	
6.47.16.A		MAPPING AND GEODESY	988	1,210	5,055	602
	D578	Field Army Surveying Equipment	988	610	2,200	
	D579	Field Army Mapping Systems	---	600	2,855	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.4		ENGINEERING DEVELOPMENT (Continued)				
6.47.17.A		GENERAL COMBAT SUPPORT	7,393	8,261	11,016	605
	DH01	Combat Engineer Equipment	1,421	1,052	1,387	
	DH14	Bulk Materials Handling Equipment	140	1,233	816	
	DL17	Camouflage	327	892	2,106	
	DL39	General Support Equipment	398	358	353	
	DL41	Fuel Handling Equipment System	1,267	648	897	
	DT08	Military Construction	500	550	481	
	DT34	Engineer Support/Field Army	195	85	400	
	D589	Power Plants Portable	2,515	2,759	3,957	608
	D832	Field Medical Support Equipment	630	684	619	
6.47.23.A		SURVEILLANCE, TARGET ACQUISITION, AND NIGHT OBSERVATION SYSTEMS	14,859	12,579	15,503	610
	DL70	Night Vision Devices	5,481	4,124	4,491	613
	DL71	Special Purpose Detectors	2,494	3,117	2,674	
	DL72	RADARS	1,720	1,000	149	
	DL73	Unattended Ground Sensors	564	300	5,000	615
	DL76	Aural	605	200	345	
	DL79	Information Identification, Positioning Devices	2,095	2,250	2,044	
	DL82	Physical Security	1,900	1,588	800	
6.47.24.A		BIOLOGICAL DEFENSE MATERIEL	---	---	955	618
	DF45	Biological Detection Warning System	---	---	955	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.4		ENGINEERING DEVELOPMENT (Continued)				
6.47.25.A		CHEMICAL DEFENSIVE MATERIEL	750	2,460	2,198	620
	D018	Collective Chemical Protection for Vehicle, Van, and Missile Complexes	750	1,430	676	
	D022	Chemical Detecting, Sampling and Analyzing Devices	---	1,030	1,522	
6.47.26.A		METEOROLOGICAL EQUIPMENT SYSTEMS	1,105	1,550	1,530	622
	D511	Meteorological Equipment and Systems	1,105	1,550	1,530	
6.47.27.A		COMMAND AND CONTROL	759	1,957	2,975	625
	DC98	Air Traffic Management Automated Center	759	1,483	2,495	
	DC99	LORAN Manpack AN/PSN-6	---	474	480	
6.47.28.A		FAMILY OF MILITARY ENGINEERING CONSTRUCTION EQUIPMENT (FAMECE)	570	1,104	4,820	628
	DH08	Family of Military Engineering Construction Equipment	570	1,104	4,820	
6.47.29.A		COUNTER MORTAR RADAR	4,701	2,500	5,450	630
	DL81	Counter Mortar Radar	4,701	2,500	5,450	
		Subtotal Engineering Development Category	56,800	64,740	90,238	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.5		MANAGEMENT AND SUPPORT				
6.57.01.A		COMMUNICATIONS-ELECTRONIC TESTING ACTIVITIES	9,274	8,242	3,270	632
	D326	Communications-Electronics Equipment	3,074	1,500	---	
	D615	US Army Electronic Proving Ground Field Test Facility	3,500	4,638	---	
	D918	Army Security Agency Testing Activities	2,700	2,104	3,270	
6.57.02.A		TESTING	44,685	45,271	32,495	634
	D066	Aviation System Test Activities	2,824	2,970	2,900	
	D127	Meteorological Support to Research, Development, Test, and Evaluation Activities	3,600	3,250	4,232	636
	D618	Test Boards	18,100	19,213	14,570	639
	D620	Ammunition Effectiveness Testing	5,000	5,200	5,200	641
	D623	Instrumentation, Test, and Evaluation Command	7,490	5,800	1,881	
	D625	Test Methodology, Test, and Evaluation Command	6,625	6,337	1,751	
	D671	Surface-to-Air Missile Tactical Vulnerability	546	1,970	1,430	
	M857	Armed Services Explosive Safety Board	500	531	531	
6.57.04.A		DUGWAY PROVING GROUNDS	10,020	10,090	---	
	DL14	Dugway Proving Grounds	10,020	10,090	---	
6.57.05.A		MODERN ARMY SELECTED SYSTEMS, TEST, EVALUATION, AND REVIEW (MASSTER)	1,755	3,022	2,160	644
	DY01	Modern Army Selected Systems, Test, Evaluation, and Review (MASSTER)	1,500	2,729	1,900	
	D575	Modern Army Selected Systems, Test, Evaluation, and Review/Army Materiel Command Support Activities	255	293	260	

PROJECT LISTING

7. OTHER EQUIPMENT (Continued)

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.5		MANAGEMENT AND SUPPORT (Continued)				
6.57.06.A		MATERIEL CONCEPTS EVALUATION	8,490	7,640	8,223	646
	M541	Army Materiel Systems Analysis Agency	6,260	5,800	6,173	650
	M542	Advanced Materiel Concepts Agency	2,230	1,840	2,050	
6.57.07.A		SUPPORT OPERATIONAL TEST AND EVALUATION COMBAT EQUIPMENT	10,000	1,000	2,900	653
	D986	Support Operational Test and Evaluation Combat	10,000	1,000	2,900	
6.57.09.A		EVALUATION OF FOREIGN COMPONENTS	1,861	8,165	9,500	655
	D054	Druid Grove	---	6,900	9,000	657
	D650	Evaluation of Foreign Components	1,861	1,265	500	
6.57.10.A		JOINT CHEMICAL BIOLOGICAL CONTACT POINT AND TEST	---	---	750	659
	D049	Joint Chemical Biological Contact Point and Test	---	---	750	
6.57.11.A		MAJOR RESEARCH AND DEVELOPMENT TEST AND EVALUATION FACILITIES, ARMY MATERIEL COMMAND	---	---	135,702	661
	DE90	Yuma Proving Ground	---	---	11,918	663
	DE91	Aberdeen Proving Ground	---	---	15,349	666
	DE92	Dugway Proving Ground	---	---	11,662	668
	DE93	White Sands Missile Range	---	---	84,966	671
	DE94	Army Electronic Proving Ground	---	---	7,149	674
	DE95	Arctic Test Center	---	---	2,600	
	DE96	Tropic Test Center	---	---	2,058	
		Subtotal Management and Support Category	86,085	83,430	195,000	
		TOTAL OTHER EQUIPMENT - DIRECT	395,024	401,565	562,493	

PROJECT LISTING

8. PROGRAMWIDE MANAGEMENT AND SUPPORT

($ IN THOUSANDS)

ELEMENT CODE	PROJECT NUMBER	TITLE	FY 1973 ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE	CONG INDEX
6.5		MANAGEMENT AND SUPPORT				
6.58.01.A		PROGRAMWIDE ACTIVITIES	51,722	57,027	50,117	677
	MM88	Programwide Activities	51,722	57,027	50,117	
6.58.02.A		INTERNATIONAL COOPERATIVE RESEARCH AND DEVELOPMENT	290	425	400	680
	M798	International Cooperative Research and Development	290	425	400	
6.58.03.A		TECHNICAL INFORMATION ACTIVITIES	3,285	4,687	4,829	683
	MY10	Research and Development Multi-Command Data System	482	900	1,050	
	M292	Army Materiel Command Technical Information Activities	---	247	367	
	M367	Automated Engineering Documents Preparation Systems	903	898	636	
	M720	Technical Information Function and Activities	398	409	450	
	M726	Engineering Data Storage and Retrieval	260	417	437	
	M727	Chemical Information and Data System	100	104	55	
	M728	Technical Information Support Activities	72	279	309	
	M729	Symposia and Conferences	152	325	375	
	M730	Improved Data Effectiveness and Availability	573	755	790	
	M761	Technical Information Analysis Centers	345	353	360	
		Subtotal Management and Support Category	55,297	62,139	55,346	
9.12.12.A		CIVILIAN TRAINING POOL	471	375	500	685
	D797	Civilian Training Pool	471	375	500	
		Subtotal Administration Category	471	375	500	
		TOTAL PROGRAMWIDE MANAGEMENT AND SUPPORT - DIRECT	55,768	62,514	55,846	

DEPARTMENT OF DEFENSE, MILITARY
RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, ARMY
FEDERAL CONTRACT RESEARCH CENTERS

Section 7

Federal Contract Research Centers (FCRCs) are those organizations primarily engaged in providing specialized technical and scientific effort necessary to supplement that available in the Army. The centers listed are those sponsored by the Department of Defense which provide technical and management services in the management of the Army's programs. These centers provide independent, specialized, technical and scientific capabilities to supplement that available within the Department of the Army.

FCRCs have been established to permit more organizational flexibility, and greater availability of technical and scientific personnel. These research centers possess unique skills and capabilities resulting from the development of highly specialized professional staff intimately acquainted with the many facets of the Army's mission. This capability results from long association and practical experience with the Army. The in-depth background provides the Army with a research capability that cannot be immediately obtained elsewhere. Long association with the Dep rtment of Defense enables these centers to render quick response technical advisory service as well as to perform detailed research and analysis. This long association has tailored these research centers to bc compatible with Army interests, procedures and operational requirements.

The Office of Defense Research and Engineering has a policy of encouraging diversification of FCRCs. The Army endorsed this policy. This policy was compatible with the Army intention to phase down effort at FCRCs. While the Army no longer sponsors an FCRC it will be necessary to continue research and development effort at FCRCs sponsored by the Department of Defense and the other services. These research and development contracts will continue to provide timely and innovative products and techniques appropriate to current and long-range Army missions and plans.

The requested FY 1975 FCRC requirement reflects a decrease of $0.1 million from the FY 1974 ceiling.

FEDERAL CONTRACT RESEARCH CENTERS

The following summary identifies the estimated work, excluding subcontract effort, to be placed with each Federal Contract Research Center (FCRC) from the Research, Development, Test, and Evaluation, Army, appropriation and from the other Army appropriations.

SUMMARY BY APPROPRIATION AND PROGRAM ELEMENT
($ in Thousands)

FEDERAL CONTRACT RESEARCH CENTER/APPROPRIATION/PROGRAM ELEMENT	FY 1973 ACTUAL [1]	FY 1974 ESTIMATE	FY 1975 ESTIMATE
APPLIED PHYSICS LABORATORY, JOHNS HOPKINS UNIVERSITY			
Research, Development, Test, and Evaluation, Army			
6.21.05.A Materials	9	70	---
6.22.07.A Aircraft Propulsion	6	---	---
6.37.25.A Remotely Piloted Vehicles	95	(125) [2]	---
6.43.07.A Surface-to-Air Missile Development (SAM-D)	67	(750) [2]	900
Chemical Propulsion Information Agency	7 [3]	10 [3]	60
Total RDTE, Army	184	80	960
Operations and Maintenance, Army			
202254 General Purpose Forces - PERSHING	946	1,025	1,020
Total O&M, Army	946	1,025	1,020
Total Applied Physics Laboratory, Johns Hopkins University	1,130	1,105	1,980
Subcontract effort excluded from this amount	(480)	(500)	(600)

Remarks:

The facilities and expertise of the Applied Physics Laboratory, Johns Hopkins University (APL/JHU) are required to support the Army in the engineering development of the SAM-D program. APL/JHU will conduct an independent countermeasure study. The countermeasures environment is specified as combined electronic and tactical, specifically tailored to suppress or degrade SAM-D's effectiveness. Effort in support of PERSHING is continuing.

FEDERAL CONTRACT RESEARCH CENTERS

SUMMARY BY APPROPRIATION AND PROGRAM ELEMENT
($ in Thousands)

FEDERAL CONTRACT RESEARCH CENTER/APPROPRIATION/PROGRAM ELEMENT	FY 1973 1/ ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE
LINCOLN LABORATORY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY			
Research, Development, Test, and Evaluation, Army			
6.33.04.A Advanced Ballistic Missile Defense	6,015	6,755	7,142
6.53.01.A Kwajalein Missile Range	2,920	2,745	2,880
Total RDTE, Army	8,935	9,500	10,022
Total Lincoln Laboratory, Massachusetts Institute of Technology	8,935	9,500	10,022
Subcontract effort excluded from this amount	(11,188)	(12,350)	(15,450)

Remarks:

Lincoln Laboratory will continue their role as Scientific Director of the field measurements program at the Kiernan Reentry Measurements Site (KREMS). This includes KREMS operations, radar system engineering, data reduction and reporting, and experiment and test planning. Radar data is also provided to a large segment of both the offense and defense ballistic missile community. Work being performed by Lincoln Laboratory includes the designation and discrimination engineering (D&DE) program; the exoatmospheric D&DE program; modifications to the Advanced Research Projects Agency (ARPA) Lincoln C-Band Observable Radar (ALCOR), ARPA Long-Range Tracking and Instrumentation Radar (ALTAIR), and Target Resolution and Discrimination Experiment (TRADEX) radars in support of the D&DE efforts; design studies and technical support for a field phased array radar; a centralized advanced radar technology base for radar system, subsystem and component development programs, and an overall collection and analysis of data from the KREMS radar to develop discriminants and catalog observables in a Ballistic Missile Defense (BMD) environment.

FEDERAL CONTRACT RESEARCH CENTERS

SUMMARY BY APPROPRIATION AND PROGRAM ELEMENT
($ in Thousands)

FEDERAL CONTRACT RESEARCH CENTER/APPROPRIATION/PROGRAM ELEMENT	FY 1973 1/ ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE
AEROSPACE CORPORATION			
Research, Development, Test, and Evaluation, Army			
1.25.14.A SAFEGUARD Defense System	2,350	2,534	158
6.21.05.A Materials	80	---	---
6.27.07.A Mapping and Geodesy	40	50	50
6.33.04.A Advanced Ballistic Missile Defense	877	730	2,140
6.33.08.A Site Defense	---	---	(1,375) 4/
Total RDTE, Army	3,347	3,314	2,348
Total Aerospace Corporation	3,347	3,314	2,348

Remarks:

The Aerospace Corporation supports Space and Missile Systems Organization (SAMSO) in the accomplishment of the ICBM portion of the SAFEGUARD System Test Target Program (SSTTP) in the role of General Systems Engineering and Technical Direction (GSE/TD). The Air Force (SAMSO) was directed to support the Army in such target missile flight programs by Secretary of Defense direction in 1967. The SSTTP provides targets for functional and threat evaluation of SAFEGUARD System and for testing components located on Meck Island in the Kwajalein Atoll. Similar support will be provided the Site Defense Prototype Demonstration program.

The Aerospace Corporation has unique expertise in state-of-the-art composite materials suitable for thermal protection. This capability is providing important assistance to the Army in further advancing those materials to meet the severe aerothermal and erosive environments in a nuclear encounter.

Continuing Aerospace support is required for topographic data reduction studies and investigations related to national level programs. The proposed effort for FY 1975 will be studies of improved positioning techniques to determine accuracies obtainable.

FEDERAL CONTRACT RESEARCH CENTERS

SUMMARY BY APPROPRIATION AND PROGRAM ELEMENT
($ in Thousands)

FEDERAL CONTRACT RESEARCH CENTER/APPROPRIATION/PROGRAM ELEMENT	FY 1973 1/ ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE
AEROSPACE CORPORATION (Continued)			
Aerospace Corporation will continue to support the Advanced Ballistic Missile Defense Agency (ABMDA) by providing interface and planning support for joint Army/Air Force research and development efforts mutually beneficial to the ballistic missile defense/strategic offense force missions. A spectrum of special targets will be flown into Kwajalein Missile Range to generate the data base for the development and verification of discrimination techniques in support of ABMDA and the Site Defense Prototype Demonstration programs.			
MITRE CORPORATION			
Research, Development, Test, and Evaluation, Army			
1.25.14.A SAFEGUARD Defense System	705	400	25
6.33.04.A Advanced Ballistic Missile Defense	364	350	---
6.47.23.A Surveillance, Target Acquisition, and Night Observation	249	399	250
6.51.02.A Training and Doctrine Command (TRADOC) Studies and Analyses	---	---	175
Total RDTE, Army	1,318	1,149	450
Operations and Maintenance, Army			
172514 SAFEGUARD Defense System	197	50	---
393111 Communications	---	200	425
Total O&M, Army	197	250	425
Total MITRE Corporation	1,515	1,399	875

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FEDERAL CONTRACT RESEARCH CENTERS

SUMMARY BY APPROPRIATION AND PROGRAM ELEMENT
($ in Thousands)

FEDERAL CONTRACT RESEARCH CENTER/APPROPRIATION/PROGRAM ELEMENT	FY 1973 1/ ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE

MITRE CORPORATION (Continued)

Remarks:

MITRE will continue to support the SAFEGUARD System for an electromagnetic pulse (EMP) program to assess the vulnerability of planned SAFEGUARD communications. MITRE's involvement in the EMP program is planned as a continuation of the technical integration of all test and analysis results into final program documentation.

The MITRE Corporation supports the System Engineering Task of the Remotely Monitored Battlefield Sensor System (REMBASS) program. The work involves task assignments in such critical areas as preparation of system interface specifications, comparative analysis of technical approaches, developing system and component design criteria, design of special system and subsystem test instrumentation, conduct of risk analysis and trade off analysis in selected areas, and development of optimized system concepts based on user scenarios.

MITRE will also provide systems engineering and planning support to the US Army Communications Command in connection with the "System Definition for the Army Garrison Communications - Electronics Design (Wired Garrison)" study.

FEDERAL CONTRACT RESEARCH CENTERS

SUMMARY OF FEDERAL CONTRACT RESEARCH CENTERS BY APPROPRIATION
($ in Thousands)

	FY 1973 1/ ACTUAL	FY 1974 ESTIMATE	FY 1975 ESTIMATE
TOTAL PROGRAM SUMMARY BY APPROPRIATION			
Research, Development, Test, and Evaluation	13,784	14,043	13,780
Operations and Maintenance	1,143	1,275	1,445
Total Federal Contract Research Center Requirement	14,927	15,318	15,225
Subcontract effort excluded from this amount	(11,668)	(12,850)	(16,050)

1/ Amounts for FY 1973 are shown on ceiling based on a twelve months equivalent, as a number of institutions' contracts were funded for less than twelve months as directed by Congress.

2/ Programs funded by the Army but included in the Navy ceiling.

3/ Programs funded by the Defense Supply Agency but included in the Army ceiling.

4/ Program funded by the Army but included in the Air Force ceiling.

Department of the Army

Procurement Programs

STATEMENT OF MAJ. GEN. P. G. OLENCHUK, DIRECTOR OF MATERIEL ACQUISITION, OFFICE, DEPUTY CHIEF OF STAFF FOR LOGISTICS

ACCOMPANIED BY MAJ. GEN. J. A. KJELLSTROM, DIRECTOR OF ARMY BUDGET, OFFICE, COMPTROLLER OF THE ARMY

PROGRAM AND FINANCING

Chairman McClellan. We shall now hear testimony on the various Army procurement appropriations.

At this point in the record, there will appear certain program and financing information from the justifications.

[The justification follows:]

Justification

AIRCRAFT PROCUREMENT, ARMY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 07-15-2031-0-1-051		BUDGET PLAN (AMOUNTS FOR PROCUREMENT ACTIONS PROGRAMED)			OBLIGATIONS		
		1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:						
	DIRECT:						
	1. AIRCRAFT	12,000	.....	112,500	.....	12,001	96,300
	2. MODIFICATION OF AIRCRAFT	58,500	117,900	165,000	48,813	110,026	154,745
	3. SPARES AND REPAIR PARTS	6,700	13,200	21,900	4,867	14,645	20,270
	4. SUPPORT EQUIPMENT AND FACILITIES	36,900	33,700	40,100	30,561	42,819	30,184
	TOTAL DIRECT	114,400	164,800	339,500	84,241	179,491	301,499
	REIMBURSABLE (TOTAL)	579,658	108,000	123,000	553,252	90,506	121,810
10	TOTAL	694,058	272,800	462,500	637,493	269,997	423,309
	FINANCING:						
	RECEIPTS AND REIMBURSEMENTS FROM:						
11	FEDERAL FUNDS	-157,629	-33,000	-38,000	-153,652	-33,000	-38,000
13	TRUST FUNDS	-428,590	-80,000	-85,000	-428,184	-66,190	-85,000
14	NON-FEDERAL SOURCES	-1,857	.....	.....	2,340	.....	.....
17	RECOVERY OF PRIOR YEAR OBLIGATIONS, OBL PLAN	.....	.....	.....	-679	.....	.....
21	UNOBLIGATED BALANCE AVAILABLE, START OF YEAR						
	FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-53,049	-95,062	-83,924
	AVAILABLE TO FINANCE NEW BUDGET PLANS	-12,825	-21,269	.....	-12,825	-21,269	.....
	REPROGRAMING FROM (-) OR TO PRIOR YEAR BUDGET PLANS	-6,652	-131	.....	.....	.....	.....
22	UNOBLIGATED BALANCE TRANSFERRED FROM OTHER ACCOUNTS	-95,000	-21,400	.....	-95,000	-21,400	.....
23	UNOBLIGATED BALANCE TRANSFERRED TO OTHER ACCOUNTS	12,825	21,400	.....	12,825	21,400	.....
24	UNOBLIGATED BALANCE AVAILABLE, END OF YEAR						
	FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	95,062	83,924	123,115
	AVAILABLE TO FINANCE SUBSEQUENT YEAR BUDGET PLANS	21,269	.....	.....	21,269	.....	.....
	BUDGET AUTHORITY	25,600	138,400	339,500	25,600	138,400	339,500
	BUDGET AUTHORITY:						
40	APPROPRIATION	33,500	138,400	339,500	33,500	138,400	339,500
41	TRANSFERRED TO OTHER ACCOUNTS	-7,900	.....	.....	-7,900	.....	.....
43	APPROPRIATION (ADJUSTED)	25,600	138,400	339,500	25,600	138,400	339,500
	RELATION OF OBLIGATIONS TO OUTLAYS:						
71	OBLIGATIONS INCURRED, NET				57,318	170,807	300,309
72	OBLIGATED BALANCE, START OF YEAR				.....	21,991	84,298
	RECEIVABLES IN EXCESS OF OBLIGATIONS, START OF YEAR				-20,674	.....	.....
74	OBLIGATED BALANCE, END OF YEAR				-21,991	-84,298	-270,407
90	OUTLAYS				14,652	108,500	114,200

MISSILE PROCUREMENT, ARMY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 07-15-2032-0-1-051

		BUDGET PLAN (AMOUNTS FOR PROCUREMENT ACTIONS PROGRAMED)			OBLIGATIONS		
		1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:						
	DIRECT:						
	1. ANTI-BALLISTIC MISSILE SYSTEM	285,400	159,300	.....	235,990	235,792	18,455
	2. OTHER MISSILES	319,600	347,000	366,000	303,934	334,752	363,481
	3. MODIFICATION OF MISSILES	28,400	11,900	45,700	26,547	20,471	42,704
	4. SPARES AND REPAIR PARTS	42,500	18,128	21,400	29,956	39,584	21,334
	5. SUPPORT EQUIPMENT AND FACILITIES	23,600	20,772	26,100	19,655	46,413	25,554
	TOTAL DIRECT	699,500	557,100	459,200	616,082	677,012	471,528
	REIMBURSABLE (TOTAL)	370,100	385,000	225,000	342,205	365,240	240,851
10	TOTAL	1,069,600	942,100	684,200	958,287	1,042,252	712,379
	FINANCING:						
	RECEIPTS AND REIMBURSEMENTS FROM:						
11	FEDERAL FUNDS	-23,468	-60,000	-67,000	-23,268	-60,000	-67,000
13	TRUST FUNDS	-365,602	-335,000	-158,000	-343,553	-321,190	-158,000
21	UNOBLIGATED BALANCE AVAILABLE, START OF YEAR						
	FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-152,542	-234,023	-111,531
	AVAILABLE TO FINANCE NEW BUDGET PLANS	-28,917	-13,470	.....	-28,917	-13,470	.....
	REPROGRAMING FROM (+) OR TO PRIOR YEAR BUDGET PLANS	-7,583	-8,530	.....	.....	.....	.....
22	UNOBLIGATED BALANCE TRANSFERRED FROM OTHER ACCOUNTS	-36,500	-22,000	.....	-36,500	-22,000	.....
23	UNOBLIGATED BALANCE TRANSFERRED TO OTHER ACCOUNTS	36,500	22,000	.....	36,500	22,000	.....
24	UNOBLIGATED BALANCE AVAILABLE, END OF YEAR						
	FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	234,023	111,531	83,352
	AVAILABLE TO FINANCE SUBSEQUENT YEAR BUDGET PLANS	13,470	.....	.....	13,470	.....	.....
	BUDGET AUTHORITY	657,500	525,100	459,200	657,500	525,100	459,200
	BUDGET AUTHORITY:						
40	APPROPRIATION	668,200	525,100	459,200	668,200	525,100	459,200
41	TRANSFERRED TO OTHER ACCOUNTS	-10,700	.....	.....	-10,700	.....	.....
43	APPROPRIATION (ADJUSTED)	657,500	525,100	459,200	657,500	525,100	459,200
	RELATION OF OBLIGATIONS TO OUTLAYS:						
71	OBLIGATIONS INCURRED, NET				591,466	661,062	487,379
72	OBLIGATED BALANCE, START OF YEAR				682,710	622,131	550,193
74	OBLIGATED BALANCE, END OF YEAR				-622,131	-550,193	-404,572
90	OUTLAYS				652,045	733,000	633,000

PROCUREMENT OF WEAPONS AND TRACKED COMBAT VEHICLES, ARMY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

IDENTIFICATION CODE 07-15-2033-0-1-051	BUDGET PLAN (AMOUNTS FOR PROCUREMENT ACTIONS PROGRAMED)			OBLIGATIONS		
	1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
PROGRAM BY ACTIVITIES:						
DIRECT:						
1. TRACKED COMBAT VEHICLES	198,900	188,800	331,900	190,784	180,168	313,240
2. WEAPONS AND OTHER COMBAT VEHICLES	43,900	40,500	53,400	39,432	44,947	51,697
TOTAL DIRECT	242,800	229,300	385,300	230,216	225,115	364,937
REIMBURSABLE (TOTAL)	111,183	228,000	395,500	125,085	147,885	322,063
10 TOTAL	353,983	457,300	780,800	355,301	373,000	687,000
FINANCING:						
RECEIPTS AND REIMBURSEMENTS FROM:						
11 FEDERAL FUNDS	-13,306	-134,000	-315,000	-10,810	-134,000	-315,000
13 TRUST FUNDS	-107,877	-99,000	-80,500	-42,900	-85,190	-80,500
21 UNOBLIGATED BALANCE AVAILABLE, START OF YEAR						
FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-126,177	-50,949	-121,439
AVAILABLE TO FINANCE NEW BUDGET PLANS	-14,563	.....	.....	-14,563	.....	.....
REPROGRAMING FROM (-) OR TO PRIOR YEAR BUDGET PLANS	-6,437	.....	.....	.....	.....	.....
22 UNOBLIGATED BALANCE TRANSFERRED FROM OTHER ACCOUNTS	-56,000	.....	.....	-56,000	.....	.....
23 UNOBLIGATED BALANCE TRANSFERRED TO OTHER ACCOUNTS	21,000	.....	.....	21,000	.....	.....
24 UNOBLIGATED BALANCE AVAILABLE, END OF YEAR						
FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	50,949	121,439	215,239
BUDGET AUTHORITY	176,800	224,300	385,300	176,800	224,300	385,300
BUDGET AUTHORITY:						
40 APPROPRIATION	186,800	224,300	385,300	186,800	224,300	385,300
41 TRANSFERRED TO OTHER ACCOUNTS	-10,000	.....	.....	-10,000	.....	.....
43 APPROPRIATION (ADJUSTED)	176,800	224,300	385,300	176,800	224,300	385,300
RELATION OF OBLIGATIONS TO OUTLAYS:						
71 OBLIGATIONS INCURRED, NET				301,591	153,810	291,500
72 OBLIGATED BALANCE, START OF YEAR				.....	123,127	168,937
RECEIVABLES IN EXCESS OF OBLIGATIONS, START OF YEAR				-27,863	.....	.....
74 OBLIGATED BALANCE, END OF YEAR				-123,127	-168,937	-330,437
90 OUTLAYS				150,601	108,000	130,000

PROCUREMENT OF AMMUNITION, ARMY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

	IDENTIFICATION CODE 07-15-2034-0-1-051	BUDGET PLAN (AMOUNTS FOR PROCUREMENT ACTIONS PROGRAMED)			OBLIGATIONS		
		1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:						
	DIRECT:						
	1. AMMUNITION	1,115,600	740,700	1,054,800	1,056,167	756,377	903,007
	2. AMMUNITION PRODUCTION BASE SUPPORT	203,200	199,700	290,000	120,903	275,736	285,632
	TOTAL DIRECT	1,318,800	940,400	1,344,800	1,177,070	1,032,113	1,188,639
	REIMBURSABLE (TOTAL)	486,233	584,000	610,003	514,958	570,887	604,958
10	TOTAL	1,805,033	1,524,400	1,954,800	1,692,028	1,603,000	1,793,597
	FINANCING:						
	RECEIPTS AND REIMBURSEMENTS FROM:						
11	FEDERAL FUNDS	-432,515	-491,000	-554,800	-424,030	-491,000	-554,800
13	TRUST FUNDS	-60,718	-103,000	-55,200	-25,754	-103,000	-55,200
21	UNOBLIGATED BALANCE AVAILABLE, START OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-168,208	-206,764	-82,064
	REPROGRAMING FROM (-) OR TO PRIOR YEAR BUDGET PLANS	-31,000	-46,100	.....	.....	.....	.....
22	UNOBLIGATED BALANCE TRANSFERRED FROM OTHER ACCOUNTS	-56,300	-146,100	.....	-56,000	-146,100	.....
23	UNOBLIGATED BALANCE TRANSFERRED TO OTHER ACCOUNTS	31,000	46,100	.....	31,000	46,100	.....
24	UNOBLIGATED BALANCE AVAILABLE, END OF YEAR FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	206,764	82,064	243,267
	BUDGET AUTHORITY	1,255,800	784,300	1,344,800	1,255,800	784,300	1,344,800
	BUDGET AUTHORITY:						
40	APPROPRIATION	1,262,800	784,300	1,344,800	1,262,800	784,300	1,344,800
41	TRANSFERRED TO OTHER ACCOUNTS	-7,000	.....	.....	-7,000	.....	.....
43	APPROPRIATION (ADJUSTED)	1,255,800	784,300	1,344,800	1,255,800	784,300	1,344,800
	RELATION OF OBLIGATIONS TO OUTLAYS:						
71	OBLIGATIONS INCURRED, NET				1,242,244	1,009,000	1,183,597
72	OBLIGATED BALANCE, START OF YEAR				862,697	1,076,245	1,206,245
74	OBLIGATED BALANCE, END OF YEAR				-1,076,245	-1,206,245	-1,573,842
90	OUTLAYS				1,028,696	879,000	816,000

OTHER PROCUREMENT, ARMY

PROGRAM AND FINANCING (IN THOUSANDS OF DOLLARS)

	IDENTIFICATION CODE 07-15-2035-0-1-051	BUDGET PLAN (AMOUNTS FOR PROCUREMENT ACTIONS PROGRAMED)			OBLIGATIONS		
		1973 ACT	1974 EST	1975 EST	1973 ACT	1974 EST	1975 EST
	PROGRAM BY ACTIVITIES:						
	DIRECT:						
	1. TACTICAL AND SUPPORT VEHICLES	214,500	83,500	165,800	220,378	71,327	144,258
	2. COMMUNICATIONS AND ELECTRONICS EQUIPMENT	197,400	158,700	310,800	151,794	214,886	277,288
	3. OTHER SUPPORT EQUIPMENT	199,100	263,990	309,600	180,505	242,618	297,206
	TOTAL DIRECT	611,000	506,190	786,200	552,677	528,831	718,752
	REIMBURSABLE (TOTAL)	144,410	235,000	210,000	117,175	195,501	203,188
10	TOTAL	755,410	741,190	996,200	669,852	724,332	921,940
	FINANCING:						
	RECEIPTS AND REIMBURSEMENTS FROM:						
11	FEDERAL FUNDS	-52,851	-90,000	-90,000	-54,451	-90,000	-90,000
13	TRUST FUNDS	-118,512	-150,000	-120,000	-115,112	-122,381	-120,000
14	NON-FEDERAL SOURCES	-2,114	.....	.....	5,543	.....	.....
21	UNOBLIGATED BALANCE AVAILABLE, START OF YEAR						
	FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	-146,583	-215,689	-186,490
	AVAILABLE TO FINANCE NEW BUDGET PLANS	-59,226	-21,062	.....	-59,226	-21,062	.....
	REPROGRAMING FROM (-) OR TO PRIOR YEAR BUDGET PLANS	-6,995	-18,438	.....	.....	.....	.....
22	UNOBLIGATED BALANCE TRANSFERRED FROM OTHER ACCOUNTS	-37,500	-39,500	.....	-37,500	-39,500	.....
23	UNOBLIGATED BALANCE TRANSFERRED TO OTHER ACCOUNTS	59,226	39,500	.....	59,226	39,500	.....
24	UNOBLIGATED BALANCE AVAILABLE, END OF YEAR						
	FOR COMPLETION OF PRIOR YEAR BUDGET PLANS	.....	.....	.....	215,689	186,490	260,750
	AVAILABLE TO FINANCE SUBSEQUENT YEAR BUDGET PLANS	21,062	.....	.....	21,062	.....	.....
	BUDGET AUTHORITY	558,500	461,690	786,200	558,500	461,690	786,200
	BUDGET AUTHORITY:						
40	APPROPRIATION	592,700	461,690	786,200	592,700	461,690	786,200
41	TRANSFERRED TO OTHER ACCOUNTS	-34,200	.....	.....	-34,200	.....	.....
43	APPROPRIATION (ADJUSTED)	558,500	461,690	786,200	558,500	461,690	786,200
	RELATION OF OBLIGATIONS TO OUTLAYS:						
71	OBLIGATIONS INCURRED, NET				505,832	511,951	711,940
72	OBLIGATED BALANCE, START OF YEAR				243,205	436,831	489,382
74	OBLIGATED BALANCE, END OF YEAR				-436,831	-489,382	-717,622
90	OUTLAYS				312,205	459,400	483,700

Chairman McCLELLAN. General Olenchuk, we are glad to have you with us. Identify yourself as to what your position is with the Army.

General OLENCHUK. I am Major General Olenchuk, Director of Materiel Acquisition in the Office of the Deputy Chief of Staff, Logistics, in the Headquarters Department of the Army.

Chairman McCLELLAN. Your long statement will be printed in the record following your testimony. You may proceed with your oral testimony.

SUMMARY STATEMENT

General OLENCHUK. Mr. Chairman and members of the committee: My colleagues and I are pleased to appear before your committee to justify the Army's fiscal year 1975 procurement budget which totals $3.315 billion.

Our basic objective in the fiscal year 1975 budget is to improve materiel readiness by attaining approximately [deleted] percent of total inventory needs. We will increase essential standard combat materiel inventory levels, while adding new equipment capabilities and upgrading existing assets through modification programs.

In considering our fiscal year 1975 budget, I believe it pertinent to comment briefly on the recent Middle East war. From October 6, 1973, to March 31, 1974, we shipped $240.9 million worth of Army materiel to Israel, and we are also continuing to process Israeli requests for significant amounts of key combat equipment in balance with our own needs. Our unprogramed support of Israel highlighted the need for accelerating combat materiel readiness to assure logistic staying power in a high-consumption conventional war and we have taken corrective actions in the fiscal year 1975 budget.

AIRCRAFT PROCUREMENT

Our aircraft procurement budget request is $339.5 million. First, we are requesting $41.4 million for 19 CH–47 CHINOOK cargo helicopters and $43.6 million for 128 UH–1H IROQUOIS utility helicopters to replace those which were provided to the Air Force for issue to the South Vietnamese Air Force in early 1973.

In addition, we plan to buy 21 new COBRA/TOW antitank missile helicopters. These will add to the antitank capability we gain with modification of 101 COBRA attack helicopters to the TOW antitank missile types approved in the fiscal year 1974 budget. To reinforce this capability, we are also asking in fiscal year 1975 for $80.4 million to convert an additional 189 AH–1G COBRA attack helicopters to the COBRA/TOW antitank configuration.

We also request $28.9 million for four electronic warfare systems to be added to existing aircraft, a need which was reemphasized during the recent Mideast War. The remainder of our aircraft budget is for essential spares and support equipment.

MISSILE PROCUREMENT

We are asking for $459.2 million in the fiscal year 1975 missile procurement budget which places heavy emphasis on antitank missile systems. For SAFEGUARD, we ask only $3 million for replenishment repair parts to support the site at Grand Forks, N. Dak.

To bolster our antitank missile capability through continued procurement action, we require $107.1 million for the TOW crew-served antitank missile system and $106.3 million for the lightweight, man-portable DRAGON system; $7.8 million in the DRAGON program is for 300 DRAGON night sights to provide the TOW antitank system with a temporary, urgently needed night vision capability until the new thermal-imaging night sight becomes available in [deleted].

THERMAL-IMAGING NIGHT SIGHT

Senator YOUNG. Would you explain the thermal-imaging night sight?

General OLENCHUK. This is a night sight that picks up heat energy from the object you're looking at and converts it in the device to light energy so you can see at night based on the heat it gives out.

Senator YOUNG. Is it associated with infrared?

General OLENCHUK. Yes, sir. It is in the nonvisible spectrum far infrared, as one portion of the band.

Chairman MCCLELLAN. This enables you to see in the dark.

General OLENCHUK. Yes, sir, it enables you to see in the dark by virtue of the heat given off by a man, or, for example, the heat given off by a tank. This is the latest technology we are going to. We do not desire to buy any more than 300 night sights under current technology. We have decided to move to the new technology taking advantage of this new capability. It is a significant development and we feel it would give us a capability at night we don't have now.

Chairman MCCLELLAN. Is it proven or in the research category?

General OLENCHUK. The technology is established. Right now we are in the development and engineering stages in terms of putting the technology into a device. It is being developed. Within the services we have gotten together so the basic technological heart will be in a common modular form which can be adapted for each service's specific needs so as to achieve maximum economies in development and procurement costs.

The major cost is in that essential thermal-imaging component and we can modularize it. So if you need a longer range sight you put in more than one component; if you need a shorter range, a more compact one, you can have that, too, with lesser modules.

MISSILE PROCUREMENT (CONTINUED)

We are asking for $80.3 million to continue improvement of the HAWK missile system; $64.4 million to continue procurement of the new tactical LANCE missile system; $7.9 million to procure 54 Automatic Reference Systems for the PERSHING missile system; and $45.7 million to fund modification programs for the CHAPARRAL, PERSHING, and remaining elements of the NIKE-HERCULES missile system. Another $21.4 million is for essential spare and repair parts, and $26.1 million is for support equipment and facilities.

WEAPONS AND TRACKED COMBAT VEHICLES

For Weapons and Tracked Combat Vehicles we request $385.3 million. The $275.6 million for tracked combat vehicles contains $172.6 million for the M60A1 tank. We currently have 8,350 tanks in our inventory. However, only 4,939 are diesel-driven M60 series mounting the 105-mm or 152-mm gun capable of consistently penetrating Soviet tanks at longer ranges.

Since October 1973, we have provided Israel [deleted] M60 and [deleted] M48A3 tanks. The Secretary of Defense recently approved an additional [deleted] M60 105-mm gun tanks and [deleted] M48A3 90-mm gun tanks for shipment to Israel. With the exception of [deleted] M48A3 tanks from the Marine Corps, all of these tanks are from Army inventories. These withdrawals have reduced [deleted] war reserves and will delay reserve component modernization programs until paybacks from production are available.

To accelerate our tank fleet modernization, we require $168.8 million in fiscal year 1975 to procure 510 M60A1 tanks. The fiscal year 1975 request will accelerate our program to field tanks mounting the 105-mm gun and thereby significantly improve combat readiness.

TANK PRODUCTION

Chairman McCLELLAN. You request funds in the fiscal year 1974 supplemental to procure 133 M60A1 tanks and an additional 510 tanks in the fiscal year 1975 budget estimate, for a total of 644 tanks. If the requests are approved, what sort of a production schedule will this provide, and how many sources may have to be used in order to speed up production? Are you now operating only one production line at a rate of 30 tanks per month?

General OLENCHUK. Sir, if the requests are approved, the Army will be able to attain and maintain a tank production rate of approximately 64 tanks per month beginning fourth quarter, fiscal year 1975, to accommodate Army, USMC, and firm FMS requirements.

The Army does not foresee any requirement to expand the number of sources for major components to support an increase in production to 64 per month. However, expansion of existing capacities may be required because of an impending large foreign military sales case for tanks and potential increases to the Army procurement plans for the next few years. The Army is currently evaluating forecast requirements and is urgently investigating potential approaches for increasing tank production to 83 per month which may require additional sources for some components.

The Army is now operating only one tank assembly line. The current production rate is about 40 per month and is being accelerated to 64 per month on the basis of foreign military sales and projected needs of the Army and Marine Corps as reflected in the fiscal year 1974 supplemental and fiscal year 1975 budgets.

WEAPONS AND TRACKED COMBAT VEHICLES (CONTINUED)

For weapons we require $20.9 million, of which $15.7 million is for machineguns, primarily for mounting on tanks. We also request $43.7 million for modification for in-service weapons and tracked combat vehicles and $45.1 million for support equipment and facilities.

PROCUREMENT OF AMMUNITION

Our ammunition procurement budget request for $1,344,800,000 includes $1,054,800,000 for ammunition items and $290 million for ammunition production base support. The $1,054,800,000 provides for worldwide training consumption and inventory losses; selected procurement of new ammunition; modest buildup of war reserves, and maintaining an active ammunition production base for key ammunition items.

The $290 million in ammunition production base support will provide for: Production support and replacement of Government-owned facilities and equipment required to support scheduled end item procurement programs; planning and facility prove-out of production lines; layaway of facilities; and continuation of a major multi-year effort to rehabilitate and improve the Army's ammunition production base. The primary production base support effort in fiscal year 1975 will be for continuing the modernization and expansion of our conventional outdated ammunition production facilities. We are requesting $189.4 million for this purpose. The Army's conventional ammunition production base supports essentially the total conventional ground ammunition and propellants and explosive requirements of all services.

OTHER PROCUREMENT

Finally, we required $786.2 million in fiscal year 1975 for the Other Procurement Appropriation. This includes $165.8 million for tactical and support vehicles; $310.8 million for communications and electronics equipment and $309.6 million for other support equipment.

Our tactical and support vehicle request is the minimum required to replace peacetime losses of tactical trailers and associated equipment; replace overage commercial vehicles on a limited basis; improve gradually our inventory levels, and continue implementing our program of substituting commercial for military design vehicles wherever feasible.

The $310.8 million requested for communications and electronics equipment will insure responsive, reliable, communications support within Army field commands; support our part of the Defense Communications and Ground Environmental Satellite Communications Systems; procure equipment in furtherance of the Army's communications security goals; provide both tactical and non-tactical oriented automatic data processing equipment, and procure tactical electronic detection and surveillance equipment.

Our request for $309.6 million in Other Support Equipment will procure combat support equipment to include portable chemical agent alarms; permit continuation of our program to procure com-

mercial construction equipment in lieu of military design equipment, and provide for the procurement of floating, rail, and medical support equipment.

SUMMARY

Mr. Chairman, in summary, we are requesting $339.5 million for Aircraft, $459.2 million for Missiles, $385.3 million for Weapons and Tracked Combat Vehicles, $1,344,800,000 for Ammunition, and $786.2 million for Other Procurement, for a total Army fiscal year 1975 procurement budget request of $3.315 billion.

Our increased fiscal year 1975 budget is essential to gain and maintain full materiel readiness for our active divisions and to improve the readiness of our reserve components, and we request your support for our fiscal year 1975 procurement budget.

Mr. Chairman, this completes my summary statement.

I would like at this time, with your permission, to comment briefly on foreign military sales.

PRIORITIES

Chairman McClellan. Tell me one thing now. If we have to reduce this procurement request, will you be able to submit priorities?

General Olenchuk. Yes, sir.

Chairman McClellan. You will recalculate your requirements?

General Olenchuk. Yes, sir.

Chairman McClellan. I am not challenging anything in your request, but we may have to have you give us the benefit of your suggestions with respect to priorities. Some things we can't reduce. We can't reduce the cost of personnel. You have to pay the salaries of the troops and other fixed obligations.

If we do find it necessary to reduce defense funds, we will have to make reductions in some of the research and procurement areas. Not that I want to, other than to try to get some cooperation that we are not getting from our allies on whose defense we are spending a lot of money.

Do you have anything at the moment, Senator?

Senator Young. I will ask some questions as we go along.

FOREIGN MILITARY SALES

General Olenchuk. I would like to speak briefly on our foreign military sales program, which is an extensive one, in response to your earlier discussion with General Deane. In fiscal year 1972 our sales program was $655.3 million to a wide variety of countries. In fiscal year 1973 $1,847,000,000.

Senator Young. How much of that was to NATO countries?

General Olenchuk. Within NATO countries? I can give you a breakout of that for the record but the country with the largest amount in fiscal year 1973 was Iran with $1,098 million. They are our single largest customer at the present time. I will provide a breakout for the record.

[The information follows:]

Fiscal year 1973 foreign military sales—NATO

Country or international organization:	*Million dollars*
Belgium	$4.9
Canada	43.2
Denmark	9.6
France	.7
Federal Republic of Germany	111.0
Greece	20.3
Italy	73.3
Luxembourg	.6
NATO Maintenance and Supply Agency	13.4
NATO missile firing installation	5.5
NATO HAWK Production and Logistics Organization	5.6
Netherlands	35.7
Norway	9.7
Portugal	1.2
Supreme Headquarters Allied Powers, Europe	.1
Turkey	9.5
United Kingdom	94.2
Total	438.5

Senator YOUNG. I am thinking of the Latin American countries. The French I think are providing most of the fighter planes there.

General OLENCHUK. We have been in contact with some Latin American countries for equipment as a result of their increased interest because of activities in the Middle East war.

Senator YOUNG. I am speaking about the limitation Congress placed on the amounts of military equipment that can be sold or given away. Are you familiar with that?

General OLENCHUK. I am not familiar with any cash sales limitation that has held us up on terms of equipment. Each query we get is looked at from the standpoint of the role it will play in our allied strategy.

General KJELLSTROM. I am advised that the recent amendment to the Foreign Military Sales Act has removed the legislative ceiling for Latin America as well as Africa, so I am confident with the removal of the ceiling that the Defense Department is moving out in this area.

Senator YOUNG. I was speaking of the congressional limitations.

General OLENCHUK. I appreciate that, sir. We do now have some communications on military equipment sales with some South American countries and I think you will appreciate we are concerned about the entry of the Soviet Union into Peru with military equipment which really is an extension of their foreign policy initiatives in that area.

I might mention here that the most significant problem we face with regard to foreign sales is that we don't have an inventory of materiel that we can sell. We have no allowances for foreign sales in our inventories. So when we get a requirement from a country we must then program it into new production. Unless it happens to be obsolete or excess to our needs, they have to wait for it to come off the production line unless we preempt the priorities of our own forces. So today if somebody wants to buy an M60A1 tank, we have to add them on the tail end of the production and that may mean a delay in delivery as long as 2, 3 or 4½ years because it is done basically on a priority of receipt of order basis.

Senator YOUNG. The French have a cheaper fighter than we have to sell, haven't they?

General OLENCHUK. I am not familiar with the fighter aircraft, sir. I am familiar with the ground equipment and we are selling a significant amount of equipment to allied countries and we could sell more if we had some inventory that they would rely on. Right now we do not have that. We have, for instance, significant requests for TOW anti-tank missiles that range all through Europe and the Mideast. We are also getting more inquiries on the M60A1 tank.

Chairman MCCLELLAN. Can other countries buy weapons directly from the manufacturer without our Government's consent?

General OLENCHUK. No, sir. Not on military equipment.

Chairman MCCLELLAN. They have to receive approval from our Government?

General OLENCHUK. Yes, sir.

Chairman MCCLELLAN. When they come through our Government, does our Government make any profit on what we sell, or do we let them have it at cost?

General OLENCHUK. We get returned to us the proper value. For instance, in the Middle East war after Israel requested a number of modern items, we sold those items at the cost it would take us to replace them into our inventory.

Chairman MCCLELLAN. Is that our yardstick for determining what we charge anyone who purchases from us?

General OLENCHUK. Yes, sir. We have formulas on market value. We make our real gains with foreign military sales when it permits us to get economies of scale so we get lower prices from high volume production. It also helps us keep our production base warm in certain areas. In addition, we get permission to sell items no longer standard in our own armament inventory. So we sell many items like the M48A1 tank. We sell such weapons systems and get a dollar return on items that really in our own military force does not have a high value because they are obsolete.

Chairman MCCLELLAN. Do we sell those items at a discount, at much less than what they cost us?

General OLENCHUK. Yes, sir. We have formulas to discount them to current market values.

Chairman MCCLELLAN. Do we have a sale, putting an item on the market at half prices to get rid of it?

General OLENCHUK. In some cases, yes sir.

Chairman MCCLELLAN. Is that the way we do it?

General OLENCHUK. Yes, sir. It is a very businesslike transaction.

Chairman MCCLELLAN. Anything further, Senator?

AMMUNITION PROCUREMENT

Senator YOUNG. This item for ammunition procurement of $1,344 million. How does that compare with last year's budget? It seems high.

General OLENCHUK. That is the total ammunition budget.

Senator YOUNG. That is all conventional?

General OLENCHUK. Yes, sir. In the fiscal year 1974 amended budget we requested a total of $1,389 million. This year we ask $1,344,800,000. Of that $1,344,800,000 there is $400.2 million for military assistance service funding for South Vietnam.

PRODUCTION FACILITIES

Senator YOUNG. Is $290 million of it, to improve production facilities?

General OLENCHUK. That is correct, sir. Within that amount, we have a modernization and expansion program for $189.4 million. That particular program provides us with the modernization of the conventional ammunition base of the United States. We are into the 5th year of that program. Our ammunition base is really a World War II base and we have patched it up since World War II through the Korean and Vietnam wars and we have lost lives because of its safety deficiencies by modern standards. Our facilities are not modern facilities. We have antiquated production methods and expose people to explosive hazards because we don't have a significant amount of automation.

We embarked on this modernization program about fiscal year 1970 when the Vietnam war showed us how bad off we were. We have continued the program and put heavy emphasis on the management of it. We have a brigadier general as the project manager. We also failed prior to 1970 to do our technological homework in this area for many years because of the lack of funds.

Chairman MCCLELLAN. What production was that?

General OLENCHUK. In all of the conventional ammunition production base in which Pine Bluff Arsenal plays a part in the production of smoke and associated ammunition. In all of our propellants and all of our explosives processes, these plants had technologies predating World War II.

Chairman MCCLELLAN. They are Government-owned and contractor-operated?

General OLENCHUK. Yes, sir. All are Government-owned and contractor-operated with the exception of Pine Bluff Arsenal which is Government-owned, Government-operated. We maintain a small civilian/military staff on site when they are active. When they are in active production we usually have a few Government civilian people oversee it. These plants provide essentially all our ammunition.

We just didn't do the homework technologically because we didn't get the resources. Our first modernization was with a Canadian process because our process was an ancient process. But we have been spending a lot of time and money to catch-up in modern process technology. This program has now arrived at a managerial point where we are getting the benefits of the earlier years modernization and expansion efforts. We project that this program will continue roughly into the mid 1980's depending on the resources available and we estimate that the program will cost us about $4.1 billion.

Chairman MCCLELLAN. This is to improve our ammunition base?

General OLENCHUK. Conventional ammunition production base, sir. We have little capability to buy amumnition from industry. The reason is the investment for ammunition production base is large and almost totally DoD wartime-oriented. So there is no way of amortizing their investment through peacetime sales and as a result, based on the experiences in early World War II where we had essentially almost no ammunition production base, we had a massive Government program to build a base and industry did it. This ammunition base is Govern-

ment-owned and over the years we have turned these over to contractors to operate for us. We have very little that we operate with Government personnel in ammunition production.

This base also provides essentially all propellants and explosives for all the services. It provides the metal parts that industry can not make and it provides the assembly of the ammunition components where there is serious explosive risk. We buy to the maximum extent we can from industry but that is a very small percentage of the overall program. We buy as many components from industry, metal parts essentially, from almost every State in the Union. We put it all together at these Government plants. It is essential to our readiness to have a capable modern ammunition production base.

BIOGRAPHY AND STATEMENT OF GENERAL OLENCHUK

Chairman McCLELLAN. The biographical sketch and complete statement of General Olenchuk will appear in the record at this point, together with questions from the committee which will be responded to in the text.

[The biographical sketch and statement follows:]

MAJOR GENERAL PETER GEORGE OLENCHUK, UNITED STATES ARMY

Major General Peter G. Olenchuk was born 14 July 1922, in Bayonne, New Jersey. He attended public schools in Bayonne and received a Bachelor of Science Degree in 1942 from Lebanon Valley College.

He enlisted in the Army Corps of Engineers in 1943 and subsequently served as a Sergeant in North Africa and the China-Burma-India theaters of operations in World War II. In 1945 he was commissioned a Second Lieutenant in the Chemical Warfare Service and was assigned troop and training duties until 1950. He earned a Master of Science Degree from the University of Wisconsin in 1951, after which he served at Pine Bluff Arsenal, Arkansas, and Fort Detrick, Maryland.

General Olenchuk was sent to France in 1955 to command a Supply Control Agency after which he had logistic and operations staff assignments in Headquarters, US Army Europe. In 1959 he graduated from the Army Command and General Staff College and was assigned to the Army General Staff in the Office of the Chief of Research and Development. He graduated from the Industrial College of the Armed Forces in 1963 and simultaneously earned a Master of Business Administration Degree from The George Washington University.

Upon graduation, he was assigned to the Combat Operations Branch, J–3, Headquarters, US Military Assistance Command, Vietnam. In August 1964, he joined the Plans and Policy Directorate of the Joint Chiefs of Staff; and in February and March 1965, while in this capacity, General Olenchuk returned to Vietnam on a special survey mission for the Chairman, Joint Chiefs of Staff.

In 1966 he was appointed Commanding Officer of Fort Detrick, Maryland, after which he became Chief of Staff of the Army Munitions Command, Dover, New Jersey, and Deputy Commander in early 1969. In February 1970, he assumed command of the Army Ammunition Procurement and Supply Agency, Joliet, Illinois. In this capacity, he managed the major Defense ammunition procurement, production, and supply complex with 25 ammunition production plants, valued at $11 billion, during a period in which the annual volume of business was from $2 to $4 billion.

He was assigned to the Army General Staff, Office of the Deputy Chief of Staff for Logistics in October 1972, as Director of Plans, Doctrine and Systems, and on 2 January 1973 as Director of Materiel Acquisition.

General Olenchuk has been awarded the Legion of Merit with three Oak Leaf Clusters, the Air Medal with Oak Leaf Cluster, the Joint Service Commendation Medal, and a number of US and foreign service awards.

General Olenchuk is married to the former Ruth A. Clement of Baltimore, Maryland. They have three children: Nancy (Mrs. Robert B. Shaw), Jane, and Mary (deceased).

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STATEMENT OF GENERAL OLENCHUK

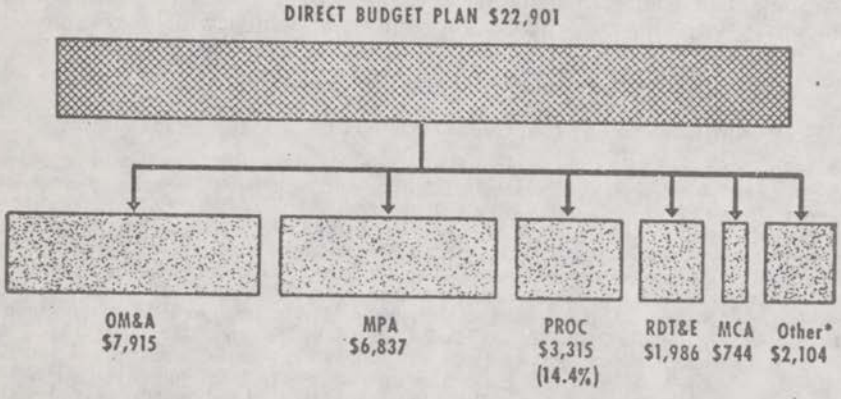
General OLENCHUK. Mr. Chairman and Members of the Committee, my colleagues and I are pleased to appear before your Committee to present and justify the Army's Procurement Budget Request.

Chart 1 shows our FY 1975 request of three billion, 315 million dollars for the five procurement appropriations and the overall direct Army budget plan of 22 billion, 901 million dollars. The five procurement appropriations are 14.4 percent of the Army's FY 1975 budget.

[The chart follows:]

CHART 1 - TOTAL ARMY BUDGET
FY 1975

(Millions of Dollars)

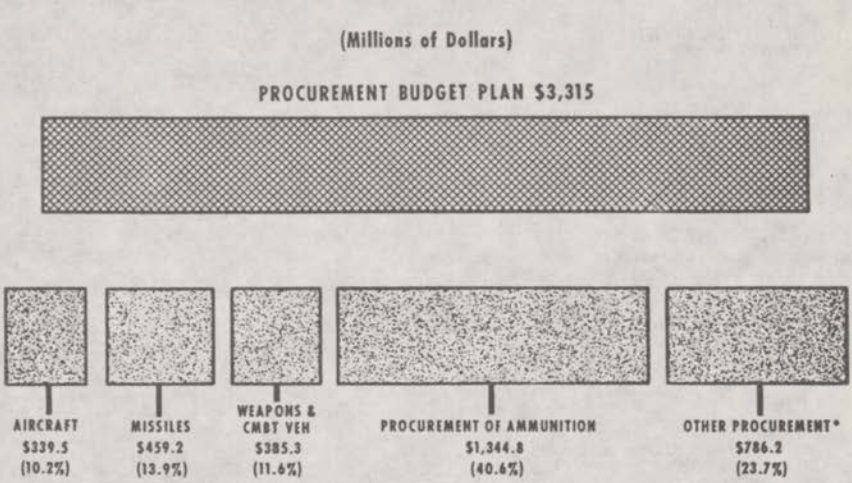


*Primarily National Guard and Reserves

General OLENCHUK. Our FY 1975 procurement budget request is shown by appropriation and percentage on Chart 2. Ammunition, one billion, 344.8 million dollars, accounts for slightly more than 40 percent of this request. Other Procurement, $786.2 million, is almost 24 percent of our request. Our three remaining appropriations account for about 36 percent of the request. Requirements for Southeast Asia total $474.7 million of which $473.9 million is for Republic of Vietnam support only; $400.2 million of this amount is for ammunition.

[Chart 2 follows:]

CHART 2 - DISTRIBUTION OF FY 1975 PROCUREMENT BUDGET



South Vietnam Procurement Figures

Chairman McClellan. Provide a breakout of the $473.9 million requested for procurement in FY 1975 for South Vietnam by major category and comparative figures for each year back through FY 1968.

General Olenchuk. Yes, sir.

[The information follows:]

Appropriation	Fiscal year—							
	1975	1974	1973	1972	1971	1970	1969	1968
Aircraft				0.3				
Missile	2.9	0.4	4.3					
Weapons and tracked combat vehicles	14.5	3.6	5.9	1.2				
Ammunition	400.2	65.2	736.4	1,046.9				
Other	56.3	2.6	26.0	83.6				
Total	473.9	71.8	772.6	1,132.0	[1] 830.6	[1] 840.7	[1] 1,018.7	[1] 351.9

[1] Breakout of procurement of equipment and missiles, Army (PEMA) appropriation to the 5 listed appropriations began in fiscal year 1972.

Equipment Items for South Vietnam

Senator Young. How many items of equipment does the Army plan to procure for South Vietnam? Please provide a list of the equipment and numbers to be procured for the record.

General Olenchuk. Yes, sir.

[The information follows:[

Appropriation and item	Quantity	Cost (millions)
Missile:		
TOW (BGM–71A, BTM–71A)	140	$2.5
Spares and repair parts		.4
Subtotal		2.9
Weapons and tracked combat vehicles, tracked combat vehicles:		
Recovery vehicle, LT, FT, M578	2	.3
Carrier, 81 mm mortar, M125A1	13	.8
Carrier, armored, personnel, M113A1	194	9.4
Items less than $500,000		.5
Spares and repair parts		.8
Subtotal		(11.8)
Weapons and other combat vehicles:		
Launcher, incendiary, rocket, 66 mm, M202A1	84	.1
Machine gun, 7.62 mm, M60	94	.1
Rifle, 5.56 mm, M16A1	9,114	1.3
Items less than $500,000		.2
Spares and repair parts		1.0
Subtotal		(2.7)
Total		14.5
Ammunition:		
Cartridge, 5.56 mm, all types except blank	*920,000	55.2
Cartridge, 40 mm, HEDP, low velocity launched	4,300	15.0
Rocket, 66 mm, HEAT	320	15.7
Cartridge, 81 mm, HE, w/wo fuze	1,933	42.3
Cartridge, 105 mm, HE, wo/fuze, f/105 How	5,371	118.8
Cartridge, 105 mm, illum, w/fuze, f/105 How	180	10.2
Cartridge, 105 mm, smoke, WP, f/105 How	160	5.9
Projectile, 155 mm, HE	1,196	45.2
Projectile, 155 mm, illum	10	.8
Fuze, PD, f/arty and 4.2″ mortar	8,848	63.0
Grenade, Hd, offensive w/fuze	1,400	2.5
Mine, AP, directional	240	4.6
Cartridge, 5.56 mm, blank	44,400	1.5
Cartridge, 40 mm, prac low vel	48	.1
Cartridge, 40 mm, White Star, parachute	307	1.2
Items less than $500,000		1.5
First destination transportation		16.7
Subtotal		400.2
Other tactical and support vehicles:		
Trailer, bolster, 4 ton, M796	73	.4
Trailer, tank, water, 400 gal, 1½ ton, 2W, M149	378	1.3
Truck, 1¼ ton, ABT (C/S)	2,005	8.2
Truck, stake, 7,000 GVW, 4x2	120	.6
Truck, stake, 19,000 GVW, 4x2	29	.2
Truck, utility	275	1.0
Items less than $500,000		3.9
Spares and repair parts		1.2
Subtotal		(16.8)
Communications and electronics:		
Radio set, AN/PRC–77	1,577	1.3
Radio set, AN/GRC–106	84	.4
Radio teletypewriter set, AN/GRC–142/122	42	.3
Vehicular intercom set, AN/VIC–1	180	.1
Items less than $500,000		5.8
Spares and repair parts		1.5
SEA operational sensor system (SEAOPSS)		10.9
Public address set AN/UIH–6	511	2.9
Radar set, AN/PPS–5A	7	.1
First destination transportation		.1
Subtotal		(23.4)

Footnote at end.

Appropriation and item	Quantity	Cost (millions)
Other support equipment:		
Tank assembly, assembly, fabric collapsible, POL, 10,000 gal	116	$0.3
Crane, hydraulic, 25 ton (CCE)	104	7.8
Grader, road, motorized, heavy, 6x4	25	.7
Loader, scoop type, 4–6 cu yd (CCE)	6	.3
Tractor, crawler, T–11 size, w/winch, w/ripper (CCE)	26	1.9
Boat, loading assault, 15-man	58	.1
Generator set, DE, 15 kW, 60Hz	8	.1
Generator set, DE, 30 kW, 60Hz	6	.1
Items less than $500,000		4.3
Spares and repair parts		.5
Subtotal		(16.1)
Total		56.3
Total, procurement appropriations		473.9

*Quantity in thousands for ammunition items.

Chairman McClellan. Proceed.

General Olenchuk. Before discussing our request in more detail, I will comment on actions we have taken to comply with your guidance of last year, mention briefly some actions taken to enhance our ability to manage our materiel acquisition mission, present some logistical highlights of the recent Middle East War, and, discuss the general objectives we hope to accomplish as a result of our FY 1975 request.

Congressional Issues, FY 1974

We have taken action to respond to the guidance and intent of the Congress, based on last year's review of our procurement budget. These issues are shown on Charts 3 and 4.

[Chart 3 follows:]

Chart 3—Issues reported in FY 1974 congressional reports

Issue:	*Status/corrective action*
Amunition plant modernization.	Efforts continuing to complete engineering/evaluation of magnesium nitrate process; proposed FY 74 facilities construction has been deferred.
	Continuing to design follow-on automated single base propellant line and apply lessons learned.
	Contracts are not being awarded without completed final design and sufficient time to advertise is being allowed.

General Olenchuk. In the ammunition plant modernization area, Chart 3, we are continuing our efforts to complete at an early date the engineering and evaluation of the process for using magnesium nitrate as the dehydrating agent in the manufacture of nitrocellulose. Pending completion of this effort we have deferred the construction of proposed FY 1974 and future nitrocellulose facilities using the sulphuric acid dehydration processes. Further, design of the planned FY 1974 automated single base propellant line is being continued and lessons learned from the initial FY 1971 project are being incorporated into the design. Finally, we have taken action to insure that contracts are not awarded unless the final design is completed and sufficient time has been allowed for advertising.

Magnesium Nitrate Process

Chairman McClellan. Discuss the magnesium nitrate process in the manufacture of nitrocellulose as compared with the sulphuric acid dehydration process.

General Olenchuk. Nitrocellulose, which is an ingredient in most military propellant, is manufactured by nitrating wood pulp or cotton linters with nitric acid. In the mixed acid process, sulphuric acid is used in the nitrating process to

remove water generated by the nitration reaction. The use of sulphuric acid requires an extensive purification process to remove unwanted sulfate esters from the nitrocellulose.

An engineering effort has been underway since Fiscal Year 1972 to prove out the practicality of using magnesium nitrate as a substitute for sulphuric acid as a dehydration agent. If successful, it is believed that this process will contribute to pollution abatement as nitrocellulose manufacturer with magnesium nitrate does not require as much purification as that manufactured with sulphuric acid.

The magnesium nitrate engineering effort is being conducted by in-house engineers and by the operating contractor at Radford Army Ammunition Plant, Hercules, Incorporated. The engineering effort is scheduled for completion at the end of Fiscal Year 1976. In reviewing the status of this effort, it appears that the advantages of a magnesium nitrate process over a modernized continuous mixed acid process may not be as great as once thought.

We are in the process of contracting for an independent, outside assessment of the cost effectiveness of the magnesium nitrate process compared to our modernized continuous mixed acid process.

Chairman McCLELLAN. Proceed.

General OLENCHUK. The Joint Conventional Ammunition Production Coordinating Group (JCAP/CG) has re-evaluated ammunition plant mobilization capacity planning factors, the first item in Chart 4. It recommended a change in planning factors from an 80 hour to a 120 hour week. This change was adopted and is being used by all Services.

Chart 4—Issues reported in fiscal year 1974 congressional reports

Issue:	*Status/corrective action*
Ammunition plant capacity planning factors.	Mobilization capacity planning factors changed from 80 hour to 120 hour week.
Concept of stocking ammunition components.	Army study to be completed in June 1974.
Chaparral and sidewinder missiles.	Director of Defense Research & Engineering received joint Army-Navy briefing. Decision has not been finalized.

AMMUNITION PLANT MOBILIZATION CAPACITY

Chairman McCLELLAN. What effects will result from changing the ammunition plant mobilization capacity planning factors from an 80 hour to a 120 hour week?

Genera OLENCHUK. The primary effect will be in our load, assemble, and pack, and metal parts production facilities with a minor impact on our small arms plants. We have in general planned for continuous operation of our propellants and explosives plants. Our support facilities such as electrical distribution systems and power hou es will be unaffected since they must be sized to meet peak requirements.

We expect that in the load, assemble and pack and metal parts facilities we will obtain almost a 25% increase in our planned production capacity.

Actual increases in productivity will vary depending upon the actual efficiencies of operations during the scheduled 120 hour week.

Chairman McCLELLAN. Proceed.

General OLENCHUK. The Army initiated a study to explore fully the feasibility of stockpiling ammunition components versus stockpiling complete rounds in response to the second item on Chart 4. We anticipate that this study will be finalized and a report made to Congress by June of this year.

The last item on Chart 4 involves the use of either the CHAPARRAL or SIDEWINDER missile to meet surface-to-air and air-to-air mission requirements. The Director of Defense Research and Engineering received a joint Army-Navy briefing on this subject, but a final decision has not been made.

MANAGEMENT IMPROVEMENT ACTIONS

MATERIEL ACQUISITION PROCESS STUDY

General OLENCHUK. We are continuing efforts to improve our material acquisition program. Secretary Callaway has directed a special study of our current

acquisition process to identify its strengths and weaknesses and to assure that corrective action is taken when necessary. Our objective is to maintain an efficient acquisition process that enables us to meet equipment needs in the shortest possible time and at the most reasonable cost.

Should Cost

We are continuing to apply selectively "should cost" techniques to major procurements when effective price competition cannot be obtained. This involves the use of a highly competent team of Government personnel to look at what it should reasonably be expected to cost an efficient producer to produce the system. Information obtained by the team provides the basis for our objective in negotiating a contract price. While we do not expect to be able to achieve this objective completely, it provides an effective base for negotiations.

Examples of "Should Cost" Techniques

Chairman McClellan. Provide examples in which you have applied "should cost" techniques to major procurements when effective price competition cannot be obtained.

General Olenchuk. The "should cost" technique has been applied during calendar year 1973 to sole source procurements of the following equipment:

OV–1D Surveillance Aircraft
T–53, L–11 to L–13 Aircraft Engines
AN/TLQ–15 Ground Based Jammer
AH–1Q COBRA/TOW Attack Helicopter

Chairman McClellan. Proceed.

Program Managers

General Olenchuk. The need for highly qualified program managers who stay on the job long enough to be effective is well recognized. We are continuing to improve the training of potential program managers and have stabilized their tour of duty. The average tour is now over three years as compared to a previous average of two years.

Tours of Duty

Chairman McClellan. You say the average tour for program managers is now three years. Does this include time when the system is undergoing test and development or does it relate only to after the procurement decision has been made?

General Olenchuk. Our computation of average tours of duty includes all of the time an officer functions as the Project Manager. Programs designated as major weapon system programs are project managed from the time the development phase is initiated through all subsequent testing and production of the system.

Chairman McClellan. Proceed.

Wheels Study

General Olenchuk. The final phase of the WHEELS Study, which I discussed in detail last year, was approved for implementation on 1 June 1973. During FY 1974 we centralized management of wheeled vehicles and are in the process of implementing an austere noncomputerized management information system to support vehicle related decision making.

Austere Noncomputerized Management Information System

Chairman McClellan. What do you mean by an "austere noncomputerized management information system?"

General Olenchuk. This system was suggested by the WHEELS Study, and is based on using existing, manually prepared reports to the maximum extent possible to develop data to support vehicle related decision-making. Data relating to vehicle management problems will be manually consolidated, and interpolated to assist in developing answers to such questions as:

What is more cost-effective—overhaul or buy? For what vehicles?
What is economic life by payload?
What is life cycle cost of vehicles by payload?

What should be the maintenance expenditure limit criteria for vehicles?
What is more cost-effective: resale, or storage of excess assets? For what vehicles?

Chairman McClellan. Proceed.

Special Analysis of Net Radio Study

General Olenchuk. I also discussed the Special Analysis of Net Radio Study (SPANNER) last year. The SPANNER recommendations are being finalized and you will be advised when the results become available. Preliminarily, it appears that we may effect some saving while achieving a better distribution of net radios to improve essential communications.

SPANNER Study

Chairman McClellan. Does the SPANNER study have input from the other Services? If so, explain.

General Olenchuk. Although the study group charter does not direct formal contact with other Services, SPANNER has, on an informal basis, contacted the USMC concerning the AN/PRC–68 (squad radio) and authorization documentation procedures, and the USAF concerning the AN/PRC–100 (a non-tactical radio). No other input to the study was either requested from or provided by other Services since there were no other areas of common interest.

Chairman McClellan. Proceed.

Ammunition Base Modernization

General Olenchuk. The Army chairs the Joint Conventional Ammunition Production Coordinating Group, the JCAP/CG for short. The JCAP/CG has established a nucleus of personnel dedicated to the principle of coordinated management of the DoD Conventional Ammunition Production Base. This coordinated management effort, which extends to Departmental Staffs and Service Secretariats, has resulted in several achievements. For example, as previously mentioned the JCAP/CG recently completed a detailed study of production levels that can be maintained by modernized noncontinuous production lines for maximum sustained output under all-out mobilization It recommended a change in planning factors from a 2–8–5 shift basis or an 80 hour week, to a 120 hour week. This recommendation has been adopted and is being applied to ammunition production base modernization and expansion plans of all Services.

"2–8–5 Shift Basis"

Chairman McClellan. What do you mean by a "2–8–5 shift basis"?

General Olenchuk. A "2–8–5 shift basis" means that a plant or a production line is producing items for two eight hour shifts five days a week.

Chairman McClellan. Proceed.

General Olenchuk. Additionally, during the recent Middle East War, the JCAP/CG provided the structure under which plans were developed for the Army to use Navy facilities for backup should the Israeli heavy caliber artillery ammunition requirements surge. Although this eventuality did not occur, it is important to note that the organization achieved the type of rapid, efficient, coordination that would have been required to meet the increased requirements had they materialized.

Army Use of Navy Facilities

Chairman McClellan. Explain the plans for the Army to use Navy facilities for heavy caliber requirements.

General Olenchuk. In order to respond to the questions, it is necessary to give some background of the coordination between the Army and Navy as a result of the Joint Conventional Ammunition Production Coordinating Group (JCAP/CG) organization. In 1972 the Navy had a surge in their requirements for 5 inch ammunition, the Army agreed to allow their facilities at Norris Industries, Vernon, California to change from Army production to make the metal projectiles for the 5 inch ammunition. During the recent Middle East War the situation was reversed. Israel placed a large requirement for tank ammunition on the Army. The Army through JCAP/CG requested the Norris Industries facilities to make metal parts for tank ammunition; and the Navy immediately allowed Norris to interrupt their

Navy production and convert to 105mm tank ammunition metal parts production At this same time the Navy was queried through JCAP/CG on the use of their facilities for heavy caliber artillery ammunition in event the Israeli requirements surged. The Navy response was, "Tell us what the Army requires and we will make the necessary facilities available." The actual facilities were not designated as the requirement did not materialize. However the importance is that through the JCAP/CG organization a rapid and efficient means of coordination has been attained that will allow each Service to support the other on a priority basis.

Chairman McClellan. Proceed.

General Olenchuk. Within the Army, action has been taken to improve our management of the base modernization and expansion program. We established a project manager with full line authority for the centralized management and execution of our modernization and expansion program. On 8 September 1973, the Secretary of the Army provided the project manager with a revised and strengthened charter. Subsequently, a stronger interface between the project manager, Office, Chief of Engineers, and the Army Materiel Command was established. These actions have enhanced our ability to plan, program, and execute the Ammunition Production Base Modernization and Expansion Program.

Army Ammunition Facilities Control

Chairman McClellan. How many Army ammunition facilities are government owned-government operated and how many are government owned-contractor operated?

General Olenchuk. Sir, we have one ammunition dedicated production arsenal which is government owned-government operated and twenty five ammunition facilities which are government owned-contractor operated. We also have three other government owned-government operated arsenals whose primary activities are in ammunition research and engineering but also have varying associated lesser production capabilities. There is one chemical munition arsenal, Rocky Mountain Arsenal, which is not in active production but is active in the demilitarization of toxic chemical munitions.

The government owned-government operated dedicated ammunition facility is at Pine Bluff Arsenal and is active, as are the other arsenals. Of the twenty five government owned-contractor operated ammunition facilities, sixteen are currently active.

Chairman McClellan. Proceed.

General Olenchuk. In summary, the ammunition base is vital to our overall defense effort, as well as the defense effort of our Allies. Recognizing this and your demonstrated concern of previous years, we have taken and will continue to initiate positive management actions to have the best possible program.

The Middle East War

From 6 October 1973 to 31 March 1974 the Army shipped about $240.9 million worth of materiel to Israel. Examples of major items shipped include: [Deleted] M60 and [deleted] M48 series tanks; [deleted] armored personnel carriers; [deleted] trucks of all types; [deleted] TOW missiles and [deleted] TOW launchers; [deleted] battery sets of the HAWK missile system and [deleted] HAWK missiles; and over [deleted] rounds of main gun tank ammunition.

This unprogramed support of Israel reduced materiel readiness and caused our force modernization programs to be extended. [Deleted] of the [deleted] TOW launchers were [deleted] while the remaining [deleted] and available production assets. [Deleted] tanks and [deleted] armored personnel carriers were diverted from reserve component and active forces. Further, we withdrew ammunition and equipment from war reserves.

In brief, the war demonstrated the need for a high state of materiel readiness so that when such emergencies arise we can respond without seriously degrading our own capabilities. This fundamental tenet of preparedness and quick reaction in support of unexpected emergencies is equally applicable to the state of the industrial production base, particularly in the critical areas of tank and ammunition production.

Our FY 1975 budget request augmented by our FY 1974 Supplemental budget request will improve force readiness and production base capability, particularly in the tank and ammunition areas.

Replacement of Items

Chairman McClellan. Does the FY 1974 Supplemental request provide for total replacement of equipment which was withdrawn from tactical units, training activities and war reserves? If not, explain how the FY 75 request will replace the items.

General Olenchuk. The bulk of the funds to replace items sold to Israel have already been provided to the U.S. Army from the sales cases. However, differences between the sales price to Israel and the replacement cost to the Army were not all recoverable in the sales cases because some items were older models. Those incremental costs were included in the FY 74 Supplemental request to allow a total replacement of items withdrawn from tactical units, training activities, and war reserves up to the time of the submission of the FY 74 Supplemental Budget. Funds to offset those nonrecoverable incremental costs to replace equipment withdrawn subsequently have not been requested. The FY 75 budget request does not include replacement item incremental costs resulting from the Mid East war equipment withdrawals since these costs were included in the FY 74 Supplemental requests which were submitted at the same time.

Chairman McClellan. Proceed.

General Objectives, FY 1975 Request

General Olenchuk. Our FY 1975 request responds to the four general procurement objectives shown on Chart 5.

CHART 5.—GENERAL OBJECTIVES OF THE FY 1975 BUDGET REQUEST

Materiel Readiness and Force Modernization.
Ammunition Production Base Modernization.
Economic Integration of Out-Year Requirements.
Commercial Design Substitute Programs.

Materiel Readiness and Force Modernization

General Olenchuk. Two billion, 920 million dollars, or 89 percent of our FY 1975 request, is programed for the procurement of ammunition, major items, spares and repair parts, associated support equipment, and modification of equipment. This will enable us to maintain our active divisions at their assigned materiel readiness objectives, our reserve forces at about [deleted] percent of their authorized readiness posture, and, permit us to achieve approximately [deleted] percent of our total inventory needs.

Equipment Readiness of Army Reserve Forces

Chairman McClellan. What is the desirable level of equipment readiness for the Army Reserve Forces? Are the desirable levels and those planned within the FY 1975 budget the same for Reserve and National Guard Units?

General Olenchuk. The goal for peacetime is to equip the Reserve Components to a training level rather than with a full TOE. The training level or level 3 contains approximately 80% of a full TOE Allowance. This 80% represents balanced organization structures of reduced capability from the full TOE in terms of staying power in combat or ability to perform quantitative workload. All items are not reduced. Both the Army Reserve and the National Guard units are operating under this policy.

Chairman McClellan. Proceed.

Ammunition Production Base Modernization

General Olenchuk. The second basic objective is to continue our program to modernize the conventional ammunition production base at Government-owned, contractor-operated plants. This year marks the sixth increment of our long range program to modernize the conventional ammunition production base.

We propose a $189.4 million funding level for the FY 1975 modernization and expansion effort; this is six percent of our total budget request.

Economic Integration of Out-Year Requirements

As the Secretary of the Army indicated in his Posture Statement, we also are attempting to insure that out-year requirements for the Big Five and other high priority items are economically integrated into our procurement program.

Out-Year Requirements

Chairman McClellan. Explain your program to insure that out-year requirements are economically integrated into the procurement program.

General Olenchuk. To assure that out-year requirements are economically integrated into our procurement programs, the Materiel Procurement Priorities Review Committee (MPPRC) has been established. This committee, which is chaired by the Deputy Assistant Chief of Staff for Force Development, is composed of general officers or civilian personnel of comparable grade. The MPPRC develops and recommends materiel procurement programs which will insure that readiness and modernization objectives are attained within prescribed funding levels.

Chairman McClellan. Proceed.

Commercial Design Substitute Programs

General Olenchuk. The last general objective concerns continued implementation of two different but related programs involving the procurement of commercially designed vehicles and equipment to replace those of a military design. Our request contains $72.9 million to support these two programs—the WHEELS Program and the Commercial Construction Equipment (CCE) Program. Both of these programs are funded by the Other Procurement Appropriation.

With regard to the WHEELS Program, we are proposing a total of $22 million to support the procurement of over 1,600 commercially designed vehicles and semitrailers that will replace military design vehicles where the latter's higher mobility characteristics are not required.

We also are proposing $50.9 million to continue implementation of the CCE Program which procures commercial construction equipment. This program enables us to capitalize on the construction industry's research and development efforts and avoid the costs associated with the use of a military design when the same or improved capability is available commercially.

Delivery Times on Vehicles and Construction Equipment

Chairman McClellan. Are you experiencing longer delivery times in procuring commercial vehicles and commercial construction equipment? Discuss the matter.

General Olenchuk. Yes, especially for commercial special purpose equipment and the larger commercial vehicles required by the Army. Basically, delays are caused by the casting and forging industry's inability to meet tightened EPA standards.

Chairman McClellan. Proceed.

General Olenchuk. In summary, our budget request has been carefully structured to meet our most urgent requirements.

Overview of the Fiscal Year 1975 Request

Before comparing our FY 1975 request with last year's, I should explain that the FY 1974 information includes the basic budget approved by the Congress, and our FY 1974 Supplemental request.

Fiscal Year 1974 Supplemental Request

Chart 6 displays FY 1974 totals as compared to the amounts appearing in the FY 1974 column of our FY 1975 budget. The first column shows amounts included

in the FY 1974 basic budget and the second column shows the FY 1974 Supplemental request. The third column, which reflects the FY 1974 column of the FY 1975 Budget, is the sum of columns one and two.

[Chart 6 follows:]

CHART 6.—FISCAL YEAR 1974 SUPPLEMENTAL BUDGET REQUEST

[Millions of dollars]

Appropriation	Basic budget	Fiscal year 1974 supplemental	Fiscal year 1974 column of fiscal year 1975 budget (TOA)
Aircraft	164.8	22.0	186.8
Missile	557.1	84.4	641.5
Weapons and tracked combat vehicles	229.3	121.8	351.1
Ammunition	940.4	268.0	1,208.4
Other	506.2	56.7	562.9
Total	2,397.8	552.9	2,950.7

Trend in Requests

Chairman McClellan. How much of the $364 million increase over FY 1974 can be attributed solely to inflation?

General Olenchuk. $171 million of the $364 million is attributed to inflation.

Chairman McClellan. Proceed.

General Olenchuk. Chart 7, shows that our FY 1975 request is three billion 315 million dollars, $364.3 million more than the FY 1974 required amount.

[Chart 7 follows:]

CHART 7.—SUMMARY COMPARISON OF FISCAL YEAR 1975 REQUEST IN RELATION TO FISCAL YEAR 1974

[Millions of dollars]

Appropriation	Fiscal year 1974	Fiscal year 1975	Differences
Aircraft	186.8	339.5	+152.7
Missile	641.5	459.2	−182.3
Weapons and tracked combat vehicles	351.1	385.3	+34.2
Ammunition	1,208.4	1,344.8	+136.4
Other	562.9	786.2	+223.3
Total	2,950.7	3,315.0	+364.3

Army Procurement Plans

Senator Young. The largest increase in Army procurement accounts is in Other Procurement, Army. Give the Committee more detail on what the Army plans to procure in this account.

General Olenchuk. The total budget request for Other Procurement, Army amounts to $786.2 million.

In the Tactical and Support Vehicle area, funding has been increased to implement a program of substituting commercial vehicles for military design vehicles where feasible. The major impact is the procurement of a commercial 1¼ ton truck to replace the M37 ¾ ton and M715 1¼ ton military design vehicles in tactical applications not requiring a high mobility vehicle. Other significant items are $24.4 million for the procurement of the 8 ton GOER truck, $16.7 million for the 22½ ton heavy equipment transporter and $21.3 million for various semi-trailers. $63.8 million will be spent to replace various commercial vehicles including $2.3 million for ¾ ton telephone maintenance trucks.

The $310.8 million in the Communications-Electronics Activity will improve the ability of the Army to communicate and integrate modern equipment into the inventory. Equipment for combat service support amounts to $42.4 million.

Funds are included for continued procurement of the Forward Area Tactical Teletypewriter (FATT) Family. This system is a vital element in the modernization of Field Army communications.

Strategic communications as well as non-tactical systems will be improved by providing equipment for STARCOM and ASA. $20.8 million will be spent for COMSEC equipment. Improvements in Automatic Data Processing equipment includes $21.8 million for TACFIRE and $22 million for non-tactical ADP systems.

$47.8 million will be spent for tactical electronic equipment including $16.7 million for night vision equipment. The Satellite Communications Command will receive $17.5 million for improvements in its systems.

$309.6 million is budgeted for Other Support Equipment to replace losses and provide increased readiness in this area. In the combat support area $75 million continues the procurement of chemical protective equipment to include the chemical alarm and the collective protection shelter system, provide float ribbon bridge equipment, MUST hospital components, mobile shop sets, and survey instruments.

The $57.6 million construction equipment program contains $50.9 million for procurement of 11 items of follow-on commercial construction equipment items, principally compactors, scoop loaders, dozers, and dump and concrete trucks.

The $8.6 million will provide an additional 400, 20,000 gallon rail tank cars for the interchange fleet.

$12.5 million will continue procurement of four types of generators, with diesel engines.

$11.5 million will provide replacements for Army material handling equipment.

$35 million for medical support equipment continues purchases of medical equipment for newly constructed facilities, provides for replacement and modernization of existing equipment, and provides equipment in support of the drug abuse program, clinical investigation and pollution control.

$86.8 million will provide "other" type support, such as pollution control, repair parts, nonsystem training devices, special equipment for user testing, transportation funds, and base support funds.

Chairman McClellan. Proceed.

Aircraft Procurement

General Olenchuk. Our Aircraft Procurement budget request of $339.5 million, is $152.7 million more than the FY 1974 amount. The FY 1974 program does not provide for any aircraft procurement. In contrast, thirty three percent of our current request is for procurement of aircraft. In FY 1975 we plan to procure 21 new COBRA/TOW anti-tank missile helicopters, 19 CH–47 CHINOOK Cargo Helicopters and 128 UH–1H helicopters. Further, in FY 1973 we started placing emphasis on aircraft modification to improve readiness. In FY 1975 this emphasis is continued and 49 percent of our request is for modification programs. The largest modification program, $86.8 million, will convert 189 AH–1G COBRA attack helicopters to the COBRA/TOW anti-tank configuration.

Missile Procurement

The Missile Procurement request of $459.2 million is $182.3 million less than last year's, primarily because of reduced SAFEGUARD requirements. In FY 1975 we are asking for only $3 million for replenishment spare parts to support the one SAFEGUARD site at Grand Forks, North Dakota.

Our request places heavy emphasis on anti-tank missile systems through continued procurement of the TOW and DRAGON anti-tank missile systems. Our request also contains $80.3 million to continue improvement of the HAWK missile system and $45.7 million for modifications to the CHAPARRAL, PERSHING and remaining elements of the NIKE HERCULES missile system.

Procurement of Weapons and Tracked Combat Vehicles

For Weapons and Tracked Combat Vehicles we request $385.3 million, an increase of $34.2 million over FY 1974. $275.6 million is for tracked combat vehicles; $168.8 million of this amount is to procure 510 M60A1 tanks. This will accelerate our program of fielding tanks mounting the 105mm gun and thereby significantly improve the Army's combat readiness.

We require $20.9 million for weapons, primarily for general purpose and tank machine guns. Our request also contains $43.7 million for modification of in-service weapons and tracked combat vehicles and $45.1 million for support equipment and facilities.

Procurement of Ammunition

The one billion 344.8 million dollars required for the Ammunition Appropriation includes $1,054.8 million for ammunition hardware and $290 million for production base support. Artillery ammunition and fuzes account for 65 percent of the hardware funds requested. Our request for production base support includes $189.4 million to continue the ammunition base modernization and expansion program.

Other Procurement, Army

Our Other Procurement request of $786.2 million is $223.3 million more than the FY 1974 amount. The funding level for this appropriation has been increased to continue implementation of our commercial design substitute programs, provide for the procurement of tactical and non-tactical electronic systems and equipment, and to procure various items of chemical, engineer, medical, and user testing equipment.

Southeast Asia Requirements

Chart 8 shows the Southeast Asia (SEA) requirements included in the FY 1973, 1974 and 1975 procurement appropriation requests. As I indicated, $473.9 million of our FY 1975 SEA requirements are confined to Republic of Vietnam support.

[Chart 8 follows:]

CHART 8.—SOUTHEAST ASIA REQUIREMENTS

[Millions of Dollars]

Appropriation	Fiscal year—		
	1973	1974	1975
Aircraft procurement	0.3		
Missile procurement	4.5	0.4	2.9
Procurement of weapons and tracked combat vehicles	9.8	3.7	14.5
Ammunition procurement	819.6	65.2	400.2
Other procurement	29.7	3.0	57.1
Total	863.9	72.3	474.7

Distribution of Non-Incremental Portion

Chairman McClellan. You indicate $473.9 million of a total of $474.7 million for Southeast Asia is for South Vietnam. What countries will receive the other $800,000, and what type of equipment will be procured?

General Olenchuk. The $800,000 is the non-incremental portion of SEA requirements which will be used by US Forces in that area. These funds will be used to procure communications equipment for the Defense Communications System and the Army Security Agency.

Chairman McClellan. The FY 1973 column shows $863.9 million for Southeast Asia and the FY 1974 column shows $72.3 million. Discuss the totals in relation to the statutory ceiling of $1,126 million for total Military Assistance Service Funded (MASF) support to Southeast Asia for FY 1974; the ceiling of $1.6 billion as requested in the supplemental estimate; and a ceiling of $1,326 million as recommended by the House Committee on Appropriations.

General Olenchuk. The ceiling applies to several military appropriations in the Defense Department. The Army's portion of the $1,126 million MASF limitation is $700 million which includes the FY 1974 procurement program of $72.3 million and unobligated balances from prior year programs. Additional limitation of approximately $160 million is required for the balance of FY 1974. The $1.6 billion ceiling would permit us to proceed with obligations for the full $860 million. Increasing the ceiling to $1,326 million will permit us to obligate $35.8 million of the FY 1974 ammunition program that is currently deferred to accommodate an urgent increase in requirement for petroleum products, and perhaps to accomplish a portion of the unobligated prior year balance.

Chairman McClellan. Proceed.

General OLENCHUK. No funds are programed for the Aircraft Appropriation during FY 1975. The $2.9 million for Missiles is for the TOW weapon system. The $14.5 million for Weapons and Tracked Combat Vehicles includes $1.8 million for spares and repair parts and $12.7 million to procure M578 Recovery Vehicles, M125A1 Mortar Carriers, M113A1 Armored Personnel Carriers, M202A1 Rocket Launchers, M60 Machine Guns, M16A1 Rifles, and items less than $500,000.

The Ammunition Appropriation request is significantly greater than the program approved by Congress in FY 1974. This primarily is attributable to requirements for 5.56mm ammunition, $55.2 million; mortar ammunition, $42.3 million; 105mm howitzer high explosive ammunition, $118.8 million; and, fuzes, $63 million.

Finally, $57.1 million is required for the Other Procurement, Army Appropriation. Included in this total are: $9.9 million for tactical vehicles; $6.4 million for combat service support communications; $10.9 million for the SEA Sensor System; and, $10.8 million for various items of construction equipment.

I will now discuss each appropriation separately.

AIRCRAFT PROCUREMENT, ARMY

Our request for the Aircraft Procurement Appropriation, $339.5 million, is distributed over the four activities shown on Chart 9:

CHART 9.—*Aircraft Procurement, Army*

Activity:	*Millions of dollars*
Aircraft	$112.5
Modification of aircraft	165.0
Spares and repair parts	21.9
Support equipment and facilities	40.1
Total	339.5

AIRCRAFT SPARES AND REPAIR PARTS

Chairman MCCLELLAN. You request $21.9 million in FY 1975 for aircraft spares and repair parts. Provide for the record a table showing the amount of initial spares and replenishment spares for each aircraft program which the request includes.

General OLENCHUK. Yes Sir.

[The information follows:]

The budget request of $21.9 million for Initial and Replenishment Spares and Repair Parts will provide centrally managed, high dollar value depot reparable assemblies, components, and repair parts to support the Army's 8,500 aircraft inventory and associated armament, avionics and ground support equipment. The request contains the following elements:

Initial Provisioning Spares:	*Amount in millions of dollars*
AH–1Q COBRA/TOW Procurement—provides spares to support the procurement of 21 new AH–1Q COBRA/TOW helicopters. This helicopter will have TOW, engine and power train components not in the current AH–1G COBRA, thus initial spares must be stocked	1.2
AH–1Q COBRA/TOW Modification—provides spares to support the modification of 189 AH–1G to AH–1Q helicopters. $3.5 million will support new engine and power train components and $5 million will support the TOW missile system	8.5
HOTBRICK—provides spares to support the procurement of 63 HOTBRICK jammers listed under Budget Exhibit P–1, line No. 5, modification of OV–1 airplanes	.2
Avionics Modification to UH–1 and CH–47—provides spares to support the CH–47 and UH–1 helicopter navigation radio modification programs in P–1 and line Nos. 9 and 13 and also supports the CH–47 ARC–114/115 radio modification, line 9	.3
TRN–30 Radio Beacon and PRC–90 Survival Radio—provides spares to support the FY 73 programs for the TRN–30 Radio Beacon, P–1, line Nos. 26 and 27 and the PRC–90 Survival Radio, P–1, line No. 30	.1
Total	10.3

Replenishment Spares:	*Amount in millions of dollars*
UH–1 IROQUOIS—Supports 3,900 helicopters	3. 6
OV–1 MOHAWK—Supports 260 airplanes	3. 0
OH–58 KIOWA—Supports 2,100 helicopters	. 7
CH–47 CHINOOK—Supports 430 helicopters	. 6
AH–1 COBRA ARMAMENT—Supports M28 armament system installed on 760 helicopters	. 6
CH–54 TARHE—Supports 76 helicopters	. 1
Tool and Shop Sets—Provides replacement tool and shop set components for tool and shop sets in aviation maintenance units	. 7
Standard Avionics—Replacement components of standard aircraft radios and supporting avionics equipment for the Army aircraft fleet	2. 3
Total	11. 6

Chairman McCLELLAN. Proceed.

AIRCRAFT

General OLENCHUK. The $112.5 million shown for aircraft will procure three types of helicopters as shown in Chart 10.

CHART 10.—AIRCRAFT PROCUREMENT, ARMY

Aircraft	Quantity	Millions
Helicopter, attack AH–1Q (COBRA/TOW)	21	$27. 5
Helicopter, cargo CH–47C (CHINOOK)	19	41. 4
Helicopter, utility UH–1H (IROQUOIS)	128	43. 6
Total		112. 5

INVENTORY ON ACTIVE ARMY HELICOPTER RESOURCES

Chairman McCLELLAN. Provide for the record an inventory of the current active Army helicopter resources.

General OLENCHUK. Yes sir.

[The information follows:]

The Army's current active inventory is 8,020 and consists of the following helicopters:

	Active Army	Reserve components	Total
AH–1: Attack helicopter (COBRA)	749		749
CH–47: Cargo helicopter (CHINOOK)	361	69	430
CH–54: Cargo helicpoter (TARHE)	56	20	76
OH–6: Observation helicpoter (CAYUSE)	135	294	429
OH–58: Observation helicopter (KIOWA)	1, 361	713	2, 074
UH–1: Utility helicopter (IROQUOIS)	2, 554	1, 083	3, 637
UH–1: Utility helicopter used as attach helicopters (IROQUOIS)	113	224	337
TH–55: Training helicopter (OSAGE)	240		240
CH–34: Cargo helicopter (CHOCTAW)		11	11
OH–13: Observation helicopter (SIOUX)		9	9
OH–23: Observation helicopter (RAVEN)		28	28
Total	5, 569	2, 451	8, 020

AIRCRAFT PURCHASES TO SUSTAIN FORCE LEVELS

Senator YOUNG. After the Vietnam buildup aircraft have dissipated, how many aircraft will the Army need to buy annually to sustain force levels?

General OLENCHUK. The FY 1975 procurement of 128 UH–1 and 19 CH–47 helicopters completes requirements for replacement of UH–1 and CH–47 helicopters used by the U.S. Army and those transferred to the Vietnamese Air Force.

In order to maintain our inventory of aircraft at an acceptable level by replacing losses, filling existing shortages and modernizing our fleet we plan to buy several types of aircraft over the next several years. Within funding priorities the procurement of utility airplanes (U-X) is planned for FY 1976 through FY 1985 at the rate of 20 airplanes per year. Procurement of 305 COBRA attack helicopters is planned to start in FY 1975. In FY 1977 it is planned to begin modernizing the Army aircraft fleet with the procurement of the Utility Tactical Transport Aircraft System (UTTAS) to replace selected numbers of UH-1H helicopters and in FY 1979 procurement of the Advanced Attack Helicopter (AAH) to supplement AH-1G/Q COBRA attack helicopters in the gunship/missile role.

Aircraft Attrition Rate

Senator Young. What is the aircraft attrition rate being experienced by the Army? Please provide a table by aircraft type.

General Olenchuk. Current peacetime attrition factors being used for computation of Army aircraft inventory projections are:

Aircraft system	*Annual attrition factor (percent)*
Airplane:	
Combat surveillance: OV-1	2.3
Utility: U-8/RU-8	2.0
Utility: U-21/RU-21	1.9
Fixed wing trainer: T-41	1.8
Instrument trainer: T-42	1.2
Helicopter:	
Primary trainer: TH-55	1.2
Cargo transport: CH-47	1.2
Cargo transport: CH-54	1.2
Observation: OH-6	4.8
Observation: OH-58	2.4
Utility: UH-1	3.0
Attack: AH-1	3.0

Helicopter Engines

Chairman McClellan. Do any of the three types of helicopters which you plan to procure in FY 1975 use the same engine?

General Olenchuk. Yes, sir. The UH-1 Utility Helicopter and the AH-1Q Attack Helicoper both use the basic Lycoming T53-L13 engine, although the AH-1Q will use an upgraded version of the UH-1 engine. The CH-47 uses the larger Lycoming T55-L11 engine.

Chairman McClellan. Proceed.

Helicopter, Attack, AH-1Q (COBRA/TOW)

General Olenchuk. We are requesting $27.5 million to procure 21 AH-1Q helicopters. The AH-1Q is the basic attack helicopter currently in our inventory with three differences. The AH-1Q will have an improved engine, improved drive train components, and will be equipped with the TOW missile system.

The AH-1Q, a single rotor attack helicopter with an armor defeating capability, is powered by a single gas turbine engine. This helicopter can conduct multiple missions to include anti-armor, search and target acquisition, reconnaissance by fire, multiple weapons fire support, and escort support for troop carrying helicopters.

Retention of Helicopter Force

Chairman McClellan. Does the Army plan for the Advanced Attack Helicopter to replace the AH-1Q?

General Olenchuk. No, sir. Both the AH-1Q and the Advanced Attack Helicopter are planned to be part of the Army's force structure. Under the "Hi-Lo" mix concept, the Advanced Attack Helicopter will represent the "Hi" in the mix of attack helicopters.

Chairman McClellan. Proceed.

General Olenchuk. Our request is the first year of a planned five-year procurement program to provide us 305 additional attack helicopters by the end of FY 1979. The specific mix (AH-1G versus AH-1Q) of the remaining 284 heli-

copters currently is being studied. This program, and our AH–1 (COBRA) attack helicopter modification program which will be discussed subsequently, provides an urgently needed heliborne anti-armor capability in the near time frame.

Helicopter, Cargo, CH–47C (CHINOOK)

We are requesting $41.4 million for 19 CH–47C medium cargo helicopters which are used for tactical movement of heavy bulky cargo, troop transport and recovery of downed aircraft from remote areas. This request complies with Congressional direction for the Army to fund in FY 1975 for the last increment of helicopters to replace those previously provided to the Vietnamese Air Force. In prior years the Air Force requested funds for this purpose. Procurement of these helicopters will enable us to attain 98 percent of our authorized acquisition objective by the end of the FY 1975 funded delivery period.

Lift Capacity of CH–47C Helicopter

Chairman McClellan. What is the lift capacity of the CH–47C helicopter under the most stringent atmospheric conditions? Relate this capability to types of equipment.

General Olenchuk. At a pressure altitude of 4000 feet and a temperature of 95°F the CH–47C can transport an external cargo weighing 15,000 pounds. Under these conditions the CH–47C can hover out of ground effect, climb at 200 feet per minute and complete a 50 nautical mile radius mission with a 30 minute fuel reserve.

The 15,000 lb payload provides the capability to transport all of the towed artillery in the active inventory. A new family of military engineer construction equipment will enter the Army inventory in the late 1970s. All nine of its components are being designed to be transported by the CH–47C. All current Army helicopters are recoverable by the CH–47C. Large quantities of bulk cargo can be transported. For example, 135 rounds of 155mm ammunition or 330 rounds of 105mm ammunition can be transported in one load.

Chairman McClellan. Proceed.

Helicopter, Utility, UH–1H (IROQUOIS)

General Olenchuk. Our request of $43.6 million for 128 UH–1H utility tactical helicopters also represents the last increment of "payback" helicopters to replace those provided the Vietnamese Air Force. The UH–1H helicopter, the main stay of our existing utility tactical fleet, is used for troop and cargo transport and aero-medical evacuation missions. This planned procurement will enable us to attain 99 percent of our authorized acquisition objective by the end of the FY 1975 funded delivery period.

Effect of Purchases on Production Lines

Chairman McClellan. There are no fiscal year 1974 buys of Army aircraft. Did this cause any production lines to close and/or result in higher prices for later buys, exclusive of inflation?

General Olenchuk. No, sir. The lines for the AH–1G/Q closed in April 1973 after completion of fiscal year 1971 deliveries and a fiscal year 1974 program would not have prevented a production break. Although there is some commonality of the AH–1G line and the AH–1J line which is open for foreign military sales and other Service procurement, the AH–1G/Q line is a separate line and $2 million in start-up costs is included in the fiscal year 1975 AH–1Q request. In the case of the UH–1 helicopter, the line has remained open because of prior years and fiscal year 1974 Air Force payback programs. Foreign military sales and an Air Force fiscal year 1974 payback program have kept the CH–47 line open.

Chairman McClellan. Proceed.

Modification of Aircraft

General Olenchuk. $165 million, or 49 percent of the Aircraft Procurement Budget, is for the modification of aircraft. Our request, shown on Chart 11, provides for increased operational capability, improved flight safety, better reliability and maintainability, and extension of the useful life of our aircraft fleet.

[Chart 11 follows:]

CHART 11.—*Modification of Aircraft, FY 1975*

	Millions of dollars
Airplane, observation, STOL, OV–1 (MOHAWK)	41.0
Helicopter, attack, AH–1 (COBRA)	86.8
Helicopter, cargo transport, CH–47 (CHINOOK)	8.5
Helicopter, utility, UH–1 (IROQUOIS)	20.1
Other programs	8.6
Total	165.0

General OLENCHUK. At the end of FY 1973 our modification backlog was approximately 1,130,000 manhours. Our FY 1974 program added 597,000 manhours to this figure for a total of 1,727,000. By the end of FY 1974 we plan to accomplish 1,127,000 manhours of work so that our aircraft modification backlog will approximate 600,000 manhours. During FY 1975 our programs will add another 700,000 manhours to the total. We plan to accomplish approximately 700,000 manhours at field and depot level during FY 1975, leaving about 600,000 manhours of unaccomplished modification at the end of FY 1975. This backlog is realistic and consistent with our ability to coordinate installation leadtime with workload and depot overhaul programs. In accordance with Congressional guidance we are continuing to apply depot level aircraft modifications with Operation and Maintenance, Army funds in FY 1975.

I will now describe some of the more significant modification programs planned for FY 1975.

AIRPLANE, OBSERVATION, STOL, OV–1 (MOHAWK)—MODIFICATION)

Chart 12 shows the modifications planned for the MOHAWK aircraft in FY 1975.

CHART 12.—*OV–1 aircraft modifications fiscal year 1975*

	Millions of dollars
OV–1C to OV–1D conversion	17.3
OV–1B to EV–1 configuration (QUICK LOOK II)	19.7
HOT BRICK	3.0
Other modifications	1.0
Total	41.0

$17.3 million is requested to convert nine OV–1C Observation Airplanes to the OV–1D configuration; this continues the conversion program at a rate of one per month. Conversion of the OV–1C's to the OV–1D configuration includes providing stronger landing gears; engines with increased horsepower and matching propellers; addition of two fuselage access doors; and provisions for accepting palletized and improved Side Looking Airborne Radar (SLAR) or Infrared (IR) sensor equipment.

AIRCRAFT MODIFICATION IN ARMY FACILITIES

Chairman MCCLELLAN. Will any of the fiscal year 1975 aircraft modification be done in Army facilities? If so, how much?

General OLENCHUK. Yes, sir. Of the 700,000 manhours of modification work scheduled for FY 1975, approximately 654,000 manhours will be accomplished in Army facilities.

MODIFICATION OF OV–1C OBSERVATION AIRCRAFT

Chairman MCCLELLAN. How many OV–1C observation aircraft have been modified to the OV–1D configuration to date? What is the total program objective?

General OLENCHUK. None have been completed so far. As scheduled we currently have four fiscal year 1973 aircraft and two of the 12 fiscal year 1974 aircraft in the process of modification at Grumman Aircraft, Stuart, Florida. The fiscal year 1973 aircraft are scheduled for completion July through October 1974 and the fiscal year 1974 aircraft November 1974 through October 1975. After the fiscal year 1975 program of 9 aircraft, 61 aircraft will remain to be converted for a total of 86.

SLAR and IR Sensor Equipment

Chairman McClellan. Why do you need the improved Side Looking Airborne Radar and Infrared capabilities?

General Olenchuk. The improved SLAR and IR sensor equipment is more sensitive to Army significant battlefield targets. The improved SLAR has a stand off capability of [deleted] kilometers and will detect targets moving at [deleted] as compared to the older system which cannot detect targets moving at less than five miles an hour. The improved IR equipment can detect a man from an altitude of approximately [deleted] even though there is only a slight difference in temperature from his surroundings. The older IR equipment is only capable of detecting heat sources equivalent to an [deleted]. The OV–1D capability to operate with either the improved SLAR or IR, coupled with a real time cockpit display, provides the Army with a valuable battlefield surveillance capability immediately responsive to the tactical commander.

Chairman McClellan. Proceed.

General Olenchuk. We are requesting $19.7 million to start a new OV–1 modification program known as QUICK LOOK II, the second item shown on Chart 12. The airborne QUICK LOOK II system will [deleted].

Modification Cost of Single OV–1

Chairman McClellan. What is the cost to modify one OV–1 aircraft with the QUICK LOOK II system?

General Olenchuk. Based on the total planned program of 16 QUICK LOOK II aircraft the cost to modify and fully equip one OV–1 aircraft with mission equipment is approximately $2.47 million. In addition, $8.4 million will be required for all ground support systems, training systems and ground equipment to support the QUICK LOOK II program.

Chairman McClellan. Proceed.

General Olenchuk. This request initiates a three year program to convert 16 OV–1B aircraft to an Electronic Surveillance configuration. The estimated total program cost, to include associated training and ground support equipment, is $47.9 million. The FY 1975 request includes $3.4 million to convert and equip the first OV–1B airplane to the EV–1 configuration. The basic OV–1B airframe will be modified to the improved OV–1D airframe minus the OV–1D SLAR and IR sensor modifications. The remaining $16.3 million being requested is to procure long leadtime items required in FY 1976/1977. These items include two training systems ($3.8 million); two ground support systems ($1.5 million); six AN/ALQ–133 [deleted] ($5.7 million); twelve sets of airframe conversion items such as engines, propellers and landing gear ($2.9 million); and ground equipment and avionics items ($2.4 million).

We also are requesting $3 million to provide the OV–1 with an Infrared (IR) Jammer capability called HOT BRICK. This [deleted] is an on-board protection device programed to [deleted] the OV–1 airplane. Our request will equip 63 airplanes with this device.

Survivability of OV–1 in Vietnam

Chairman McClellan. Are not the OV–1 aircraft highly vulnerable to ground fire? What was the survivability experience of this aircraft in Vietnam?

General Olenchuk. The OV–1 proved to be highly survivable against ground fire in Vietnam. DOD records of U.S. Army combat losses and damage due to ground fire in Southeast Asia for the period 1965 to 1972 reveal OV–1 aircraft were hit by ground fire on [deleted] separate occasions; of these [deleted] were shot down and [deleted] returned to base. During this seven year period OV–1's flew [deleted] combat sorties, [deleted]. This represents a loss rate to ground fire of only one aircraft per 8,654 sorties.

Chairman McClellan. Proceed.

General Olenchuk. The remaining $1 million will provide for engine, propeller, and electrical system modifications to improve safety and maintainability; one modification to navigational radio receivers to meet proposed Federal Aviation Administration (FAA) requirements, and, the procurement of improved strobe lights that increase the visual detection of aircraft during flight.

Helicopter, Attack, AH–1 (COBRA)—(Modification)

The $86.8 million requested for the AH–1 attack helicopter will fund five modification programs. The largest program, $80.4 million, involves the application of the TOW missile system and modifications to improve the existing engine and drive train components of 189 AH–1G helicopters. These helicopters then will be in an AH–1Q configuration.

Future Modification of Helicopters

Senator Young. After the 189 AH–1G helicopters are modified, how many more AH–1G's does the Army plan to modify?

General Olenchuk. None, sir. The fiscal year 1975 program will complete the planned modification of the AH–1G COBRA to the AH–1Q COBRA/TOW.

Chairman McClellan. Proceed.

General Olenchuk. Since the AH–1 series helicopter with the TOW missile system will be a major part of the attack helicopter fleet through the late 1980's, we need to upgrade its operational capability. We will accomplish this by modifying the engine to provide greater horsepower; modifying the transmission and replacing two gearboxes; and strengthening the tail boom and fuselage to accommodate the improved components. Operational testing and evaluation confirmed these modifications will be needed if the AH–1Q is to carry normal armament and fuel loads and a full load of eight TOW missiles. For the 101 AH–1Q helicopters in our FY 1974 program we plan to apply these new modifications in FY 1977 and FY 1978.

OSD approved this product improvement program on 7 March 1974 after a joint OSD/DA review. Based on this review and the extended testing that will be required, we have requested that $4.5 million be transferred from the Aircraft Procurement Appropriation to the FY 75 RDT&E Appropriation. Your committee has been provided a fact sheet which outlines the Army's funding requirements for this program.

Our approach to the AH–1Q COBRA/TOW modification is both feasible and prudent. It enables us to meet our primary objective of providing an early airborne anti-armor capability in Europe with our FY 1974 modification program while concurrently improving the performance capability and extending the service life of the helicopter by a product improvement program.

In addition to the COBRA/TOW modification program just discussed, we also need $4.2 million to continue a program of replacing the teflon feathering axis bearing located in the main rotor hub with the elastomeric bearing. The teflon bearing is changed an average of every 300 hours while the elastomeric bearing is expected to last 2,200 hours. Also requested is $1.9 million for navigational and communication improvements and $0.3 million for a flight control safety modification.

Elastomeric Bearing for Main Rotor Hub

Chairman McClellan. The committee is aware of technical difficulties which have been found in the elastomeric bearing for the main rotor hub in the Army's heavy lift helicopter developmental program. Are you aware of any problems with this type bearing which you are using in the AH–1Q modification program?

General Olenchuk. No sir. The Army has not experienced problems with the two elastomeric bearings which will be used in the AH–1 COBRA modification program. The flapping axis bearing has completed all developmental testing and is currently installed in 17 AH–1 COBRAS. The feathering axis bearing is scheduled to complete developmental testing by 30 April 1974.

Chairman McClellan. Proceed.

Helicopter, Cargo Transport, CH–47 (CHINOOK)—(Modification)

General Olenchuk. We are requesting $8.5 million for 18 modifications to be applied to our Medium Cargo Transport Helicopter fleet. $2.4 million of this will complete procurement of crashworthy fuel cell kits. This fuel cell is designed to self seal after penetration of up to and including 50 caliber rounds in from two to four minutes with only slight fuel leakage. It will also resist rupture during aircraft crashes, thereby reducing the possibility of aircraft fires and loss of life and materiel.

The remaining $6.1 million includes $3.7 million for eight safety modifications, $0.4 million for six reliability and maintainability modifications, and $2 million for three operational modifications.

Helicopter, Utility UH–1 (IROQUOIS)—(Modification)

The $20.1 million for the UH–1 utility helicopter fleet provides for two modifications to improve operational capabilities, seven safety improvement, and three reliability and maintainability modifications.

The largest program involves mounting an [deleted] electronic countermeasures system (Called QUICK FIX) on five UH-1H Utility Helicopters at a cost of $4.2 million. QUICK FIX will provide tactical commanders with a heliborne operational capability to [deleted]. The system's four man crew consists of a pilot, co-pilot and two [deleted] operators. QUICK FIX can [Deleted].

The second operational capability modification, for $4 million, will provide new navigational receivers for helicopters to meet proposed FAA requirements.

QUICK FIX Electronic System

Chairman McClellan. You plan to install the QUICK FIX electronic system on five UH–1H utility helicopters at a cost of $4.2 million. What is the total modification program objective?

General Olenchuk. The total modification program objective for QUICK FIX is 18 systems. We currently have three RDT&E systems which we plan to standardize plus 15 systems planned for procurement and installation on UH–1H helicopters.

Chairman McClellan. Proceed.

General Olenchuk. The safety modifications include $1.9 million, for improvement to the Crashworthy Fuel System; $1.5 million for installation of strobe lights; and, installation of the Air Traffic Identification System altimeter at a cost of $2.5 million. This altimeter automatically transmits altitude information to a ground controller to ensure adequate traffic separation and is required by the FAA for operation of aircraft in 63 high density airspace areas in the Continental United States.

In the reliability and maintainability area, we require $3.3 million to continue replacement of the main rotor hub bearing with the elastromeric bearing which eliminates over 100 main rotor hub parts and reduces maintenance. Also, $2.6 million is needed to replace the existing main drive shaft which costs approximately $1,400 and has a replacement mean time of 285 hours. The new shaft will cost approximately $1,300 and will raise the replacement mean time to 2,400 hours, thereby reducing maintenance manhours and improving operational readiness. Finally, $0.1 million will be used to install a new assembly to allow quick removal of the fuel filter for cleaning. After spending four to six hours draining the fuel tanks it takes two hours to remove, clean and replace the fuel filter. When this modification is applied, the fuel filter can be removed and cleaned in ten minutes without draining the fuel cells.

Other Programs—(Modifications)

Our request of $8.6 million for other programs will fund several modifications. Examples include: $1.4 million to apply three safety modifications to the OH–6 CAYUSE observation helicopter; $2.8 million to apply five modifications to the OH–58 KIOWA observation helicopter; and, $2.2 million to complete our safety modification program for the T–10 reserve parachute.

Spares and Repair Parts

The spares and repair parts request provides for centrally managed, high dollar value depot reparable assemblies and components, such as engines, transmissions, and gear boxes needed to support our fleet of approximately 8,500 aircraft. The $21.9 million requested for FY 1975 consists of $11.6 million for replenishment components, including aircraft armament repair parts and avionics items for all Army aircraft; and, $10.3 million for initial provisioning for the AH–1 COBRA/TOW modification program, AH–1Q procurement program, and new avionics items.

Support Equipment and Facilities

Our request of $40.1 million for Support Equipment and Facilities includes $10.5 million for Ground Support Avionics Equipment and $29.6 million for Aircraft Support Equipment.

Ground Support Avionics

The request for Ground Support Avionics includes items shown on Chart 13.

CHART 13.—SUPPORT EQUIPMENT AND FACILITIES GROUND SUPPORT AVIONICS

Item	Quantity	Amount (millions)
Air traffic facility, AN/TSW–7A	[Deleted]	$2.0
Avionics shop, shelter mounted, AN/ASM–146	89	.8
Avionics shop, shelter mounted, AN/ASM–189	95	1.2
Communications central, AN/ASC–15	72	1.6
Manpack visual facility, AN/TSQ–97	[Deleted]	1.5
Manpack visual facility, AN/TSQ–97 advance procurement		1.5
Survival radio, AN/PRC–90	4,000	.9
Test set transponder, AN/APM–305	[Deleted]	.4
Transceiver, UHF, AN/GRC–171		.6
Total		$10.5

Air Traffic Facility, AN/TSW–7A

We request $2 million for [deleted] Air Traffic Facilities for use at established division and brigade level tactical airfields and heliports. This system, which utilizes the Standard Lightweight Avionics Equipment radios, provides meteorological facilities as well as visual aircraft control.

Equipment Replaced in Air Traffic Facility

Chairman McClellan. What equipment will the AN/TSW–7A Air Traffic Facility replace?

General Olenchuk. The AN/TSW–7A is a direct replacement for the AN/TSQ–70A Aircraft Control Central Facility. The new system provides an improved air traffic control capability to include: more operator positions, increased radio and landline communications, and a supporting tower assembly.

Chairman McClellan. Proceed.

Avionics Shop, Shelter Mounted, AN/ASM–146 (Repair) and AN/ASM–189

General Olenchuk. The next two items are air or vehicular transportable maintenance shops that provide a mobile facility for bench testing, troubleshooting, alignment and repair of airborne electronic equipment and components. We require $0.8 million for 89 of the AN/ASM–146's which are skid-mounted for air transportability and are fitted with a mobility kit to allow towing. $1.2 million will procure 95 of the AN/ASM–189's which are van-mounted on a semitrailer and used for general avionics, radar, or infrared repair and maintenance.

Transportable Maintenance Shops

Chairman McClellan. Are the air or vehicular transportable maintenance shops of the same size as the standard military container?

General Olenchuk. No sir, these shops were standardized for Army use in 1965 and were not designed to be used as shipping containers. We already have them in our inventory and the fiscal year 1975 procurement will replace those lost through attrition and fill existing shortages in our requirements. Standard military container size will be a consideration in development of replacements.

Chairman McClellan. Proceed.

Communications Central, AN/ASC–15

General Olenchuk. We request $1.6 million for 72 Communications Central sets. Each set is a grouping of radio transmitters, receivers, interphone communications, and control systems palletized for installation on a UH–1 Utility Helicopter for use as a tactical heliborne command and control center.

Manpack Visual Facility, AN/TSQ–97 and Manpack Visual Facility, AN/TSQ–97 Advance Procurement

$1.5 million is requested for [deleted] Manpack Visual Facilities which are designed to provide ground and air voice communications and limited meteorological equipment for use by a single controller in forward tactical areas. Our divisional aviation units presently do not have this capability. The $1.5 million for advance procurement will buy 111 AN/ARC–115 VHF and 111 AN/ARC–116 UHF Standard Lightweight Avionics Equipment (SLAE) radios. Advanced procurement is necessary because of the long leadtime for these SLAE radios which are needed for the FY 1976 AN/TSQ–97 program.

Survival Radio, AN/PRC–90

We require $0.9 million to procure 4,000 Survival Radios. These radios are carried on all Army Aircraft and are standard for all Services. They weigh 24 ounces, transmit a tone to rescue aircraft and transmit or receive voice on two channels.

Chairman McClellan. Are the AN/PRC–90 survival radios procured by one Service in order to reduce costs?

General Olenchuk. Yes Sir. The Air Force buys the AN/PRC–90 standard survival radio for all Services.

Chairman McClellan. Proceed.

Test Set Transponder, AN/APM–305

General Olenchuk. We request $0.4 million to procure [deleted] of the AN/APM–305 Transponder Test Sets. This test set is used by avionics maintenance units and is needed for testing the AN/APX–72 Air Traffic Identification System transponder. The AN/UPM–98 now available is an all purpose set not designed to test the AN/APX–72. The authorized acquisition objective for the AN/AMP–305 Transponder Test Set is 204 and no assets are on hand.

Transceiver, UHF, AN/GRC–171

The last item shown is [deleted] UHF Transceivers for tower to aircraft communications. The $0.6 million requested is our first and only planned procurement for this item. These transceivers will be installed in 64 high density air traffic control facilities.

High Density Air Traffic Control Facilities

Chairman McClellan. You refer to 64 high density air traffic control facilities. How many of these facilities are in Western Europe? How many are in the Continental United States?

General Olenchuk. Twelve facilities in 8 Western European locations and 47 facilities in 30 Continental United States locations will receive AN/GRC–171 transceivers. Multiple quantities are required at locations with both approach control and control tower facilities and for training centers.

Chairman McClellan. Proceed.

Aircraft Support

General Olenchuk. In the Aircraft Support area, we are requesting $29.6 million. (Chart 14)

CHART 14.—SUPPORT EQUIPMENT AND FACILITIES AIRCRAFT SUPPORT

Item	Quantity	Amount (millions)
Common ground equipment		$6.2
Component improvement		1.0
Items less than $500,000		4.9
1st destination transportation		.2
Production base support		4.3
Radar warning receiver, AN/APR-39	[Deleted]	2.0
Synthetic flight trainer, 2B24	5	11.0
Total		29.6

Common Ground Equipment

General Olenchuk. $6.2 million for common ground equipment is needed to continue our program of filling shortages in Active and Reserve units. This program supports the implementation of our new tool set concept and includes shop shelters, shop set components, and individual and organizational tool sets.

Component Improvement

$1 million is requested for our Component Improvement program which seeks to improve reliability, maintainability and safety of flight by evaluating the life limiting features of engine components prior to field installation. $0.7 million will be used to test and force fail a new compressor blade and power turbine assembl for the T–55–L11A engine which is installed on the CH–47 helicopter. We also require $0.3 million to solve an excessive wear problem in the T–55–L11A fuel control.

Items Less Than $500,000

Our request of $4.9 million for items costing less than $500,000 includes $2.2 million to procure test sets and maintenance kits for support of the improved aircraft sensors being procured as a part of the OV–1 (MOHAWK) modification program. Additionally, the navigation package being installed in most aircraft to meet FAA requirements requires new test sets; $0.6 million will be used to acquire this equipment. $0.2 million will be used to procure test sets required for the maintenance of CH–47 stabilization systems. The remaining $1.9 million is for avionics test items required in general support of our aircraft fleet.

First Dest nation Transportation

The $0.2 million shown for First Destination Transportation covers the cost of moving new aircraft and other items to a point of first acceptance within the United States.

Production Base Support

Our request of $4.3 million for production base support includes 21 projects. The one Provision of Industrial Facilities (PIF) project included will provide safety modifications to government equipment located at Bell Helicopter, Boeing Vertol Company and Litton Industries. The remaining twenty are Production Engineering Measure projects: nineteen of these are Manufacturing Methods and Technology projects and one is a Military Adaptation of Commercial Items project.

Radar Warning Receiver

$2 million is requested for [deleted] Radar Warning Receivers which are designed to [deleted]. The warning receiver identifies the [deleted].

Synthetic Flight Simulator 2B24

The final item in our request is $11 million for five 2B24 UH–1 helicopter flight simulators. Each simulator consists of four UH–1 utility helicopter cockpits tied to a central instructor/operator console with a computer data system used for

simulating instrument flying and emergency procedures. The simulator can provide a better trained aviator because emergency training is possible in the simulator which cannot be provided in a helicopter, and more standardized training is possible due to the use of computer programed instruction. The simulator can be used without regard to adverse weather which would preclude actual flight training. Further, the simulators conserve fuel normally consumed in our flying programs.

Completed studies at the Army Aviation School, Fort Rucker, Alabama, confirm that approximately 20 flying hours are saved in the training of each initial entry student. Reductions in other courses at the Aviation School are in the planning stages and will be implemented upon receipt of production simulators. The five simulators requested will be installed at posts having major concentrations of aviators. Although actual reductions in flight time will not be made until more experience is gained from field use of the simulator, hopefully we will be able to substitute 20 hours of flight simulator time per aviator for 20 hours of annual instrument flight time. A 20 hour annual reduction in UH–1 flight time saves approximately $3,000 in operating costs which includes 1,800 gallons of JP–4 fuel. Based on approximately 4,000 aviators who are expected to use the five trainers, these annual savings would be $12 million derived from 7,200,000 gallons of JP–4 fuel and other operating costs.

Procurement of Additional Simulators

Chairman McClellan. Which posts will receive five flight simulators requested in the FY 1975 budget? Do you plan to procure additional simulators in later years.

General Olenchuk. The five flight simulators in the FY 1975 budget will be located at Fort Hood, Texas, Fort Lewis, Washington, Fort Riley, Kansas, Hawaii, and Korea. We plan to program within funding priorities for additional 2B24 simulators to fill our authorized acquisition objective of 31.

Chairman McClellan. Proceed.

General Olenchuk. The Army recognizes the increasing emphasis by the GAO, OMB and OSD for greater use of simulators to reduce costs of flight training without degrading pilot proficiency. We intend to take full advantage of advancements in technology which are continually improving the flight simulator's capability to duplicate the characteristics of flying and the flight environment.

MISSILE PROCUREMENT, ARMY

General Olenchuk. $459.2 million is requested for the Missile Procurement Appropriation (Chart 15). The program costs displayed include the missiles, ground support equipment, and warheads, less Atomic Energy Commission items.

Chart 15.—*Missile procurement, Army*

Activity	*Millions of dollars*
Antiballistic-missile system (SAFEGUARD)	0. 0
Other missiles	366. 0
Modifications of missiles	45. 7
Spares and repair parts	21. 4
Support equipment and facilities	26. 1
Total	459. 2

Anti-Ballistic-Missile System (Safeguard)

General Olenchuk. Last year our largest request for a single missile system was for SAFEGUARD. This year we are requesting $3 million in replenishment repair parts for this system which is contained in the Spares and Repair Parts Activity.

Other Missiles

In the Other Missiles activity, we require $366 million for the procurement of the five missile systems shown on Chart 16.

CHART 16.—*Other missiles*

System	*Millions of dollars*
Improved HAWK	80.3
DRAGON	106.3
TOW	107.1
LANCE	64.4
PERSHING	7.9
Total	366.0

IMPROVED HAWK (AIR DEFENSE SYSTEM)

General OLENCHUK. The Improved HAWK Missile System, our primary low and medium altitude Air Defense System, is used in the Corps area, as well as for the defense of air bases and rear area logistical complexes. The Improved HAWK system, which replaces Basic HAWK, provides defense against targets flying up to [deleted] knots, or [deleted] meters per second, and at a maximum range of [deleted] kilometers. We are proposing $80.3 million for the procurement of 520 Improved HAWK missiles, and nine sets of ground support equipment modification kits to activate nine Improved HAWK Batteries. This improved system was standardized in December 1971 and the first Improved HAWK Battalion became operational in Europe in November 1972. Conversion of Basic HAWK Batteries to Improved HAWK in Europe is continuing. Our request will permit achieving a readiness posture of approximately [deleted] percent of the missile inventory objective by the end of the FY 1975 funded delivery period.

FOREIGN PURCHASE OF THE IMPROVED HAWK SYSTEM

Chairman MCCLELLAN. Have foreign countries bought the Improved HAWK System? If so, provide the names of the countries and in what amounts and an estimate as to the impact of foreign buys on U.S. costs.

General OLENCHUK. Iran has purchased [deleted] batteries of the new Improved HAWK under Foreign Military Sales.

The NATO Missile Firing Installation has purchased ground equipment modification for [deleted] of basic HAWK under Foreign Military Sales.

Greece has purchased [deleted] batteries of new Improved HAWK direct from U.S. industry.

The NATO HAWK Production and Logistics Organization has contracted with U.S. industry for the modification of [deleted] batteries of NATO produced HAWK to the improved configuration.

Insufficient data is currently available to estimate the total cost benefits to the U.S. Government Improved HAWK program as a result of Foreign Military Sales. However, based upon as yet unvalidated data from industry, an evaluation of proposals for FY 73 and FY 74 missile and ground support equipment procurement with and without foreign military sales considered, it is estimated that there has been a $9.5 million benefit. In addition, there will be a recoupment of approximately $10.5 million in development costs realized from foreign military sales agreements with the Government of Iran.

A recoupment of development costs approximating $29.7 million is expected from direct sales made by U.S. industry. U.S. contract cost benefits resulting from these direct sales are yet to be determined.

LONG RANGE DEVELOPMENT PLANS FOR HAWK

Chairman MCCLELLAN. What is the long range plan for deployment of the Improved HAWK system? When will it be replaced?

General OLENCHUK. The U.S. Army conversion of Basic HAWK to Improved HAWK is scheduled for completion in [deleted] .The follow-on system is SAM-D, which will replace Improved HAWK in the time frame [deleted] by the current planning schedule.

Chairman MCCLELLAN. Proceed.

DRAGON (Antitank Weapon)

General Olenchuk. Our original request contained $106.3 million for the procurement of 15,200 DRAGON, medium anti-tank, missiles; 1,200 DRAGON missile tracking devices; and, 300 DRAGON Night Sights. Since submission of our request, we re-examined and revalidated cost estimates for this system and advised your Committee on 15 March 1974 by Fact Sheet that the FY 1975 DRAGON missile system funding requirement is now e timated to be $86.5 million, $19.8 million less than the original budget submission. A change in the procurement quantities for the FY 1975 program is not required to accommodate this change.

Reduced Cost Estimates for DRAGON

Chairman McClellan. How were you able to reduce the cost estimate for 15,200 DRAGON missiles from $106.3 million to the revised estimate of $86.5 million?

General Olenchuk. The actual procurement costs of DRAGON obtained through the FY 1974 contract negotiations were somewhat lower than had been estimated. Based upon the more recent and reduced cost data thus obtained, the FY 1975 DRAGON cost estimate was reevaluated and revised downward by a net amount of $19.8 million. A comparison of the original and revised FY 1975 Budget estimates for DRAGON is shown below:

	Original estimate		Revised estimate		
	Quantity	Cost	Quantity	Cost	Cost change
Missiles	15,200	77.321	15,200	61,072	−16.249
Trackers	1,200	22.000	1,200	17.573	−4.427
Night sights	300	7.000	300	7.838	+.838
System total		106.321		86.483	−19.838

Chairman McClellan. Proceed.

General Olenchuk. DRAGON is employed at the infantry platoon level and will replace the 90mm recoilless rifle. It provides the infantryman a lighter weapon (31.9 pounds for DRAGON vs 44 pounds for the "90"), greater lethality (penetration in excess of [deleted] inches of Rolled Homogenous Armor for DRAGON vs [deleted] inches penetration of same type armor for the "90"), and a better single shot hit probability against a moving target [deleted] at 1000 meters for DRAGON vs [deleted] at 450 meters for the "90").

FY 1975 will be the fourth year of DRAGON missile and tracker production by the developer, McDonnell-Douglas Corporation. After competition, an educational contract for 200 missiles was awarded to Raytheon Company during September 1972 to provide a competitive second source in the program outyears. Similarly, an educational contract for 74 trackers was awarded after competition to the Kollsman Instrument Company in March 1973. FY 1975 will be the third year for the buildup of competitive second source producers. We plan to include in the multiyear competitive procurement program a minimum of 3,600 missiles and 540 trackers from the FY 1975 buy.

DRAGON successfully passed its engineering/expanded service tests and was standardized in February 1973. The initial operational capability date in Europe is [deleted].

TOW (Anti-Tank/Assault Weapon)

The next item is the TOW missile system, a tube launched, optically tracked, wire guided, anti-tank missile system with minimum and maximum ranges of 65 and 3,000 meters.

TOW is used to defeat the heaviest known armored vehicles and for the assault of bunkers and other hard point targets. It can be manpacked and employed from a tripod or mounted on the mechanical mule, jeep, armored personnel carrier or helicopter. To engage a target the gunner has only to track it with an optical sight; deviations from the intended path are sensed automatically by the sight sensor and corrections are transmitted via a wire which the missile dispenses in flight.

We need $107.1 million for 24,000 missiles, 762 launchers, 1058 mounting kits and 48 training sets. We started phasing TOW into the Army inventory in Sep-

tember 1970 to replace the 106mm recoilless rifle in the heavy anti-tank/assault role. It provides our infantry battalions a significantly increased anti-tank capability in range, accuracy and lethality.

Purchase of TOW Missiles

Chairman McClellan. The FY 74 column of the P–1 Exhibit showed a buy of 18000 TOW missiles at a cost of $60.6 million. Does this include the FY 74 Supplemental request?

General Olenchuk. The FY 74 column of Exhibit P–1 for Missile Procurement-Army reflects a quantity of 7000 missiles at a cost of $60.6 million for DRAGON. It also reflects a quantity of 18000 missiles at a cost of $120.5 million for TOW which includes the FY 74 Supplemental Budget Request for TOW.

Chairman McClellan. Proceed.

General Olenchuk. We fielded TOW without a night sight since development was behind that of the delivery system. Development of the planned TOW gated laser night sight was terminated in December 1972 because of weight (58 pounds), limited range (1000–1250 meters) and advances in the state-of-the-art which indicated improvements in weight and performance could be provided by a thermal imaging night sight. Development of a TOW thermal night sight using far infrared technology is in progress. The change in the technical approach, using common modular components, will achieve a greater range, significant weight reduction and economies in the TOW night sight. As an interim measure, the DRAGON night sight is to be adapted to TOW and is expected to be available to units in the field in [deleted]. Reliability and accuracy of the system have remained high and TOW proved very effective in Vietnam in 1972.

Night Sight Development

Chairman McClellan. The TOW missile has been deployed since 1970, yet, the night sight development has been very slow. Are you in a position to comment on this matter?

General Olenchuk. The need for a long range, lightweight night vision capability for the TOW Weapon System has long been recognized. However, the state of-the-art of night vision technology, limited by performance/interface/weight considerations, dictated a pulse gated approach to satisfy the night sight requirement of the Qualitative Materiel Requirement for the TOW in 1965. Development of this sight resulted in a fifty-eight (58) pound developmental sight with a 1000–1250 meter range capability. Advances in the state-of-the-art in the far infrared area led to the conclusion that significant improvements in performance and weight could be provided by a thermal imaging TOW Night Sight. Compatibility of the infrared technology with the DRAGON and TOW missile firing and tracking environments has been demonstrated under the DRAGON Night Sight (DNS) Advanced Development program. Several lightweight high performance infrared systems have been developed which demonstrate the application of the new detector technology to systems engineering. New infrared optics designs combined with new mechanical scanning techniques have also contributed significantly to reduce the weight of these systems.

This technology advancement caused the termination of the pulse gated development effort in 1972 and formed the basis from which the materiel need for the TOW Thermal Night Sight was approved in August 1972 and an advanced development effort initiated via a competitive prototype program. Contracts were negotiated in December 1973 with Hughes Aircraft Company and Texas Instruments Incorporated for parallel development of the TOW Thermal Night Sight. The first models will be built in 10 months for contractor tests and delivery to the Army in 14 months for developmental and operational testing. The current schedule will provide the sight to the field beginning [deleted]. However, the DRAGON night sight now under development and due to be fielded in [deleted], will be used as an interim night sight for TOW in Europe.

Chairman McClellan. Proceed.

LANCE (Artillery)

General Olenchuk. The fifth item, the LANCE Missile System, is a surface-to-surface field artillery missile system designed to provide general fire support to Army Divisions and Corps. Launched from a self-propelled track vehicle or a light weight towed launcher, LANCE is capable of providing nuclear fire support out to a range of [deleted] kilometers. The LANCE system is replacing the HONEST JOHN and SERGEANT systems.

Nuclear Capability of LANCE

Chairman McClellan. Does the LANCE have a nonnuclear capability? Discuss this.

General Olenchuk. No Sir. The LANCE does not at this time have a nonnuclear capability; however, a nonnuclear warhead designed to defeat light materiel targets (the XM251) is presently under development for LANCE. Although in November 1971 Congress deleted both RDTE and PEMA funding for a nonnuclear LANCE warhead from the FY73 appropriations, in its FY73 budget markups the House Appropriations Committee permitted the completion of the development. Engineering design tests of the nonnuclear warhead are scheduled for completion in April 1974. Development and operational testing also begins in April 1974 and is scheduled for completion in July 1974. An Army request for procurement of the nonnuclear warhead is contingent upon the results of these tests, the Greener Pastures Study (examination of lower cost alternatives by the Army), and the Congressionally directed Institute of Defense Analysis (IDA) nonnuclear LANCE cost and effectiveness study scheduled for completion 30 April 1974. An ASARC III is currently planned for October 1974 and a DSARC III in November 1974. Assuming a favorable DSARC III decision and Congressional approval, production of the nonnuclear warhead will begin in [deleted] with the first deliveries expected in late [deleted].

Chairman McClellan. Proceed.

General Olenchuk. $64.4 million is requested for the procurement of 194 missiles and [deleted] warhead adaptation kits. The adaptation kits are being procured for allies and will be maintained under US control.

Foreign Interest in LANCE Purchases

Chairman McClellan. Have there been foreign buys or interest in buying the LANCE Missile?

General Olenchuk. Yes, sir. Italy, the United Kingdom, Germany and Belgium are buying the LANCE. Netherlands has expressed an interest in puchasing the system.

Chairman McClellan. Proceed.

Pershing (Artillery)

General Olenchuk. The PERSHING Missile System, is a two-stage, solid propellant, air transportable, surface-to-surface ballistic missile system with a selective range capability of 100–400 nautical miles. PERSHING's primary mission is to provide nuclear fire support to the Supreme Allied Commander, Europe (SACEUR). Initially deployed in 1964, PERSHING continues to fill an important role as part of the NATO deterrent.

Pershing System Requirements

Chairman McClellan. Is the PERSHING system designed solely for NATO requirements?

General Olenchuk. The PERSHING system was designed for worldwide employment and still retains the design capability for world-wide usage. The system, however, has only been deployed to Europe and there are no current plans to deploy PERSHING elsewhere. PERSHING's primary mission is to provide nuclear fire support to the Supreme Allied Commander, Europe (SACEUR). The secondary mission of PERSHING is to provide nuclear strikes in general support of the US Field Army or NATO Army Group.

Chairman McClellan. Proceed.

General Olenchuk. We are requesting $7.9 million for the procurement of 54 Automatic Reference Systems for PERSHING.

The Automatic Reference System (ARS) employs gyro compass techniques similar to those used in ship and aircraft navigation. The advantages of equipping units with the ARS are: a significant reduction in time to survey firing sites in the Quick Reaction Role assigned by the SACEUR and the follow-on general support role; flexibility in site selection; elimination of dependence on presurveyed firing positions; and, increased crew/equipment survivability. Present techniques require two to eight hours to survey a new site or resurvey a compromised site. This is not compatible with the Quick Reaction Role which requires the rapid launching of two missiles by one platoon after the alert order is given. To shorten

this reaction time as much as possible, sites are now presurveyed. But, these sites are subject to compromise and may be inaccessible due to refugee movements, enemy fire, weather, or terrain. We estimate a platoon equipped with the Automatic Reference System can move to a randomly selected firing site and perform the survey in less than one half of the prescribed reaction time.

Modification of Missiles

We are requesting $45.7 million to modify the CHAPARRAL, NIKE HERCULES, and PERSHING systems, and Interrogator Set AN/TPX–46 (Chart 17).

Chart 17.—*Modification of missiles*

Item	*Millions of dollars*
CHAPARRAL	26.3
Interrogator Set, AN/TPX–46	8.1
NIKE HERCULES	6.5
PERSHING	11.1
Total	45.7

Chaparral (Air Defense System)—(Modification)

The CHAPARRAL system provides low altitude, fair weather air defense of the Division area. It consists of the missile and launch control unit mounted on a tracked vehicle. CHAPARRAL can engage targets at a range of [deleted] to [deleted] kilometers, flying between [deleted to [deleted] meters, traveling at a speed of up to [deleted] knots.

Replacement of CHAPARRAL

Chairman McClellan. The committee has been advised that the Army is looking at several foreign made low altitude forward air defense missile systems. Will selection of such a system replace the CHAPARRAL? Are procurement funds requested in FY 1975 for a foreign system?

General Olenchuk. The Army has established a requirement for an all-weather low altitude missile system to protect high value corps rear area assets. This new all-weather missile system will replace the CHAPARRAL in its basic clear-weather configuration where [deleted]. A current study is under way to investigate the air defense requirements for the Division area, and there is a high probability that an all-weather low altitude missile system will be required in the Division area.

The selection of a system to fulfill these requirements is expected by August 1974 and could be either a foreign or a U.S. developed system.

In FY 1975, $35.1M RDT&E funds have been requested for the following:

Engineering development contract (5 prototypes)	27.9
Cooperative Testing or Equivalent	1.5
SHORAD Project Office	2.0
MICOM Functional Support	2.1
AMC Functional Support	1.2
Other Government Support	.4
Total	35.1

Chairman McClellan. Proceed.

General Olenchuk. The $26.3 million requested will increase the reliability and maintainability of the fuze, improve warhead lethality, and provide a forward aspect engagement capability.

Interrogator Set, AN/TPX–46—(Modification)

The AN/TPX–46 is the ground portion of the Mark XII Identification of Friend or FOE (IFF) system used with the HAWK, HERCULES, and Air Defense Command and Control Systems.

We are requesting $1.8 million to modify a portion of the inventory to provide our Improved HAWK air defense units with a secure IFF capability. Because of a change in Army requirements for NIKE HERCULES, we are able to convert existing assets to provide this capability, thus negating the requirement for new procurement with its attendant startup costs.

Modification of Improved HAWK

Chairman McClellan. You request $1.8 million to modify only a portion of the Improved HAWK inventory with a secure IFF capability. Discuss this.

General Olenchuk. Prior year procurements provided for fully equipping Improved HAWK units with the IFF, except for the Improved Platoon Command Posts which are in the FY 75 request. The reduction in CONUS air defense forces freed IFF assets which had been procured for NIKE HERCULES. Therefore, it is now feasible and less costly to convert some of the NIKE HERCULES IFF's to the HAWK version. The $1.8 million requested is for this purpose.

Chairman McClellan. Proceed.

NIKE HERCULES (Air Defense System)—(Modification)

General Olenchuk. The second system requiring funds for planned modification is NIKE HERCULES, a command guided, nuclear, surface-to-air weapon system. NIKE HERCULES became operational in 1958, and is currently deployed worldwide in both U.S. and allied forces.

The FY 1975 request for the NIKE HERCULES modification effort considers the recent Secretary of Defense decision to inactivate all 48 Continental United States (CONUS) strategic NIKE HERCULES batteries (21 Active Army and 27 Army National Guard) by end of the second quarter, FY 1975. In addition to the training base at Fort Bliss, Texas, [deleted] tactical NIKE HERCULES batteries will remain deployed worldwide: [deleted] in Europe; [deleted] in CONUS; [deleted] in Korea; and, [deleted] in Alaska. These deployed units will continue their current roles and missions until the [deleted] time frame when SAM–D is scheduled to replace NIKE HERCULES.

Our FY 1975 request of $6.5 million will let us investigate and procure commercially available items to replace existing obsolete and worn out test equipment components. The electronic test equipment we intend to replace (such as the card reader, wave form analyzer and square wave generator) is used to test NIKE HERCULES electronic sub-assemblies. This improvement program will insure continued effectiveness and reliability of the test equipment throughout the remaining operational life of the missile system.

Priority of Test Equipment for NIKE HERCULES

Chairman McClellan. What sort of priority would you assign the procurement of $6.5 million of test equipment of the NIKE HERCULES system?

General Olenchuk. The Army considers the procurement of $6.5 million of test equipment a high priority program. The test equipment improvement program is a valid and essential requirement to support the remaining NIKE HERCULES batteries deployed worldwide after inactivation of the 48 Continental United States (CONUS) NIKE HERCULES batteries is completed in 2nd Quarter FY 75. The improved test equipment will insure continued effectiveness and reliability of NIKE HERCULES system until replacement by SAM–D occurs in the Mid-80's.

Chairman McClellan. Proceed.

PERSHING (Artillery)—(Modification)

General Olenchuk. The $11.1 million requested for modification of the PERSHING system completes the missile life extension program to improve system reliability and maintainability and funds installation of safe and arming devices on missiles. The life extension work consists of: replacing firing mechanisms with an improved, longer life, stainless steel mechanism; replacing electrical wiring which controls the propulsion, guidance and firing mechanism; and reworking the platforms to replace deteriorated gyros, accelerometers, bearings and other components which have exceeded their life expectancy. The safe and arming device, a requirement identified by the Army Nuclear Weapons Safety Committee, will preclude inadvertent launches.

Spares and Repair Parts

For spares and repair parts we are requesting $21.4 million to support major item procurements and replenish inventory levels of selected, high unit cost, repair parts.

Initial and Replenishment Spares

Chairman McClellan. Provide a table showing the amount of initial and replenishment spares associated with each weapon being purchased or modified in the FY 1975 request.

General Olenchuk. The initial and replenishment spares in the FY 1975 request by system are as follows:

Weapon system	*Millions of dollars*
Initial provisioning:	
CHAPARRAL	$2.6
NIKE HERCULES	.6
Improved HAWK	.5
DRAGON	2.4
LANCE	.3
PERSHING	1.0
AN/TPM–25	.3
Subtotal	7.7
Replenishment spares:	
NIKE HERCULES	1.3
CHAPARRAL	.4
AN/TSQ–51	.4
Improved HAWK	2.2
Basic HAWK	1.6
REDEYE	.2
PERSHING	.4
SHILLELAGH	.5
Land Combat Support Systems	.3
TOW	.5
DRAGON	.4
FAAR	.4
HONEST JOHN	.1
AN/GSA–77	.4
SAFEGUARD	3.0
LANCE	1.6
Subtotal	13.7
Total	21.4

Chairman McClellan. Proceed.

Support Equipment and Facilities

General Olenchuk. Our request for Support Equipment and Facilities, Chart 18, is $26.1 million.

Chart 18.—Support Equipment and Facilities

Item	*Millions of dollars*
Air Defense Command and Control System AN/TSQ–73 (Missile Minder)	5.7
Air Defense Targets	11.7
Test Set, radar, AN/TPM–25	1.8
Items Less Than $500,000	.1
First Destination Transportation (except SAFEGUARD)	1.3
Production Base Support (except SAFEGUARD)	5.5
Total	26.1

Air Defense Command and Control System, AN/TSQ–73 (Missile Minder)

The AN/TSQ–73 Missile Minder provides an improved command and control capability and interfaces with other Services' tactical air control systems. It replaces the aging AN/MSG–4 Missile Monitor, our current Air Defense Command and Control System which is deployed in Europe and Korea for use with NIKE

HERCULES and HAWK missile systems. The currently deployed system provides an automatic target tracking capability, but relies on relatively slow manual procedures for initial target acquisition, target evaluation, and assignment of fire missions to specific missile firing units. The Missile Minder, an automatic, high speed, microminiaturized air defense sytem, will coordinate the air defense activities of multiple air defense batteries against hostile aircraft. Its design goals are near-real-time data processing, high reliability, ease of logistical support, and low operating costs.

Procurement of Five AN/TSQ–73's

Chairman McClellan. The FY 74 Appropriation provided $10.5 million to procure five AN/TSQ–73 Air Defense Command and Control Systems. When was the contract let to buy the five sets?

General Olenchuk. The contract for the preproduction model was let on 30 August 1973. The remaining four Low Rate Initial Production AN/TSQ–73 sets will be procured on 10 June 1974 by exercising the 1st production option under terms of the existing contract.

Chairman McClellan. Proceed.

General Olenchuk. The new Missile Minder can coordinate the air defense activities of up to [deleted] fire units (vs [deleted] for the old system) against hostile aircraft. It will also track targets up to an altitude of [deleted] feet (vs [deleted] for the old system), at speeds of [deleted] meters per second or [deleted] miles per hour (vs [deleted] meters per second or [deleted] miles per hour for the old system). The mean time between failure for the new Missile Minder is 600 hours (vs 23 hours for the old system), while its mean time to repair is 30 minutes (vs 60 minutes for the old Monitor).

Our request of $5.7 million will enable us to implement necessary engineering change proposals, provide for product assurance, support continuation of government and contractor services pertaining to the early production phase, and, conduct developmental and operational testing (DT/OT III).

Engineering Change Proposals

Chairman McClellan. You now request $5.7 million for Engineering Change Proposals. Are these changes to be made on the five sets which were funded last year?

General Olenchuk. These changes will be made on the five sets which were funded last year. Of the $5.7 million, $697,000 dollars is for Engineering Change Proposals to incorporate modifications to the AN/TSQ–73 Technical Data Package resulting from Development/Operational Testing II and joint interoperability testing. The remaining $5.0 million provides for Product Assurance, Government and contractor services to support continuation of the early production phase and accomplishment of Development Testing/Operational Testing III.

Chairman McClellan. Proceed.

Air Defense Targets

General Olenchuk. The $11.7 million requested for Air Defense target missiles and towed targets includes $2.8 million for procurement of 6,600 Ballistic Aerial Target Missiles (BATS) and $7.3 million for 62 Variable Speed Training Targets (VSTT) with seven launchers.

The BATS is a ground launched roll-stabilized, free-flight rocket target. It provides a low cost, limited maintenance, troop operated, variable performance target to meet annual training requirements for air defense personnel and can be fired on most military installations.

The VSTT is a ground launched, command guided, turbojet engine powered target that will be used to train air defense units at Fort Bliss, Texas. This is the first year buy for the VSTT which will replace the MQM–34D target we presently use. The VSTT's unit and flight presentation costs will be approximately 50 percent less than those of the MQM–34D.

The remaining $1.6 million will buy 125 high performance gunnery targets (BANNER); 170 scoring devices; 350 TOWBEE targets; and, one self-contained ground control tracking station to control the flight of aerial target drones.

The air defense target systems requested will support the annual training requirements of Improved HAWK, CHAPARRAL, REDEYE, and VULCAN air defense personnel and be used to evaluate their air defense weapon systems.

Test Set, Radar, AN/TPM-25

$1.8 million is requested for 132 AN/TPM-25 radar test sets to maintain the new generation Identification of Friend or Foe (IFF) tactical prime systems AN/TPX-46 and AN/TPX-50. Test equipment now in our inventory does not permit the degree of maintenance support required to checkout adequately the sophisticated circuits of the new family of interrogator equipment. This radar test set will provide the additional capabilities required to support the new IFF interrogators used with the NIKE HERCULES, HAWK and FAAR radar systems.

Items Less Than $500,000

The $0.1 million for items less than $500,000 will procure tool kits and shop sets peculiar to missile systems hardware maintenance and repair.

First Destination Transportation (Except SAFEGUARD)

The $1.3 million for First Destination Transportation covers the costs of moving missile system end items and associated equipment to a point of first acceptance within the Continental United States Army supply system, or to a port for movement to a second destination.

Production Base Support (Except SAFEGUARD)

The $5.5 million requested for Production Base Support is for 12 projects. Two projects ($3.3 million) are part of the NIKE HERCULES life extension program. Six projects ($1.3 million) are in annual support of the Michigan Army Missile Plant, Red River Army Depot, and Thiokol Chemical Corporation—all are Government-owned contractor-operated facilities. Four projects ($0.9 million) are for manufacturing methods and technological advancement in support of missile components.

PROCUREMENT OF WEAPONS AND TRACKED COMBAT VEHICLES, ARMY

Our request for the Procurement of Weapons and Tracked Combat Vehicles totals $385.3 million and includes $331.9 million for Tracked Combat Vehicles and $53.4 million for Weapons and Other Combat Vehicles.

Pipeline Factors

Senator Young. What are the pipeline factors for the following: Aircraft; tanks; personnel carriers; and artillery?

General Olenchuk. The wartime pipeline factor for combat vehicles (including tanks, personnel carriers and artillery) is 135 days. This factor is multiplied by the post-D-day level-off consumption rate for each item of equipment to obtain the pipeline quantity for that item. There is no pipeline factor authorized for use in aircraft because of their high procurement cost and the extensive maintenance required to prevent rapid deterioration of the airframe and major components in storage.

Chairman McClellan. Proceed.

Tracked Combat Vehicles

General Olenchuk. The $331.9 million requested for Tracked Combat Vehicles includes $275.6 million for procurement of vehicles, $36.8 million for modification kits, and $19.5 million for support equipment and facilities.

Procurement of Tracked Combat Vehicles

The funds for Tracked Combat Vehicles shown on Chart 19 on the following page will procure seven types of vehicles and provide for advance procurement of special tooling to support production of a solid state computer and laser range finder for the M60A1 Product Improved Tank.

[Chart 19 follows:]

CHART 19.—PROCUREMENT OF TRACKED COMBAT VEHICLES

	Quantity	Amount (millions)
Recovery vehicle, light, full tracked, M578	180	$27.9
Tank, combat, full tracked, 105 mm gun, M60A1	510	168.8
Advance procurement of special tools for M60A1 tank computer and rangefinder		3.8
Trainer, turret f/M60A1 (PI) tank, M30A1	34	6.0
Armored reconnaissance scout vehicle (ARSV)	35	25.3
Carrier, 81 mm mortar, M125A1	13	0.8
Carrier, armored personnel, M113A1	194	9.4
Recovery vehicle, medium, full tracked, M88A1	77	33.6
Total		275.6

Recovery Vehicle, Light, FT, M578

We request $27.9 million to procure 180 M578 Recovery Vehicles as the second year buy in a three-year procurement program. The M578 is the only full-tracked, light recovery vehicle in our inventory. It has a tow-winch capacity of 60,000 pounds, a hoisting capacity of 15 tons and is designed to recover vehicles weighing up to 30 tons.

Performance Capability of M–578

Chairman McClellan. Which is the largest tracked vehicle in the Army inventory that the M–578 recovery vehicle can accommodate?

General Olenchuk. The M–578 recovery vehicle can adequately perform normal recovery operations for equipment as large as the M–109 self-propelled howitzer 155mm. The M–109 weighs approximately 53,000 pounds combat loaded. The M–578 can perform most recovery operations for the 8-inch self-propelled howitzer, which weighs about 62,000 pounds. However experience has demonstrated that some recovery operations for the 8-inch howitzer must be performed with the M–88 vehicle.

Chairman McClellan. Proceed.

Tank, Combat, Full Tracked, 105mm Gun, M60A1

General Olenchuk. We currently have 8,350 tanks in our inventory. However, only 4,939 are diesel driven M60 series which mount the 105mm gun capable of consistently penetrating the Soviet tank at longer ranges. Of these 4,939, only 2,672 are prime M60A1 tanks of the type currently in production with the balance being M60 models with an older type turret. The remaining 3,411 tanks are the older M48 type which mount the 90mm gun which can only assure kill of the Soviet tank at shorter ranges; and over 2,800 of these are gasoline powered 1953–1959 models. The reserve components have 2,151 M48 series, 90mm gun, and only 432 M60/M60A1 tanks. The reserve components must be modernized if they are to remain a viable combat force.

Since October 1973 we have provided Israel [deleted] M60 and [deleted] M48A3 tanks. The Secretary of Defense has approved an additional [deleted] M60 and [deleted] M48A3 tanks for shipment to Israel. With the exception of [deleted] M48A3 tanks from the Marine Corps, all of these tanks have come from or must be withdrawn from Army inventories. This diversion of assets has slowed down our modernization program for the reserve components.

We are requesting $168.8 million to procure 510 M60A1 tanks This will enable us to accelerate our program of converting to tanks mounting the 105mm gun. The FY 1975 production tank will have five product improvements: a gun stabilization system with its shoot-on-the-move capability; an improved steel track; a more reliable engine; an improved electrical system; and a more efficient air cleaner.

Acceleration of our tank procurement program will improve the active Army's operational capability and concurrently enable us to release more M60 tanks to the reserve components, thereby expediting the reserve component modernization program by replacing the M48 series, 90mm gun, gasoline powered tank fleet.

M60 Tank

Chairman McClellan. Do the Army and Marine Corps plan eventually to equip all Active and Reserve forces with the M60 series tank?

General OLENCHUK. The Marine Corps advises us that it does plan to equip all of its Active and Reserve armored units with M60 series tanks. The current Army plans to eventually have a mixed tank force by 1990 which will equip Active forces with either the XM1 tank or an M60 series tank and Reserves with the M60 series.

Chairman MCCLELLAN. Proceed.

ADVANCE PROCUREMENT, TANK, COMBAT, FT, 105MM GUN, M60A1

General OLENCHUK. $3.8 million is requested to procure special tools to support the planned FY 1976 production of the solid state computer and laser rangefinder for the M60A1 Product Improved Tank.

TRAINER, TURRET FOR M60A1 (PI) TANK, M30A1

We are requesting $6 million to procure 34 turret trainers which are used to train tank crews to operate weapons stations and engage targets. They also assist turret maintenance personnel to develop the skills required to maintain the M60A1 product improved turret system.

Last year our request for turret trainers was denied by the Congress. Subsequently, we thoroughly reassessed our needs and are firmly convinced these trainers are required and will enable us to optimize training and realize cost savings. Consequently, we are again requesting $6 million to procure 34 turret trainers in FY 1975.

M30A1 TURRET TRAINERS

Chairman MCCLELLAN. You request $6 million to procure 34 M30A1 turret trainers in FY 75? Is this the same amount of money that you requested for a like amount in FY 1974?

General OLENCHUK. Yes, sir. except for inflation adjustment. We requested $5.3 million in the FY 74 budget for 34 trainers. The request was denied by the House Appropriations Committee and sustained in the Conference Report. The increase to $6 million in estimated cost of the trainers is attributable to the delay of one year in procurement.

Chairman MCCLELLAN. Proceed.

ARMORED RECONNAISSANCE SCOUT VEHICLE (ARSV)

General OLENCHUK. The Armored Reconnaissance Scout Vehicle is designed as a small (three-man crew), lightly armored, ground combat vehicle with an inherent swimming capability. The vehicle, which will improve our ability to gather battlefield intelligence, is planned for deployment with our European based mechanized and armored divisions as well as our armored cavalry regiments. The Scout, as it is commonly called, will replace the M114 Series Command and Reconnaissance Vehicles in selected units.

$25.3 million is included in the FY 1975 budget request for a limited production quantity of 35 vehicles. However, we have reexamined the ARSV program and concluded that further study is required before a final determination can be made as to what type of reconnaissance vehicle should be selected. Consequently, your Committee was notified by fact sheet that we will not procure the currently configured ARSV as proposed in the FY 1975 budget submission. Moreover, we request that $16.9 million of the $25.3 million originally requested for the ARSV be applied to procure M113A1 Armored Personnel Carriers and modification kits for the VULCAN air defense gun system. This request will be discussed in more detail subsequently.

RECONNAISSANCE VEHICLE TIMETABLE

Chairman MCCLELLAN. When do you think a final determination of the type of reconnaissance vehicle required will be forthcoming?

General OLENCHUK. The final determination on the type of reconnaissance vehicle, supported by a Cost and Operational Effectiveness Analysis and approved by the Army, is planned for June 1975.

Chairman MCCLELLAN. Proceed.

CARRIER, 81MM MORTAR, M125A1

General OLENCHUK. Our request of $0.8 million for 13 mortar carriers will provide replacements for anticipated losses by the Armed Forces of the Republic of Vietnam.

Mortar Carrier Losses

Chairman McClellan. You refer to the anticipated loss of 13 mortar carriers by the Armed Forces of the Republic of Vietnam. Are these losses anticipated in FY 75? What other anticipated losses in Vietnam are included in your FY 1975 Army Procurement requests?

General Olenchuk. Of the anticipated losses for mortar carriers for RVNAF in the FY 75 budget, 3 are forecast as losses in FY 75 and 10 are forecast as losses in FY 74. Other anticipated losses in Vietnam contained in the FY 75 Army Procurement request are as follows:

Missiles: TOW missiles and related ground	140
Tracted combat vehicles:	
Recovery vehicle, M578	2
Carrier, APC M113A1	194
Weapons:	
Launcher, incendiary, M202A1	84
Machine gun, M60	94
Rifle, M16A1	9,114
Ammunition (in thousands):	
Cartridges:	
5.56-mm (all types)	920,000
40-mm HEDP	4,300
81-mm HE	1,933
105-mm HE (howitzer)	5,371
105-mm illuminating (howitzer)	180
105-mm smoke (howitzer)	160
5.56-mm blanks	44,400
40-mm practice	48
40-mm white star (parachute)	307
Fuze, PD	8,848
Rocket, 66-mm Heat	320
Projectiles:	
155-mm HE	1,196
155-mm illuminating	10
Grenade, hand	1,400
Mine, antipersonnel	240
Tactical vehicles:	
Trailers:	
Bolster, 4-ton, M796	73
Tank water, 400 gal, M149	378
Trucks:	
1¼-ton ABT	2,005
Stake 7000 GVW 4 x 2	120
Stake 19000 GVW 4 x 2	29
Utility	275
Communication equipment:	
Radio sets:	
AN/PRC 77	1,577
AN/GRC 106	84
Radio teletypewriter set AN/GRC 142/122	42
Vehicular intercom set AN/VIC–1	180
Public address set	511
Radar set AN/PPS–SA	7
Combat support equipment: Tank, assy, fabric, POL, 10,000 gal	116
Construction equipment:	
Crane, 25-ton	104
Grader, 6 x 4	25
Loader, scoop type, 4–6 yd^3	6
Tractor, crawler	26
Boat, landing assault, 15-man	58
Generator sets:	
DE 15 kW, 60 Hz	8
DE 30 kW, 60 Hz	6

In addition to the foregoing there are anticipated losses in the FY 75 Request which are too varied and voluminous to quantify. These are categorized as Spares and Repair Parts, Items less than $500,000 and SEA Operational Sensor Systems.

Chairman McCLELLAN. Proceed.

CARRIER, ARMORED PERSONNEL, M113A1

General OLENCHUK. Our original request contained $9.4 million for 194 armored personnel carriers (APC) to replace anticipated losses by the Republic of Vietnam Armed Forces. Further, we now request that $14.6 million from the ARSV program be provided to buy an additional 302 APC's. These additional APC's will permit us to achieve 100 percent of our authorized acqusition objective and fully implement our plan to substitute this reliable vehicle in selected units for the unreliable and inadequate, gasoline-powered M114 Command and Reconnaissance Vehicle. This additional program increases our FY 1975 request to $24 million for 496 M113A1's.

RECOVERY VEHICLE, MEDIUM, FT, M88A1

$33.6 million is requested for 77 M88A1 Recovery Vehicles, to be bought under the first year of a two-year procurement plan. The M88 was last produced in 1961. The M88A1, a diesel powered vehicle, has greater reliability, maintainability, and life expectancy than its gasoline powered predecessor; its greater cruising range also is more economical from a fuel consumption standpoint. In addition to this planned procurement action, we are converting existing M88 assets to the M88A1 configuration. I will discuss this modification program in a moment.

MODIFICATION OF TRACKED COMBAT VEHICLES

Our modification program request for Tracked Combat Vehicles totals $36.8 million (Chart 20).

CHART 20.—*Modification—Tracked combat vehicles*

MOD program	*Millions of dollars*
Howitzer, heavy, ft, sp, 8", M110E2	11. 6
Rangefinder (LASER), f/M551 SHERIDAN	7. 3
Armored Recon Abn Assault Vehicle, M551	1. 3
Recovery vehicle, Med, ft, M88	8. 4
Tank, Combat, ft, 105-mm gun, M60 series	8. 0
Modifications under $500,000	0. 2
Total	36. 8

HOWITZER, FT, SP, 8-INCH M110E2 (MODIFICATION)

$11.6 million is requested to procure 151 modification kits for conversion of SP 175mm guns and 8-inch Howitzers to new improved 8-inch Howitzers; and 406 long lead time Howitzer tube forgings to support our planned FY 1976 procurement of modification kits.

The newly modified Howitzer's range will be increased from 16,800 meters to [deleted] meters, and its expected tube life will be longer than the 175mm gun being replaced.

MODIFICATION OF 175-mm GUN AND 8-INCH HOWITZER INVENTORY

Chairman McCLELLAN. Do you plan to modify the total 175mm Gun and 8" Howitzer inventory? How does the modification program relate to the XM198 development program?

General OLENCHUK. Yes sir, the total inventory of both weapons will be modified to the new 8" configuration. There is no direct correlation between the M110E2 and XM198 programs. The programs are under separate management under the general direction of Armaments Command. The two weapons, when fielded, will provide complementary medium and heavy general support fires for Army divisions. These weapons will provide the extended range essential to massing artillery fires across the battlefield.

Chairman McCLELLAN. Proceed.

RANGEFINDER (LASER) FOR ARMORED RECONNAISSANCE AIRBORNE ASSAULT VEHICLE, FULL TRACKED, GENERAL SHERIDAN (MODIFICATION)

General OLENCHUK. The next modification program involves the M551 Armored Reconnaissance Airborne Assault Vehicle, the GENERAL SHERIDAN. Our FY 1975 request includes $7.3 million for the last increment (230) of LASER rangefinders for this vehicle. The absence of a rangefinding device for the SHERIDAN limits its conventional ammunition first-round hit probability at extended ranges. The new LASER rangefinder overcomes this current limitation.

ARMORED RECONNAISSANCE AIRBORNE ASSAULT VEHICLE (ARAAV) (MODIFICATION)

$1.3 million will procure 1601 modification kits to improve the propulsion cooling system of the Armored Reconnaissance Airborne Assault Vehicle. This will increase the vehicle's reliability and extend its present average useful life. This modification results from our Vietnam experience where the high ambient temperatures caused repeated propulsion cooling system failures.

RECOVERY VEHICLE, MEDIUM, FT, M88 (MODIFICATION)

$8.4 million is requested for the purchase of modification kits to convert the M88 Recovery Vehicle from a gasoline to diesel powered configuration. The kit modifies the transmission so the power output is compatible with the diesel engine, and provides an engine, personnel heater, and auxiliary power unit (to include kit hardware). This is a multi-year program to convert the existing M88 fleet to diesel power. This program will increase the vehicle's reliability and maintainability and extend its life expectancy. It will also increase fuel economy from 0.4 miles per gallon to approximately 0.7 miles per gallon.

TANK, COMBAT, FT, 105MM GUN, M60 SERIES (MODIFICATION)

$8 million will procure modification kits for the M60 Series Tank to improve its reliability, maintainability, mobility, and hit probability. Items to be procured are: improved air cleaners; improved reliability engines; improved electrical systems; and gun stabilization kits.

MODIFICATIONS UNDER $500,000

A total of $0.2 million is requested to procure modification hardware that will improve the reliability and maintainability of the M548 Tracked Cargo Carrier.

SUPPORT EQUIPMENT AND FACILITIES

Our request for support equipment and facilities is $19.5 million, Chart 21.

CHART 21.—*Support equipment and facilities*

	Millions of dollars
Items Less Than $500,000	1.6
Spares and Repair Parts	11.6
First-Destination Transportation	3.1
Production Base Support	3.2
Total	19.5

ITEMS LESS THAN $500,000

$1.6 million is requested for items costing less than $500,000.

SPARES AND REPAIR PARTS

$11.6 million is required for initial provisioning spares and replenishment secondary items related to our Tracked Combat Vehicles.

FIRST DESTINATION TRANSPORTATION

$3.1 million is requested to fund the cost of transporting tracked combat vehicles from the point of production to designated Army depots and/or other first destination points.

Production Base Support

We also are requesting $3.2 million under Production Base Support for 18 projects. These projects include annual support of the Detroit Army Tank Plant, layaway of industrial plant equipment at Rock Island Arsenal, various efforts in the field of Manufacturing Methods and Technology, and work in the Military Adaptation of Commercial Items area.

This concludes my discussion of Tracked Combat Vehicles and now I will discuss Weapons and Other Combat Vehicles.

Weapons and Other Combat vehicles

The $53.4 million for Weapons and Other Combat Vehicles includes $20.9 million for procurement of items, $6.9 million for modifications, and $25.6 million for Support Equipment and Facilities.

Procurement of Weapons and Other Combat Vehicles

$20.9 million will procure the items shown on Chart 22.

CHART 22.—PROCUREMENT OF WEAPONS AND OTHER COMBAT VEHICLES

	Quantity	Amount (millions)
Howitzer, medium, towed 155 mm, XM198*		$1.3
Launcher, incendiary, rocket, 66 mm, M202A1	3,049	2.6
Machinegun, 7.62 mm, M60	6,000	5.0
Machinegun, .50 cal, M85	1,682	10.7
Rifle, 5.56 mm, M16A1	9,114	1.3
Total		20.9

*Advance procurement.

Howitzer, Medium, Towed, 155mm, XM198

$1.3 million is requested for material to fabricate inspection gages, and, hard tooling to support full scale production of the XM198 Howitzer. This howitzer will replace the current M114A1, 155mm Towed Howitzer, that dates back to WW II. The gages and tooling are peculiar to this Howitzer and not available as off-the-shelf items from any source. The XM198's range will be increased from 14,600 to 24,000 meters when firing unboosted ammunition and 30,000 meters when firing rocket assisted ammunition. This weapon will provide fire support to Infantry, Airborne and Airmobile Divisions in the post-FY 1976 time frame. Currently, it is in the engineering development phase.

XM198 Howitzer Program

Chairman McClellan. Has a full scale production decision been made on the XM198 Howitzer program? If not, when is it anticipated? Will the $1.3 million which you request in FY 1975 for advanced procurement be obligated prior to such a decision?

General Olenchuk. No sir, it is anticipated that the decision for full scale production will be made during [deleted]. The $1.3 million requested in FY 1975 will have been obligated prior to a full scale production decision in order that sufficient tooling be available for a slow rate initial production beginning [deleted].

Chairman McClellan. Proceed.

Launcher, Incendiary, Rocket, 66mm, M202A1

General Olenchuk. This new rocket launcher replaces the old flame thrower which requires mixing, transferring, and pressurization of the fuel as well as several pieces of ancillary support equipment. The new launcher can be employed against point targets up to a range of 200 meters and has a maximum range of 700 meters against area targets such as vehicle convoys or advancing enemy troops; the old flame thrower has a maximum range of only 55 meters. The new launcher, when fully loaded, weighs approximately 27 pounds; the old flame thrower weighs 50 pounds.

We are requesting $2.6 million to procure 3,049 of these incendiary rocket launchers.

MACHINE GUN, 7.62MM, M60 (INFANTRY)

The Machine Gun, 7.62mm, M60 is a light weight gun used throughout the Army force structure. We propose $5 million to procure 6,000 M60 machine guns.

MACHINE GUN, CAL .50, M85

$10.7 million is requested for the procurement of 1,682 M85 Machine Guns which are used on the M60 Series tank and the Combat Engineer Vehicle, M728. The planned buy will replace peacetime losses, provide additional weapons to support future vehicle deliveries, and provide for maintenance float and post D-Day consumption requirements.

RIFLE, 5.56MM, M16A1

$1.3 million is requested to procure 9,114 M16A1 Rifles. These rifles are to support anticipated inventory losses by the Republic of Vietnam's Armed Forces.

M16A1 RIFLE

Chairman MCCLELLAN. Are any of the FY 1975 funds requested for M16A1 rifles for US Forces?

General OLENCHUK. Yes sir, these funds will provide rifles to the Army inventory to replace anticipated inventory losses accrued from support of the Armed Forces of South Vietnam for the period FY 74–FY 75.

Chairman MCCLELLAN. Proceed.

MODIFICATION OF WEAPONS AND OTHER COMBAT VEHICLES

General OLENCHUK. Our request for Weapons and Other Combat Vehicles includes $6.9 million for modifications (Chart 23).

CHART 23.—*Modification of weapons and other combat vehicles*

	Millions of dollars
Gun, air defense, 20MM, M163/M167 (VULCAN)	4.4
Howitzer, light, towed, 105MM, M102	1.3
Machinegun, 7.62MM, M219	0.7
Modifications under $500,000	0.5
Total	6.9

GUN, AD, 20MM, M163/M167 (VULCAN) (MODIFICATION)

$4.4 million is requested to procure an assortment of modification kits to enhance the reliability, availability, and maintainability of the VULCAN weapon system. This procurement will enable us to modify approximately 155 systems. Further, we are requesting that $2.3 million from the ARSV program be added to the original $4.4 million request for a total FY 1975 request of $6.7 million. This additional money will procure hardware kits to modify 55 more VULCAN gun systems and enable us to accelerate our planned modification program for this system.

HOWITZER, LIGHT, TOWED, 105MM, M102 (MODIFICATION)

Our request of $1.3 million will enable us to procure modification kits for the 105mm M102 Howitzer. These kits, when applied, simplify field maintenance and reduce recoil mechanism replacement costs, improve reliability and maintainability of the breech mechanism, eliminate internal fogging of the azimuth counter, prevent reticle and image tilting, and correct chronic electrical illumination breakdowns.

MACHINE GUN, 7.62mm, M219 (MODIFICATION)

$0.7 million is requested to procure modification kits to convert M73 and M73A1 Machine Guns to the M219 configuration. These modifications will upgrade functional characteristics, increase reliability and maintainability, and

increase life expectancy of the existing inventory. This is a continuation of our program to modify all existing weapons in the inventory to the M219 configuration.

Modifications Under $500,000

$0.5 million is required to procure modification kits to improve the stability of our M29, 81mm, Mortars.

SUPPORT EQUIPMENT AND FACILITIES

Our $25.6 million request for Support Equipment and Facilities is categorized into four areas appearing on Chart 24.

Chart 24.—*Support equipment and facilities*

	Millions of dollars
Items Less Than $500,000	2.4
Spares And Repair Parts	8.7
First-Destination Transportation	0.6
Production Base Support	13.9
Total	25.6

Items Less Than $500,000

$2.4 million is requested for the purchase of items having a procurement value of less than $500,000 each. These items include tool sets, shop sets for armament and fire control, and organizational maintenance kits required for field maintenance operations. Also included are components for special testing, tripod mounts for the 7.62mm and caliber .50 machine guns, and quantities of .22 caliber rifles and pistols for marksmanship training.

Spares and Repair Parts

$8.7 million is requested for the procurement of depot reparable assemblies and repair parts.

First Destination Transportation

$0.6 million is requested for the cost of transporting weapons and other combat vehicles from the point of production to the designated Army depot and/or first destination points.

Production Base Support

We are requesting $13.9 million under Production Base Support for a total of 46 projects. Three projects totaling $6.7 million are for annual support of Watervliet and Rock Island Arsenals and completion of the modern integrated production line for the Cannon-Rotary Forge. Four projects totaling $1.2 million are for the layaway of industrial facilities. One project of $1 million is for the perfection of an automated shop loading and control system. The remaining 38 projects, all under $500,000 each, include seven Provision of Industrial Facilities projects, two Military Adaptation of Commercial Items projects, and 29 Manfacturing Methods and Technology projects.

Cannon Rotary Forge

Chairman McClellan. Discuss the Cannon Rotary Forge.

General Olenchuk. Sir, included in the FY 75 request is $505,000 for the Cannon Rotary Forge. This will complete the four year program totaling $10.5 million to procure and establish the forge at Watervliet Arsenal. The $505,000 being requested is to install the forge and its preheat equipment.

The Cannon Rotary Forge is being purchased from the GFM firm in Austria. That contract was awarded on 21 March 1973. The rotary forge will be the largest one in the United States and will have both solid and hollow forging capability. The rotary forge is completely automated and capable of accepting a work piece of up to 7 tons in weight and 22 inches in diameter. It will be capable of handling weapons ranging from cold forging of 60 millimeter mortar tubes to the hot forging of 155 millimeter tubes.

The payoff in the use of the rotary forge is found in reduced thinwall tube production costs, improved thick-wall production methods, shortened mobilization response time, and production base modernization. There will be significant cost savings in thick-wall tube production. For example, at planned production rates a cost savings of $11 million per year is anticipated. Other benefits are: avoidance of the need to modernize the Forging ASOD's at an estimated cost of $3 million; fewer machinists needed for mobilization production; savings in critical alloys; fewer machine tools in inventory; less special tooling and gaging; less manufacturing floor space per unit of output and a development program can be initiated for thin walled cannon tubes.

The manufacture of the forge is on schedule. It is currently being assembled in Austria. It will be inspected by a U.S. acceptance team this summer. The forge is scheduled for arrival at Watervliet Arsenal in January and February 1975. Assembly and testing will occur during the period February 1975 to August 1975. The forge will be fully operational in 1976.

Chairman McClellan. Proceed.

General Olenchuk. This concludes my discussion of the Weapons and Tracked Combat Vehicles, Army Procurement Appropriation.

PROCUREMENT OF AMMUNITION, ARMY

The one billion 344.8 million dollars requested for Procurement of Ammunition, as shown on Chart 25, is $136.4 million more than the FY 1974 budget.

Chart 25.—*Procurement of Ammunition, Army*

	Millions of dollars
Ammunition hardware:	
Controlled items	891.3
Other ammunition	163.5
Subtotal	1054.8
Ammunition production base support:	
Provision of industrial facilities	238.5
Layaway of industrial facilities	14.0
Production engineering measures	37.5
Subtotal	290.0
Total	1344.8

Ammunition Hardware for South Vietnam

Chairman McClellan. You request $1.05 billion for ammunition hardware in FY 1975. How much of the amount is for South Vietnam under the MASF program? How much was provided for South Vietnam in FY 1974, and how much was included in the FY 1974 supplemental request for South Vietnam?

General Olenchuk. The $1.05 billion for ammunition hardware in FY 1975 includes $400.2 million for South Vietnam under the MASF program. In FY 1974 Congress provided $65.2 million for South Vietnam. The supplemental request for FY 1974 contains no dollars for South Vietnam.

Chairman McClellan. Proceed.

Ammunition

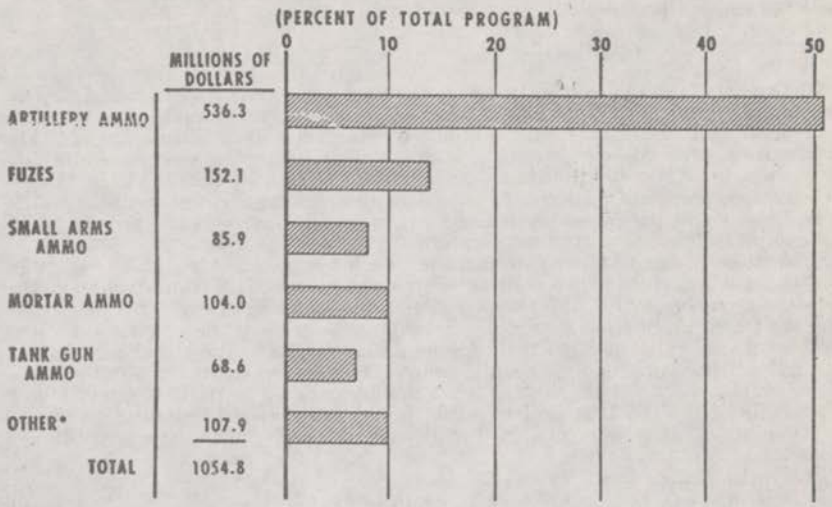
General Olenchuk. The $1054.8 million for hardware provides for: (1) Worldwide training consumption and losses to inventories through the FY 1975 funded delivery period; (2) Selected procurement of modern hardware; (3) Modest buildup of war reserves drawn down in prior years to meet Southeast Asia consumption requirements; and (4) Maintaining an active production base in FY 1975 for key ammunition items.

Chart 26 shows the distribution of FY 1975 procurement dollars by ammunition types. Artillery munitions, including fuzes, account for 65 percent of the program.

We will continue to monitor ammunition procurements closely to assure that we buy only what is needed, while assuring the maintenance of a war production base on key items.

[Chart 26 follows:]

CHART 26 - PROCUREMENT OF AMMUNITION, ARMY



*INCLUDES FIRST DESTINATION TRANSPORTATION, COMPONENTS FOR RENOVATION, etc.

AMMUNITION PRODUCTION BASE SUPPORT

General OLENCHUK. We also require $290 million for Production Base Support during FY 1975. The funding level requested is essential for: (1) Production support and replacement of Government-owned facilities and equipment, including machine tool replacement, required in direct support of the scheduled end item procurement program; (2) Providing those engineering measures and pilot production lines necessary for both planning and facility prove-out of production lines for components and end items; (3) Layaway of those facilities for which current production has been completed but where established future requirements exist for peacetime or mobilization procurement; and (4) The accomplishment of the sixth increment of a multi-year effort to rehabilitate and improve this critical, deteriorated, and obsolete portion of the Army's industrial base.

Chart 27 summarizes our Production Base Support request.

CHART 27.—*Production base support*

	Millions of dollars
Provision of industrial facilities:	
Annual support	43. 1
Modernization and expansion	189. 4
Intial production facilities	6. 0
Subtotal	238. 5
Layaway of industrial facilities	14. 0
Production engineering measures	37. 5
Total	290. 0

PROVISION OF INDUSTRIAL FACILITIES

The Provision of Industrial Facilities effort accounts for 82 percent of the total Production Base Support funds being requested. This category consists of three basic areas of effort, but the modernization and expansion area far exceeds the other two areas in terms of dollar funding.

The annual support funds provide for maintaining production capacity at government-owned facilities planned to be active in FY 1975. Each active Army

ammunition plant and arsenal has one annual support project that provides for replacement of worn out equipment and plant upkeep. This requirement can be reduced in the future as ammunition production requirements decrease and facilities become inactive.

Ammunition Production Requirements

Chairman McClellan. When do you foresee a decrease in ammunition production requirements? What plan do you have to inactivate facilities?

General Olenchuk. I cannot predict at this time a significant decrease in ammunition production requirements in the near future because of continuing requirements to support Southeast Asia under the MASF and MAP programs. In addition, we must continue to produce some ammunition to build up U.S. War Reserves to the necessary readiness posture. However, at the present time, the overall trend appears to be downward.

Concerning plans to inactivate facilities, each year a plant workloading study (on the government owned-contractor operated plants) is conducted on the munitions procurement program to determine whether there are significant excesses in our production capability and if consolidation of the active production base would be economical. Computer models are used to cost out the various alternatives for producing specific rounds and components of ammunition. Based on the results of the study, decisions are made on continuing operation or inactivating facilities. It is probable that in the next several years, we will inactivate some ammunition plants if the overall requirements trend continues downward.

Chairman McClellan. Proceed.

General Olenchuk. As indicated, the primary effort in FY 1975 will be in ammunition facilities modernization and expansion. This sixth year increment of $189.4 million in the Production Base Modernization/Expansion Program provides only the most essential projects. The modernization projects were selected to provide a more responsive mobilization production base and as being the most promising in terms of improving pollution abatement, decreasing costs, and improving safety, quality and efficiency. Expansion projects are designed to insure that new items to be introduced into the end item inventory can be mass produced and that material required for incorporation into component parts is available. Primarily, these projects relate to our explosive; propellant; and load, assemble and pack facilities for major ammunition production. Additionally, small arms projects are particularly promising in providing a high dollar return on capital investment. Future projects planned in the continuing effort to modernize the base and expand for production of new items will provide for continuation of these efforts in the areas of propellant and explosive plants; load, assemble and pack plants; metal parts or components plants; and small arms facilities.

Layaway of Industrial Facilities

The funds requested for layaway provide for the inactivation, preservation, and long range storage of Army owned production facilities no longer needed for current production, but still required for mobilization. Our request is based on the projected impact of production requirements on the active ammunition base. As plans become firm to idle production capability, individual projects will be developed. Should ammunition production requirements decrease in future years, the funding required for layaway will increase.

Stored Ammunition Production Facilities

Chairman McClellan. Were ammunition production facilities laid away subsequent to the Korean conflict? Were these facilities activated during the Vietnam conflict? Discuss.

General Olenchuk. At the conclusion of the Korean Conflict forty of the fifty-four Army Ammunition plants (government owned-contractor operated) were active. At the onset of the Vietnam Conflict there were eleven active plants. During the Vietnam Conflict an additional thirteen for a total of twenty-four of the twenty-five plants remaining in the base were reactivated.

Chairman McClellan. Proceed.

Production Engineering Measures

General Olenchuk. Production engineering measures provide the effort to plan and prove-out advanced production techniques for components and end items. This effort is essential since it supports both modernization and expansion efforts.

OTHER PROCUREMENT, ARMY

The Other Procurement Appropriation has three activities; Tactical and Support Vehicles; Communications and Electronic Equipment; and, Other Support Equipment as shown on Chart 28.

Chart 28.—*Other procurement, Army, fiscal year 1975 request*

Activity	*Millions of dollars*
Tactical and support vehicles	165. 8
Communications and electronics equipment	310. 8
Other support equipment	309. 6
Total	786. 2

Tactical and Support Vehicles

The funding level requested for the Tactical and Support Vehicles activity is $165.8 million. Chart 29 highlights this portion of our request.

Chart 29.—*Tactical and support vehicles*

	Millions of dollars
Tactical vehicles:	
Semitrailer, low bed, 35-ton (commerical) (250)	4. 1
Semitrailer, low bed, 52½-ton M747, HET (148)	7. 9
Semitrailer, stake, 12–16-ton (commercial) (1,169)	7. 6
Truck, 1¼-ton (commercial) (2,005)	8. 2
Truck, maintenance, telephone, utility (commercial) (182)	10. 3
Truck, 8-ton, GOER (428)	24. 4
Truck-tractor, 22½-ton M746 HET (125)	16. 7
Miscellaneous dolly sets and trailers	3. 4
Subtotal	82. 6
Commercial vehicles	63. 8
Modification of vehicles	1. 3
Support equipment and facilities:	
Items Less Than $500,000	9. 4
Spares and Repair Parts	4. 3
First-Destination Transportation	2. 6
Production Base Support	1. 8
Subtotal	18. 1
Total	165. 8

The funding level for this activity has been increased to enable the Army to implement its program of substituting commercial vehicles for those of a military design where feasible. $94 million, or approximately 57 percent of the total monies being requested for this activity, will be used to procure commercial and commercial substitute vehicles during FY 1975.

Before discussing specific items, I would like to point out that the FY 1975 requested funding level for this activity is considered to be the minimum level required in view of the necessity to replace peacetime losses of tactical trailers and associated equipment, replace overage commercial vehicles on a limited basis, and improve gradually our inventory levels and percentage fill of authorized acquisition objectives. A failure to achieve required inventory levels with newer vehicles will magnify future overage problems, due to the large numbers of overage vehicles that are currently in the inventory.

Tactical Vehicles

Semitrailer, 35 Ton (Commercial)

Our request includes $4.1 million for 250, 35-ton low bed commercial design semitrailers to transport engineer construction equipment and other high density cargo. This semitrailer will be assigned to tactical units.

Semitrailer, 52½ Ton

We are asking for $7.9 million to procure 148 military design, 52½ ton semitrailers. This special purpose semitrailer is used in maintenance and transportation units to transport tanks and other heavy equipment.

Semitrailer, 12–16 Ton (Commercial)—(Semitrailer, Platform, 34 Ton)

The 1169 12–16 ton semitrailers, at a cost of $7.6 million, represent the replacement of military design semitrailers with commercial design. Tactical units will use these vehicles to transport containers—the same type as used by industry today.

Truck, 1¼ Ton (Commercial)

We need $8.2 million to procure 2,005 commercial 1¼ ton trucks. These vehicles will be purchased under a performance specification and introduced as a commercial replacement for the military design vehicle in the same weight classification that was previously planned. This will be the first year of a procurement to replace the entire ¾–1¼ ton fleet of standard mobility vehicles which are overage.

Replacement of Overage Fleet

Chairman McClellan. How long do you plan to take in replacing the entire overage fleet of ¾–1¼ ton vehicles?

General Olenchuk. The Army intends to replace the entire overage ¾–1¼ ton vehicle fleet through deliveries of two model years of commercial substitute trucks during FY's 76 and 77.

Chairman McClellan. Proceed.

Truck, Telephone Maintenance (Commercial)

General Olenchuk. We need $10.3 million to procure 182 telephone maintenance trucks. This commercial vehicle will replace two military design vehicles by combining capabilities. Tactical units will use this vehicle to install and maintain telephone poles and lines.

Truck, GOER, 8 Ton

We propose $24.4 million to support the procurement of 428, 8 ton GOERS. This represents the fourth year of a multi-year procurement, started with the FY 1970 program, which is enabling us to build up to the procurement objective in a gradual manner. At the completion of the planned FY 1975 buy, we will attain our constrained procurement objective which supports high priority tank and self-propelled artillery units.

Truck-Tractor, 22½ Ton HET

Our request includes $16.7 million for 125 22½ ton truck-tractors. This vehicle will replace a mixture of overage military and modified commercial tractors acquired on an interim basis. This vehicle is the prime mover for the 52½ ton semitrailer used to transport tanks and other heavy equipment.

Miscellaneous Dolly Sets and Trailers

Our request for this group totals $3.4 million for four items of materiel. The largest included in the request is for $1.3 million to procure 378 M149 water trailers to replace peacetime losses and modernize the existing fleet through replacement of overage trailers.

Commercial Vehicles

Our request includes $63.8 million for the Commercial Vehicles category of the Tactical and Support Vehicles Activity. These funds will be used to procure 10,540 commercial vehicles. Included herein are 1,865 light sedans at a cost of $5.8 million: 2,512 pickup trucks at a cost of $6.9 million; and, 699 trucks with a gross vehicle weight of 19,000 pounds. Busses, other cargo trucks, and semi-trailers are also included.

Effect of Fuel Shortage on Vehicle Requirements

Chairman McClellan. Has the recent gasoline shortage caused the Army to change its requirements for commercial passenger and small truck vehicles to smaller vehicles? If so, has this been reflected in the FY 1975 budget?

General Olenchuk. Reflected in the FY 75 budget are the Army plans to procure compact sedans and light trucks equipped with lower powered engines where load and performance requirements permit. There will be no reduction in the size of small trucks as the load carrying requirement dictates the size. The bulk of sedans procured will be compacts with intermediates being provided only where operational requirements dictate a larger sized vehicle for mission accomplishment.

Chairman McClellan. Proceed.

The FY 1975 request for commercial vehicles is $41.4 million above the current FY 1974 budget. This increase is necessary to replace the increasing quantities of uneconomically reparable items in our administrative fleet.

Modification of Vehicles

We are requesting a total of $1.3 million for Modification of Vehicles during FY 1975.

Support Equipment and Facilities

The fourth and final category to be discussed under the Tactical and Support Vehicles Activity is Support Equipment and Facilities. In FY 1975 we are requesting $18.1 million for this effort. $9.4 million is for items costing less than $500,000; $4.3 million for repair parts for the various tactical and support vehicles in the Army inventory; $2.6 million for first destination transportation to cover the cost of equipment deliveries during FY 1975; and, $1.8 million for production base support projects which include five Military Adaptation of Commercial Items projects ($1.5 million) and two Manufacturing Methods and Technology projects (0.3 million).

This completes my discussion of the Tactical and Support Vehicles Activity. I will now discuss the Communications and Electronics Equipment Activity.

Communications and Electronic Equipment

The FY 1975 request includes $310.8 million for the Communications and Electronics Equipment Activity as shown on Chart 30. This is $104.8 million above the current FY 1974 budget.

CHART 30.—*Communications and electronics equipment*

	Millions of dollars
Telecommunications equipment:	
Combat service support communications	42.4
Cryptologic communications	3.7
Intelligence communications	1.5
STARCOM (Non-DCS)	3.9
STARCOM (DCS)	29.7
Minimum essential emergency communications network	5.1
AUTODIN II	1.0
Ground environmental satellite communications	17.5
Communications security equipment	20.8
Base communications	9.4
Subtotal	135.0
Other electronics systems equipment:	
Army Security Agency	[Deleted]
General defense intelligence program	[Deleted]
Automatic data processing equipment	57.1
Special projects	29.1
Tactical electronics	47.8
Modifications of tactical systems/equipment	2.8
Support equipment and facilities	20.9
Subtotal	175.8
Total	310.8

TELECOMMUNICATIONS EQUIPMENT

$135 million is requested for the Telecommunications Equipment category. The more significant aspects of the current request include:

COMBAT SERVICE SUPPORT COMMUNICATIONS

The $42.4 million requested for Combat Service Support Communications is necessary to insure responsive, reliable, command and control within the Army's field commands. The request includes $15.3 million in support of the Forward Area Tactical Teletypewriter family. This is a modular family of electronic typewriter equipment militarized for tactical use that will operate down to the area of our forward combat battalions using existing radio and field wire. The $15.3 million is to procure 1,983 page printers, and 1,515 tape relays which are integral parts of the overall family of equipment.

FORWARD AREA TACTICAL TELETYPEWRITER

Chairman MCCLELLAN. You request $15.3 million in FY 1975 in support of the Forward Area Tactical Teletypewriter family. Is this the first buy? What is the total program and over how many years?

General OLENCHUK. No, sir. The FY 1975 program is the planned second buy for the Forward Area Tactical Teletypewriter. The total planned requirement is 33,837 teletypewriters over a period of 10 years.

Chairman MCCLELLAN. Proceed.

General OLENCHUK. In addition to the foregoing, funds are being requested to procure many diverse items such as 25 antenna towers, $1.5 million; 18 each of two different technical control centers at $3.4 million and $2.4 million respectively; 1,200 oscilloscopes, $1.8 million; and, 2,664 field telephones, at a cost of $1.5 million.

STRATEGIC ARMY COMMUNICATIONS: NON-DEFENSE COMMUNICATIONS SYSTEM—STARCOM (NON-DCS)

We are requesting $3.9 million to fund various projects categorized as STARCOM (Non-DCS). The STARCOM (Non-DCS) effort provides the Army with its primary means of exercising command and control. This is not a part of the DCS nor does it duplicate any required DCS services.

STRATEGIC ARMY COMMUNICATIONS, DEFENSE COMMUNICATIONS SYSTEM—STARCOM (DCS)

In order to support the Army portion of the Defense Communications System, $29.7 million is required. This request includes projects which provide world-wide long haul, multichannel global communications systems in support of military and other government agencies. The two largest items are the Switched Net Automatic Routing System (SNARS) at a cost of $9.6 million, and $11.7 million for Transmission Media.

The SNARS, a medium size computer based system, is required to upgrade the speed of message handling and reduce errors. It receives optical character reader or teletypewriter originated messages and converts them into a standard format. It also translates plain language addresses to routing indicators and then routes the messages to the addressees via the AUTODIN System.

The FY 1975 Transmission Media program will rehabilitate or replace obsolete equipment which fails to meet current DCS standards, is technically obsolete, and, is becoming logistically unsupportable due to a discontinuance of repair parts and sub-assemblies production.

GROUND ENVIRONMENTAL SATELLITE COMMUNICATIONS

$17.5 million is required to support the Ground Environmental Satellite Communications area. Of this amount, $12.7 million will procure ground terminals for the Army's portion of the Defense Satellite Communication System. The remaining $4.8 million will procure spares, repair parts, and equipment for the tactical satellite communications effort.

COMMUNICATIONS SECURITY (COMSEC)

In furtherance of the Army's security goals, $20.8 million is being requested for COMSEC equipment. Included herein is $6.1 million to procure 580 TSEC/KG–30 Electronic Key Generators. The KG–30 is a general purpose, full duplex, tactical, electronic Key Generator for tactical and fixed station applications used to secure teletypewriter, data, voice, or facsimile signals.

BASE COMMUNICATIONS

$9.4 million is requested to improve our base communications. This includes $6.9 million for the Pentagon Telecommunications Center. The Army has been assigned the responsibility of consolidating the Pentagon Telecommunications Center for all Services. Each staff service center will have mini-processors consolidated into the existing Army system which employs dual IBM 360/50.

PENTAGON TELECOMMUNICATIONS CENTER

Chairman MCCLELLAN. The FY 1975 request includes $6.9 million for the Pentagon Telecommunications Center. Will any of the amount be reimbursed by the other services or the Department of Defense?

General OLENCHUK. No, sir. However as other communications centers are consolidated the assigned service will have the responsibility to fund the total program at that location.

Chairman MCCLELLAN. Proceed.

OTHER ELECTRONIC SYSTEMS/EQUIPMENT

General OLENCHUK. $175.8 million is requested for Other Electronics Systems and Equipment. This year's request is $109.4 million higher than the current FY 1974 budget. We are requesting an increase in the area of Automatic Data Processing Equipment (ADPE) of $55.5 million, and an increase of $44.3 million in the Tactical Electronics area. The ADPE increases actually represent a return to normalcy as far as required funding levels are concerned. The increases in the latter area are required to procure second generation tactical combat surveillance and target acquisition devices.

Automatic Data Processing Equipment

Chairman McClellan. You request an increase of $55.5 million in FY 1975 for Automatic Data Processing Equipment. What was the FY 1974 level, and what will be the FY 1975 level? How much of this is for rental, and how much for purchase of ADP equipment?

General Olenchuk. The FY 74 level is $1.6 million for Other Non-Tactical Automatic Processing (ADP) Systems and the World-Wide Military Command and Control System. The FY 75 level is $57.1 million for Base Operating Information System ($3.5 million), Combat Service Support System ($8.2 million), Other Non-Tactical ADP Systems ($22.0 million), Tactical Fire Direction System ($21.8 million), United States Army Materiel Command Five Year ADP Program ($1.0 million), and the World-Wide Military Command and Control System ($.6 million). All of these funds are for the purchase of ADP equipment.

Chairman McClellan. Proceed.

General Olenchuk. I will now highlight the more significant aspects of the request.

Army Security Agency (ASA) & General Defense Intelligence Program (GDIP)

The [deleted] million for Army Security Agency programs and [deleted] million for General Defense Intelligence Programs represent the Army's share of intelligence equipment procurements developed in the National Security Agency and Defense Intelligence Agency communications objectives.

Automatic Data Processing Equipment (ADPE)

Of the $57.1 million requested for Automatic Data Processing Equipment, $21.8 million is for the low rate initial production of the Tactical Fire Direction System (TACFIRE). TACFIRE is an integrated on-line computer system which performs selected tactical and technical fire direction functions at the battalion, division, group and corps artillery levels, and is connected by standard tactical wire and/or radio.

We also require $22 million for Other Non-Tactical ADPE systems to enhance the standardization and mechanization of Army operations in the areas of accident research, military personnel, and logistical operations.

Special Projects

We require $29.1 million to support special projects during FY 1975. The largest request is for $12.5 million to continue toward completion project J–7, USAREUR TV. This replaces a like amount from the FY 1972 approved program which could not be obligated by the end of FY 1974 and, which subsequent to notification by the Army, was used by Congress to finance the FY 1974 program.

Project J–7, USAREUR TV

Chairman McClellan. You request $12.5 million in FY 1975 for Project J–7, USAREUR TV. Describe the project.

General Olenchuk. The USAREUR TV Program (Project J–7) is the Phase III extension of the American Forces Television Network (AFTN) in Germany in order to provide TV coverage to Army troops and their dependents not now served by AFTN. Extension of the system consists of three major subsystems: A microwave distribution subsystem, an ultra high frequency television broadcast subsystem, and a local distribution subsystem (master antenna or cable). The system is being designed and installed to accept both black/white and color programs for transmission; and permit the use of U.S. manufactured black and white or color TV receivers without modification. The system provides coverage from Semmelbach/Bad Hersfeld southward to Zugspitze and from Spangdahlem eastward to Grafenwald. Signal transmission is by UHF or microwave except in congested or prohibited areas, in which case signal transmission is by cable. Late receipt of FY 72 funds and negotiations with the Federal Republic of Germany (FRG) in obtaining interference-free UHF frequencies, broadcast licenses and approval for tower construction, resulted in rescheduling completion of the project for April 1975. The USAREUR TV Project will provide our soldiers and their families a vital news, information and entertainment media, which will ease

problems of lack of entertainment, limited personnel information, barracks crimes, racial tension and drug use.

Chairman McClellan. Proceed.

Tactical Electronics

General Olenchuk. In the area of Tactical Electronics we are requesting $47.8 million. Of this amount, $7.1 million will support the initial buy of 17 moving target locating systems; and $16.7 million to procure the second generation of certain night vision devices.

Support Equipment and Facilities

The final area to be discussed under Other Electronic Systems and Equipment is that of Support Equipment and Facilities. $20.9 million in FY 1975 is needed to meet requirements in this area. This includes $8.6 million for items less than $500,000, $5.8 million for spares and repair parts, and $5 million for production base support.

Mr. Chairman, this concludes my discussion of the Communications and Electronics Equipment Activity. I will now discuss the final activity of the Other Procurement Appropriation, Other Support Equipment.

Other Support Equipment

We require $309.6 million to meet our requirements in the Other Support Equipment Activity, an increase of $40.3 million over the current FY 1974 budget. We are requesting increases in all areas except generators and associated equipment, materials handling equipment, and modifications.

I will now discuss the more significant aspects of our request which are shown on Chart 31.

Chart 31.—*Other support equipment*

	Millions of dollars
Combat support equipment	75.0
Construction equipment	57.6
Floating and rail equipment	12.4
Generators and associated equipment	13.8
Materials handling equipment	11.5
Medical support equipment	35.0
Modification of in-service equipment	17.5
Support equipment and facilities:	
Pollution control	1.6
Items less than $500,000	26.8
Spares and repair parts	13.4
Special equipment for user testing	5.1
Training devices, nonsystem	20.0
First destination transportation	5.5
Production base support	14.4
Subtotal	86.8
Total	309.6

Combat Support Equipment

Combat support items include $18.6 million for 5,500 portable chemical agent alarms; $5.1 million for 19 aluminum girder bridges; and $10.8 million for 105 self-contained utility elements for the Medical Unit Self-Contained Transportable (MUST) hospital.

Construction Equipment

Our request for construction equipment totals $57.6 million. $50.9 million, or slightly more than 88 percent of the total will be used to procure commercial construction equipment. Examples of such equipment include specific requests of $11.5 million for 152 25-ton hydraulic cranes; $7.7 million for 143 4–6 cubic yard scoop loaders; and, $14.4 million for 201 crawler tractors.

Floating and Rail Equipment

Our request for floating equipment includes $2.9 million for the procurement of 50 bridge erection boats. We also need $8.6 million to procure 400 railway tank cars to transport petroleum products.

Generators and Associated Equipment

We require $13.8 million for the procurement of 2,010 generators of various sizes and output capacities.

Materials Handling Equipment

We request $11.5 million for the procurement of two types of forklifts.

Medical Support Equipment

$35 million is required for equipment to support Army medical facilities worldwide.

Modification of Other Support Equipment

Our request of $17.5 million for the modification of Other Support Equipment includes: $6.6 million for the modification of calibration equipment sets; and $4.9 million for marine craft electronics.

Support Equipment and Facilities

The remainder of our request for the Other Support Equipment Activity totals $86.8 million. It includes $26.8 million for items costing less than $500,000; $13.4 million for spares and repair parts; $20 million for non-system training devices; and $14.4 million for 28 production base support projects.

Conclusion

Mr. Chairman, in summary, we are requesting $339.5 million for Aircraft; $459.2 million for Missiles; $385.3 million for Weapons and Tracked Combat Vehicles; one billion 344.8 million dollars for Ammunition; and $786.2 million for Other Procurement. Our FY 1975 Procurement Appropriation request totals three billion, 315 million dollars.

We have made progress in the management of our procurement programs and will continue to stress improvements to assure prudent use of the resources provided by the Congress. We believe our budget is realistic, and will permit us to attain our objectives; and we request your support for our FY 1975 procurement budget request.

Mr. Chairman, this completes my statement.

JUSTIFICATION

Chairman McClellan. We will now insert the justifications in the record at this point.

[The justification follows:]

AIRCRAFT PROCUREMENT, ARMY

Justification

ANNUAL BUDGET ESTIMATES

Appropriation: Aircraft Procurement, Army — FY 1975 Budget

Section 2 - INTRODUCTORY STATEMENT

This appropriation finances the acquisition of tactical and utility airplanes and helicopters, including associated electronics, communications and armament; modification of in-service aircraft; ground support equipment; and centrally managed high dollar value depot reparable assemblies, components and repair parts such as spare engines, transmissions, gear boxes and major components. It also provides for funding related first destination transportation and production base support.

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

Appropriation: Procurement of Aircraft, Army	FY 1973 Actual	FY 1974 Estimate	FY 1975 Estimate
Aircraft	12,000	-0-	112,500
Modification of Aircraft	58,800	117,900	165,000
Spares and Repair Parts	6,700	28,200	21,900
Support Equipment and Facilities	36,900	40,700	40,100
Total Direct Program	114,400	186,800	339,500
Reimbursable Program	579,658	108,000	123,000
TOTAL PROGRAM REQUIREMENTS	694,058	294,800	462,500
Less: Portion of program to be obligated in subsequent fiscal years	80,268	70,170	109,475
Plus: Obligations incurred against prior year program funds	23,703	65,117	71,784
TOTAL OBLIGATIONS	637,493	289,747	424,809

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Aircraft Procurement, Army		FY 75 Budget
Budget Program or Budget Project Account Activity 1 - Aircraft	(In Thousands of Dollars) Actual Fiscal Year 1973	Estimate Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 12,000	$	$ 112,500

Section 1 - PURPOSE AND SCOPE

Provides for procurement and manufacture of helicopters and associated aircraft armament and avionics equipment.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

This program provides for a quantity of utility, attack, and cargo transport helicopters to meet airmobility, tactical training and combat needs of the Army.

Helicopter, Attack, AH-1Q - $27.5 million is requested for procurement of 21 AH-1Q COBRA/TOW attack helicopters. The AH-1Q will be produced by Bell Helicopter Company, Fort Worth, Texas and powered by a single T-53-L-13 turbine engine produced by Lycoming Division, AVCO, Stratford, Connecticut. These helicopters will provide the Army with a heliborne anti-tank capability and will partially fill shortages in the AAO.

Helicopter, Cargo, Transport, CH-47C - $41.4 million is requested for procurement of 19 CH-47C cargo transport helicopters. The CH-47C will be produced by Boeing Vertol Company, Morton, Pennsylvania and powered by two T-55-L-11A turbine engines produced by Lycoming Division, AVCO, Stratford, Connecticut. These helicopters provide the Army with tactical transport of heavy, bulky cargo. The CH-47 is also used for evacuation of casualties and recovery of downed aircraft from remote locations. This buy will partially fill shortages in the Authorized Acquisition Objective (AAO).

Helicopter, Utility, UH-1H - $43.6 million is requested for procurement of 128 UH-1H utility helicopters. The UH-1H will be produced by Bell Helicopter Company, Fort Worth, Texas and powered by a single T-53-L-13B turbine engine produced by Lycoming Division, AVCO, Stratford, Connecticut. These helicopters will provide the Army with tactical transport of personnel, cargo and casualties and will partially fill shortages in the utility helicopter AAO.

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Aircraft Procurement, Army		FY 75 Budget
Budget Program or Budget Project Account	(In Thousands of Dollars)		
	Actual	Estimate	
Activity 2 - Modification of Aircraft	Fiscal Year 1973	Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 58,800	$ 117,900	$ 165,000

Section 1 - PURPOSE AND SCOPE

Provides for modification of items procured by the appropriation Aircraft Procurement, Army, including modification kits but excluding installation thereof unless the item is furnished to a manufacturer who provides parts and labor under a single contract (exceluding normal GFE) resulting in an end item reconfigured to a new series designation or new operational capability.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

$165.0 million is requested for modification of in-service aircraft. The funds provide for the cost of modifying currently operational aircraft and related equipment to improve flight safety, increase operational capability, and extend their useful life. Funds are included for major modification programs for the following aircraft: OV-1 MOHAWK airplanes, AH-1 COBRA helicopters, CH-47 CHINOOK helicopters, OH-6 CAYUSE/OH-58 KIOWA observation helicopters and UH-1 IROQUOIS helicopters. Three major modification programs are included in this request. The OV-1 MOHAWK modification request includes $17.3 million for the OV-1B/C to OV-1D conversion program which was started in FY 1973 and $19.7 million for QUICK LOOK II, a new program to install a system in the aircraft which [Deleted]] The remaining $4.0 million in the OV-1 line is for 6 other engine, airframe and avionics modifications. The AH-1 modification line includes the COBRA/TOW modification for $80.4 million, a continuing program from FY 1974 and four other modifications totaling $6.4M.

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Aircraft Procurement, Army		FY 75 Budget
Budget Program or Budget Project Account	(In Thousands of Dollars)		
	Actual	Estimate	
Activity 3 - Spares and Repair Parts	Fiscal Year 1973	Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 6,700	$ 28,200	$ 21,900

Section 1 - PURPOSE AND SCOPE

Provides for procurement of depot reparable assemblies and components including provisioning (initial issue) and replenishment.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

This program provides for centrally managed, high dollar value depot reparable assemblies, components, and repair parts such as engines, transmissions, and gear boxes which are essential to aircraft operations. Due to the high dollar value of these

components, they are intensively managed. The $21.9 million requested for FY 75 consists of $11.6 million for procurement of replenishment components, including aircraft peculiar armament and avionics items for all Army aircraft; $8.5 million for initial provisioning for the COBRA/TOW modification program; $1.2 million for initial provisioning for the AH-1Q procurement program; and $0.6 million for initial provisioning for avionics items.

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Aircraft Procurement, Army		FY 1975 Budget
Budget Program or Budget Project Account Activity 4 - Support Equipment and Facilities	(In Thousands of Dollars)		
	Actual Fiscal Year 1973	Estimate Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 36,900	$ 40,700	$ 40,100

Section 1 - PURPOSE AND SCOPE

Provides for ground support equipment including aircraft traffic control equipment, avionics communications equipment, aircraft maintenance shop sets, avionics support equipment, aircraft passive defense systems, component improvement, first destination transportation, production base support, and synthetic flight trainers.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Ground Support Avionics - $10.5 million is requested for avionics ground support equipment, communication and control equipment, communications facilities, avionics maintenance shop vans and aircrew survival radios.

Aircraft Support - $29.6 million is requested for aircraft support equipment and projects. Within this request is $11.0 million for [D] 2B24 Synthetic Flight Training Systems (SFTS), $6.2 million for common ground support equipment, $4.9 million for items costing less than $500,000 (primarily avionics test equipment), $1.0 million for component improvement and $0.2 million for first destination tranportation. This request also includes $2.0 million for an aircraft passive defense system, the AN/APR-39, a radar warning receiver which alerts an aircrew whenever their aircraft is being tracked by radar. Finally, $4.3 million is requested for 21 production base support projects. Nineteen of these projects are Production Engineering Measures (PEM) costing less than $500,000 each ($3.2 million); one PEM project requires $0.6 million for helicopter rotor blade production methods; and one project is for Provision of Industrial Facilities ($0.5 million).

(D) = Deleted

COMPARISON OF FY 1974 PROGRAM REQUIREMENTS
AS REFLECTED IN THE FY 1974 BUDGET WITH THE
FY 1974 PROGRAM REQUIREMENTS AS SHOWN IN FY 1975 BUDGET

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

Appropriation Procurement of Aircraft, Army	Total Program Requirements Per FY 74 Budget As Amended	Program Requirements Per FY 1975 Budget	Increase (+) or Decrease (-)
Activity 1 - Aircraft	12,200	-0-	- 12,200
Activity 2 - Modification of Aircraft	109,100	117,900	+ 8,800
Activity 3 - Spares and Repair Parts	25,100	28,200	+ 3,100
Activity 4 - Support Equipment and Facilities	34,600	40,700	+ 6,100
TOTAL	181,000	186,800	+ 5,800

Explanation by Activity

Activity 1 - Aircraft - The $12.2 million reduction was due to the Congressionally directed deletion of 20 U-X utility aircraft.

Activity 2 - Modification of Aircraft - The $8.8 million net increase in this activity is due primarily to increasing quantities and adding high priority modification programs. Major increases were $2.7 million for elastomeric bearings and $2.4 million for additional T-10 reserve parachute modification kits. New modifications were: $5.5 million for Navigation Radio Receivers, added to several aircraft in order to provide avionics equipment which will be compatible and usable with Federal Aviation Agency ground equipment; $1.4 million for VH-1N modification to update on-hand helicopters instead of procuring new VH-1N's as previously proposed. These increases were partially offset by the deletion of $2.0 million for the CH-54 helicopter crashworthy fuel system program, a Congressionally directed reduction of $0.1 million for theOH-58 helicopter and several other minor program reductions which total $1.1 million.

Activity 3 - Spares and Repair Parts - The FY 74 program was reduced by $10.1 million due to (1) reductions in the planned Army Flying Hour Program subsequent to preparation of the Budget and projected reductions based on the energy crisis, (2) the unprogramed transfer of Army UH-1 aircraft to the South Vietnamese in conjunction with the January 1973 ceasefire, (3) unprogramed reimbursable sales of long supply assets to other than Army customers (primarily for the South Vietnamese Air Force), making these funds available to satisfy Army requirements, and (4) refinement of requirements to support the COBRA/TOW modification program. With Congressional reductions of $1.8 million the total reduction is $11.9 million. This reduction was offset by a $15.0 million increase in the FY 1974 Supplemental Budget request to expedite the fill of war reserve shortages, provide for increased replacement costs of value of parts issued to Israel and to improve Army readiness resulting in a net increase of $3.1 million.

Activity 4 - Support Equipment and Facilities - Reductions in this activity total $7.3 million. Major reductions include Congressional deletion of $2.1 million for the AN/TSQ-97 Manpack Visual Facility, deletion of $3.1 million for the M134 armament system and reduction of $0.9 million for the Aerial Recovery Kit. $6.4 million in program increases include: increased quantities of the M-23 armament system for $1.1 million; increased quantities of the AN/PRC-90 Survivial Radios for $0.4 million; increased Production Base Support projects for $1.4 million; a $0.5 million increase in the Component Improvement effort; addition of two items, the ASR-8 Surveillance Radar for $1.4 million and advance procurement of radios for the AN/TSW-7A Air Traffic Facility for $1.5 million. $7.0 million is included in the FY 1974 Supplemental Budget request to procure [D] additional 2B24 Synthetic Flight Trainers in order to reduce aircraft flight hours and reduce fuel consumption and flight training costs. These changes result in a net increase of $6.1 million.

(D) = Deleted

AIRCRAFT PROCUREMENT, ARMY

($ in Millions)

Item	TOTAL PROGRAMS FY 73 Qty	FY 73 Amt	FY 74 Qty	FY 74 Amt	FY 75 Qty	FY 75 Amt
Airplane, Utility, U-X	20	12.0				
Helicopter, Attack, AH-1Q (COBRA)					21	27.5
Helicopter, Cargo, CH-47C (CHINOOK)					19	41.4
Helicopter, Utility, UH-1H (IROQUOIS)					128	43.6
Modification of Aircraft		58.8		117.9		165.0
Spares and Repair Parts		6.7		28.2		21.9
Support Equipment and Facilities		36.9		40.7		40.1
TOTAL ARMY PROGRAM		114.4		186.8		339.5
Funding Available						-
NOA Requested for Authorization						339.5

MISSILE PROCUREMENT, ARMY

Justification

ANNUAL BUDGET ESTIMATES

Appropriation:

Missile Procurement, Army

FY 1975 Budget

Section 2 - INTRODUCTORY STATEMENT

This appropriation finances the acquisition of: Anti-Ballistic Missile System; surface-to-air and surface-to-surface missile systems; anti-tank/assault missile systems; air defense control and coordination systems; modification of in-service materiel; other support equipment to include major components, targets, test equipment, spares and repair parts; production base support; and first destination transportation.

The FY 75 program continues procurement of the: Improved HAWK medium altitude air defense system; DRAGON and TOW anti-tank/assault missile systems; and LANCE and PERSHING surface-to-surface missile systems.

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

Appropriation: Procurement of Missiles, Army	FY 1973 Actual	FY 1974 Estimate	1975 Estimate
Anti-ballistic system	285,400	159,300	- 0 -
Other missiles	319,600	412,200	366,000
Modification of missiles	28,400	11,900	45,700
Spares and repair parts	42,500	37,328	21,400
Support equipment and facilities	23,600	20.772	26,100
TOTAL DIRECT PROGRAM	699,500	641,500	459,200
Reimbursable Program	370,100	385,000	225,000
TOTAL PROGRAM REQUIREMENTS	1,069,600	1,026,500	684,200
Less: Portion of program to be obligated in subsequent fiscal years	124,382	102,650	68,420
Plus: Obligations incurred against prior years program funds	13,069	194,062	103,599
TOTAL OBLIGATIONS	958,287	1,117,912	519,379

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Missile Procurement, Army		FY 1975 Budget
Budget Program or Budget Project Account Activity 1 - Anti-Ballistic Missile System (SAFEGUARD)	(In Thousands of Dollars) Actual Fiscal Year 1973	Estimate Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 285,400	$ 159,300	$ - 0 -

Section 1 - PURPOSE AND SCOPE

These funds provide for procurement of the SAFEGUARD Anti-Ballistic Missile System, including missiles, launching and control devices and associated equipment, and related production base support.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

No funds are requested for FY 1975 in this activity.

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Missile Procurement, Army		FY 1975 Budget
Budget Program or Budget Project Account Activity 2 - Other Missiles	(In Thousands of Dollars) Actual Fiscal Year 1973	Estimate Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 319,600	$ 412,200	$ 366,000

Section 1 - PURPOSE AND SCOPE

Provides for procurement of surface-to-air, surface-to-surface, and antitank missile systems; related ground support equipment; and initial issue and replacement of losses consumed in reliability firings, crew proficiency firings and other training activities.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Funds are required for procurement of the following missile systems and related ground support equipment:

HAWK Air Defense System - $80.3 million is requested for the continuation of the procurement of the Improved HAWK Air Defense Missile System. The HAWK is the Army's primary low and medium altitude air defense system. It is used in the corps area, as well as for defense of airbases and rear area logistical complexes. The system will defend against targets flying at varying altitudes and at speeds ranging from very low to high MIG-21 performance. The program for FY 75 continues procurement of the improved version of the HAWK, which has greater accuracy, range, faster reaction time, and less susceptibility to countermeasures than the basic version of the HAWK system.

DRAGON Missile System - $106.3 million is requested for fourth year procurement of the DRAGON missile system. DRAGON is a man-portable, command to line-of-sight guided missile that is recoillessly launched and guided to the target by a tracker which issues electronic commands by a wire link to the missile. DRAGON will be employed at infantry platoon level and will replace the obsolescent 90mm recoilless rifle as the Army's medium antitank/assault weapon. The FY 75 procurement will provide the missiles and associated ground equipment needed to continue the fielding of this system and provide a significantly improved antitank capability at the platoon level.

TOW Missile System - $107.1 million is requested for continued procurement of the TOW Missile System. TOW is a tube-launched, optically tracked, wire-guided antitank missile system. TOW is being phased into the Army inventory as a replacement for the 106 mm recoilless rifle in the heavy antitank/assault weapon role and provides the infantry battalion with a significantly increased antitank capability in range, accuracy and lethality. The FY 75 procurement will provide the missiles and ground equipment necessary to support training and continued fielding of this system.

Department of the Army Annual Budget Estimates JUSTIFICATION	FY 1975 Budget
Appropriation Missile Procurement, Army	Budget Program or Budget Project Account Activity 2 - Other Missiles

LANCE Missile System - $64.4 million is requested for continued procurement of missiles, adaption kits and to procure practice warheads. The LANCE provides medium range nuclear fire support to Army corps and will replace the HONEST JOHN and SERGEANT missile systems in the Active Army.

PERSHING Missile System - $7.9 million is requested for continued procurement of Automatic Reference Systems. The PERSHING provides nuclear fire support to the Supreme Army Commander Europe. This procurement and the FY 74 procurement of Sequential Launch Adapters and Automatic Reference Systems will permit units to perform their mission in the Quick Reaction Alert Role and increase personnel/equipment survivability.

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Missile Procurement, Army		FY 1975 Budget
Budget Program or Budget Project Account Activity 3 - Modification of Missiles	(In Thousands of Dollars) Actual Fiscal Year 1973	Estimate Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 28,400	$ 11,900	$ 45,700

Section 1 - PURPOSE AND SCOPE

Provides for the modification of surface-to-air, surface-to-surface, and antitank missiles systems, air defense control and coordination systems, and related ground support equipment.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

CHAPARRAL - $26.3 million is requested for modification of the CHAPARRAL missile. The funds will provide for modifications to increase reliability and maintainability of the fuze, system replacement of the continuous rod warhead with a blast fragmentation warhead for improved lethality, and modification of the guidance unit with a new unit that will provide a forward aspect engagement capability.

Interrogator Set, AN/TPX-46 - $1.8 million is requested to modify a portion of the AN/TPX-46 V2 inventory into the AN/TPX-46 V1 configuration. Because of a change in Army requirements, sufficient V2's can be made available for conversion to the V1 model, thus negating the need for additional procurement with its attendant startup costs.

NIKE HERCULES - $6.5 million is requested to continue modification and replacement of Type IV Test Equipment components which are used to test electronic sub-assemblies of the NIKE HERCULES ground support equipment. Present test equipment is approximately 12 years old. It has inadequate reliability and many components which are no longer manufactured or supportable for maintenance.

PERSHING - $11.1 million is requested to complete the missile life extension program which began in FY 72 and to begin procurement of Safe and Arming Devices which will preclude inadvertent launch. The life extension program increases missile reliability in addition to extending missile life.

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Missile Procurement, Army		FY 1975 Budget
Budget Program or Budget Project Account	(In Thousands of Dollars)		
Activity 4 - Spares and Repair Parts	Actual Fiscal Year 1973	Estimate Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 42,500	$ 37,328	$ 21,400

Section 1 - PURPOSE AND SCOPE

Provides for the procurement of initial provisioning and replenishment of reparable major assemblies and repair parts for surface-to-air and surface-to-surface missile systems and other support items.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Required for the procurement of initial provisioning and replenishment requirements of centrally managed, high dollar value depot reparable components, assemblies, and repair parts which are not carried in Army Stock Fund inventories. Inventories are replenished to levels determined by demand data.

SAFEGUARD - $3.0 million is requested to replenish inventory levels of selected high unit cost repair parts.

OTHER MISSILES - $18.4 million is requested for initial provisioning of spare parts to support the major item procurements and to replenish inventory levels of selected high unit cost repair parts.

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Missile Procurement, Army		FY 1975 Budget
Budget Program or Budget Project Account Activity 5 - Support Equipment and Facilities	(In Thousands of Dollars) Actual Fiscal Year 1973	Estimate Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 23,600	$ 20,772	$ 26,100

Section 1 - PURPOSE AND SCOPE

Provides for the procurement of support equipment, items less than $500,000, first destination transportation, and production base support in support of the Army missile programs.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Air Defense Command and Control System, AN/TSQ-73 - $5.7 million is requested for engineering change proposals, product assurance and Gov't/contractor services to support DT/OT III testing. The AN/TSQ-73 is a high-speed, microminiaturized air defense command and control system that coordinates the air defense activities of multiple air defense batteries against hostile aircraft and will replace the AN/MSG-4 (Missile Monitor)currently deployed overseas.

Air Defense Targets - $11.7 million is requested for the initial procurement of the Variable Speed Training Target (VSTT) and procurement of other target missiles, tow targets and ground support equipment. The VSTT will replace the FIREBEE target missile now in the Army inventory and will, along with other target missiles and ground support equipment, support the annual training requirements of air defense personnel and evaluation of air defense weapon systems.

Test Set, Radar, AN/TPM-25 - $1.8 million is requested for the procurement of the AN/TPM-25 radar test set. This test set is used to maintain the new generation IFF tactical prime systems AN/TPX-46 and AN/TPX-50. The test equipment in the existing inventory severely curtails the degree of maintenance support available for checkout of the sophisticated circuits of the new family of interrogator equipment. This radar test set will provide the additional capabilities that are needed to support the new IFF interrogators used with the NIKE HERCULES, HAWK and FAAR radar systems.

Items Less Than $500,000 - $0.1 million for procurement of tool kits peculiar to missile systems hardware maintenance and repair.

First Destination Transportation - $1.3 million for first destination transportation of missiles and related missile equipment procured under this appropriation.

Production Base Support - $5.5 million to provide funding for 12 projects. Two projects ($3.3 million) are part of the NIKE HERCULES life extension program. Six projects ($1.3 million) are in annual support of the Michigan Army Missile Plant, Red River Army Depot, and Thiokol Chemical Corporation -- all are Government-owned contractor-operated facilities. Four projects ($0.9 million) are for manufacturing methods and technological advancement in support of missile components.

MISSILE PROCUREMENT, ARMY

($ in Millions)

Item	TOTAL PROGRAMS FY 73 Qty	FY 73 Amt	FY 74 Qty	FY 74 Amt	FY 75 Qty	FY 75 Amt
SAFEGUARD		285.4		159.3		
HAWK (MIM-23-B)	732	106.0	720	101.3	520	80.3
DRAGON (XFGM-77A, XFTM-77A)	3950	48.3	7000	60.6	15200	106.3
TOW (BGM-71A, BTM-71A)	12000	42.5	18000	120.5	24000	107.1
HONEST JOHN		.6		.5		
LANCE (MGM-52C)	360	93.0	360	80.0	194	64.4
PERSHING (MGM-31A)	20	29.2	26	49.3		7.9
Modification of Missiles		28.4		11.9		45.7
SAFEGUARD Spares and Repair Parts		14.6				3.0
All Other Spares and Repair Parts		27.9		37.3		18.4
Support Equipment and Facilities		23.6		20.8		26.1
(Air Defense Command and Control System, AN/TSQ-73)		(1.9)	(5)	(10.5)		(5.7)
TOTAL ARMY PROGRAM		699.5		641.5		459.2
Funding Available						-
NOA Requested for Authorization						459.2

PROCUREMENT OF WEAPONS AND TRACKED COMBAT VEHICLES, ARMY

Justification

ANNUAL BUDGET ESTIMATES

Appropriation: Procurement of Weapons and Tracked Combat Vehicles, Army

FY 1975 Budget

Section 2 - INTRODUCTORY STATEMENT

This appropriation finances the acquisition of tanks, armored personnel carriers, armored weapons carriers, air defense gun weapon systems, combat engineer vehicles, and chassis for the armored bridge launcher transporter. Also included are rifles, machine guns, grenade launchers, towed and self-propelled guns and howitzers, laser rangefinders, associated training equipment, modification of in-service equipment, investment spares and repair parts and major components, related first destination transportation, and production base support. The FY 75 program is principally for procurement of the M60A1 main battle tank, M88A1 medium recovery vehicle, M578 light recovery vehicle, Armored Reconnaissance Scout Vehicle, M30A1 tank turret trainer, M113A1 armored personnel carrier, M125A1 81mm mortar carrier, M60 and M85 machine guns, M202A1 66mm rocket launcher, M16A1 rifles and for modification of the M60 series tank, M88 medium recovery vehicle, M102 105mm towed howitzer, M110E2 self-propelled 8-inch howitzer, M163 and M167 VULCAN air defense guns, M219 7.62mm machine gun, and the M551 armored reconnaissance airborne assault vehicle (with laser rangefinder).

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

Appropriation Procurement of Weapons and Tracked Combat Vehicles	1973 Actual	1974 Estimate	1975 Estimate
Tracked combat vehicles	198,900	302,400	331,900
Weapons and other combat vehicles	43,900	48,700	53,400
TOTAL DIRECT PROGRAM	242,800	351,100	385,300
Reimbursable Program	111,183	228,000	395,500
TOTAL PROGRAM REQUIREMENTS	353,983	579,100	780,800
Less: Portion of program to be obligated in subsequent fiscal years	50,845	126,127	201,329
Plus: Obligations incurred against prior year program funds	52,163	29,647	118,479
TOTAL OBLIGATIONS	355,301	482,620	697,950

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Procurement of Weapons and Tracked Combat Vehicles, Army		FY 1975 Budget
Budget Program or Budget Project Account	(In Thousands of Dollars)		
	Actual	Estimate	
Activity 1 - Tracked Combat Vehicles	Fiscal Year 1973	Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$198,900	$ 302,400	$331,900

Section 1 - PURPOSE AND SCOPE

Provides for procurement of tracked combat vehicles including tanks, self-propelled artillery, recovery vehicles, armored carriers, reconnaissance vehicles, and associated equipment. The request also provides for modification kits, major assemblies (including initial provisioning), replenishment war reserves, related production base support and first destination transportation.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Tracked Combat Vehicles - The requested funding level provides for continued procurement of the M60A1 Tank to meet tank fleet modernization goals; the second year of a three-year multi-year buy of M578 Light Recovery Vehicles to equip Army Reserve Components; a new procurement of the dieselized M88A1 Medium Recovery Vehicle to strengthen the currently poor asset position of that item; first year procurement of the Armored Reconnaissance Scout Vehicle which is to replace in limited quantities the M114 Reconnaissance Vehicle; for procurement of M113A1 Armored Personnel Carrier and M125A1 Mortar Carriers to replace projected inventory losses in support of RVN; high priority combat vehicle modification program including dieselization of the current gasoline powered M88 Recovery Vehicle, continued modification of the M551 SHERIDAN vehicle with a laser rangefinder, modification of the M110 Howitzer and M107 Gun with a range-improved 8-inch gun tube, and for the continued modernization of the fielded M60 Series Tank fleet with improved components to enhance firepower, reliability, and mobility. Each of the major items included in this request is discussed below:

Recovery Vehicle, Light, FT, M578 - $27.9 million for the procurement of 180 M578 Recovery Vehicles. The M578 is a lightweight, armored, full-tracked, air transportable vehicle with a tow-winch capacity of 60,000 pounds and a hoisting capacity of 15 tons. It is designed to recover vehicles weighing up to 30 tons and is capable of extended cross-country rough terrain travel. Acquisition will achieve 89 percent of the cold base authorized acquisition objective at the end of the FY 1975 funded delivery period.

Tank, Combat, Full-Tracked, 105mm Gun, M60A1 - $168.8 million is requested for the procurement of 510 M60A1 Tanks. Production of the M60A1 Tank enables the Army to continue its program of converting the tank inventory to tanks mounting the 105mm Gun or larger. It also increases the operational capability of the Active Army by provision of M60A1 Tanks while releasing M60 Tanks to modernize the Reserve Components. The M60A1 Tank is the current primary weapon system of US Army armor battalions and is used primarily in the offensive role and to counter the tank threat.

Department of the Army Annual Budget Estimates JUSTIFICATION	FY 1975 Budget
Appropriation Procurement of Weapons and Tracked Combat Vehicles, Army	Budget Program or Budget Project Account Activity 1 - Tracked Combat Vehicles

Advance Procurement, Tank, Combat, FT, 105mm Gun, M60A1 - Funds in the amount of $3.8 million are requested to procure special tooling to support procurement in FY 76 of the M60A1 product improved tank.

Turret Trainer for the M60A1 (PI) Tank, M30A1 - $6.0 million for the procurement of 34 M30A1 Turret Trainers, a required device used to train tank crews to successfully operate weapons stations and engage targets. It also assists turret maintenance personnel to develop skills required in the performance of organizational, direct, and general support maintenance of the turret system of the product improved M60A1 Tank.

Armored Reconnaissance Scout Vehicle - $25.3 million is requested to procure 35 XM800 Scout Vehicles. This will be the initial procurement of the vehicle under low rate production. The initial quantity is being procured for extensive development and operational testing prior to going into full scale production against an initial procurement objective of 1147. A wheeled and a tracked version of the XM800 have been developed for competitive testing which began in November 1973.

Carrier, 81mm Mortar, FT, M125A1 - $0.8 million is requested to procure 13 M125A1's to replace anticipated FY 74 and FY 75 losses by RVN Armed Forces. Equipment support to RVN is Service funded.

Carrier, Personnel, FT, M113A1 - $9.4 million is requested to procure 194 M113A1's to replace anticipated FY 74 and FY 75 losses by RVN Armed Forces. Equipment support to RVN is Service funded.

Recovery Vehicle, FT, Medium, M88A1 - $33.6 million is requested for the procurement of 77 M88A1 Recovery Vehicles. This is the first year of a two-year procurement intended to buy towards the cold base acquisition objective. A diesel-powered vehicle will be procured in lieu of the current gas model. Conversion to diesel power will make the recovery vehicle compatible with the tanks it supports.

Howitzer, SP, 8-inch, M110E2 - $11.6 million is requested to procure 151 modification kits for conversion of the 175mm SP Gun and 8-inch Howitzers to a new improved 8-inch Howitzer and 406 long leadtime forgings for support of the FY 1976 procurement. The modified Howitzer will have an extended range and a longer tube life.

Department of the Army Annual Budget Estimates JUSTIFICATION	FY 1975 Budget
Appropriation Procurement of Weapons and Tracked Combat Vehicles, Army	Budget Program or Budget Project Account Activity 1 - Tracked Combat Vehicles

Rangefinder (LASER), AN/VVG-1, f/M551 SHERIDAN - $7.3 million is requested to procure the last increment (230) of rangefinders in a continued program to modify the M551 Armored Reconnaissance Assault Vehicle for an improved hit capability with its 152mm conventional ammunition. Improved hit capability will enhance the ability of the M551 to perform its combat role.

Armored Reconnaissance Airborne Assault Vehicle (SHERIDAN) - $1.3 million is requested to procure modification kits designed to improve propulsion system cooling, thus increasing reliability and propulsion system life.

Recovery Vehicle, Medium, FT, M88 - $8.4 million is requested for the purchase of modification kits for the conversion of M88 Recovery Vehicles from gasoline to diesel. The kit provides an engine, a personnel heater, and an auxiliary power unit (to include kit hardware). The kit also modifies the transmission so the power output is compatible with the diesel engine. This is a continuation of the Army's multi-year program to convert the existing M88 fleet to diesel power and extend its life expectancy.

Tank, Combat, FT, 105mm Gun, M60 Series - $8.0 million is requested to procure modification kits for M60 Series Tanks which will improve reliability, maintainability, and hit probability. Kits to be procured are improved air cleaners, improved reliability engine kits, improved electrical system (solid state regulator/oil cooled alternator) kits, and gun stabilization kits.

Modifications Under $500,000 - A total of $0.2 million is requested for the procurement of modification hardware relating to the M548 Tracked Cargo Carrier to improve reliability and maintainability.

Items Less Than $500,000 - $1.6 million is requested for the procurement of shop equipment, tool sets, and emergency repair shop sets to facilitate the maintenance and repair of Army tracked combat vehicles and limited quantities of equipment items to replace anticipated FY 75 RVN losses.

Spares and Repair Parts - $11.6 million is requested for procurement of initial provisioning spares and replenishment secondary items related to tracked combat vehicles.

First Destination Transportation - $3.1 million is requested for the cost of transporting tracked combat vehicles from the point of production to designated Army depots and/or other first destination points.

Production Base Support - $3.2 million is requested for a total of 16 projects. Projects include annual support of the Detroit Army Tank Plant, layaway of industrial plant equipment at Rock Island Arsenal, various efforts in the field of Manufacturing Methods and Technology, and work in the Military Adaptation of Commercial Items.

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Procurement of Weapons and Tracked Combat Vehicles, Army		FY 1975 Budget
Budget Program or Budget Project Account	(In Thousands of Dollars)		
Activity 2 - Weapons and Other Combat Vehicles	Actual Fiscal Year 1973	Estimate Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$43,900	$48,700	$53,400

Section 1 - PURPOSE AND SCOPE

Provides for procurement of weapons and other combat vehicles including towed artillery and air defense guns, machine guns, rifles, mortars, grenade launchers and associated equipment. The request also includes modification kits, depot reparable major assemblies and components, including provisioning and replenishment of war reserves, first destination transportation and related production base support.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Weapons and Other Combat Vehicles - The requested funding level provides for continued buys of the M202A1 Incendiary 66mm Launcher and M60 Machine Guns, a one-time buy of the tank mounted M85 Cal .50 Machine Gun to achieve a satisfactory asset position and a follow-on buy of the M16A1, 5.56mm, Rifle to cover projected inventory loss in support of RVN forces. Funds are also requested to support priority modifications of VULCAN Air Defense Guns and the M102 Towed 105mm Howitzer to enhance reliability and maintainability. Each of the major items included in this request is discussed below:

Howitzer, Medium, Towed, 155mm, XM198 - $1.3 million is requested for material for fabrication of inspection gages and hard tooling to support future production with FY 76 procurement funds of the XM198 Howitzer which will replace the WW II-vintage M114A1, 155mm Towed Howitzer. The gages and tooling are peculiar to this Howitzer and not available as off-the-shelf items from any source. The XM198 will have an increased range capability of from 14,600 to 24,000 meters when firing the XM549 ammunition in an unboosted configuration and 30,000 meters when firing rocket assisted ammunition. This Howitzer will provide general support to infantry, airborne and airmobile divisions in the Post-FY 1976 time frame. Currently, this item is in the engineering development phase.

Launcher, Incendiary, Rocket, 66mm, M202A1 - $2.6 million is requested to procure a quantity of 3,049 as a follow-on to the FY 1974 buy in order to buy near the Authorized Acquisition Objective.

Machine Gun, 7.62mm, M60 - $5.0 million is requested to procure 6,000 weapons to virtually buy out the Authorized Acquisition Objective. This procurement will be produced from an active line prior to layaway of the production base. The M60 Machine Gun is a one-of-a-kind weapon used in all type Army units. No follow-on weapon is currently planned.

Machine Gun, Cal .50, M85 - $10.7 million is requested for the procurement of 1682 M85 Machine Guns. This machine gun is used on the M60 Series Tank and the M578 Combat Engineer Vehicle. The procurement of this weapon will replace peacetime losses, will provide additional weapons to support future vehicle deliveries, and will provide for maintenance float and post D-Day consumption requirements.

Department of the Army Annual Budget Estimates JUSTIFICATION	FY 1975 Budget
Appropriation Procurement of Weapons and Tracked Combat Vehicles, Army	Budget Program or Budget Project Account Activity 2 - Weapons and Other Combat Vehicles

Rifle, 5.56mm, M16A1 - $1.3 million is required to procure 9114 rifles to replace anticipated FY 74 and FY 75 losses to the Army as a result of Service-funded support of RVN.

Gun, AD, 20mm, M163/M167 (VULCAN) - $4.4 million is requested for various modification kits to enhance the reliability, availability, and maintainability of the VULCAN air defense weapon system.

Howitzer, Light, Towed, 105mm, M102 - $1.3 million is requested to procure modification kits which, when applied, will simplify field maintenance and reduce replacement costs of the recoil mechanism, simplify design of the breech mechanism to improve reliability and maintainability, incorporate radio active illumination into fire control to correct chronic electrical illumination breakdowns, eliminate internal fogging of azimuth counter, and prevent reticle and image tilting.

Machine Gun, 7.62mm, M219 - $0.7 million is requested to procure modification kits to convert M73 and M73A1 Machine Guns to the M219 configuration. Modifications upgrade weapon functional characteristics, increase reliability, maintainability, and increase the life expectancy of the existing inventory. This is a continuation of the Army's Program to modify all existing weapons in the inventory to the M219 configuration.

Modifications Under $500,000 - $0.5 million is requested for the procurement of modification kits relating to a redesigned mortar baseplate to improve weapon stability.

Items Less Than $500,000 - $2.4 million is requested for the purchase of items having a procurement value of less than $500,000 each and which are necessary to meet essential requirements of Army units. Items include tool sets, shop sets for armament and fire control and organizational maintenance kits required for maintenance operations in the field. Also included are components for special testing and tripod mounts for the 7.62mm and Cal .50 Machine Guns and quantities of .22 Cal Rifles and Pistols.

Spares and Repair Parts - $8.7 million is requested for the procurement of depot reparable assemblies and repair parts.

First Destination Transportation - $0.6 million is requested for the cost of transporting weapons and other combat vehicles from the point of production to the designated Army depot and/or first destination points.

Production Base Support - $13.9 million is requested for a total of 41 projects. Three projects totaling $8.1 million are for annual support of Watervliet and Rock Island Arsenals and the completion of the Modern Integrated Production Line for Cannon-Rotary Forge. Two projects totaling $1.2 million are for layaway of industrial facilities. One project of $1.0 million is for the perfection of an automated shop loading and control system. The remaining 35 projects, all under $500,000 each, include provision of industrial facilities, and projects and Military Adaptation of Commercial Items projects.

PROCUREMENT OF WEAPONS AND TRACKED COMBAT VEHICLES, ARMY
(TRACKED COMBAT VEHICLES PROCUREMENT PROGRAM)

($ in Millions)

Item	TOTAL PROGRAMS FY 73 Qty	FY 73 Amt	FY 74 Qty	FY 74 Amt	FY 75 Qty	FY 75 Amt
Recovery Vehicle, LT, FT, M578			90	14.4	180	27.9
Tank, Combat, FT, 105mm Gun, M60A1	166	(50.8)	493	(158.6)	510	(180.8)
LESS: Advance Proc		(-1.9)		(-6.9)		(-12.0)
Prior Years		48.9		151.7		168.8
Tank, Combat, FT, 105 mm Gun, M60A1 Advance Procurement, Current Year		6.9		13.3		3.8
Trainer, Turret f/M60A1 (PI) Tank, M30A1					34	6.0
Armored Reconnaissance Scout Vehicle(ARSV)					35	25.3
Carrier, 81mm Mortar, M125A1			105	5.9	13	.8
Carrier, Armored Personnel, M113A1			923	44.3	194	9.4
Howitzer, Heavy, FT, SP, 8", M110			11	3.7		
Recovery Vehicle, Med, FT, M88A1					77	33.6
Modification of Tracked Combat Vehicles		135.4		40.0		36.8
Support Equipment and Facilities		7.7		29.1		19.5
TOTAL ARMY PROGRAM		198.9		302.4		331.9
Funding Available						-
NOA Requested for Authorization						331.9

PROCUREMENT OF WEAPONS AND TRACKED COMBAT VEHICLES, ARMY
(WEAPONS AND OTHER COMBAT VEHICLES PROCUREMENT PROGRAM)

($ in Millions)

Item	FY 73 Qty	FY 73 Amt	TOTAL PROGRAMS FY 74 Qty	TOTAL PROGRAMS FY 74 Amt	FY 75 Qty	FY 75 Amt
Howitzer, Med, Towed, 155mm, XM198 Advance Procurement						1.3
Launcher, Grenade, 40mm, M203 f/M16A1 Rifle	33396	2.5				
Launcher, Incendiary, Rocket, 66mm, M202A1			2500	1.5	3049	2.6
Machine Gun, 7.62mm, M60			3600	2.7	6000	5.0
Machine Gun, 7.62mm, M219			1572	7.2		
Machine Gun, Cal .50, M85					1682	10.7
Rangefinder, Fire Control, w/e (LASER) AN/GVS-3	1020	6.4				
Rifle, 5.56mm, M16A1	37533	4.8	22600	3.1	9114	1.3
Target Selector Group, Fire Control, XM10 (VULCAN)	60	3.8				
Modification of Weapons and Other Combat Vehicles		4.2		3.6		6.9
Support Equipment and Facilities		22.2		30.6		25.6
TOTAL ARMY PROGRAM		43.9		48.7		53.4
Funding Available						-
NOA Requested for Authorization						53.4

Appropriation
Procurement of Ammunition, Army

Section 2 - INTRODUCTORY STATEMENT

This appropriation finances the acquisition of all ammunition, modification of in-service stocks, and the related production base support including expansion, maintenance and modernization of industrial facilities and equipment.

The fiscal year 1975 program provides for worldwide consumption and losses to inventory through the FY 75 funded delivery period; assures meeting pipeline requirements for SEA allies and PACOM forces; provides for NATO requirements; maintains an active ammunition production base in FY 1975; protects base continuity in the FY 1976-1979 time frame; and maximizes competitive procurement. This year's program includes funds for over 50 different ammunition types and provides the sixth increment of a multi-year effort to rehabilitate and improve the Army's industrial base.

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

Appropriation: Procurement of Ammunition, Army	FY 1973 Actual	FY 1974 Estimate	1975 Estimate
Ammunition	1,115,600	1,008,700	1,054,800
Ammunition Production base support	203,200	199,700	290,000
TOTAL DIRECT PROGRAM	1,318,800	1,208,400	1,344,800
Reimbursable Program	486,233	584,000	610,000
TOTAL PROGRAM REQUIREMENTS	1,805,033	1,792,400	1,954,800
Less: Portion of program to be obligated in subsequent fiscal years	201,601	83,627	228,700
Plus: Obligations incurred against prior year program funds	88,596	148,827	78,197
TOTAL OBLIGATIONS	1,692,028	1,857,600	1,804,297

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Procurement of Ammunition, Army		FY 1975 Budget
Budget Program or Budget Project Account	(In Thousands of Dollars)		
	Actual	Estimate	
Activity 1 - Ammunition	Fiscal Year 1973	Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 1,115,600	$ 1,008,700	$ 1,054,800

Section 1 - PURPOSE AND SCOPE

These funds provide for procurement, remanufacture, and conversion of ammunition and associated equipment and for procurement of reparable major components for special ammunition. The program includes artillery, tank, mortar, and small arms ammunition as well as fuzes, mines, demolitions, grenades, pyrotechnic signals, and rockets.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

The fiscal year 1975 program provides for worldwide consumption and losses to inventory through the FY 75 funded delivery period; assures meeting pipeline requirements for SEA allies and PACOM forces; provides for NATO requirements; maintains an active ammunition production base in FY 75 and protects base continuity in FY 76-79 timeframe. The FY 75 program includes over 50 different types of ammunition. Some of the major items included in the program are: Cartridge, 5.56mm All Types except Blank, $55.2 million; Cartridge 40mm HEDP Low Velocity Launched, $15.0 million; Rocket 66mm HEAT, $15.7 million; Cartridge 81mm HE w/wo Fuze, $55.3 million; Cartridge 105mm HE w/o Fuze f/105 HOW, $172.6 million; Cartridge 105mm Smoke WP f/105 HOW, $30.9 million; Cartridge 105mm TP-T f/Tank Gun, $27.5 million; Projectile 155mm HE, $147.3 million; Projectile 155mm Illum, $10.7 million; Projectile 155mm HE (ICM)(DP), $76.9 million; Charge Propelling 155mm White Bag, $27.7 million; Fuze Proximity f/Artillery and 4.2" Mortar, $50.3 million; Fuze PD f/Artillery and 4.2" Mortar, $84.2 million; Cartridge 105mm DS-TP, $15.4 million; Projectile 155mm HE (RAP), $18.3 million; Helicopter Mounted Mine System XM56, $15.0 million, and First Destination Transportation, $42.1 million.

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation Procurement of Ammunition, Army		FY 1975 Budget
Budget Program or Budget Project Account	(In Thousands of Dollars)		
	Actual	Estimate	
Activity 2 - Production Base Support	Fiscal Year 1973	Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 203,200	$ 199,700	$290,000

Section 1 - PURPOSE AND SCOPE

Provides for establishment, augmentation, and improvement of production capability; layaway of industrial plants and equipment; and production engineering in advance of quantity production to facilitate the production of ammunition.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

The funding level requested is essential for (1) production support and replacement of Government-owned facilities and equipment, including machine tool replacement required in direct support of the scheduled end item procurement program; (2) provision of a chemical agent/munition disposal system facility; (3) providing those engineering measures and pilot production lines necessary for both planning and facility prove-out of production lines for components and end items; (4) layaway of production facilities for which current production has been completed but where established future requirements exist for peacetime or mobilization procurement, including an estimated $0.5 million for privately owned facilities; and (5) the accomplishment of the sixth increment of a multi-year effort to rehabilitate and improve this critical deteriorated and obsolete portion of the Army's industrial base. The FY 74 and FY 75 requests are compared below:

	FY 74 (Millions)	FY 75 (Millions)
Provision of Industrial Facilities	$149.5	$238.5
Annual Support	(38.9)	(43.1)
Modernization and Expansion	(110.6)	(189.4)
Initial Production Facilities		(6.0)
Layaway of Industrial Facilities	13.5	14.0

Appropriation	Budget Program or Budget Project Account
Procurement of Ammunition, Army	Activity 2 - Production Base Support

Production Engineering Measures	36.7	37.5
Total PBS Ammunition	199.7	290.0

As indicated, the primary effort in FY 75 will be in ammunition facilities modernization and expansion. This sixth year increment of $189.4 million in the Production Base Modernization/Expansion Program provides only the most essential projects. The modernization projects were selected as being the most promising in terms of improving pollution abatement, decreasing costs and improving safety, quality and efficiency. Expansion projects are designed to insure that new items to be introduced into the end item inventory can be mass produced and that material required for incorporation into component parts is available. Primarily, these projects relate to our explosive; propellant; and load, assemble and pack facilities for major ammunition production. Additionally, small arms projects are particularly promising in providing a high dollar return on capital investment. Future projects planned in the continuing effort to modernize the base and expand for production of new items will provide for continuation of these efforts in the areas of propellant and explosive plants; load, assemble and pack plants; metal parts or components plants; and small arms facilities.

Included in the FY 75 request is $100.5 million for construction. Military construction Project Data (DD Form 1391) will be furnished under separate cover. A listing of this construction, by projects, is as follows:

Project Number	Plant	Nomenclature	Cost (Millions)	Construction (Cost -(Millions))
		Production Support & Equipment Replacement		
55312	Volunteer AAP	"	1.7	1.3
55313	Joliet AAP	"	1.5	1.1
55314	Louisiana AAP	"	1.9	.8
55315	Twin Cities AAP	"	1.9	.5

Department of the Army Annual Budget Estimates JUSTIFICATION	FY 1975 Budget
Appropriation Procurement of Ammunition, Army	Budget Program or Budget Project Account Activity 2 - Production Base Support

Project Number	Plant	Nomenclature	Cost (Millions)	Construction (Cost -(Millions))
		Production Support & Equipment Replacement		
55316	Lone Star AAP	"	.9	.2
55317	Milan AAP	"	1.6	1.0
55323	Badger AAP	"	3.5	1.7
55327	Longhorn AAP	"	.8	.5
55328	Holston AAP	"	3.3	2.1
55330	Indiana AAP	"	1.5	1.1
55332	Lake City AAP	"	2.3	1.4
55337	Newport AAP	"	.7	.4
55342	Scranton AAP	"	1.3	.6
55343	Riverbank AAP	"	2.7	.2
52195	Lake City AAP	MOD-5.56mm Production Equipment	28.9	11.0
52608	Volunteer AAP	MOD-TNT Bulk Handling	7.8	2.6
52626	Lone Star AAP	MOD-Melt Pour Fac for 105mm Projectile	26.0	13.3
52632	Sunflower AAP	EXP-Construct Nitroguanidine Fac	45.6	43.0
52660	Holston AAP	MOD-Modernization of Support Fac	5.5	5.4
52666	Radford AAP	MOD-Construct Nitrocellulose Thermal Dehydration Fac	2.6	1.5
52667	Volunteer AAP	MOD-Construct a New Combined Shops Building	1.6	1.4
52683	Louisiana AAP	MOD-Railroad Overpass Area X	1.0	1.0
52691	Iowa AAP	MOD-Modernization of Support Facilities	2.4	1.8
52960	Twin Cities AAP	MOD-Modernization of Support Facilities	4.8	4.2
52964	Sunflower AAP	MOD-Upgrade Electrical System	.5	.5
55508	Kansas AAP	EXP-Expand M483, 155mm Capacity	2.0	1.9
		TOTAL	$154.3	$100.5

Appropriation: Other Procurement, Army

FY 1975 Budget

Section 2 - INTRODUCTORY STATEMENT

This appropriation finances the acquisition of: (a) tactical and commercial vehicles including trucks, semitrailers and trailers of all types to provide mobility and utility support to field forces and the worldwide logistical system; (b) communications and electronics equipment of all types to provide fixed, semifixed, and mobile strategic and tactical communications equipment to achieve reliable and responsive functioning operational command and control over widely dispersed areas for U.S. forces, and for strategic, worldwide defense communication systems; (c) other support equipment including defensive chemical items, tactical bridging, construction equipment, floating and rail equipment, generators, material handling equipment, medical support equipment, non-system training devices and special equipment for user testing. In each of these activities, funds are also included for modification of in-service equipment, investment spares and repair parts, and related first destination transportation, and production base support.

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

Appropriation Other Procurement, Army	1973 Actual	1974 Estimate	1975 Estimate
Tactical and support vehicles	214,500	87,600	165,800
Communications and electronics equipment	197,400	206,000	310,800
Other support equipment	199,100	269,290	309,600
TOTAL DIRECT PROGRAM	611,000	562,890	786,200
Reimbursable Program	144,410	235,000	210,000
TOTAL PROGRAM REQUIREMENTS	755,410	797,890	996,200
Less: Portion of program to be obligated in subsequent fiscal years	163,420	187,320	234,200
Plus: Obligations incurred against prior year program funds	77,862	157,662	171,540
TOTAL OBLIGATIONS	669,852	768,232	933,540

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Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation OTHER PROCUREMENT, ARMY		FY 1975 Budget
Budget Program or Budget Project Account ACTIVITY 1 - TACTICAL AND SUPPORT VEHICLES	(In Thousands of Dollars) Actual Fiscal Year 1973	Estimate Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$214,500	$87,600	$165,800

Section 1 - PURPOSE AND SCOPE

For the procurement, manufacture, and conversion of tactical and support vehicles and associated equipment, including purchase and installation of modification kits and depot reparable assemblies and components, first destination transportation and related production base support. The tactical vehicles are of the type normally used by operational and support forces, to include prime movers and general purpose vehicles usually equipped with multi-wheel drive to satisfy cross-country mobility needs. Support vehicles are of the administrative type which are generally equipped with two-wheel drive and are commercial in nature including sedans, buses, truck tractors, or associated vehicles.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

Although the funding level of this activity has been increased to implement a program of substituting commercial vehicles for those of a military design where feasible, it is still being restricted as the result of extensive analysis of overall tactical vehicle/mission requirements. Principal increases are for the initial multi-year procurement of the heavy equipment transporter (HET),procurement of commercial telephone maintenance trucks and 1-1/4 ton trucks to replace M37 3/4 ton and M715 1-1/4 ton military design vehicles in tactical applications not requiring a high mobility vehicle, and commercial vehicles in the administrative fleet. The requested FY 1975 funding level is essential for the replacement of peacetime losses of tactical trailers and associated equipment, limited replacement of over-age commercial vehicles, and gradual improvement of inventory levels required to support the Army's Authorized Acquisition Objectives. Procurement of replacement commercial trailers is included to support those Army functions which do not require the more expensive tactical vehicles. Due to the large number of over-age commercial vehicles currently in the inventory, a failure to maintain required inventory levels with newer vehicles will magnify future over-age problems. The program includes the following: $8.2 million for a 1-1/4 ton commercial truck; $24.4 million for the 8 ton COER truck; $16.7 million for truck-tractor, 22-1/2 ton, HET; $10.3 million for truck, maintenance, telephone, utility; $20.6 million for various semitrailers; $2.4 million for various trailers and dolly sets; $63.8 million for various commercial vehicles; $1.3 million for modification of in-service 5 ton trucks; $9.4 million for the procurement of items, each of which have a procurement value of less than $500,000; $4.3 million for repair parts and support materiel; $2.6 million for first destination transportation; and $1.8 million for production base support.

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation OTHER PROCUREMENT, ARMY		FY 1975 Budget
	(In Thousands of Dollars)		
Budget Program or Budget Project Account	Actual	Estimate	
Activity 2 - Communications and Electronics	Fiscal Year 1973	Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$ 197,400	$ 206,000	$ 310,800

Section 1 - PURPOSE AND SCOPE

For the procurement, manufacture, first destination transportation, modification and production base suppose of communications and electronics equipment and high dollar value depot reparable assemblies/components for initial provisioning and replenishment requirements including: radios, radars, countermeasures, combat wire communications, meteorological, night vision, photographic, combat surveillance, target acquisition, strategic and other tactical and security communications and electronics equipment.

Section 2 - JUSTIFICATION FOR FUNDS REQUESTED

Funding is required to provide for: Combat Service Support Communications equipment ($42.4 million) to provide command and control of tactical units; $68.1 million to support Army strategic communications including selected improvements to the Defense Communications System to assure optimum system efficiency ($29.7 million), support of Army systems that interface with the Defense Communications System ($20.9 million) and heavy transportable terminal control equipment/interconnecting facilities for the Defense Satellite Communications System ($17.5 million); tactical communications security equipment ($20.8 million); Army Security Agency equipment for the Army portion of the Consolidated Cryptologic Program [Deleted] Army General Defense Intelligence Program ($3.8 million); automatic data processing equipment ($57.1 million) including $21.8 million to provide an automated fire direction system for field artillery (TACFIRE) and $22.0 million for Other Non-Tactical ADPE capabilities for a variety of Army programs; audio visual systems ($4.9 million); the final phase of Project J-7 USAREUR TV program ($12.5 million); Sensor Systems ($11.7 million); Tactical electronic equipment to provide field commanders support for tactical operations ($47.8 million); ($2.8 million) for modification of in-service equipment; ($20.9 million) for Support Equipment and Facilities including $8.6 million for items which have a procurement value less than $500,000 necessary to meet essential requirements of the Army, $7.3 million for Spares and Repairs and First Destination Transportation and $5.0 million for 15 production base support projects including 14 manufacturing methods and technology projects and one project to support the Carbonyl Iron and Carbonyl Nickel Plant at Redstone Arsenal.

Department of the Army Annual Budget Estimates JUSTIFICATION	Appropriation OTHER PROCUREMENT, ARMY		FY 1975 Budget
Budget Program or Budget Project Account Activity 3 - OTHER SUPPORT EQUIPMENT	(In Thousands of Dollars)		
	Actual Fiscal Year 1973	Estimate Fiscal Year 1974	Fiscal Year 1975
Direct Obligations or Direct Budget Plan	$199,100	$269,290	$309,600

Section 1 - PURPOSE AND SCOPE

Provides for procurement, manufacture, and conversion of combat support, construction, floating and rail, generator, materials handling and medical support equipment and for non-system training devices and special equipment for user testing. The request also provides for spares and repair parts, first destination transportation and related production base support.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

The requested program is necessary to provide $5.1 million for the continued phase-in of the medium girder bridge, $8.0 million for float-bridge equipment, $50.9 million for commercial construction equipment, $21.9 million for chemical protective equipment, $19.5 million for Medical Unit Self-Contained Transportable (MUST) hospital components, $5.2 million for various items of petroleum supply and distribution equipment, $12.4 million for floating and rail equipment, $13.8 million for various types of generators, $11.5 million for materials handling equipment, $35.0 million for medical support equipment, $26.8 million for miscellaneous items costing less than $500,000, $13.4 million for repair parts and support material for the various equipment items, $20.0 million for non-system training devices, $5.5 million for first destination transportation, $23.6 million for various other support equipment, $5.1 million for special equipment for user testing, $17.5 million for equipment modifications, and $14.4 million in support of 28 production base support projects.

NEXT SCHEDULED HEARING

Chairman McCLELLAN. This will conclude the hearings today. Tomorrow we will hear Deputy Secretary of Defense for Research and Engineering. Who will it be?

General KJELLSTROM. Dr. Currie.

Chairman McCLELLAN. We will hold the hearing in this room starting at 10 o'clock.

SUBCOMMITTEE RECESS

The subcommittee will stand in recess until then.

[Whereupon, at 12 noon, Thursday, April 4, the subcommittee was recessed, to reconvene at 10 a.m. Friday, April 5.]

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