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STATEMENT OF SECRETARY OF DEFENSE ROBERT S. McNAMARA

BEFORE THE HOUSE ARMED SERVICES COMMITTEE

ON THE FISCAL YEAR ~~1968-72~~ 1967-71 DEFENSE PROGRAM AND ~~1968~~ 1967 DEFENSE BUDGET

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Mr. Chairman and Members of the Committee:

We are here today to present our Defense program projections for the next five years and our budget proposals for the coming fiscal year. My prepared statement is arranged essentially in the same manner as last year. Attached to each copy is a set of related tables which you may wish to follow as we proceed through the discussion. As has been my practice in the past, I will attempt to call your attention to the more important program changes which have occurred since last year, particularly those relating to our effort in Southeast Asia. In order to provide in one place a complete discussion of the Southeast Asia situation as it affects the overall defense program, I have treated the FY 1966 Supplemental as an integral part of this statement even though this entails some duplication of the content of my earlier statement on that Supplemental. Other Defense Department witnesses will present the details of our financial requirements for FY 1967 later in these hearings.

There is one important change in the coverage of the Defense program and budget this year which deserves particular mention. We have included in both the FY 1966 supplementals and the FY 1967 budgets of the military departments the requirements for the support of the South Vietnamese Armed Forces and other Free World Military Assistance forces engaged in that country. These requirements have heretofore been financed in the Military Assistance Program. However, now that large U.S. forces and other Free World Military Assistance forces (e.g. Korean) have joined in the defense of South Vietnam, the maintenance of separate financial and logistic systems for U.S. and Military Assistance forces is proving to be entirely too cumbersome, time-consuming and inefficient. The same problem was encountered at the outset of the Korean War. It was solved, then, by programming, budgeting and funding for all requirements under "military functions" appropriations and providing a consolidated financial and supply system for the support of U.S., Korean, and other friendly forces engaged in that effort. This arrangement gave the field commanders maximum flexibility in the allocation of available resources and improved the support of forces employed.

We are proposing essentially the same solution for the problems now being encountered in South Vietnam. By shifting responsibility and funding to the military departments, we will be able to achieve:

a. Increased efficiency resulting from the elimination of parallel supply pipelines to Vietnam and stockages of materiel within Vietnam; the consolidation of programming, budgeting, and

funding for materiel and services required by U.S. and Military Assistance forces; and the elimination of detailed accounting and reporting for materiel and services furnished to Military Assistance forces.

b. Increased supply effectiveness resulting from greater flexibility in the use of materiel resources available to the theater commander.

Under the proposed arrangement, all unexpended balances of FY 1966 and prior year Military Assistance funds for South Vietnam would be transferred to and merged with the accounts of the military departments, and all additional funds required for the support of the forces of South Vietnam and other Free World Military Assistance forces in that country would be authorized for and appropriated to the accounts of the military departments. The remainder of the Military Assistance Program would be legislated separately.

Again, I would like to remind you that I will be discussing costs in terms of "Total Obligational Authority" (TOA), i.e., the full cost of an annual increment of a program regardless of the year in which the funds are authorized, appropriated or expended. These costs will differ in many cases from the amounts requested for new authorization and appropriation, especially in the procurement accounts where certain prior year funds are available to finance FY 1967 programs. Moreover, much of my discussion will deal with the total cost of the program, including the directly attributable costs of military personnel, operation and maintenance, as well as procurement, research and development and military construction.

A. APPROACH TO THE FY 1967-71 PROGRAM AND THE FY 1966-67 BUDGETS

As I have noted in previous appearances before this Committee, President Kennedy gave me two general instructions when I took office in January 1961:

1. Develop the military force structure necessary to support our foreign policy without regard to arbitrary budget ceilings.

2. Procure and operate this force at the lowest possible cost.

During the entire five years of my tenure as Secretary of Defense, I have been guided by these two basic principles. Throughout that period I have insisted that our military strategy and plans should be related to the threat, that the forces to be acquired and maintained should be related to the strategy and the plans, and that the forces should be adequately supported, not only with men, equipment and facilities needed in peacetime, but with war reserve stocks as well, so that they could engage in combat for sustained periods of time.

The achievement of this objective has not been easy. For many years our military plans far exceeded the forces available to support them, and even the forces available were not in proper balance with one another. There was not enough tactical air power to support the existing number of Army divisions. In addition, although the concept of a mobile central reserve had been generally accepted, the airlift required to move these forces was completely inadequate, and there was not enough amphibious lift to move the Marine Corps forces. Although a great deal of attention had been paid to nuclear weapons, stocks of ammunition and other combat consumables required for non-nuclear war were grossly deficient in many categories.

Since 1960, we have added some $50 billion to our defense program to correct these deficiencies. By the end of FY 1965 we had achieved a:

45% increase in the number of combat-ready Army divisions
45% increase in the number of combat helicopters
100% increase in airlift capability
51% increase in the number of Air Force fighter squadrons
100% increase in naval ship construction to modernize our Fleet
1,000% increase in the Special Forces trained for counterinsurgency.

At the same time, we did not neglect our nuclear forces. Indeed, during this period we achieved a:

200% increase in the number of nuclear warheads and total megatonnage in the strategic alert forces

67% increase in the number of tactical nuclear weapons in Western Europe.

But even while these increases in our military strength were being achieved, we moved forward vigorously on President Kennedy's second instruction, "Procure and operate this force at the lowest possible cost."

Each year since its inauguration in FY 1961, we have been able to increase the savings actually realized through our Cost Reduction Program and to increase its goals. In FY 1965, the last completed fiscal year, savings amounted to about $4.8 billion compared with $2.8 billion in FY 1964 and $1.4 billion in FY 1963. I can assure you that these savings were made without adverse effect on our military strength or combat readiness. Any doubt of this can only be based on a misunderstanding of the way in which we compute our requirements for forces, equipment and ammunition. As noted earlier, it has been my contention from the very beginning that we should first determine as accurately as possible what we need to support the forces required by our war plans; and then buy all of what we need, but only what we need, and buy at the lowest sound price.

In the case of both major equipment and consumables, we must acquire the items needed for the initial outfitting of the forces and for keeping their equipment modern, plus sufficient stocks to meet our peacetime needs, plus a war reserve sufficient to meet the logisistic standards associated with our contingency war plans. All of these requirements are susceptible to calculation and there is nothing to be gained by buying more than we need at any particular time. Indeed, there is much to be lost since nearly all of these stocks are subject to obsolescence and many items actually deteriorate physically over time. Even under the best of circumstances, we have to dispose of billions of dollars of equipment and supplies each year, and at a mere fraction of their original cost. To the extent we buy more than we need, we simply increase the amount which eventually must be disposed of, thus wasting the taxpayers' money without adding anything of value to our actual military strength.

But the question still remains: Why, if we had acquired what we needed, do we now have to increase our procurement so substantially in order to support our military effort in Southeast Asia? The answer to

this question has three parts. First, we are increasing the size of our active forces because we do not wish at this time to call up the reserve forces. The new forces must be equipped and supplied.

Second, we do not normally provide in advance for combat attrition of such major weapon systems as aircraft and ships because of the great cost involved. I understand that a war reserve of aircraft was once considered in connection with the military build-up undertaken during the Korean War, but rejected for the same reason. Accordingly, additional aircraft must be procured as soon as the forces are committed to combat, and this was one of the largest items in our FY 1966 Supplemental request.

Third, we provide in our war reserve stocks only those quantities of combat consumables needed to tide us over until additional stocks can be acquired from new production. This means that as soon as we start to consume significant quantities of war reserve stocks in combat, we must start to procure replacement stocks. For such items as ammunition, wartime consumption rates are many times peacetime rates. You will see when I discuss our ammunition requirements later in the Statement, that it would be entirely impractical to attempt to carry in stock the huge amounts required when our forces actually engage in combat. And, there is no need to do so, as long as we have on hand the essential margin between consumption and production. This margin we have, except in those few cases where materiel is being used in Vietnam in ways and quantities which were never anticipated; for example, the 2.75 inch rocket now being fired in great quantities from helicopters.

This is not to say that every one of the tens of thousands of Defense Department supply points is without a single "inventory shortage." Anyone who has had experience with large supply systems knows that somewhere, sometime, something will be lacking. No matter how much we spend for defense, someone somewhere in our far flung organization will be short some item at any particular time. This has nothing to do with the amount of funds requested and appropriated. It simply reflects the fact that no system involving literally hundreds of thousands of people and millions of different items spread around the globe can be one hundred percent perfect. Mistakes in distribution or requirements calculations will be made, and these mistakes will be reflected in an inventory shortage, or overage, somewhere in the system. This is true of private industry as well as government, and it is up to management at all levels to see to it that these mistakes are held to a minimum and corrected promptly when discovered.

Accordingly, the entire question of shortages must be viewed in perspective. The acid test of our logistics system is the ability of our

forces to take the field and engage in combat. I submit that the rapid deployment and support in combat of a force of over one-quarter of a million men (including those aboard ships off the coast of Vietnam) to an area 10,000 miles from our shores clearly demonstrates that our logistic system has that capability. Never before has this country been able to field and support in combat so large a force in so short a time over so great a distance, without calling up the reserves and without applying price, wage and material controls to our civilian economy. That is why General Abrams, the Vice Chief of Staff of the Army, was able to say last June -

> "The Army is in the best peacetime condition in its history. I make this statement based on my experience as a battalion commander in Europe for 22 months beginning in 1949, and as commander of an armored cavalry regiment for 14 months thereafter, as a division commander in Europe from October 1960 to June 1962, and as corps commander from July 1963 to July 1964. From this background and from my association with soldiers and their equipment, I can state unequivocally that the readiness conditions in the U.S. Army are the highest that have been attained in my 29 years of service."

That is why the Secretary and Chief of Staff of the Army were able to report last August that -

> "The Army was never in a better position in peacetime than it is today -- with respect to both training and equipment, it is fully prepared to carry out its mission of sustained land combat. From the point of view of materiel, this is the direct result of the significant equipment procurement and modernization program that has taken place over the past several years, and the provision of combat reserves in depth to enable our forces to engage in sustained combat."

That is why General Wheeler, the Chairman of the Joint Chiefs of Staff, was able to say last year about our forces in Europe -

> "I have never known, historically or otherwise, of any Army in peacetime as well equipped, as well trained, as well manned as the Seventh Army today."

With regard to the preparation of the FY 1967-71 program and the FY 1966 Supplemental and the FY 1967 Budget, we have had to make a somewhat arbitrary assumption regarding the duration of the conflict in Southeast Asia. Since we have no way of knowing how long it will actually last, or how it will evolve, we have budgeted for combat operations through the end of June 1967. This means that if it later appears

that the conflict will continue beyond that date, or if it should expand beyond the level assumed in our present plans, we will come back to the Congress with an additional FY 1967 request. If the conflict should end before that date or if rates of consumption are less than planned, we would, of course, have to adjust the programs downward. In either case, further changes in the FY 1967-71 program and the FY 1967 Budget may occur.

This situation is not unlike that which existed four years ago when I appeared here in support of the FY 1963-67 Program and the FY 1963 Budget. At that time we were uncertain as to how the Berlin crisis would evolve and we assumed for budget purposes that the special measures associated with that crisis would terminate at the beginning of the next fiscal year. During most of the Korean War, it was assumed for budget purposes that the conflict would end before the beginning of the next fiscal year. And, when President Eisenhower in early 1953 extended this assumption to include the next fiscal year (FY 1954), the conflict ended in the first month of that year. So it is clear there is no "right" way to deal with this kind of problem. The essential point is that the planning assumptions underlying the FY 1966-67 Budget requests should be clearly understood by all concerned.

Because of the large demands of our planned military operations in Southeast Asia, we have stretched out and deferred some programs which are not directly related to our near-term combat readiness. This is particularly true of the "non-combat" portion of the military construction program, e.g., the replacement of administration and school buildings, BOQs, barracks, etc. not related to the support of our military operations in Southeast Asia. It is also true of the Family Housing construction program, where we have deferred the 8,500 units funded in FY 1966 for the time being and have not included any further request for new units in the FY 1967 Budget. As you know, I have fought very hard for adequate military family housing, and this stretch-out should not be construed as a loss of interest on my part. It is simply the kind of program that can be deferred without adversely affecting our near-term combat readiness.

Needless to say, we are pursuing our Cost Reduction Program with renewed vigor. And, as you know, we have developed another list of base closings and consolidations. These actions have been very carefully reviewed by each of the military departments in the light of our requirements in Southeast Asia. They will in no way affect our combat capabilities in Southeast Asia or elsewhere.

By eliminating unneeded and marginal activities and deferring whatever can be safely deferred, I have been able to reduce the FY 1966 Supplemental and FY 1967 Budget requests of the Services and Defense Agencies by about $15-1/2 billion, while at the same time providing

for all essential military requirements.

As shown on Table 1, we are requesting for FY 1966 a total of $63.3 billion in new obligational authority, of which $12.3 billion is in the special Supplemental for Southeast Asia requirements, and $.9 billion is for the pay raises enacted last year. For FY 1967 we are requesting a total of $59.9 billion in new obligational authority. Expenditures for these two fiscal years are now estimated at $54.2 billion and $58.3 billion, respectively.

B. ASSESSMENT OF THE INTERNATIONAL SITUATION AS IT BEARS ON MILITARY POLICIES AND PROGRAMS

For the American people, the single most important development in the international situation during the last year has been the heightening crisis provoked by the Asian Communists in South Vietnam. As I informed the Committee last August, the North Vietnamese, supported and egged on by the Chinese Communists, attempted to launch an all-out drive to destroy the Army of South Vietnam and bring down its Government. Not only was the infiltration of men and supplies from North Vietnam into South Vietnam accelerated, but regular units of the North Vietnamese Army were brought in for the attack. The United States Government had made it known for many years that it would view with the greatest concern any Communist attempt to seize the territory of South Vietnam by force of arms. Our response to that threat was exactly what the aggressors should have anticipated; we promptly came to the aid of the people of South Vietnam with the forces needed to halt the attack and throw it back. We have said time and time again that we would do everything necessary to help these people defend their freedom and independence as long as they, themselves, were willing to carry on the struggle.

We have shouldered this heavy burden for several reasons. First, we believe that the people of South Vietnam, like people everywhere, should have the right to decide their own destiny. Second, we intend to honor our commitment to help defend the people of South Vietnam from aggression, just as we will honor our defense commitments to other nations. Third, we have long recognized the great strategic importance of the outcome of that conflict, not only for the security of the United States, but also for the entire Free World.

The aggression against South Vietnam is not just another attempt by its neighbor to the North to gain by force the dominion that it was unable to achieve by peaceful means. It is also a test case of the Chinese Communist version of the so-called "wars of national liberation", one of a series of conflicts the Chinese hope will sweep the world. If it succeeds, it will encourage the partisans of violent political change in the Communist world to seek to extend their particular method of installing Communism over all of the underdeveloped world. This aggression is a threat not only to the security of the United States and the entire Free World but, interestingly enough, also to the leadership of the Soviet Union in the world Communist movement. It is this peculiar clash of forces -- the Chinese Communists, the Soviet Communists and the Free World -- that gives this conflict its unique importance.

If there is still any question as to the historic significance of this struggle, let me call your attention to the comprehensive policy statement made by the Chinese Communist Minister of Defense, Lin Piao, last September. This statement should be read by every American

concerned with the political aims of Communist China. It is, to quote Secretary Rusk, "as candid as Hitler's Mein Kampf."

The long-range objective of the Chinese Communists is to become dominant in the Asian, African and Latin American countries, and to frustrate the process of peaceful development and free choice in the developing nations. They hope to create a new alignment, especially in the Southern and Eastern Hemispheres, in which Communist China is the ideological leader and the most powerful country.

Because it provides such a clear insight into the really fundamental issues at stake in Vietnam, I have included as an Appendix to this statement some of the more significant passages from Lin Piao's article, in the event that you may not find time to read the full text which runs to more than 17,000 words.

The immediate targets of the Chinese Communists are the smaller, weaker, developing nations whose governments are already struggling against great odds to achieve a measure of political stability, economic growth and social justice. In those kinds of situations, ample opportunities exist for Communist intervention. By associating themselves with one group or another, the Communists seek to gain a foothold in such countries; and then, by employing subversion, political assassination and other forms of terrorism, they seek to expand that foothold into what Lin Piao calls a "rural base area" from which to mount guerrilla warfare against the legitimate governments.

This is precisely the pattern which was pursued in South Vietnam. Had not the United States and other believers in independence gone to the aid of the people of South Vietnam, the Viet Cong, directed by Hanoi and encouraged by Peiping, would have without question succeeded in overthrowing the Government and seizing control. And, were they to succeed in South Vietnam, there can be no doubt that Communist China's efforts to support such revolutions in Asia and elsewhere would move forward with increased confidence and determination.

Indeed, even without such a success, Communist China has already named Thailand as its next victim. A "Thailand Independence Movement" and a "Thailand Patriotic Front" have already been established. The first is, apparently, intended to be the equivalent of the Viet Cong and the second of the National Liberation Front in South Vietnam. Large sums of Thai currency have been purchased by Peiping in Hong Kong and the study of the Thai language is now being emphasized in Communist China.

In recent months a number of village officials and policemen have been assassinated in the northeastern areas of Thailand. Clashes have occurred with small bands of armed Communists, seemingly well equipped and trained; and a "Voice of Free Thailand" radio station has apparently been established in Communist China. Obviously, the apparatus for a "war of liberation" in Thailand is being created.

Elsewhere in the world, notably in Africa and in Latin America, Chinese Communist agents are competing with those of the Soviet Union in trying to gain footholds to support insurgency and revolution.

Notwithstanding their bellicosity and their cynical protestations that it is permissible for them to move men and guns across borders to attack free governments but not for the forces of freedom to defend themselves, the Chinese Communists have thus far displayed great caution in an effort to avoid a direct confrontation with United States military forces in Asia. As in the case of Moscow, there is no reason to suppose that Peiping does not understand the hazards of a major war.

[redacted] there is every reason to conclude that Peiping is determined to press the conflict in Vietnam at the expense of the [redacted] and that it will follow a similar course at the expense of other peoples wherever it believes an opportunity exists. This is why I said to this Committee last year that "The choice is not simply whether to continue our efforts to keep South Vietnam free and independent but, rather, to continue our struggle to halt Communist expansion in Southeast Asia. If the choice is the latter, as I believe it should be, we will be far better off facing the issue in South Vietnam."

But the responsibility for deterring and meeting Communist aggression is not ours alone. Other countries of the Free World can and should bear their share of the defense burden and play an active role in constructive international enterprise. The industrialized countries of the North Atlantic have a unique contribution to make in both respects, and Secretary Rusk and I brought this point forcefully to the attention of our colleagues at the NATO Council of Ministers' meeting last December.

In this connection, it must be recognized that keeping the peace is not limited to deterring Communist aggression alone. As events in the Asian subcontinent demonstrated during the past year, international peace and the processes of peaceful change and development can be disrupted by conflicts within the Free World as well. Moreover, such conflicts usually invite intervention by Moscow and Peiping, each seeking in its own way to advance its own interests. Thus, we have every incentive to try to help our friends in the Free World settle their differences

by peaceful means, using to the full the resources of the United Nations as well as employing direct diplomacy.

Last year I said to this Committee:

> "To the extent that the Communist states are convinced that war is no longer a feasible method to extend the sway of their ideology, our safety is enhanced. To the extent that they are convinced that we will resist with force, if necessary, any encroachment on our vital interests around the world, the chances of war are diminished. To the extent we hold open the door to peace and disarmament, we provide an alternative to an arms race. To the extent that the Free World continues to demonstrate that a free society can provide a better life for the people than can a Communist society, the attraction of freedom will continue to exert an irresistible pull, not only on the uncommitted nations of the world, but on the people of the Communist nations themselves."

These are still my views. I believe that the leaders of the Soviet Union fully appreciate, as we do, the perils of general nuclear war and the danger of local wars escalating into general nuclear war. I believe that the leaders of Communist China are also reluctant to challenge the full weight of our military power. But it is clear that we have yet to convince the Chinese Communists that their new drive for world revolution, using what they euphemistically call "people's wars" will not succeed. We have yet to convince them that we will, indeed, resist with force any encroachment on the vital interests of the Free World, and that the conflicts which could thus result hold great danger for them as well as for the rest of the world.

But convince them we must. If we and our Free World allies fail to meet the Chinese Communists' challenge in Southeast Asia, we will inevitably have to confront it later under even more disadvantageous conditions. Lin Piao has given us fair warning of the Chinese Communist intentions. If we have learned anything from the history of the last 30 years, we have learned that aggression feeds upon itself, and that the aggressor's appetite can never be satisfied short of complete submission. We temporized with aggression in the 1930s, and in the early 1940s we were forced to fight the greatest war in our history. In the late 1940s we took a stand against Communist aggression in Europe and brought it to a halt, and today Europe is an area of stability and prosperity. We took a stand against Communist aggression in Korea in the early 1950s and again we brought it to a halt. And in 1958 we helped to frustrate the Chinese Communist attack against the military forces of the Republic of China.

The present conflict in Vietnam is Communist aggression in a different guise. I am convinced that if we stand fast again in Southeast Asia, this new aggression will be brought to a halt. As I noted last year, the road ahead will be difficult and sacrifices will be required of our people, both in money and in lives. But we have no other reasonable alternative if we are to preserve the kind of world we want to live in -- a world in which each nation is free to develop in its own way, unmolested by its neighbors, free of armed attack from the more powerful nations. We, ourselves, do not seek to overthrow, overtly or covertly, the legitimate government of any nation, and we are opposed to such attempts by others. We have no territorial ambitions anywhere in the world and we insist that all nations respect the territorial integrity of their neighbors. We do not seek the economic exploitation of any nation and, indeed, since the end of World War II have given other nations well over $100 billion of our wealth and substance, an effort unparalleled in the history of mankind.

Even while we, together with our friends and allies, continue the struggle in Southeast Asia, we hold open wide the door to a just settlement of that conflict. President Johnson and Secretary Rusk have restated in a hundred different ways our willingness to move that conflict from the battlefield to the conference table. Here is the position of the United States Government on peace in Vietnam, as most recently outlined by Secretary of State Rusk:

1. The Geneva Agreements of 1954 and 1962 are an adequate basis for peace in Southeast Asia;

2. We would welcome a conference on Southeast Asia or on any part thereof;

3. We would welcome "negotiations without pre-conditions" as the 17 nations put it;

4. We would welcome unconditional discussions as President Johnson put it;

5. A cessation of hostilities could be the first order of business at a conference or could be the subject of preliminary discussions;

6. Hanoi's four points could be discussed along with other points which others might wish to propose;

7. We want no U.S. bases in Southeast Asia;

8. We do not desire to retain U.S. troops in South Vietnam after peace is assured;

9. We support free elections in South Vietnam to give the South Vietnamese a government of their own choice;

10. The question of reunification of Vietnam should be determined by the Vietnamese through their own free decision;

11. The countries of Southeast Asia can be non-aligned or neutral if that be their option;

12. We would much prefer to use our resources for the economic reconstruction of Southeast Asia than in war. If there is peace, North Vietnam could participate in a regional effort to which we would be prepared to contribute at least one billion dollars;

13. The President has said "The Viet Cong would not have difficulty being represented and having their views represented if for a moment Hanoi decided she wanted to cease aggression. I don't think that would be an insurmountable problem";

14. We have said publicly and privately that we could stop the bombing of North Vietnam as a step toward peace although there has not been the slightest hint or suggestion from the other side as to what they would do if the bombing stopped.

Thus, the continuation of the conflict is not our choice but, rather, the choice of our adversaries. It will be terminated when they are convinced that their aggression cannot succeed and, when they reach that conclusion, I am sure that they will find no difficulty in communicating their intentions to us.

The issue has been joined and our course has been set. It is my hope that all Americans will throw their full support behind our military forces defending the frontier of freedom in Vietnam. It is my hope that free nations everywhere will come to recognize that this is their fight as well as ours; that Lin Piao's declaration of war against freedom is directed at them as well as at the United States, and that they will join in the struggle against this latest manifestation of totalitarian imperialism.

1. Strengths and Weaknesses Among the Communist Nations

While the Communist nations continued to challenge the Free World on many fronts during 1965, the character of this challenge reflected the internecine competition and hostility between the two major Communist powers. The expressed desire of the Soviet leaders to improve relations

with Communist China while also reducing conflicts with the West has turned out to be a most difficult enterprise. In any event, almost from the beginning of their tenure, the new leaders set about a diversified effort to contest Peiping's challenge to their leadership of the world Communist movement. More particularly, the Soviet leaders decided to reinvolve themselves actively in the affairs of Southeast Asia, and this action has led to increased Sino-Soviet friction as well as renewed clashes of interest with the United States.

Yet, this same competition with Communist China was a key factor leading the Soviet Union, last summer, to join with the United States and other peaceful nations in a UN effort to end the fighting which had broken out between India and Pakistan.

Thus, the contest between the two Communist giants opens up new dangers and new opportunities for the Free World.

The Chinese have rejected Soviet overtures for better relations and for "united action" in support of the North Vietnamese, and have called upon all Communist nations and parties to draw a clear line, politically and organizationally, between themselves and the Soviet "revisionists". Peiping's intransigence has lost it some support among more "neutral" communists; and even such hitherto close allies as North Vietnam and North Korea have seemed reluctant to echo Peiping's attacks on Moscow.

Since it is a part of Moscow's strategy to demonstrate that Peiping's charges of Soviet "capitulationism" and "connivance with U.S. imperialism" are false, we must continue to expect a harsh anti-American tone in Soviet policy pronouncements. In Europe, the Soviets seek as much as ever to frustrate the evolution of Western defense arrangements. The pressure of competition from the Chinese Communists drives the Soviet leaders toward a "cold war" approach to foreign policy questions, leads them to give high priority to military programs and, thus, to compound further their chronic economic problems.

a. The Soviet Union

In the Soviet Union, Khrushchev's successors have continued to function as a collective leadership. While a number of personnel shifts have taken place, these changes seem to have little relationship to foreign policy. The next Soviet Party Congress, scheduled for late this coming March, may give us a clearer indication of any new policy lines that may be evolving. Meanwhile, we must recognize in our own planning that Soviet policies remain subject to all of the vagaries inherent in rule by dictatorship -- whether it be individual or collective.

The primary domestic problem absorbing the attention of the leadership is the state of the Soviet economy. At the time when the advanced nations of the world are enjoying great prosperity, the rate of growth of the Soviet economy continues to falter, principally in the agricultural sector. The growth in GNP, which averaged about 6½ percent in the 1950s has slowed down to about 4-1/2 percent in the 1960s. Progress in the consumer sector of the economy has fallen considerably short of expectations. There is a rising demand among prominent members of Soviet political and intellectual life for substantial improvements in food supplies, housing, selection and quality of manufactured consumer articles, and services. This issue concerns not only the USSR's domestic policy, but also its international standing.

The failure of its economy to perform according to expectations has affected the USSR's foreign economic relations. The poor state of agriculture has compelled the Government to continue to import grain from the West. Since the Soviet Union is short of goods for which there is a foreign demand, it has had to dip again into its none-too-large gold reserves. The uncertainty about the forthcoming Soviet Five-Year Plan and similar quandaries in Eastern Europe, together with the difficulty of reconciling divergent national interests, have aggravated the problem of intra-Bloc economic relations. Soviet foreign aid disbursements, heavily concentrated on a small number of countries outside the Bloc, continued during 1965 at a slightly lower level than it reached in 1964. With repayments of previous Soviet loans increasing, the net outflow due to Soviet aid is rather small. [redacted] The net value represents only a fraction of one percent of the Soviet GNP. Military aid [redacted]

These competing demands on the Soviet budget are still serving as a restraint on the size of the military forces. Nevertheless, after some decline in 1964 and 1965, Soviet explicit defense expenditures are expected to rise again in 1966, according to the Soviet Finance Minister by about 5 percent over 1965. In addition, outlays for scientific research in 1966, which include much of the military research and development effort, are expected to rise about 10 percent over 1965, including both funds from the Soviet State Budget and from the enterprises' own resources.

The increase in the explicit defense budget is attributed by the Soviet Finance Minister to the increase in U.S. defense expenditures and the situation in Southeast Asia. Under the present circumstances I believe it is safe to assume that there will be some actual increases in Soviet defense expenditures in 1966. [redacted]

[redacted]

The same sorts of problems besetting the Soviet Union are also besetting the more advanced countries of Eastern Europe. Their defense burdens are lighter, but they suffer from the same deficiencies inherent in Soviet economic planning and management. This has led to a relaxation of orthodox economic policies in a number of Eastern European countries. By and large, their economic reforms are more far-reaching than in the USSR. Likewise, throughout Eastern Europe there has been a greater stress on particular national interests in economic and other affairs. With the Sino-Soviet rift continuing unabated, it has become more difficult than ever to enforce cohesion in Bloc policies, although the Soviet leaders persist in their efforts to strengthen Bloc economic and military organizations.

b. Communist China

In 1965 the Chinese economy continued to recover from the disasters of the Great Leap Forward (1958-60), but progress has been uneven and sluggish and the food-population balance remains a critical problem. The apparent failure to produce more grain in 1965 than in 1964 underscores the vital importance of continued high-volume grain imports. A new five-year plan has just been initiated, placing heavy emphasis on agriculture. Given reasonable weather, avoidance of extreme economic policies, and the absence of major hostilities, the Chinese economy should grow at a modest rate.

However, as in the case of the Soviet Union, pressures are increasing in Communist China to raise the standard of living. Moreover, the Chinese leaders are becoming increasingly concerned with what they call a "spontaneous tendency to capitalism" which has manifested itself in the rural areas. To counter this trend, the Peiping regime has undertaken a massive new indoctrination program. But if the history of the Soviet Union is any guide, the more the regime pushes its program, the more it will depress agricultural output. Here, again, we have one of the internal contradictions of Communism; the more the Government tries to eliminate material rewards as an incentive for production, and particularly in agriculture, the more economic growth is retarded.

Despite its economic set-backs and limitations, and at considerable cost to its domestic economic objectives, Communist China has pursued an ambitious nuclear development program while, concurrently, attempting to modernize and strengthen its entire military establishment. China's

[redacted]

capacity to produce U-235 was shown in its first two nuclear tests, and it will probably attempt to develop a thermonuclear device as soon as possible. At the same time, China is [redacted] a medium-range ballistic missile. Although results may be slow in coming, there is no reason to suppose that the Chinese Communists cannot, in time, produce long-range ballistic missile systems and arm them with thermonuclear warheads. Most conventional weapons are of Soviet supply or design, and the Chinese have been severely handicapped by the lack of Soviet sources for spares and replacements. However, domestic production of medium tanks, several submarines and apparently some modern jet fighters, attests to improved Chinese capabilities. China's People's Liberation Army, the largest in the world, is an effective fighting force, but deficiencies in equipment, mobility and logistic support limit its offensive capabilities outside of China.

Chinese Communist ambitions, the most important source of tension in the Far East, have remained unchanged and, to a large extent, unrealized in the last year. In Vietnam, the Indian subcontinent, Indonesia and the Afro-Asian movement, Peiping's attempts to increase its influence and exclude that of the U.S. (and the Soviet Union) were largely unsuccessful, and it has lost more than it gained. Even within the Communist camp, Peiping is losing some of its followers.

Communist China has reacted to these set-backs by assuming a still more militant posture, focusing its efforts on Vietnam which, as I noted earlier, has become not only the proving ground for its doctrine of "people's war" but also the principal arena for its increasingly bitter struggle with Moscow.

2. Southeast Asia and Southwest Pacific Area

There is growing recognition in the Free World that the conflict in Vietnam is, in fact, the result of Communist aggression; and that the aggression is controlled from Hanoi, urged on by Peiping. Our position, which is to seek negotiations without pre-conditions, is widely supported by non-Communist nations, allied or neutral, However, there is widespread concern lest the war widen, particularly as a result of Chinese intervention, and a tendency to let the U.S. bear the main burden for a war that many feel is remote. Thus, there has developed a strong consensus of vocal support for the defense of South Vietnam, but a continuing reluctance in many countries to offer more tangible assistance.

Accordingly, we have increased our efforts during the past year to obtain more substantial Free World assistance for South Vietnam. Our embassies in most of the non-Communist countries have made repeated

[redacted]

approaches to their host governments, and have sought to follow up every possibility for additional assistance, both military and non-military. As a result, there has been a significant increase in Free World support. Apart from the United States, some 40 nations have agreed to provide military, economic or humanitarian aid. The most important single contribution in the last year has been an entire combat infantry division dispatched by the Republic of Korea. With the Australian battalion and a New Zealand artillery battery, total Free World military strength, excluding our own and the Vietnamese, is now more than 20,000 men. We believe the Philippines will increase their participation in this international force, and it is possible that the Republic of South Korea will do likewise. Other nations are furnishing economic, medical and humanitarian aid.

As for our own commitment to the people of South Vietnam, we have made it clear from the very beginning that we would do everything necessary to help them defend their freedom and independence as long as they were willing to carry on the struggle. And in this case, let me remind you that the people of South Vietnam have borne the burden of this Communist aggression for many years, and they have not wavered in their determination to defend their freedom. Their military forces have been and continue to be in the forefront of the battle, and they are making a **very great effort to strengthen those** forces.

Our decision to send U.S. combat forces to South Vietnam last summer was brought about by the **stepped-up effort of the Communists** to destroy that country. We are prepared to continue our military collaboration with the South Vietnamese forces as long as the Communists insist on fighting, and we are ready to cope with any further escalation of the conflict on their part. In concert with our Allies and men of good will anywhere, we also stand ready to facilitate negotiations for a just settlement; but we have no intention of negotiating the surrender of South Vietnam. We have stated our willingness to negotiate unconditionally at any time and any place with any government. Other governments and concerned individuals have lent helpful hands in this endeavor. I am sure you know the history of these efforts and I am also sure you know the reception they have received.

The position of the Government of South Vietnam parallels our own. In an announcement on June 22 of last year, the Foreign Minister presented the following fundamental principles for a "just and enduring peace":

a. An end to aggression and subversion;

b. Freedom for South Vietnam to choose and shape its own destiny "in conformity with democratic principles and without any foreign interference from whatever source";

c. The removal of foreign military forces from South Vietnam as soon as aggression has ceased;

d. Effective guarantees for the independence and freedom of the people of South Vietnam.

These principles were reaffirmed by Prime Minister Ky on January 16, 1966, upon Secretary Rusk's visit to Saigon.

The position of the Government of North Vietnam and the National Liberation Front continues to be based on the four points first enunciated by the Premier of North Vietnam last April:

a. Withdrawal of U.S. troops and weapons;

b. No military alliances or foreign bases or troops;

c. Settlement of the internal affairs of South Vietnam by the South Vietnamese people in accordance with the program of the National Liberation Front of South Vietnam;

d. Peaceful reunification of North and South Vietnam by the Vietnamese people in both zones.

Thus, it is clear, particularly from the third point, that Hanoi is interested only in a settlement on its own terms -- the surrender of South Vietnam--and that so long as they hold to that policy we have no alternative but to continue the struggle in Southeast Asia. Later in this statement, in connection with the General Purpose Forces, I will discuss our specific military objectives in Southeast Asia as we now see them, the concept of operations, the forces approved for deployment and the force augmentations required to support the effort in South Vietnam and still be prepared for contingencies elsewhere in the world. When Hanoi and Peiping become convinced that they cannot win militarily and that we are determined to stay with our commitment to South Vietnam, then they may begin to look with greater favor on the possibility of negotiations.

In any event, it should be clear to Hanoi that North Vietnam, after all, has much to gain from a peaceful settlement of the conflict, including (a) a cessation of bombings, (b) an easing of the tremendous drain on Hanoi's resources, (c) the withdrawal of American forces, and (d) an opportunity to benefit from multi-lateral efforts for economic development in the area as soon as peaceful cooperation is possible.

During the past year, the Government of South Vietnam has gradually gained acceptance from a wide variety of elements in the South Vietnamese body politic. The great increase in our military commitment since last summer has undoubtedly enhanced South Vietnamese confidence in our resolve to stand by our commitment, thereby further improving the prospects for greater political stability. Even before the present administration came to power, the May 30, 1965, elections for provincial and urban councils in Government-controlled areas had been carried out in an orderly and effective fashion. I think it would be fair to say that most of the rural population in South Vietnam has no recourse but to comply with Viet Cong demands in areas that they control, but these same communities do cooperate with the Government when adequate security is provided. We believe that the Viet Cong has failed to enlist ideological support from the great majority of the Vietnamese. Moreover, they seem to have fallen short of their objectives in the cities. A recent illustration was the almost total lack of response to their call for a general strike throughout South Vietnam last October.

[redacted] The Government has acknowledged the importance of establishing greater rapport with the rural population and is now engaged in organizing the political and civic action cadre needed to revitalize lagging rural construction programs. Progress in these programs, however, remains painfully slow, and therefore we have stepped up our own efforts to help in this area.

South Vietnam's economy has deteriorated seriously in recent months. Intensified Viet Cong efforts to cut off the flow of agricultural products to the urban areas, pressures on prices and wages brought on by the build-up of U.S. forces in many areas, a large Government budget deficit, a severe dislocation of surface transportation facilities caused by the war, and an inadequate local sealift have led to severe inflationary pressures. In the last year food prices in Saigon have increased 40 percent and the general cost of living about 30 percent, with similar trends evident throughout the rest of the country. The price of rice has been kept down by making maximum efforts to move supplies into Saigon and the rice-deficit central highlands areas and by using U.S. financed imports to supplement domestic supplies. Other measures are now underway to help alleviate the most serious of the remaining economic problems.

The future of Laos continues to be intimately tied to the outcome of the struggle in Vietnam. Although there have been some improvements in the situation over the past year, the basic problem posed by the

[redacted]

Communist threat against Laos, i.e., its continued independence and neutrality, remains. It is clear now that the North Vietnamese and their tool, the Pathet Lao, had no intention of living up to their commitments under the 1962 Geneva Agreements to reestablish peace. The Pathet Lao continue to receive support from Hanoi and during the past year, additional members of the regular North Vietnamese Army have been captured in Laos, confirming again North Vietnam's interference in that country. Nor has this interference been limited to the support of the Pathet Lao. North Vietnam has continued to use the territory of southern Laos to infiltrate military personnel and supplies into South Vietnam, and on an increasing scale.

The Lao Government, led by Prince Souvanna Phouma, has made some progress over the past year in coping with the military threat, and has been successful in maintaining relative political and economic stability. The Royal Lao Air Force has done a remarkable job in disrupting Pathet Lao/North Vietnamese logistics, attacking Communist military installations in Laos and providing close air support to the Government's ground forces. We must recognize, however, that the Government's continued ability to defend against the Pathet Lao and North Vietnamese and to maintain political and economic stability, which is required if this defense is to be effective, depends largely on continued military and economic assistance from the United States. We intend, therefore, in response to the Prime Minister's request, to provide Laos with what it needs to carry on its struggle on both the economic and military fronts.

Cambodia severed diplomatic relations with the U.S. in May 1965, following a series of border incidents involving South Vietnamese military forces. Apparently believing that Communist China will achieve predominant influence in Southeast Asia and that North Vietnam will conquer South Vietnam, Sihanouk has sought close relations with both Peiping and Hanoi in the hope of retaining at least some semblance of independent existence for Cambodia.

Sihanouk has also announced his sympathy for the Viet Cong but has stated that, in accordance with Cambodia's policy of neutrality, no logistic support will be given them. Despite his denials, some supplies and personnel for the Viet Cong apparently have gone through Cambodia and the Viet Cong have at times used Cambodia as a sanctuary.

[redacted] We, therefore, wish to continue to avoid, if possible, any action that would

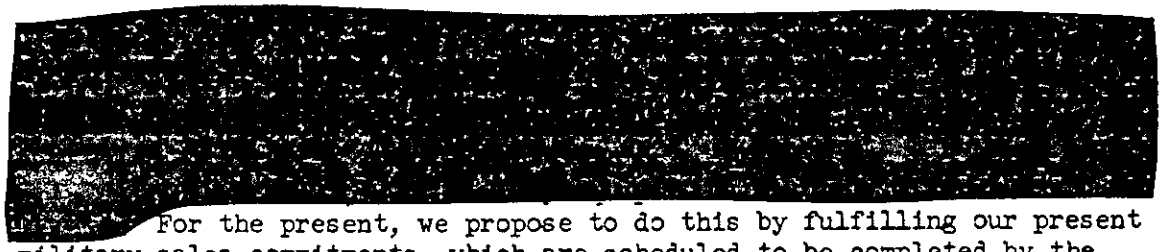
[redacted]

preclude an improvement in relations between Cambodia and the U.S. or that would threaten to expand the war in South Vietnam into Cambodia. Nevertheless, we are prepared to do whatever is clearly required for the self-defense of our forces fighting in South Vietnam.

During the past year Thailand has strengthened its relations with the Free World, maintained internal stability and continued its economic progress, becoming an ever more valuable and cooperative partner of the United States. The Thais are keenly aware that in the last year Communist China has blatantly advertised its preparations for subversive insurgency designed to overthrow the Thai Government. The Thais are equally cognizant of the implications for all of Southeast Asia of a Communist victory in Vietnam.

If it were not for the menace of subversion sponsored by Communist China and the consequent demands which this threat is placing on its resources, Thailand's economic future would be exceptionally bright. As it is, U.S. economic and military assistance continues to be necessary to meet the growing pressures which the Communists are placing on Thailand in their effort to weaken support of U.S. policies in Southeast Asia.

In Burma we find a military regime trying to cope with continuing, sporadic Communist and other insurgency, as well as mounting economic dislocations caused by the Government's efforts to socialize commerce and industry. General Ne Win has stuck to his neutral stance -- avoiding criticism or support of our policy in Vietnam and trying to stay aloof from international issues not directly affecting Burma.



For the present, we propose to do this by fulfilling our present military sales commitments, which are scheduled to be completed by the end of FY 1968.

As you know, Indonesia had been moving at an increasingly rapid pace toward Communist Party domination at home and close political collaboration with Communist China abroad. When the

[redacted]

Communist-backed coup attempt of last October failed, popular resentment against the Peiping-oriented Indonesian Communist Party (PKI) quickly welled up and is still continuing. As a result, the top level of the PKI has been removed; there has been a widespread weakening of the Party apparatus; the influence of the Army and of anti-Communist political organizations has surged upwards, [redacted] A fundamental and complex internal power struggle has now been set in motion, but the outcome is, as yet, far from clear and may not, in fact, be decided for some time. Nor can we predict with any assurance whether or not the non-Communist forces emerging in Indonesia will be able to cope with the extremely serious economic problems now affecting the entire country, [redacted]

Although its economy is in a shambles, Indonesia remains a potentially rich country. With a population of 104 million, it must play a major role in the region if stability and economic growth are to be achieved there. It occupies a strategic geographical position astride vital sea routes between the Pacific and Indian Oceans.

[redacted] While working to restrain Indonesian pressure against neighboring free states, we must at the same time hold open the door to a more positive relationship whenever Indonesia's policy permits.

[redacted] No military assistance funds are being requested for Indonesia at this time. As to the future, we must await developments.

While the political tide in Indonesia has at least begun to turn against the Communists [redacted] -- the secession of Singapore last September advertised to the world the seriousness of the political and economic strains within the Federation. This separation provided some relief from the tensions which were building up between the two states, [redacted] Separation has also prompted Singapore's Prime Minister Lee

[redacted]

to engage in a public campaign against both Malaya and the United States, while praising the United Kingdom and urging it to retain its base in Singapore.

The military confrontation between Malaysia and Indonesia has slackened, but the requirement for an adequate Malaysian defense force remains. We have authorized a modest military training program and are in the process of concluding a credit sales program involving purchases of up to $4 million in equipment for the Malaysian army. While these programs are consistent with the understanding reached by President Johnson and Prime Minister Rahman in July, 1964, we do not desire or intend to substitute a U.S. military commitment for any part of the Commonwealth's over-all responsibility for the security of Malaysia, although it is an essential adjunct to our major effort in Vietnam.

As our military requirements in Vietnam have expanded, the strategic position of the Philippines and its willing cooperation to provide us bases and facilities have become more important than ever before. Regardless of the eventual outcome in Vietnam, our bases in the Philippines will remain at least as important as they are now, and perhaps become even more vital, as we improve the mobility of our forces.

The new Philippine Administration has been in office only since the first of the year, but has already shown its intention to deal vigorously with the many and serious problems facing the country. President Marcos wishes to develop an even closer partnership with us and intends to make a major contribution to the defense of South Vietnam. [redacted] His program also calls for restoring normal ties with Malaysia and Singapore and encouraging greater Philippine participation in regional development efforts.

The Marcos Administration will, however, need all the resources and ingenuity it can muster to cope effectively with the country's serious economic and social problems. While the democratic process is working [redacted] well and the educational system is one of the finest in that part of the world, economic growth has not been rapid enough [redacted] in those sectors which affect the livelihood of the majority of the people. In view of the rapidly increasing Philippine population, economic growth will have to quicken if per capita income is to keep pace with needs and popular expectations. [redacted] Our relatively small military

aid program there is essential if we are to encourage and facilitate urgently needed improvements in the organization, training and equipment of the Philippine forces.

Our firm allies, Australia and New Zealand, continue to make significant contributions to Free World security and to economic development in the Far East. They constitute a continuing element of stability in the South Pacific area. They have contributed not only to the defense of Malaysia but, as noted earlier, also to the defense of South Vietnam.

In the military procurement field, Australia and New Zealand continue their close cooperation with us to the mutual benefit of all parties. We share facilities and collaborate on scientific ventures in a number of fields having both military and non-military applications. Our scientific programs in Antarctica also continue to benefit from valuable support by New Zealand.

[redacted]

3. Northeast Asia

To the north, Japan, the Republic of Korea and the Republic of China continue to be vitally concerned over the threat posed by Communist China, its widening ambitions and major power potential. [redacted] Thus, our own bilateral security treaties with each of these nations continue to be vital to their security and to our own broader objective of deterring a renewal of Communist aggression in that area.

In the past year Japan has gained economic strength, maintained political stability and improved its prestige abroad. Cooperation between ourselves and Japan in the economic, political and scientific fields has continued to flourish. Leftist agitation against our bases in Japan, against a Japan-Korea settlement and on other issues of interest to our security have notably diminished. Nevertheless, there exists a deep concern, not confined to leftist Japanese elements, that the Vietnam war might escalate to a point where Japan might become directly involved. A widespread desire also exists to seek some sort of accommodation with Communist China in the economic and political fields -- coupled, however, with a perceptibly rising concern over Peiping's persistent belligerency and incipient nuclear power.

Although the outlook for continued economic recovery and growth is good, it would not be realistic, for a variety of economic, political and other reasons, to expect any sudden major increase in the size of Japan's defense forces. However, the Japanese Government can be expected to continue to make modest increases in its military budget to meet rising costs and to carry on some improvements in the quality of its forces. Our bases in Japan remain extremely important, both to us and to Japan. We also believe that the Sato Government will continue to extend strong economic support to the Ryukyus [redacted]

The overall settlement between Japan and the Republic of Korea, now ratified by both governments, has marked a major political milestone in Northeast Asia -- an accomplishment which we have long hoped would help heal the wounds of the past and lay the basis for genuine and mutually beneficial political and economic relations in the future. The $500 million worth of Japanese long term economic grants and soft loans will undoubtedly be of great value to Korea's economic development, as well as to those parts of the Japanese economy participating in these programs. In the past year Korea has made impressive economic progress and the level of our assistance has been declining. [redacted] and it is important that we continue our support where necessary and justifiable.

[redacted]

North Korea's military threat remains, and the possibility of a reintroduction of Chinese Communist troops into the Korean peninsula can never be ignored. Therefore, we are continuing to maintain two U.S. divisions in Korea and provide military assistance to the 560,000-man Korean military establishment. As I noted earlier, some 20,000 Korean troops, including a full combat division, are now in Vietnam fighting side-by-side with our own forces. [redacted] we may have to provide additional support for its military establishment.

The Republic of China remains more directly menaced by Peiping's aggressive designs than any other of Communist China's neighbors. Our bilateral security commitment to the defense of Taiwan and the Pescadores remains vital to the survival of the Government of the Republic of China. The people of the Republic of China feel sharply the threat of Communist China's nuclear capability, believing it to be aimed primarily at them. Although they have been increasingly successful in improving their military supply system, maintaining their equipment and bearing an increasing share of their own defense costs, we will have to continue to supply them certain types of military equipment which cannot be produced locally. Last year we were able to terminate our economic assistance to China as a result of the great economic progress achieved through their use of our earlier aid program. Indeed, Taiwan's economic progress represents one of the most outstanding success stories in the less developed world. Now, we are beginning to replace a portion of our military grant aid program with a sales program, denoting our confidence in their future economic growth.

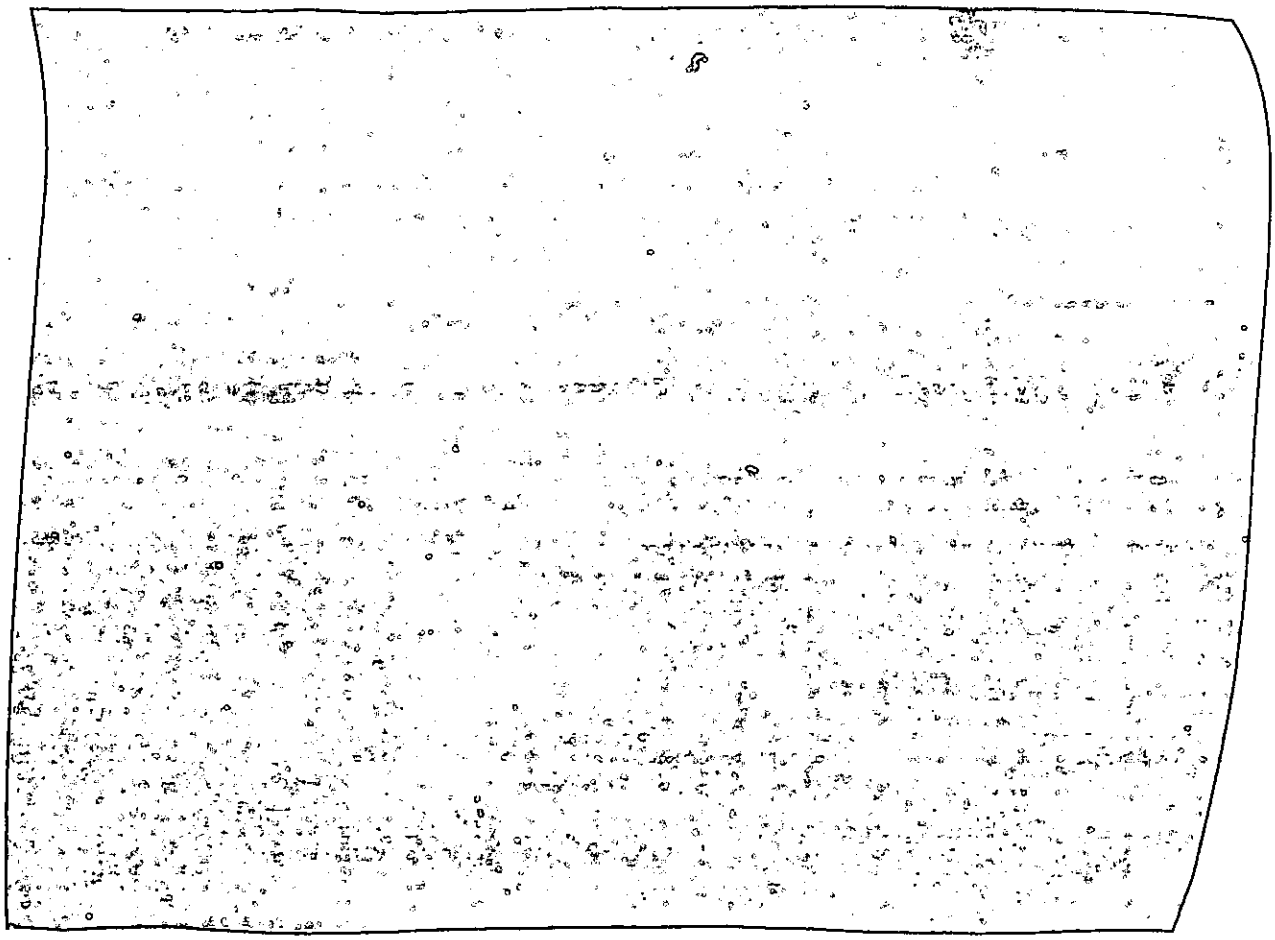
4. South Asia

The South Asian subcontinent is confronted with development problems as severe as those in any part of the world. With major outside assistance, both India and Pakistan have made substantial progress in coping with these problems. However, during the past year, the subcontinent was the scene of calamities inflicted both by nature and by man.

Twice during the year, India and Pakistan engaged in armed conflict, first in April and May over the Rann of Kutch, and then in August and September on a much larger scale over Kashmir. These wasteful conflicts seriously affected the subcontinent's development; and they afforded opportunities for the Soviet Union and Communist China to play more active, although differing, roles in shaping events in that area. While supporting the restoration of peace, the Soviet Union was able to increase its influence in both countries. Communist China sought to exploit the situation by limited military thrusts along the Indian border.

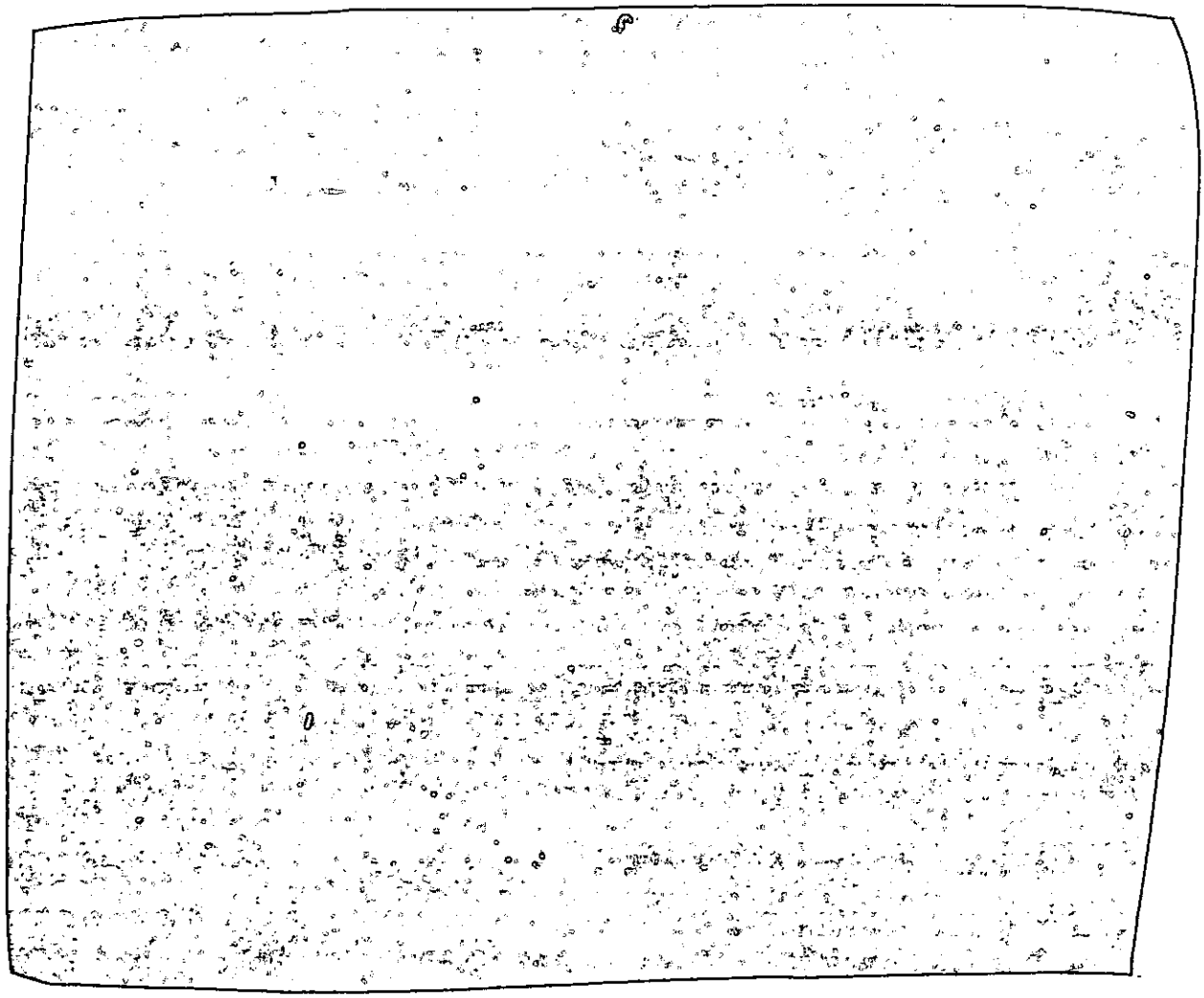
In looking to the future, we must recognize that there is a complex four-dimensional struggle occuring in South Asia: the struggle for development, the struggle between India and Pakistan, the struggle between

Moscow and Peiping, and the struggle between the Free World and Communism. Our own interests lie in fostering a peaceful accommodation between India and Pakistan so that development can proceed unimpeded by strife and so that this strategic land mass will become increasingly resistant to Communist penetration. Good relations with both India and Pakistan are important to us, as the fate of the subcontinent has a direct bearing on the future balance of power in Asia. Our stake in that balance is reflected in the sustained efforts we have made to limit the projection of Communist influence and power beyond its borders. In the subcontinent, it is reflected in an investment in the stability of India and Pakistan which has reached a total of about $10 billion since the second World War.

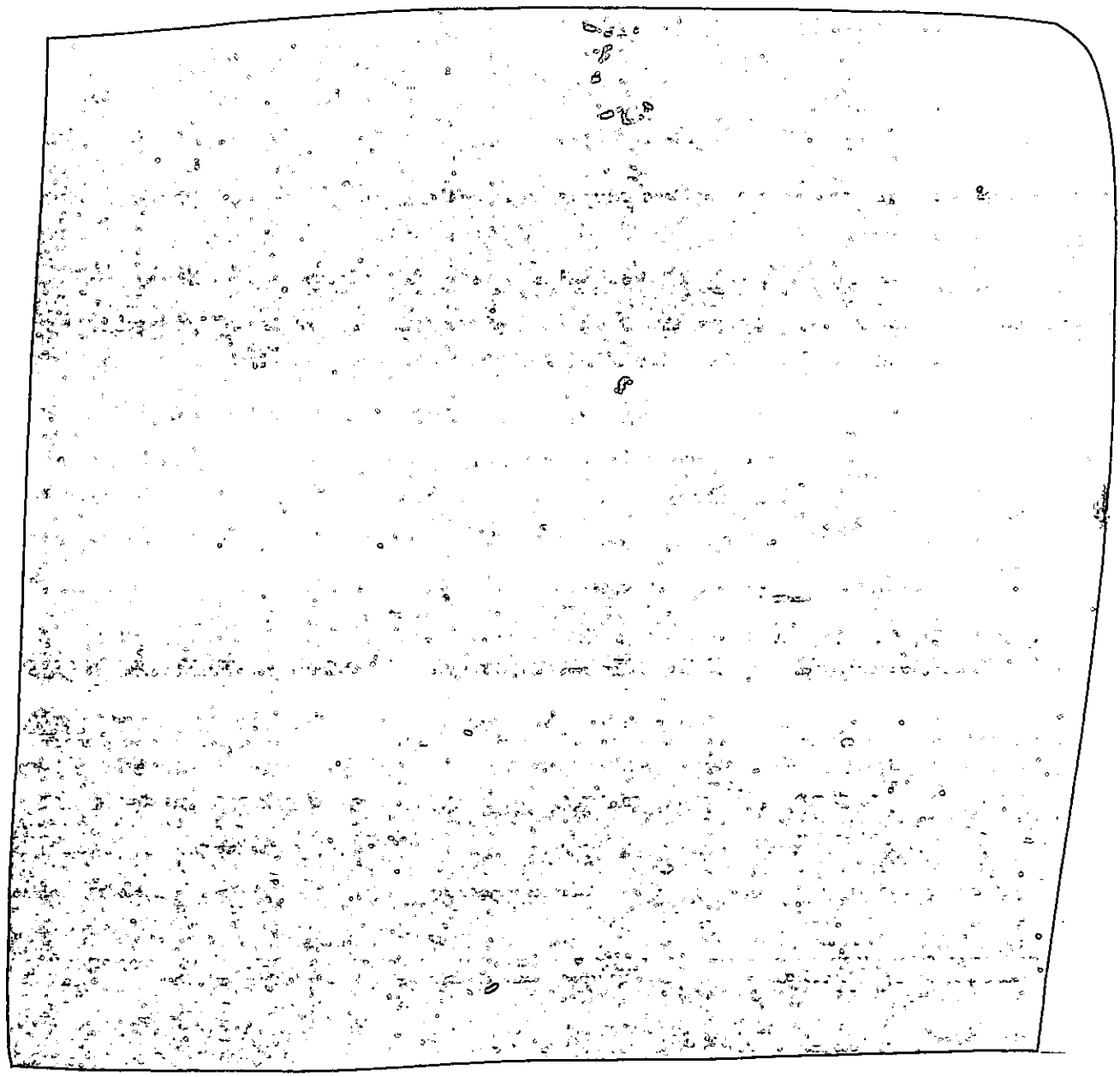


For our part, we have chosen not to take sides in the Indian-Pakistani dispute but instead have directed our energies in support of the United Nations Security Council resolution of September 20, 1965, which calls for a cease fire, a withdrawal of armed personnel to the pre-August 5 positions, and consideration of "what steps could be taken to assist towards a settlement of the political problem underlying the present conflict".

Under our mutual defense agreement with Pakistan we have programmed [redacted] aid and about $200 million of defense budgetary assistance to maintain and modernize that country's relatively small armed forces. Beginning in 1962 with the Chinese Communist invasion, we have programmed [redacted] for India in the form of grant and credit military assistance. [redacted] However, military aid to both countries was suspended in September 1965 in an effort to dampen the conflict and prevent its extension.



On the economic side, we have in recent months continued to assist in meeting the most urgent needs -- particularly those related to famine in India.

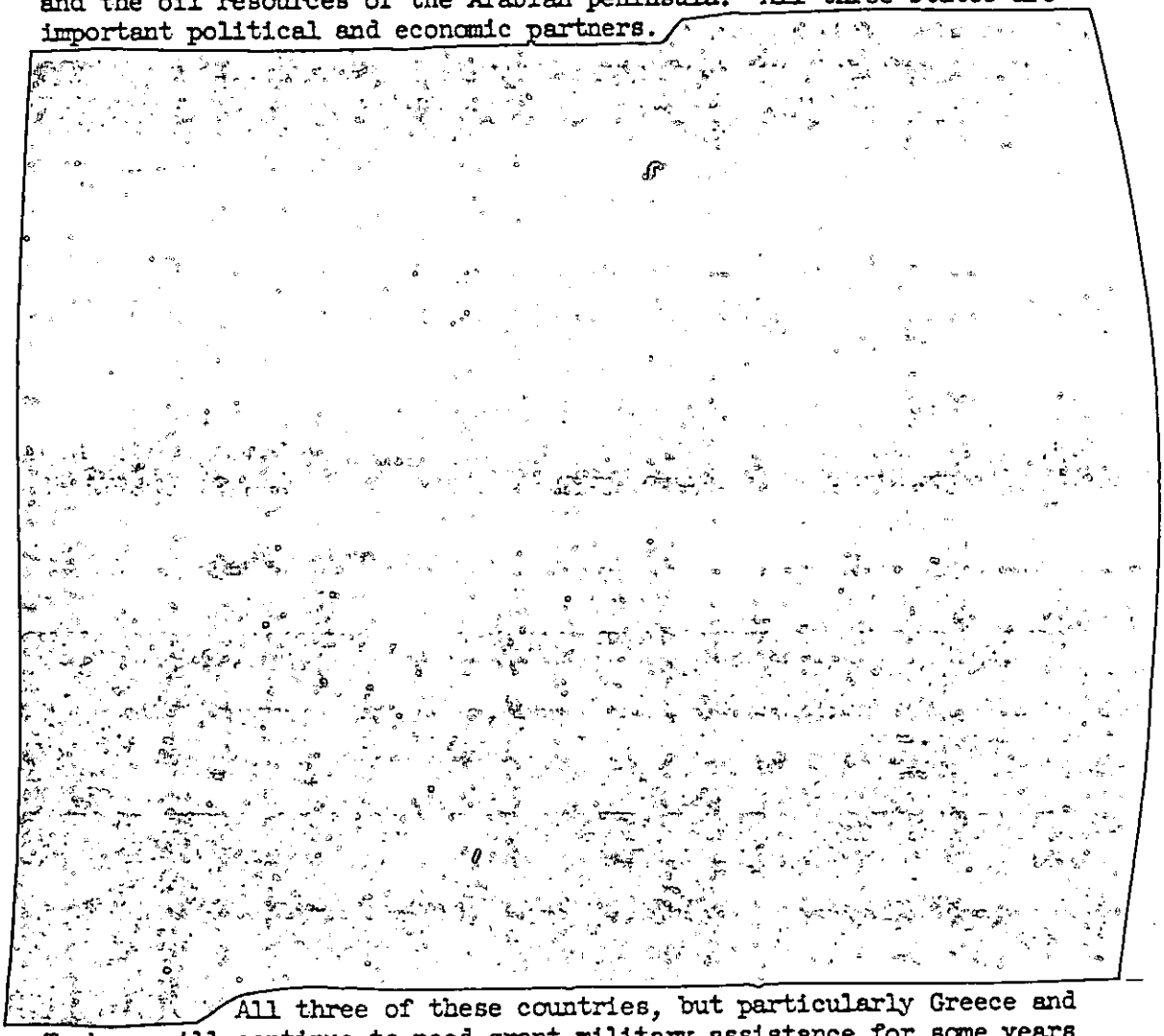


5. Near and Middle East

The Near and Middle East remain of special strategic significance to us because of (1) the "forward defense" role of Greece, Turkey, and Iran, (2) the position the area occupies as a political and military crossroads, and (3) the important resources to be found in this part of the world. Because of their importance, we have over the years

carefully forged and patiently nurtured a wide range of political, military and economic relationships with the countries of the area.

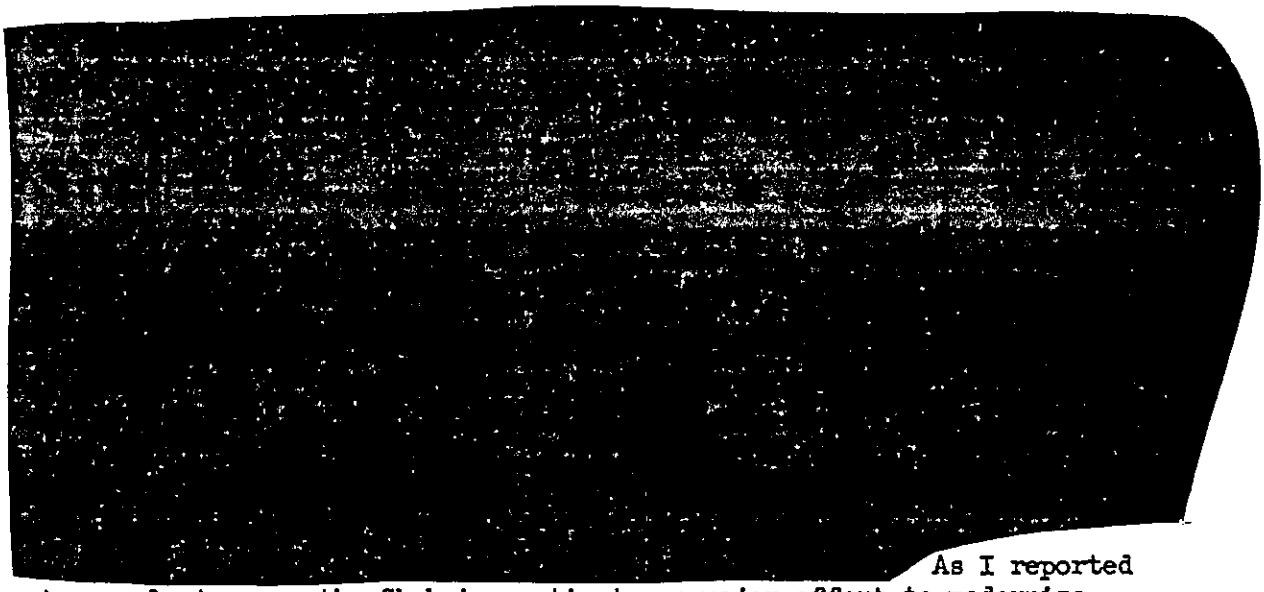
Of the three "forward defense" countries, Greece and Turkey comprise the important southeastern flank of the NATO alliance, while Iran stands between the Soviet Union and access to warm water ports and the oil resources of the Arabian peninsula. All three states are important political and economic partners.



All three of these countries, but particularly Greece and Turkey, will continue to need grant military assistance for some years to come.

While the Cyprus issue remains critical there has been some improvement during the past year in Greek-Turkish relations, and I was particularly gratified to see Greek and Turkish military officers again serving together in a recent NATO exercise. The leaders of both countries

realize that despite their strong disagreements on Cyprus, their overall security interests are best met within the framework of the NATO alliance and commitment to the Free World.



As I reported to you last year, the Shah is continuing a major effort to modernize Iranian society, and his economic and social reforms are having increasing success. The considerable U.S. military and economic assistance provided Iran over the past ten years has been a significant factor in this success. We have been able to decrease gradually both our economic and our military assistance to Iran and, at the same time, increase our military sales. We are under no illusions that Iran, by itself, could defeat a Soviet attack; however, Iran's membership in CENTO, its improving military capabilities, and its ties with the U.S. continue to make such an attack less likely.

Elsewhere in the area, the Arab-Israeli dispute continues to pose a serious threat to the peace. Any improvement in that particular situation is still in the distant future.

There was some hope that the civil war in the Yemen could be terminated following an agreement last August between President Nasser and King Faisal, under which both the UAR and Saudi Arabia agreed to cooperate in promoting a Yemeni plebiscite to determine the future government of that country. The UAR was to begin withdrawal of its troops and Saudi Arabia was to stop supporting the Royalists. However, as we move into 1966 the prospects for implementation of this agreement are still uncertain.

In Iraq, the Kurds continue their opposition to the government,

[redacted]

The USSR, and more recently the Chinese Communists (to a limited extent), have made a considerable effort to extend their influence in this area by providing military and economic aid. Since 1955, the Soviet Union has provided substantial quantities of military equipment, to the UAR, Syria, Iraq and Yemen, thus upsetting the military balance in the area. The United States has traditionally sought to avoid becoming a principal military supplier for any of the Near Eastern countries. But this Soviet action has forced us to supply certain defensive weapons to selected western-oriented countries in the area, including Israel, Lebanon and Jordan.

[redacted] to supply only the minimum necessary to meet the legitimate needs of the recipients and thereby prevent dangerous imbalances.

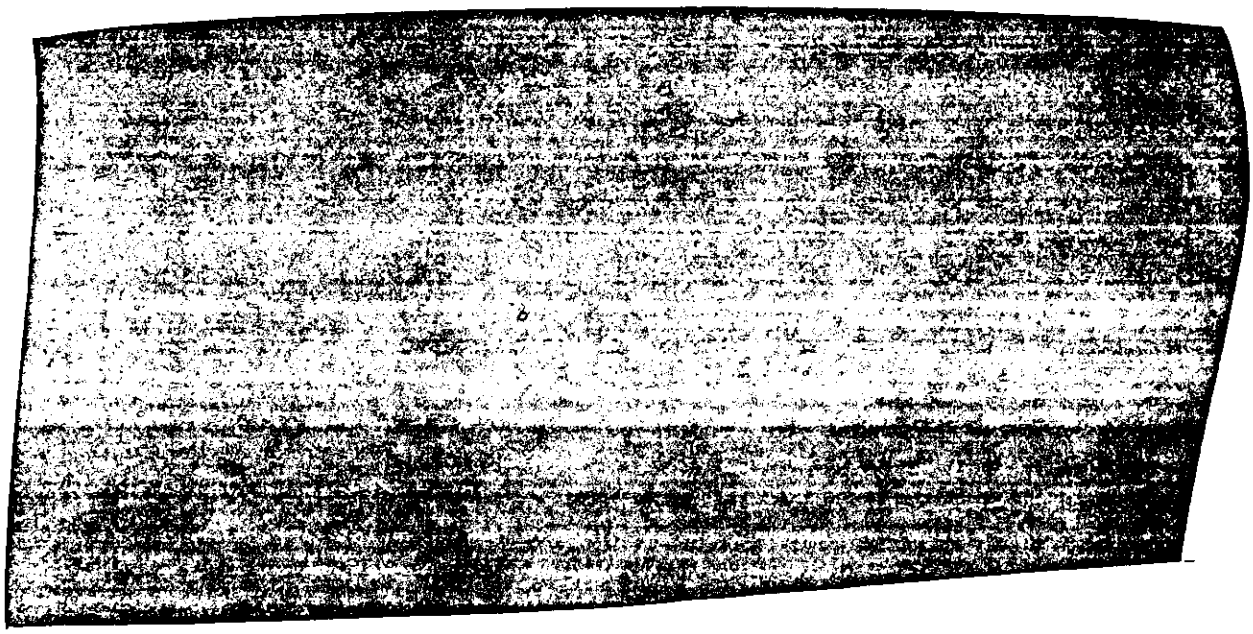
[redacted]

We have also recently agreed to meet, in cooperation with the United Kingdom, some of the defense requirements of Saudi Arabia, a state which is determined to retain its independence of both Communist and Nasserite influence. When the then Prince Faisal called upon us for military support in 1963, in fear of an air attack or invasion by the UAR, we responded by sending a squadron of Air Force aircraft to Saudi Arabia where they remained for several months.

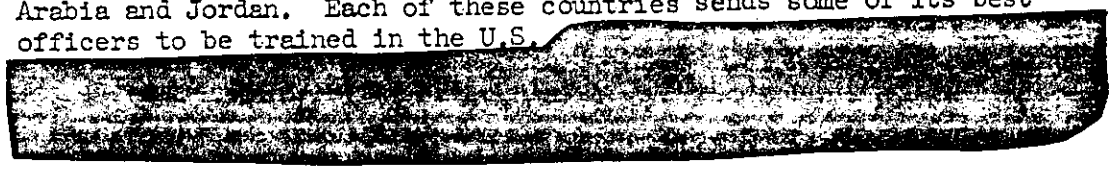
[redacted]

For their part, the Saudis are making a major effort to improve the standard of living and welfare of the people. This has been a difficult task, but we believe that through the personal efforts of King Faisal the outlook for steady progress has become much enhanced.

[redacted]



Probably our most successful and still most desirable program for countries in this area is our grant aid military training program. Included in the FY 1967 program are Lebanon, Syria, Yemen, Iraq, Saudi Arabia and Jordan. Each of these countries sends some of its best officers to be trained in the U.S.

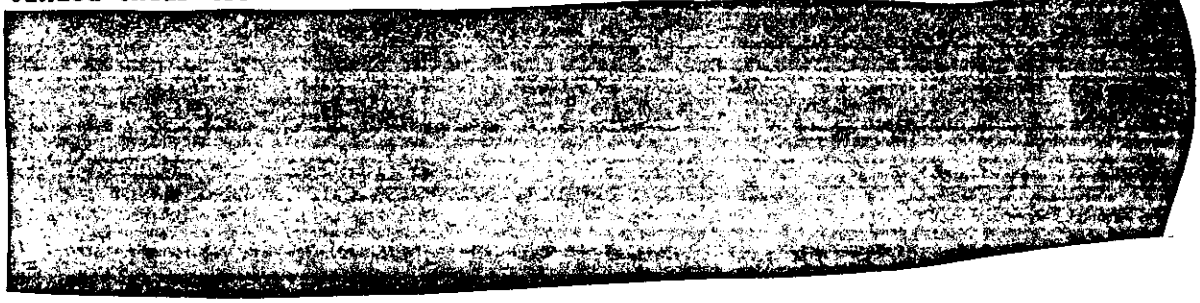


6. Africa

The unilateral declaration of independence last November by the Smith regime in Southern Rhodesia was one of the major events in Africa last year. The deeply-felt African reaction to a white minority illegally seizing independence in the southern African area diverted attention on that continent from other pressing problems. The Communist countries, as was to be expected, view this development as a new opportunity to expand their influence in Africa. The United States, recognizing that the Rhodesian problem is primarily the concern of the UK, has given vigorous support to measures undertaken by that country to force out the illegal regime.

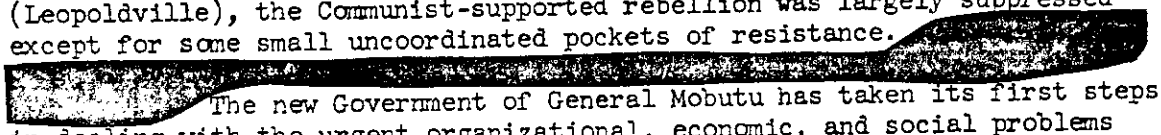
Certain of these measures, coupled with countermeasures by the Smith regime, are having severe repercussions on the economy of neighboring Zambia whose copper producing economy depends heavily on Southern Rhodesia for power and the transit of supplies. The U.S. is helping the UK, as is Canada, with an airlift aimed at ensuring that essential petroleum supplies get to land-locked Zambia

Elsewhere in Africa during the past year, the Communist states continued their efforts to extend their influence, with mixed results.



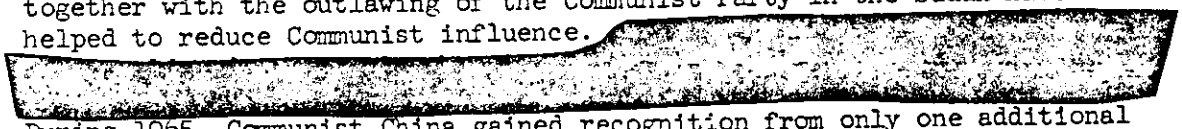
In general, the Soviets seem intent on strengthening themselves for the longer run by working with established governments, by concentrating on bringing more students to the USSR for academic, technical and military training, by visits of parliamentarians, youth groups, trade union leaders and others, and by better prepared aid programs. The Chinese Communists, on the other hand, generally took a more militant line, best illustrated by Premier Chou En-lai's statement in Tanzania in June that Africa was "ripe for revolution". This statement, however, seems to have boomeranged; it alarmed many African leaders who saw their own recently won independence threatened by Chinese Communist instigated revolutions.

Both major Communist camps suffered some reversals. In the Congo (Leopoldville), the Communist-supported rebellion was largely suppressed except for some small uncoordinated pockets of resistance.

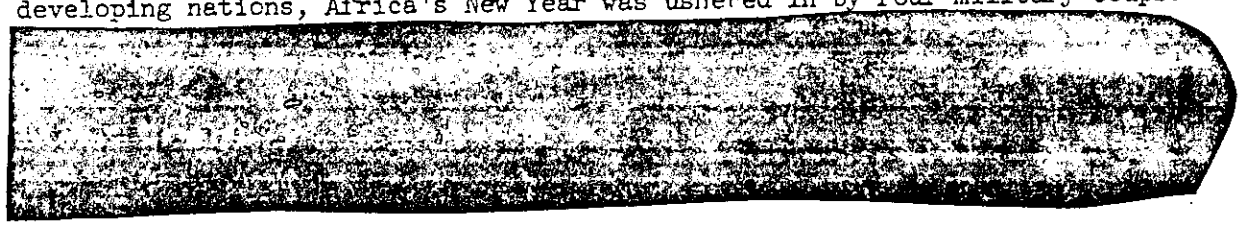


The new Government of General Mobutu has taken its first steps in dealing with the urgent organizational, economic, and social problems confronting the Congo. While it is too early to judge how effective these endeavors will be, we are encouraged by the vigor with which they have been initiated.

The indefinite postponement of the Afro-Asian Conference (Bandung II), together with the outlawing of the Communist Party in the Sudan have also helped to reduce Communist influence.



During 1965, Communist China gained recognition from only one additional African state, Mauretania, and was expelled from two, Dahomey and the Central African Republic. Indicative of the troubled times that face these new, developing nations, Africa's New Year was ushered in by four military coups.



[redacted]

As I have noted in previous years, the African areas of most immediate strategic concern to the U.S. are those bordering on the Mediterranean and in the Horn; the former guards the southern flank of NATO and the latter stands at the approaches to the Red Sea. Within these areas, we have important communication facilities in Ethiopia and Morocco. Wheelus Field in Libya is the only remaining U.S. military air base in all of Africa and the Middle East; [redacted]

During the past year, a new and potentially useful addition to our facilities has become available in the Indian Ocean. Several small islands, previously administered through Mauritius and the Seychelles, have been formed into the British Indian Ocean Territory which would be available for U.S.-U.K. use, should the need arise.

During 1965, the United Kingdom and France continued to withdraw their armed forces from their former African colonies. Although France, at the request of several of those countries, did slow down the rate of its troop withdrawals, within a few months it will have only [redacted] ground troops [redacted] African countries and the [redacted] plus some small air and naval units. However, a special unit will be maintained in France for emergency service in Africa. The British now have [redacted] in Swaziland and [redacted] in Libya.

As a result of the withdrawals, the African countries are now concentrating more attention on strengthening their own security forces, both military and police. [redacted]

Where appropriate, we will encourage these countries to strengthen their public safety (police) forces as an important factor for their future stability. In the few countries where we have both military assistance and public safety programs, the two are closely coordinated.

As before, the United Kingdom, France and Belgium continue to shoulder the main burden of helping their former territories to carry out economic development programs. Among other Free World countries, West Germany is a substantial contributor, while Italy, Canada, Israel, Nationalist China, and The Netherlands have also provided significant assistance.

Africa will continue to face the many problems common to developing areas. Within resources available for this purpose, we should continue to join other Free World nations in assisting the African nations to improve their stability and security, in order that they may effectively utilize economic aid and their own resources to move more rapidly toward their own chosen political and economic goals. Not giving such help at this time will only lead to more unrest and increasingly difficult problems in the future.

7. Latin America

Our major objective in Latin America is the promotion of economic and social development. As long as deprivation and stagnation persist, political stability will be difficult to achieve and opportunities for anti-democratic elements will remain large. Economic and social progress requires an environment free from internal disorder and international conflict. It is our policy to help our American neighbors maintain such an environment and protect the peace and security of the Hemisphere.

The Second Special Inter-American Conference in Rio de Janeiro, last November, addressed itself to some of the Hemisphere's most urgent problems. The Acts and Resolutions adopted by the Conference laid the groundwork for strengthening the inter-American system and for broader acceptance by our neighbors of the concept of mutual assistance and self-help to achieve social and economic development. They also offer hope for some advances in the fields of peaceful settlement of disputes and the maintenance of human rights.

The Act of Rio adopted by the Conference convokes a Third Special Inter-American Conference to be held in Buenos Aires in July, 1966. It also provides for consideration at this meeting guidelines for amendments to the Charter of the Organization of American States (OAS) which would strengthen the Organization through structural changes and incorporate in the Charter the basic principles and concepts of the Alliance for Progress, which has already contributed to the economic and social progress of Latin America. With respect to issues of peaceful settlement of disputes and human rights, the Conference recommended that the Council of the OAS be given the necessary powers to strengthen the capacity of the Organization to give effective aid in the settlement of disputes.

We think that all of the OAS countries have an obligation to encourage the development of democracy and to help keep internal situations from spilling over and disrupting the peace of the Hemisphere. We think that some kind of peacekeeping force might be useful; that the system should have some more effective and responsive arrangement for dealing collectively with a clear and present danger to the peace and security of the Hemisphere. Such an arrangement, supported by a peacekeeping force, would represent a real sharing of responsibility and would also give pause to those elements

which might seek to disrupt the peace. We believe the problem is being increasingly better understood now, and we shall continue to search for a formula that will lead to a greater sharing of responsibility in this key field.

The achievement of economic and social progress in the southern half of this Hemisphere will not be realized unless governments there have efficient and adequate security forces to thwart those elements interested in blocking that progress for their own ends. Unfortunately, such elements are at work in almost every Latin American country. There are groups who oppose change simply because they wish to preserve the status quo from which they presently benefit. There are also those who see a chance to seize power in the atmosphere of dissatisfaction and unrest which results from unsatisfactory social and economic progress. These latter are usually, but not always, found on the extreme left -- the Communists, who more often than not are aided and abetted from abroad.

It is for this reason that our military assistance program for Latin America continues to be oriented toward internal security and civic action. This assistance is not directed at eliminating protest or enforcing conformity, but rather at helping provide an environment in which economic and social tasks can be effectively pursued. Governments must be able to keep violence within bounds if peaceful change through democratic processes is to be achieved. Our military assistance program in Latin America amounts to about $75 million a year and our police programs about $5-7 million, compared with an average of over $1 billion a year for economic and social projects. Thus, security assistance is only about **eight** percent of the total.

During the past year, serious insurgency and terrorist attacks have been successfully countered in several Latin American countries, notably in Peru, Colombia, and Venezuela. In others, potential threats have been contained.

Venezuela, the target for the most extensive Communist subversive effort in Latin America, has been able to improve its control of guerrilla and terrorist elements substantially during recent months. U.S. trained units of their armed forces and police have spearheaded a government campaign both in the cities and in the countryside.

In Peru, where Communist-led guerrilla warfare broke out during the past year in two areas, the Government has already neutralized one of the concentrations and has made good progress against the other. U.S. trained and supported Peruvian army and air force units have played prominent roles in this counter-guerrilla campaign.

In Colombia, U.S. training support and equipment, including several medium helicopters, have materially aided the Colombian armed forces to establish government control in the rural insurgent areas.

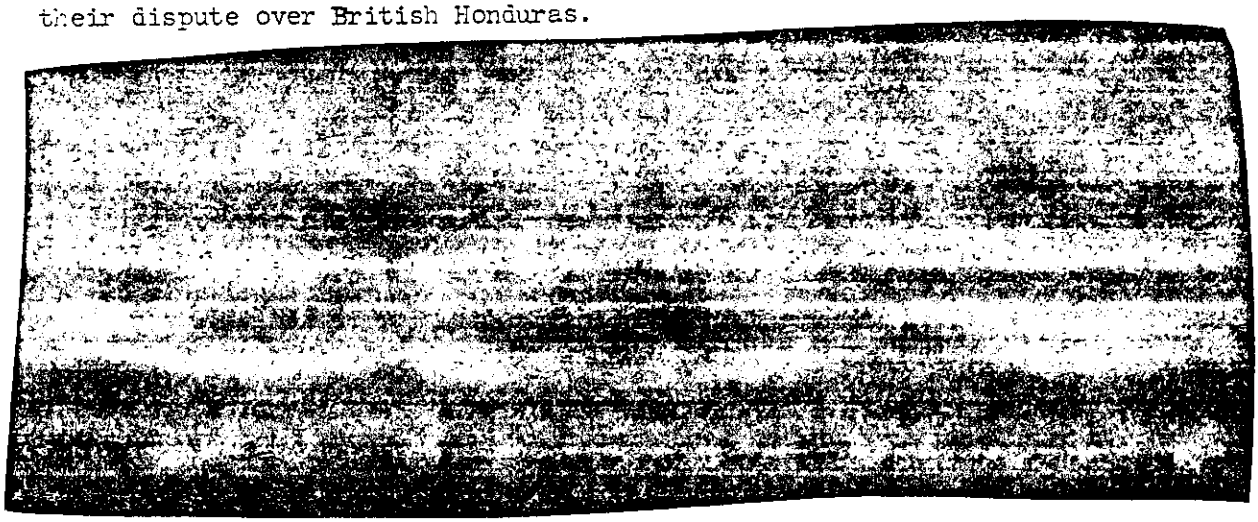
violence in the mining areas and in the cities of Bolivia has continued to occur intermittently. We are assisting this country to improve the training and equipping of its military forces.

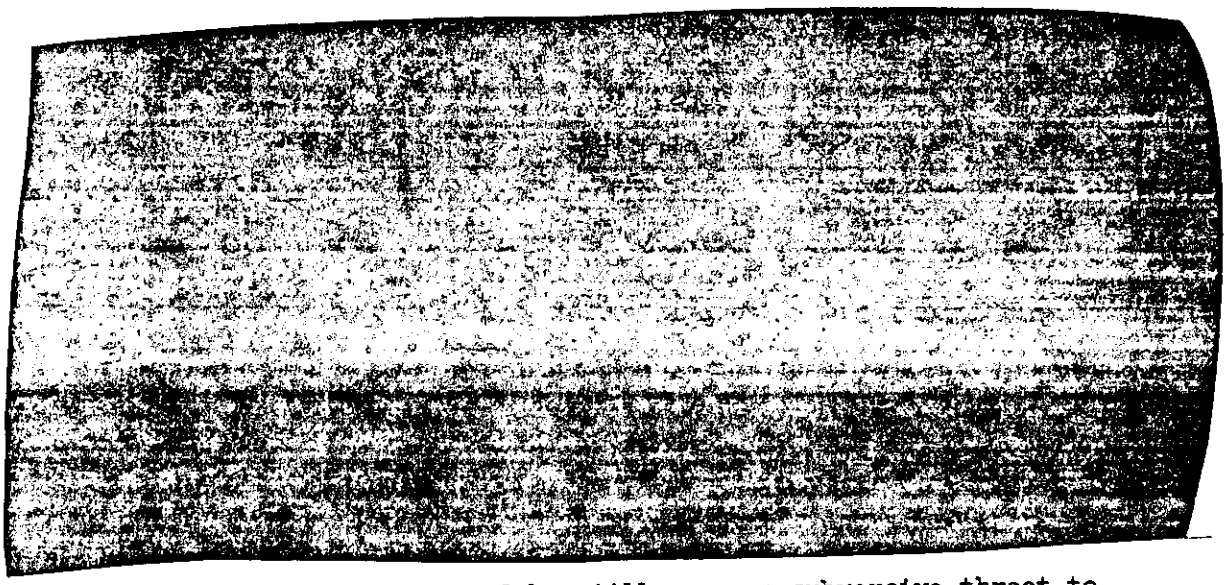
Pressure on the government of Guatemala resulting from Communist terrorist tactics has increased markedly during the past year. We are supporting a small Guatemalan counterinsurgency force with weapons, vehicles, communications equipment and training.

In Uruguay, protracted economic stagnation has contributed to a developing climate of popular unrest which recently culminated in a serious wave of politically inspired strikes throughout the country. Our military assistance to Uruguay is oriented toward improving the small arms, ammunition, communications, and transportation equipment of its limited security forces.

In our hemisphere there are still a number of bilateral disputes, mostly over boundaries but some over the uses of rivers and other waters. Hemispheric harmony will always be in danger of disruption until these disputes can be put to rest. For our part, we believe they should be settled by peaceful means and should provide no justification for the maintenance of armed units. We are striving by example to lead the way.

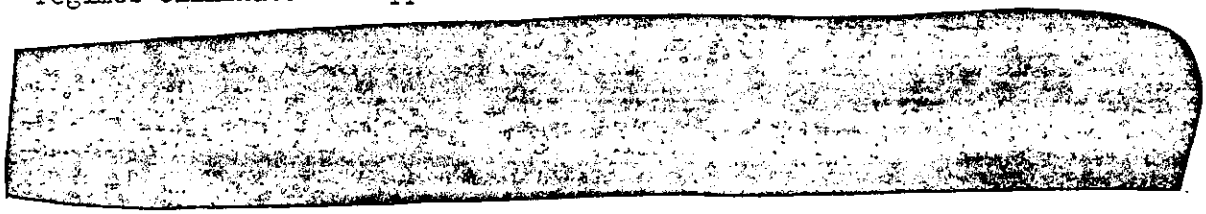
We have recently settled three of our own problems with Mexico -- the Chamizal boundary problem and the salinity problems of the Colorado and Rio Grande. General areas of agreement have been reached with Panama with regard to the Panama Canal, and negotiations there are continuing. At the request of the United Kingdom and Guatemala, we have agreed to mediate their dispute over British Honduras.





The Communist regime in Cuba still poses a subversive threat to Latin America, even though its efforts to date have not been remunerative. Cuba's basic foreign policy objectives continue to center on the "world-wide struggle against imperialism" and on attempting to have Cuba's revolutionary example followed in Latin America. Castro continues to try to stimulate armed insurrection in a number of Latin American countries. In addition, the Cuban regime has been striving to expand its influence in the uncommitted and underdeveloped countries of Africa and Asia.

We do not see Castro's proposal to allow Cubans to leave the country as portending a more moderate foreign policy. To the contrary, his proposal seems to have been aimed primarily at embarrassing us and offsetting the adverse propaganda impact resulting from the presence of thousands of Cubans ready to risk their lives to escape his regime. And, as I pointed out last year, this is one of the ways in which Communist regimes eliminate the opposition within their borders.



Following a period of marked decline, the Cuban economy, overall, appears to have leveled off and, in a few areas, may even have made some recovery. The country's economic prospects, however, remain decidedly poor. Despite efforts to expand trade with Free World countries and reduce dependence on the Bloc, Cuba remains a client economy, requiring continuing support from the Communist camp, particularly the Soviet

[redacted]

Our policy in the Dominican Republic has been to assist the Provisional Government, which was installed last September, in restoring more normal conditions prior to its holding free general elections, now scheduled for this coming June.

With the Provisional Government beginning to take hold, we have been able to reduce the number of U.S. troops participating in the Inter-American Peace Force (IAPF) from the peak strength of 23,850 on May 17, to a present level of about 6,000. The continued presence of these troops is required for the maintenance of law and order, a prerequisite to the establishment of a political atmosphere in which free elections can be held. [redacted] indeed, essential if it is to weather this difficult transitional period. The date of withdrawal of all troops will be determined jointly by the Provisional Government and the Organization of American States. In the meantime, we are also contributing importantly to the economic reconstruction and social rehabilitation of the country.

[redacted]

For Brazil, this will be a decisive year in setting its economic and political course for the next half decade or so. President Castello Branco, who became chief executive in April 1964, [redacted] has initiated and maintained an austerity program.

[redacted]

[redacted]

[redacted]

In Chile, [redacted] government of President Frei is trying to build the country's future on a firm foundation of democratic traditions. The Chilean armed forces -- [redacted] -- are emphasizing the improvement of air and sea mobility so vital in view of the country's unique geographic configuration. We are cooperating with those efforts, particularly by providing equipment and training.

As I noted last year: "Although the threat of Communist infiltration and subversion still hangs over Latin America, the more fundamental problem in that region is to instill in the hearts of the people the hope for a better future and to provide a sound basis for realizing that hope. As long as hunger and economic stagnation persist in Latin America, political stability is imperiled and the opportunities for Communist penetration are enhanced. Thus, the real danger in this part of the world is the discouragement, disillusionment and despair of the people resulting from the lack of economic and social progress and chronic political instability".

In these respects, the situation in Latin America continued to improve during the last year. It is estimated that in 1965, the countries of Latin America averaged gains of about 5.6 percent in their gross national products. After allowing for a population expansion of about 2.9 percent, the rate of growth on a per capita basis was about 2.6 percent in 1965 compared with 2.3 percent the year before. Thus, Latin America has done well by exceeding the goal of an annual 2.5 percent per capita growth rate established by the Alliance for Progress in 1962. Nearly every country increased its per capita GNP in 1965 over the previous year. In the field of tax reform at least nine countries have adopted legislation for more equitable and modern tax systems.

All in all, well over half the people in Latin America are benefitting from Alliance programs, including over 25 million who are receiving surplus food from the United States and 100 million who are being protected from malaria through Alliance supported programs.

Pupils attending classrooms built with Alliance support increased an estimated 50 percent; teachers graduated from Alliance assisted institutions increased an estimated 25 percent; in all, a total of over 100,000 teachers have received some training under the Alliance. Since its beginning in 1962, the child-feeding program has increased at a very rapid pace. Under the supervised agricultural credit programs, over 350,000 loans have been made to individual farmers, about 150,000 in 1965 compared with about 100,000 in 1964.

[redacted]

Many Latin American nations are making good progress in developing plans for comprehensive, well-conceived development efforts. Of these countries, some are also well advanced in creating the institutions and political support needed to implement their programs. And some countries have actually begun to implement programs to attack the massive problems of health, education, agrarian reform and housing and other causes of low productivity and social and political tension.

In Central America, economic integration is moving even faster than expected. Between 1962 and 1964, intra-Central American trade more than doubled and the region's GNP has been increasing at a six percent annual rate. The Foreign Ministers of the nine Latin American Free Trade Area (LAFTA) countries last November created a Council of Ministers to deal with important political problems, established a technical commission to act independently of governments in proposing integration steps, and strengthened the LAFTA permanent Secretariat.

Thus, while many difficult political and economic problems remain to be solved, encouraging progress has been made toward achieving Alliance for Progress goals in Latin America.

8. Europe and the NATO Area

The North Atlantic Treaty Organization, in its 17th year of existence, continues to fulfill the purposes for which it was created by its members, namely: "... to safeguard the freedom, common heritage and civilization of their peoples, founded on the principles of democracy, individual liberty and the rule of law . . . to promote stability and well-being in the North Atlantic area . . . [and] to unite their efforts for collective defense and for the preservation of peace and security."

Today, Western Europe presents a picture of unprecedented prosperity and stability, thanks in no small measure to the great efforts which the American people have made to rehabilitate the war-ravaged economies of that area and to bolster its defenses against the Soviet threat. Today, the six Common Market countries and the United Kingdom alone have a total population, a total military manpower pool and a total gross national product well in excess of that of the Soviet Union, and Western Europe's economic growth continues apace.

But as I pointed out last year: ". . . these same developments which have so favorably altered the position of Western Europe vis-a-vis the Soviet Bloc, together with the tremendous advances made in military technology, have also created a need for a comprehensive reassessment, not of the basic objectives of the Alliance, but rather of the ways and means by which these objectives are to be achieved over the next decade. Our own basic objectives in Western Europe are simply to ensure the security of that area against Communist aggression and to further its economic growth

[redacted]

and political stability. Certainly there can be no disagreement between us and our European NATO partners on these basic objectives."

What disagreements we do have concern the question of how best to achieve these objectives. In the military area, the principal issues revolve around nuclear policy and the future organizational structure of the Alliance. With regard to the first issue, nuclear policy, there are actually two problems. The first involves the role of tactical nuclear weapons in a theater nuclear war in Europe. I will discuss this subject in some detail in connection with the General Purpose Forces Programs. But, at this point, I do want to remind you again, that we have already provided our European NATO partners with a substantial tactical nuclear weapons delivery capability -- with a variety of nuclear capable weapon systems (including aircraft, missiles and artillery) and with training for large numbers of Allied military personnel in their use. During the last five years the number of tactical nuclear weapons in Western Europe has been increased by about [redacted] These nuclear delivery systems are operated by NATO countries under the "two-key" arrangement, in which the nuclear warheads themselves remain in U.S. custody until they are released for use by the President of the United States. This arrangement, which our allies accept without question, has worked well in the past, and no change is contemplated in the future.

The second problem concerning nuclear weapons policy has to do with the role of our European NATO partners in the strategic nuclear mission. We believe our mutual safety demands that the strategic nuclear forces, like the theater nuclear forces, must be controlled under a single chain of command. Since we have all agreed that an attack upon one member of NATO would be considered an attack upon them all, a decision by any NATO nation to invoke the use of nuclear weapons in retaliation against the homeland of another power [redacted] could risk the immediate involvement of all the members of the Alliance in a global nuclear war.

Moreover, the complex of targets against which such weapons would be used must, as a practical matter, be viewed as a single system. Because of the tremendous destructive potential of a nuclear exchange and the great speed at which it could take place, decisions must be made and executed very quickly. Targets must be allocated to weapons in advance (of course, with options), taking into account both the character of the targets and the character of our weapons.

Under these conditions, a partial uncoordinated response could be fatal to the interests of all the members of NATO. That is why in all our discussions of the various plans to enlarge the participation of our NATO partners in the strategic nuclear offensive mission we have consistently stressed the importance of ensuring that the Alliance's strategic nuclear forces are employed in a fully coordinated manner against what is truly an indivisible target system. The essential point here is not that this force

must be under exclusive U.S. ownership and control but, rather, that we must avoid the fragmentation and compartmentalization of NATO nuclear power which could be dangerous to all of us.

Accordingly, we have been seeking for many years ways in which our NATO partners could play a more important role in all of the nuclear affairs of the Alliance without sacrificing the principle of integrated control. We have sympathetically considered a number of plans involving the joint ownership and control of strategic nuclear forces -- the Multilateral Nuclear Force consisting of POLARIS-armed surface ships collectively owned, controlled and manned by the participating nations; the Allied Nuclear Force consisting of certain elements of U.K. and U.S. strategic forces to be jointly owned and controlled by the participating nations; and a number of variations of these two basic plans.

In all of our discussions of these plans with our NATO partners, we have made it clear that any arrangement we enter into would have to reinforce our basic policy of non-proliferation of nuclear weapons. In this connection, in any NATO nuclear sharing arrangements, the consent of the United States would have to be obtained prior to the firing of any of the nuclear weapons jointly owned and controlled by the participating nations. Thus, these plans are designed to help prevent proliferation, not to promote it as the Soviet Union mistakenly claims.

[redacted]

We will continue to seek an acceptable alternative to the unilateral development of nuclear weapons by other NATO nations, but we will not allow the Soviet Union a veto over the arrangements we make in NATO to defend ourselves. As I pointed out last year, and as President Johnson has made clear, we are not seeking to force our own views on our NATO partners. Rather, we are seeking to find a way of responding effectively to the largest possible consensus among them.

Meanwhile, at our own initiative and with the cooperation of our Allies, we have taken a number of steps designed to develop within the Alliance a greater sharing of responsibility in nuclear affairs. The Supreme Allied Commander Europe (SACEUR) now has an international nuclear planning staff at Supreme Headquarters Allied Powers Europe (SHAPE) and European officers from the SHAPE staff now participate in nuclear weapons planning and targeting at SAC Headquarters in Omaha.

Another important step forward was taken last November when a Special Committee of NATO defense ministers met for the first time on U.S. invitation. A majority of the members of NATO had made it clear to me that they considered nuclear consultation and joint planning essential to the vitality of the Alliance. It was to increase the participation of all

[redacted]

of our NATO partners in the planning of our nuclear affairs that I originally proposed in May 1965 a committee of this sort.

The committee was instructed to find ways to increase Allied participation in the nuclear planning and policy formulation, to improve our communication systems with a view toward quicker consultation on the use of nuclear weapons should it ever become necessary, and to facilitate the exchange of information and data relevant to such consultation. As a result, three working groups have been set up to undertake an examination of arrangements in these three related areas and to make appropriate recommendations. The working groups will report their findings to the Committee, which will then report to the Council of Ministers. We hope through this Committee to achieve a greater participation by our NATO Allies in the nuclear planning and arrangements of the Alliance, and, through that participation, a better understanding of the enormous complexities of nuclear warfare.

The second issue, the future organizational structure of the Alliance, is closely related to the first. It is President de Gaulle's view, as we understand it, that basic changes in the world since 1949 have made necessary certain reforms, as yet unspecified, in the North Atlantic Treaty Organization. First, he argues that since the United States can now be reached by Soviet nuclear missiles, this threat of retaliation means that Europeans can no longer be sure that the United States will respond on the scale required if Europe came under Soviet attack. Second, he feels that in their present state of development, European countries should no longer accept positions of "subordination" in the Alliance.

Although we cannot be sure of the precise manner and timing of President de Gaulle's actions with respect to the future of NATO, we believe that sometime this year France will probably make known her proposals affecting the Alliance. In order to avoid any misunderstanding, let me say that the United States has no intention of precipitating a crisis within NATO by making the first move in anticipation of possible French actions regarding NATO or U.S. facilities in France. Our intention is to entertain seriously and courteously any proposals France or any other Ally has to make, and to seek through continuing consultation with our Allies an agreement in principle as to how we should proceed. In other words, we plan to be prepared to discuss in NATO French proposals for reform, while at the same time being prepared, if that is finally necessary despite our hopes to the contrary, to carry on the defense of NATO with our other thirteen Allies in the event the French are not willing to participate in Alliance activities.

We are, and will remain committed to the North Atlantic Alliance because it provides an indispensable means of maintaining collective security of the West. However, we believe that the principles of integrated command in wartime and common defense planning in peacetime are essential for the effective defense of NATO, and thus for an effective deterrent.

[redacted]

As I noted earlier, the defense of NATO is indivisible, especially with respect to strategic nuclear warfare. A system of combined command and planning not only provides the most efficient method of employing the military capabilities of the Alliance, but also provides the means for the most rapid and effective possible response in time of crisis. Moreover, it provides the most practical framework through which the Federal Republic of Germany can play a full role in the defense of the West. If this control is fragmented, the possibility of war by miscalculation is increased.

One final point! I believe that the accomplishments of NATO over the past year have demonstrated that the Alliance is fully responsive to changing circumstances. The problems of the Alliance will not be solved by dissolving it into a series of bilateral defense pacts. As long as the Soviet Union represents a major potential military threat in Europe, there will be no acceptable substitute for the collective and integrated defense of the West. The changes which have taken place in the nature of the Soviet threat to Western Europe, in recent years, have not affected the basic realities that made the Alliance a political and military necessity some seventeen years ago.

9. The United Nations

In our present preoccupation with the state of our defenses, brought on by the conflict in Vietnam, we should not lose sight of the fact that the goal of our **Nation** is a world at peace. It was for this reason that we joined with other **peoples in the founding of the United Nations, and it is for this same reason that we have faithfully and consistently supported that organization.**

Even today, UN observers and peacekeeping forces police cease-fire and armistice lines and help maintain order in Cyprus, on the Gaza and Sinai borders, **on the Indo-Pakistan border and in Kashmir.**

Differences over the rules for initiating and financing peacekeeping will, to some extent, limit the UN's ability to undertake such operations particularly where an operation is opposed by one of the Permanent Members of the Security Council. Nevertheless, significant areas for UN peacekeeping activity remain, particularly where the Permanent Members agree on the need to bring a local conflict under control before it spreads, as exemplified by the Kashmir dispute in September 1965.

The United States, through the Department of Defense, will continue to do its part in providing logistical services, notably airlift and communications support, for UN peacekeeping operations when called upon, and we are prepared to explore the possibility of helping other countries train and equip personnel for UN service.

* * * * *

In summary, the focus of the U.S. defense problem has shifted perceptibly toward the Far East. Overt aggression by the Warsaw Pact countries in Europe, particularly against NATO and other nations allied with the United States, seems increasingly unlikely as long as we maintain our military strength and unity.

[redacted]

The threat of nuclear war, and even of large scale conventional wars, has become more latent, while the threat of local insurgency and "wars of liberation" has become more active. While we may expect both Communist China and the Soviet Union to take advantage of political disarray, social unrest, racial animosities and economic difficulties in the developing areas of the world to weaken the U.S. position and the Free World system of alliances, Communist China is far more prone to attempt to achieve its objectives by promoting force and violence. The continued contention between the two major centers of Communism presents to the Free World both opportunities and dangers. The Soviet leaders appear to share with us a desire to avoid wars which might lead to a direct U.S.-USSR military confrontation and to curtail the spread of Chinese Communist influence, but the pressure of Chinese competition for the leadership of the Communist movement and revolutionary forces everywhere, together with their own avowed support for "wars of national liberation", impels the Soviets to maintain militant positions on many issues and limits the areas in which they are willing to seek agreements with us.

C. IMPACT OF THE DEFENSE PROGRAM ON THE BALANCE OF PAYMENTS

The persisting deficit in the U.S. international balance of payments and the contribution which our defense expenditures abroad make to that deficit continue to be of major concern. In CY 1964 the overall deficit was about $2.8 billion, with about $1.3 billion occurring in the last quarter of the year. However, as a result of the actions initiated by the President last February, we now expect that when final data are available for 1965, they will show a substantial improvement over 1964. For the first three quarters of 1965, the deficit ran at an annual rate of less than half of the 1964 figure. Further progress in reducing the deficit is anticipated this year as the recently announced, intensified program is implemented.

[redacted]

[redacted]

In the case of Defense, our objective is to reduce the net impact of our programs on the balance of payments, while maintaining all necessary combat capabilities and without creating undue hardships for the individual serviceman or his dependents. As shown in the table below, we have made substantial progress during the last few years in reducing the deficit on the "Defense" account.

($ Billions, Fiscal Years)

U.S. Defense Expenditures	1961	1962	1963	1964	1965
U.S. Forces and their Support	$2.5	$2.5	$2.5	$2.5	$2.5
Military Assistance	.3	.2	.3	.2	.2
Other (AEC, etc.)	.3	.3	.2	.1	.1
TOTAL	$3.1	$3.0	$3.1	$2.9	$2.7
Receipts	- .3	- .9	-1.4	-1.2	-1.3
NET ADVERSE BALANCE	$2.8	$2.1	$1.7	$1.7	$1.4

Last year I stated that we hoped to reduce further the net adverse balance on the "Defense" account to an annual rate of about $1.4 billion. Despite increased overseas military expenditures associated with activities in Southeast Asia during the last half of the year, we were able to achieve that goal in FY 1965. The reduction since 1961 stems principally from increased receipts from military sales -- a direct result of a greatly intensified effort in this area. During this period Defense foreign exchange expenditures were held relatively constant in spite of substantial wage and price increases overseas. For example, between 1961 and 1964, wage levels in France rose by 27 percent, in Germany by 30 percent and in Japan by about 33 percent; and they have continued to rise during the past year. While such increases help the relative competitive position of U.S. products in foreign markets and, hence, our balance of payments, for the Department of Defense, they simply increase the cost of our deployments overseas -- between FY 1961 and 1965 **these and other increases would have added about a half a billion dollars to our expenditures had they not been offset by such actions as the following:**

1. U.S. produced supplies and services are generally favored whenever their cost, including transportation and handling, does not exceed the cost of foreign goods by more than 50 percent. Through FY 1965, about $250 million of such procurement was diverted to U.S. sources.

[redacted]

2. Offshore procurement for the Military Assistance Program is generally limited to the fulfillment of commitments made in prior years. In FY 1965, foreign purchases of major items for MAP were approximately $65 million, little more than half the FY 1964 figure.

3. In FY 1964 and FY 1965 we reduced the number of foreign nationals employed by the Department of Defense by approximately 35,000, about a 15 percent reduction during the two years. The staffs of U.S. military headquarters overseas were also reduced about 15 percent.

4. We are adjusting our forces deployed abroad to changes in our own military capabilities and those of our allies, whenever possible. For example, during FY 1964 and 1965, we completed the phase out of the B-47 bomber force in Europe and the transfer of certain air defense responsibilities to the forces of Spain and Japan.

5. We have eliminated all but the most essential overseas construction from our programs and are reducing the foreign exchange cost of those approved projects by requiring the use of U.S. construction contractors, U.S. flag carriers and U.S. produced materials whenever practicable.

6. We are closely scrutinizing the requirement for all existing overseas bases and facilities and are attempting through consolidation and inactivation to reduce their costs to a minimum. As you know, last December, we announced 20 such inactivations or consolidations in foreign countries. For example, we expect to withdraw all Air Force activities from Ernest Harmon Air Force Base in Newfoundland, Canada, by next January and phase out the DEW line barrier squadron homeported at Argentia, Newfoundland, by this July. In France, we will consolidate certain Army depot activities by this coming June, thereby dropping over 2,000 French national employees and eliminating about 1,300 U.S. military personnel spaces. In total, these 20 actions will reduce the number of foreign nationals by about 3,900 and eliminate approximately 8,000 military spaces.

We also are making an intensified effort to maintain and, if possible, increase the level of receipts from military sales. Since the end of FY 1961, orders, commitments and options for over $9 billion of U.S. military equipment and services have been obtained. In addition to their balance of payments benefits, these sales make a positive contribution to the overall defense posture of the Free World by providing our allies with modern equipment at a cost far less than it would cost them to develop and produce it themselves. Moreover, these sales add to our own economic well-being. For example, they will provide almost $1 billion in profits to U.S. industry and over one million man-years of work to American labor.

[redacted]

Purchases by the Federal Republic of Germany under its military offset agreement remain the most significant in terms of total dollar amount. During the past year, however, we have consummated several other significant sales, most notably with Australia, Italy and the United Kingdom. Australia will purchase about $350 million worth of U.S. military goods and services over the next three years including C-130s, P-3s and S-2Es. Last December, arrangements also were completed with Italy for the co-production and purchase of about $200 million of military equipment, including the all-weather F-104 aircraft. The United Kingdom during FY 1965 signed orders for nearly $500 million of U.S. equipment, including 24 C-130 transports and 48 F-4 fighter aircraft. In addition, the UK took options on more than $1.4 billion of additional F-4 and F-111 aircraft.

Because of the size of its potential military procurements from the U.S. and their balance of payments affects, the U.K. has asked us to search out the types of military equipment we plan to buy for which British firms might compete. This would enable them to earn a part of the dollar exchange needed for their much larger purchases from the U.S. Early this year we expect to request bids from U.S. and U.K. firms for eleven small non-combatant ships having a total value in terms of foreign exchange of about $50 million. I think it should be clear to all that our future ability to negotiate additional sales programs will depend, at least in part, on our demonstrated willingness to make some reciprocal purchases where foreign equipment is competitive in price, quality and delivery schedules.

Presently, the outlook for Defense-related foreign exchange expenditures is clouded by the situation in Southeast Asia. While we are taking every reasonable measure to reduce their impact, our increased activities in that area will, indeed, result in higher balance of payment costs. Our tentative estimate is that such costs may increase by several hundred million dollars in FY 1966, solely because of Vietnam-related actions. If it were not for the measures we are taking, these costs could be much higher. For example, the bulk of the materials and equipment being used in our large construction program in Vietnam are coming from the U.S. Also, we are increasing substantially the number of U.S. military construction battalions used for this work.

This set-back to our effort to reduce foreign exchange expenditures makes it even more important to find off-setting actions. To this end, we have again bolstered our sales effort, and I can assure the Committee that we will continue to scrutinize very closely every overseas military activity and function which involves expenditures abroad.

[redacted]

[redacted]

II. STRATEGIC OFFENSIVE AND DEFENSIVE FORCES

Included in this chapter are the two major programs which constitute our general nuclear war forces: the Stratetic Offensive Forces and the Strategic Defensive Forces, including Civil Defense. Because of the close interrelationship and, indeed, the interaction of these components of our general nuclear war posture, it is essential that they be considered within a single analytical framework. Only then can the nature of the general nuclear war problem in all of its dimensions be fully grasped and the relative merits of available alternatives be properly evaluated.

A. THE GENERAL NUCLEAR WAR PROBLEM

Last year I pointed out that our general nuclear war forces should have two basic capabilities:

1. To deter deliberate nuclear attack upon the United States and its allies by maintaining, continuously, a highly reliable ability to inflict an unacceptable degree of damage upon any single aggressor, or combination of aggressors, at any time during the course of a strategic nuclear exchange, even after absorbing a surprise first strike.

2. In the event such a war nevertheless occurred, to limit damage to the population and industrial capacity.

The first of these capabilities we call Assured Destruction and the second Damage Limitation.

Viewed in this light, the Assured Destruction capability would require only a portion of the ICBMs, the submarine-launched ballistic missiles (SLBMs) and the manned bombers. The Damage Limiting capability would be provided by the remainder of the strategic offensive forces (ICBMs, SLBMs and manned bombers), as well as area defense forces (manned interceptors, longer range anti-ballistic missile missiles, and anti-submarine warfare forces), terminal defense forces (anti-bomber surface-to-air missiles and shorter range anti-ballistic missile missiles), and passive defenses (fallout shelters, warning, etc.). The strategic offensive forces can contribute to the Damage Limiting objective by attacking enemy delivery vehicles on their bases or launch sites, provided that our forces can reach them before the vehicles are launched at our cities. Area defense forces can destroy enemy vehicles enroute to their targets before they reach the target areas. Terminal defenses can destroy enemy weapons or delivery vehicles within the target areas before they detonate. Passive defense measures can reduce the vulnerability of our population to the weapons that do detonate.

[redacted]

The vital first objective, which must be met in full by our strategic nuclear forces, is the capability for Assured Destruction. Such a capability will, with a high degree of confidence, ensure that we can deter under all foreseeable conditions a calculated, deliberate nuclear attack upon the United States or its allies. This capability must be provided regardless of the costs and the difficulties involved.

Once enough forces have been procured to provide high confidence of an Assured Destruction capability, we can then consider the kinds and amounts of forces which might be added for reducing damage to our population and industry in the event deterrence fails. Such Damage Limiting programs could range across the entire spectrum, from one designed against a threat of a minor nuclear power -- for example, the Chinese Communists in the 1970s -- to one designed against the threat of a carefully synchronized surprise first strike by the Soviet Union on our urban industrial areas.

With respect to the Damage Limiting problem posed by the Soviet nuclear threat, I believe it would be useful to restate briefly certain basic considerations which have guided our programs over the last several years.

First, against the forces we expect the Soviets to have during the next decade, it will be virtually impossible for us to be able to ensure anything approaching complete protection for our populations, no matter how large the general nuclear war forces we provide, and even if we were to strike first. The Soviets clearly have the technical and economic capacity to prevent us from achieving a posture which could keep our fatalities below some tens of millions; they can increase their first strike capabilities at an extra cost to them substantially less than the extra cost to us of any additional Damage Limiting measures we might take.

Second, since each of the three types of Soviet strategic offensive systems (land-based missiles, submarine-launched missiles and manned bombers) can, by itself, inflict severe damage on the United States, even a "very good" defense against only one type of system has only limited value.

Third, for any given level of Soviet offensive capability, successive additions to each of our various Damage Limiting systems have diminishing marginal value. The same principle holds for the Damage Limiting force as a whole; as additional forces are added, the incremental gain in effectiveness diminishes.

At the other end of the spectrum, it now appears to be technically feasible to design a defense system which would have a reasonably high probability of precluding major damage to the United States from an Nth country nuclear threat, e.g., Communist China in the 1970s. Such a defense system would also be effective against an accidental missile launching.

It was with these considerations in mind that we have carefully evaluated the major alternatives available to us in meeting the two strategic objectives of our general nuclear war forces -- Assured Destruction and Damage Limitation -- in the light of the threats projected [redacted] In addition, we have given special attention this year to an analysis of Soviet threats considerably greater than those [redacted]

Accordingly, this chapter will deal with:

- The capabilities of our general nuclear war forces against the expected threat, [redacted]
- The adequacy of our Assured Destruction forces against a much higher-than-expected Soviet threat.
- Specific recommendations on the general nuclear war programs for the FY 1967-71 period.

B. CAPABILITIES OF THE PROGRAMMED FORCES AGAINST THE EXPECTED THREAT

In order to assess the capabilities of our general nuclear war forces over the next several years, we must take into account the size and character of the forces the Soviets are likely to have during the same period. While we have reasonably high confidence in our estimates for the near future, our estimates for the latter part of this decade and the early part of the next are subject to great uncertainties. As I pointed out in past appearances before this Committee, such projections are, at best, only informed estimates, particularly since they deal with a period beyond the production and deployment lead-times of the weapon systems involved.

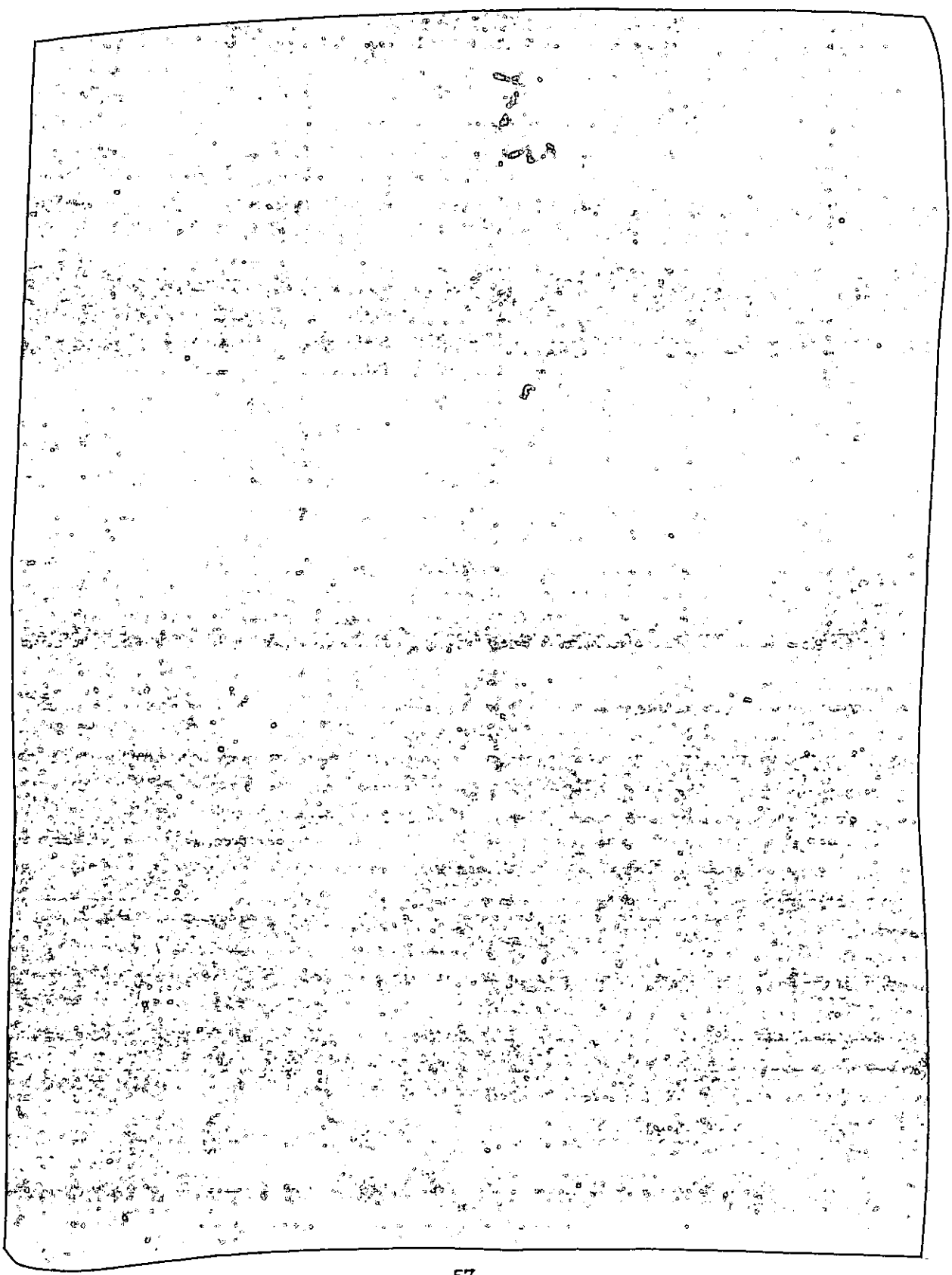
1. The Soviet Strategic Offensive-Defensive Forces

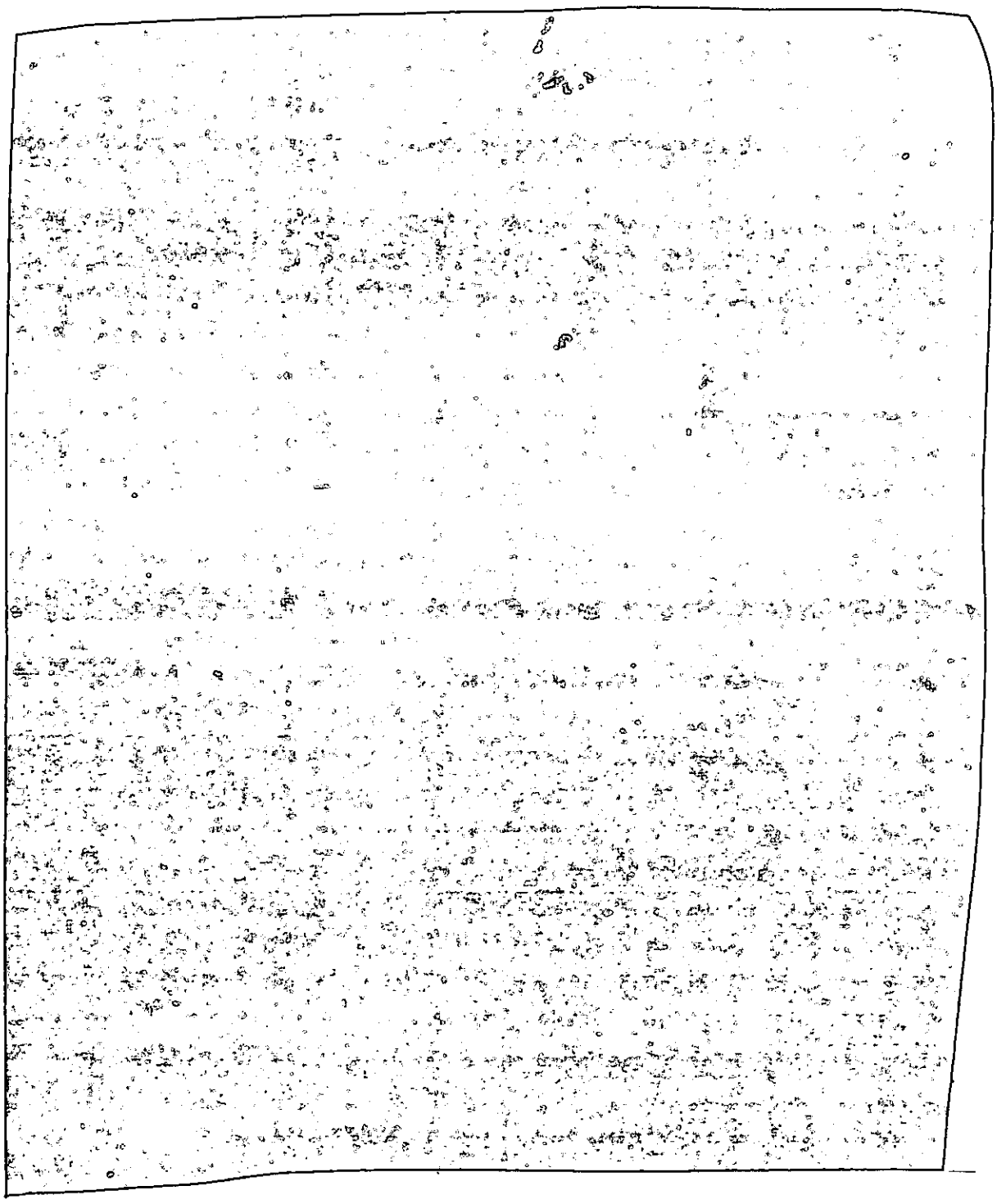
By and large, the current estimates of Soviet strategic forces projected through mid-1970 are of the same general order of magnitude as those which I discussed here last year. Summarized in the table below are the Soviet strategic offensive forces estimated for 1 October 1965, mid-1967 and mid-1970. Shown for comparison are the U.S. forces programmed for the same dates.

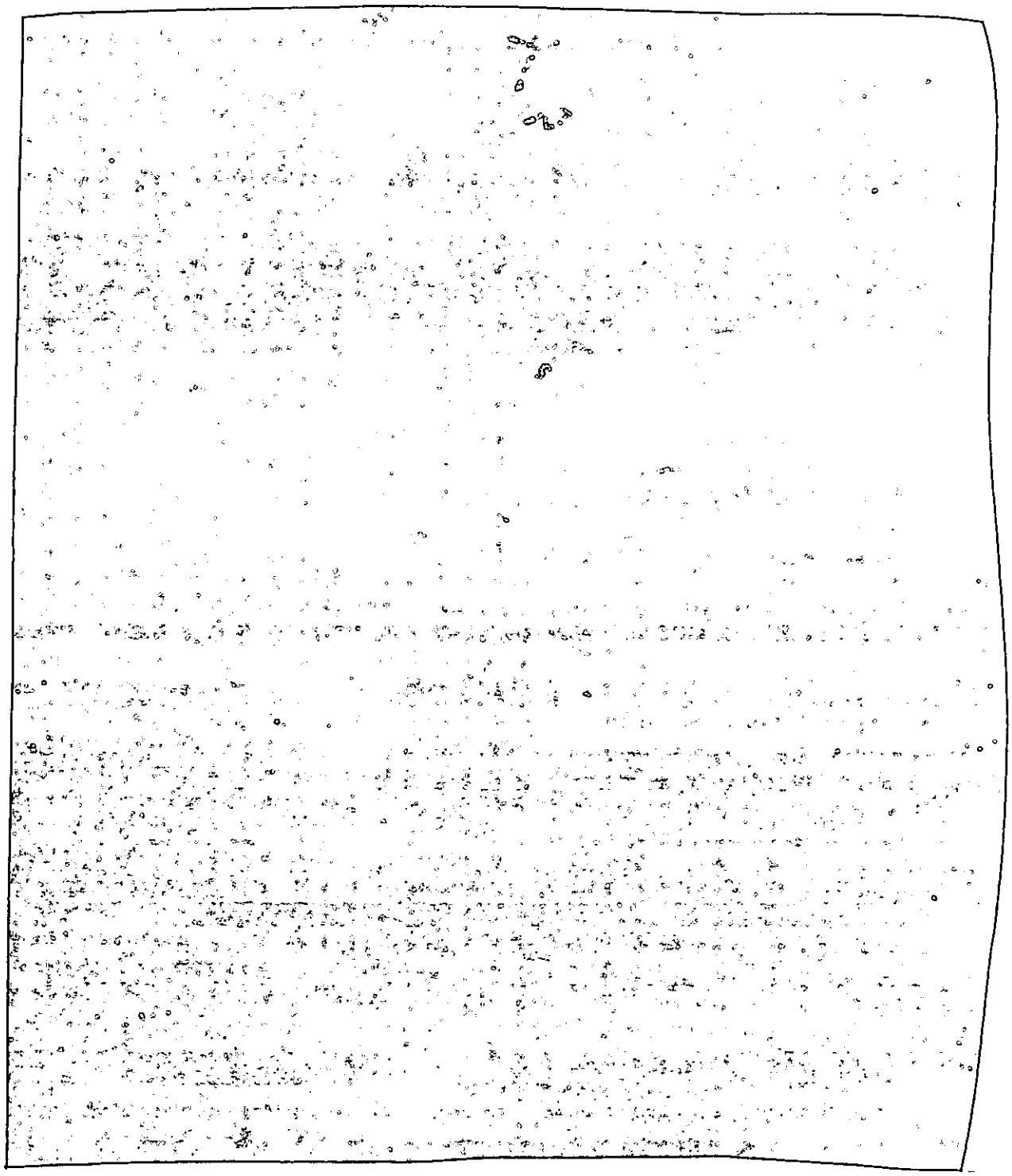
U.S. VS SOVIET STRATEGIC NUCLEAR FORCES

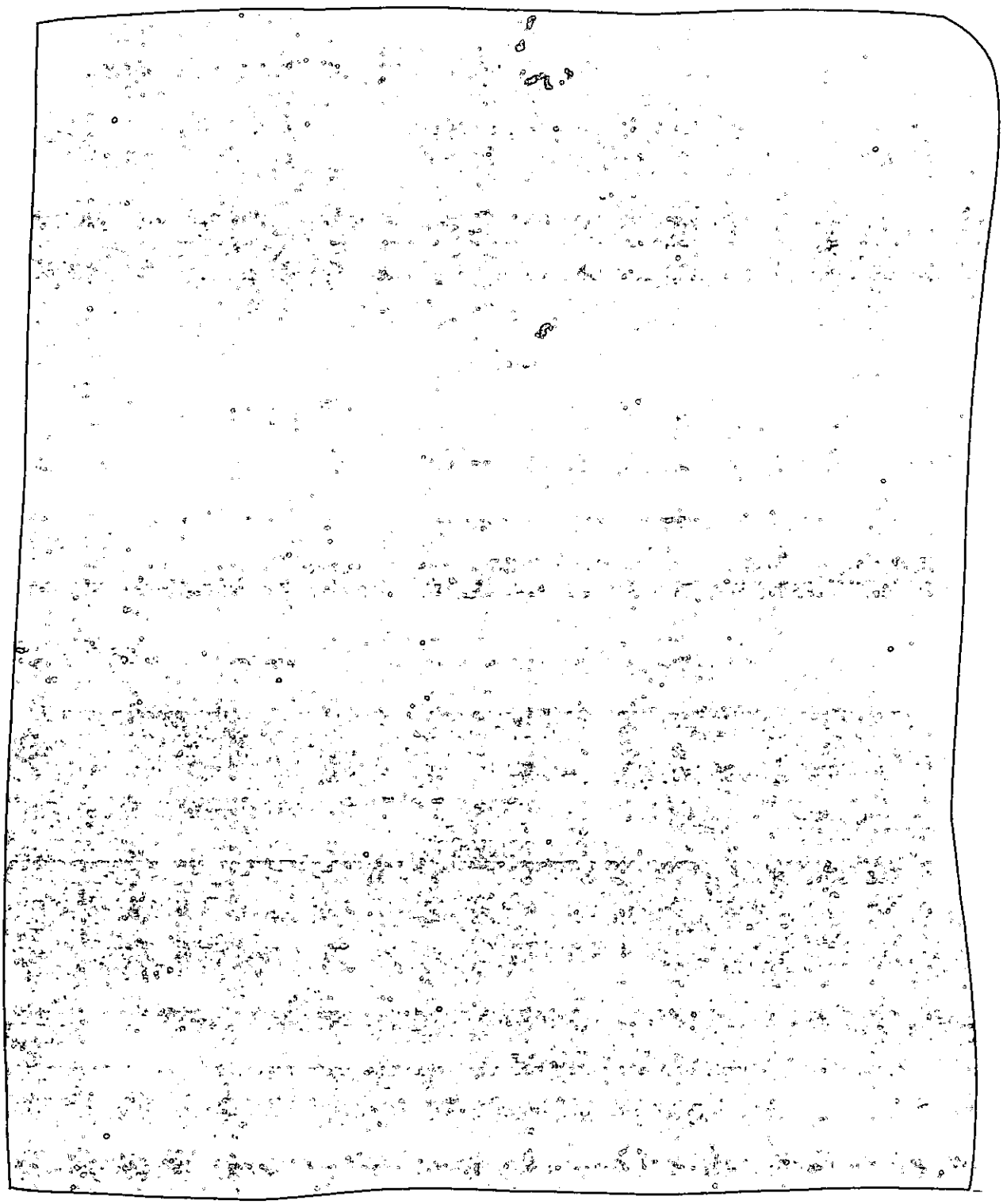
	1 Oct. 1965		Mid-1967		Mid-1970	
	U.S.	USSR	U.S.	USSR	U.S.	USSR
ICBMs[a]						
Soft Launchers	0		0		0	
Hard Launchers	854		1054		1054	
Total	854		1054		1054	
MR/IRBMs						
Soft Launchers						
Hard Launchers						
Mobile						
Total	0		0		0	
SLBMs[b]	464		640		656	
Bombers and Tankers[c]						
Heavy	1250		1175		950	
Medium	305		78		177	
Total	1555		1253		1127	

a. Intercontinental Ballistic Missiles









[redacted]

3. Adequacy of the Strategic Offensive Forces for Assured Destruction

Although no one can state with any degree of certainty how a general nuclear war between the United States and the Soviet Union might evolve, for purposes of evaluating the Assured Destruction capabilities of our forces, we must assume the worst possible case -- that the Soviets strike first in a well-coordinated surprise attack.

[redacted]

[redacted]

[redacted] and destroy half of the industrial capacity of the Soviet Union. By doubling the number of delivered warheads [redacted] Soviet fatalities and industrial capacity destroyed are increased by considerably less than one-third. Beyond this point, additional increments of warheads delivered do not appreciably change the results, because we would have to bring under attack smaller and smaller cities, each requiring one delivered warhead.

It is clear, therefore, that our strategic offensive forces are far more than adequate to inflict unacceptable damage on the Soviet Union, even after absorbing a well-coordinated Soviet first strike against those forces. Indeed, it appears that [redacted] would furnish us with a completely adequate deterrent to a deliberate Soviet nuclear attack on the United States or its allies.

[redacted] detonated over 50 Chinese urban centers would destroy half of the urban population [redacted] million people) and destroy more than one-half of their industry. Such an attack would also destroy most of the key governmental, technical and managerial personnel and a large proportion of the skilled workers.

Thus, without any use of the bomber forces, the strategic missile forces recommended for the FY 1967-71 period would provide substantially more force than is required for an Assured Destruction capability against both the Soviet Union and Communist China simultaneously.

4. The Role of the Manned Bomber Force

Given current expectations of vulnerability to enemy attack (before and after launch), and simplicity and controllability of operation, missiles are preferred as the primary weapon for the Assured Destruction mission. Their ability to ride out even a heavy nuclear surprise attack and still remain available for retaliation at times of our own choosing weighs heavily in this preference. On the basis of the latest intelligence, we are quite confident that the Soviets do not now have, and are most unlikely to have during the next five years, the ability to inflict high levels of pre-launch attrition on our land-based missiles, or any attrition on our submarine-based missiles at sea.

However, for purposes of analysis we have estimated the additional forces which would be required if our missile forces turned out to be less reliable and suffered greater pre-launch attrition than currently

[redacted]

estimated. To simplify the presentation, we show a hypothetical case in which our missile forces would be barely adequate for the Assured Destruction task, given the expected missile effectiveness and allowing no missiles for other tasks. (In fact, as I have indicated, our approved missile forces are [redacted] as large as required for the Assured Destruction task and therefore already have built into them a large measure of insurance.) The table below shows the cost of insuring against various levels of unexpected missile degradation by buying either additional missiles or bombers to attack the targets left uncovered as a result of the assumed lowered missile effectiveness. Against the current Soviet anti-bomber defenses we have measured the cost to hedge with bombers in terms of B-52s armed with gravity bombs since the FB-111/SRAM would be a more expensive alternative. Conversely, against an improved Soviet anti-bomber defense, we have used the FB-111/SRAM since it would provide a cheaper hedge than the B-52 armed with either gravity bombs or SRAM.

COSTS TO HEDGE AGAINST LOWER THAN EXPECTED MISSILE EFFECTIVENESS
(Ten Year Systems Costs in Billions of Dollars)[a]

Assumed Degradation to Missile Effectiveness (Realized/Planned)	Cost to Hedge With: Additional Missiles	B-52/Gravity Bombs (Against Current Soviet Anti-Bomber Defenses)	FB-111/SRAM (Against) Improved Soviet Anti-Bomber Defenses[b]
1.0	-	-	-
.8	$ .8	$ 1.3	$ 5.4
.6	2.0	2.6	7.7
.5	3.0	3.3	8.7
.4	4.5	4.0	9.6
.3	7.0	4.7	10.6
.2	12.0	5.3	11.5

Only when missile effectiveness falls to less than about 50 percent of what we actually expect are bombers less costly than missiles for insurance purposes. Against current Soviet defenses, the presently available B-52G-H force (255 aircraft) is adequate to hedge against complete failure of the missile force, insofar as our Assured Destruction objective is concerned. Against possible improved Soviet defenses, we must be willing to believe that our missile effectiveness could turn out to be lower than 30 percent of what we expect before we would wish to insure with FB-111/SRAM aircraft rather than with missiles.

a/ Ten year systems costs include for missiles -- operating costs plus procurement of missiles for replacement and testing; for bombers -- operating costs of bombers/tankers, modification costs plus procurement of the FB-111.

b/ Assumes the Soviets deploy a force of new, improved manned interceptors in the western part of the Soviet Union, equivalent in effectiveness to a force of about 300 F-111s equipped with ASG-18 fire control and AIM-47 air-to-air missiles.

Similar arguments could be developed with respect to "greater-than-expected" Soviet ballistic missile defense effectiveness. I will discuss this and other "greater-than-expected" threats later in this statement.

In summary, for the Assured Destruction mission, manned bombers must be considered in a supplementary role. In that role they can force the enemy to provide defense against aircraft in addition to defense against missiles. This is particularly costly in the case of terminal defenses. The defender must make his allocation of forces in ignorance of the attacker's strategy, and must provide in advance for defenses against both types of attack at each of the targets. The attacker, however, can postpone his decision until the time of the attack, then strike some targets with missiles alone and others with bombers alone, thereby forcing the defender, in effect, to "waste" a large part of his resources. In this role, however, large bomber forces are not needed. A few hundred aircraft can fulfill this function. Accordingly, as will be discussed later, we propose to maintain indefinitely an effective manned bomber capability in our Strategic Offensive Forces.

5. Adequacy of the Strategic Offensive-Defensive Forces for Damage Limitation

The ultimate deterrent to a deliberate nuclear attack on the United States or its allies is our clear and unmistakable ability to destroy the attacker as a viable society. But if deterrence fails, either by accident or miscalculation, it is essential that forces be available to limit the damage of such an attack to ourselves or our allies. Such forces include not only anti-aircraft defenses, anti-ballistic missile defenses, anti-submarine defenses, and civil defense, but also offensive forces, i.e., strategic missiles and manned bombers used in a Damage Limiting role.

a. Damage Limitation Against the Soviet Nuclear Threat

With respect to the Soviet Union, the potential utility of all Damage Limiting efforts, including the use of our Strategic Offensive Forces in that role, is critically dependent on a number of uncertainties:

1. Future developments in the Soviets' general nuclear war forces in the absence of further major Damage Limiting efforts on our part,

2. Their response to our efforts at Damage Limiting,

3. If deterrence fails, the precise timing of a nuclear exchange as well as the Soviet objective in such an exchange.

In order to illustrate some of the major issues involved in this problem, we have tested four Damage Limiting programs against two possible future Soviet threats. In practice, of course, uncertainty about the direction in which the Soviet threat was developing would lead us to maintain a flexible approach, matching the scope of our force deployments to our own technical progress and to our evolving knowledge of the Soviet threat. Nevertheless, these cases help to develop an appreciation of the possible future costs and benefits of such Damage Limiting programs.

The strategic offensive and ABM portions of the two Soviet threats are shown below:

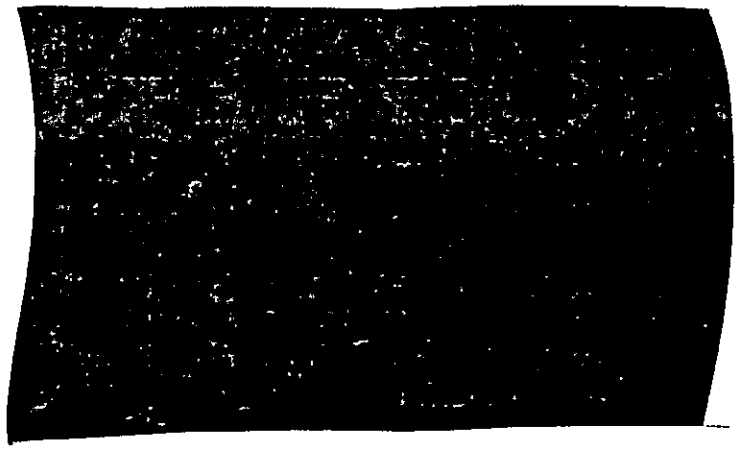
	1967	1970	1975
Soviet Threat I			
ICBMs			
Bombers/Tankers			
SLBMs			
Anti-missile Missiles			
Soviet Threat II			
ICBMs			
Bombers/Tankers			
SLBMs			
Anti-missile Missiles			

Threat I is basically an extrapolation of the latest intelligence estimates reflecting some future growth in both offensive and defensive forces. Threat II is a major Soviet response to our deployment of a ballistic missile defense. It includes a large number of big, land-based missiles equipped with penetration aids designed to overwhelm our ABM defenses and a qualitatively improved and somewhat larger manned bomber force. Threat II further assumes that the Soviet Union also responds defensively by deploying a very sizeable, sophisticated ABM system. This would require major additions to the U.S. offensive capability in terms of additional forces needed to maintain our Assured Destruction capability.

[redacted]

The major components of the four U.S. 1975 Damage Limiting postures considered in this analysis are shown below:

Components	Alternative U.S. Damage Limiting Posture Against: Soviet Threat I Posture A	Soviet Threat I Posture B	Soviet Threat II Posture C	Soviet Threat II Posture D
NIKE-X				
SPRINT msls				
DM15X2 msls				
Terminal Bomber Defenses				
SAM-D Btrys				
Air Defense				
F-12 Interceptors				
Cities w/Terminal Defenses				
Offensive Forces[a]				
TITAN II				
MINUTEMAN				
ICM[b]				
POLARIS A-2/A-3				
POSEIDON[b]				



Postures A and B are tailored against Soviet Threat I; Postures C and D against Threat II. All four include Civil Defense.

The SPRINT missile, which I described to you last year, is now under development and would be used for terminal defense of population targets. The DM15X2 is the new extended-range interceptor missile, the development of which was initiated last year by reprogramming some $22 million of FY 1965 funds. On the basis of our experience with ZEUS missile techniques, we feel sure we can design and develop a missile with a range of 300 miles or more. This missile would carry a multi-megaton warhead with a large lethal radius above the atmosphere. Protecting or hardening the re-entry vehicle against such a defense weapon carries with it a great weight penalty which would probably become prohibitive if the attacker were to attempt to ensure the survival of his re-entry vehicles at less than five miles from the burst of the interceptor's warhead. However, we know from our own penetration aids research and development programs that even such an area defense could be overcome by a strong and sophisticated attack using multiple warheads hidden within chaff clouds hundreds of miles long. Thus, terminal defenses would also be required to deal with those warheads which do penetrate the area defenses.

a/ Missile forces are total forces for Assured Destruction and Damage Limiting.

b/ ICM is a new solid fueled ICBM with [redacted] times the payload capacity of the present MINUTEMAN. POSEIDON is a new missile for the POLARIS submarine force with about [redacted] times the payload of a present POLARIS A-3 missile.

[redacted]

The NIKE-X system would also include a number of different types of radars: multi-functional array radars (MAR), missile site radars (MSRs) and perhaps VHF radars.

The SAM-D is a new ground-to-air anti-aircraft missile system which is now in a very early stage of development.

The F-12 is the interceptor version of the Mach 3 YF-12A aircraft, three of which are now in a flight test phase.

The postures discussed here are tentative, but they illustrate the overall costs and effectiveness of a range of possible deployments. As our knowledge in this area of rapidly changing technology increases, we will refine these deployments and our calculations of cost and effectiveness.

The interaction of the various Soviet threats and the four alternative Damage Limiting programs are shown in the following table:

COSTS OF U.S. DAMAGE LIMITING POSTURES AND SOVIET DAMAGE POTENTIAL

	Program Costs FY 1966-75			Soviet Damage Potential in Terms of Millions of U.S. Fatalities [a]	
	Cost Attributed to Assured Destruction [b]	Damage Limiting Increment	Total U.S. Posture	Soviet First Strike	U.S. First Strike
	(Billions of Dollars)				
1970					
USSR Expected Threat					
U.S. Approved Program				130-135	90-95
1975					
USSR Threat I					
U.S. AD*Posture Plus Ltd Civil Defense Program	$22.4	$ 1.5	$23.9	130-135	90-105
U.S. AD Posture Plus Full Fallout Shelter	22.4	3.4	25.8	110-115	80-85
U.S. DL*Posture A	22.4	22.5	44.9	80-95	25-40
U.S. DL Posture B	22.4	30.1	52.5	50-80	20-30
USSR Threat II					
U.S. DL Posture C	28.5	24.8	53.3	105-110	35-55
U.S. DL Posture D	28.5	32.3	60.8	75-100	25-40

*AD is Assured Destruction; DL is Damage Limiting.

a/ Rounded to the nearest five million.

b/ The Assured Destruction posture designed against Threat I is more than just a minimal capability; it is designed to provide insurance against unexpected changes in the threat. In Postures C and D a larger strategic missile force is provided for Assured Destruction to counter the increased Soviet offensive threat and the much more extensive ABM defense. (Threat II requires about three times as much surviving, deliverable payload than Threat I, just to maintain our Assured Destruction capability.)

[redacted]

The program costs shown on the table represent the value of the resources required for each of the alternative postures. The costs attributed to Assured Destruction represent the resources required to ensure that we can, in each case, deliver and detonate at least the [redacted] over Soviet cities, even after a surprise Soviet attack. The costs for Damage Limitation represent the value of the additional resources required to achieve the various postures shown on the table. The last two columns of the table show the U.S. fatalities which would result under two alternative forms of nuclear war outbreak. In the Soviet first strike case, we assumed that the Soviets initiate nuclear war with a simultaneous attack against our cities and military targets, and with the weight of their attack directed at our cities. In the other case, we assume that the events leading up to the nuclear exchange develop in such a way that the United States is able to strike at the Soviet offensive forces before they can be launched at our urban targets.

The ranges of fatalities estimated in the table reflect some of the possible variations in Soviet targeting doctrine, in technological sophistication, in errors in attack planning, and in the degree of disruption to Soviet attack coordination. The higher end of the ranges of fatalities shown for each case represents the full damage potential (a well-planned, well-coordinated attack to maximize fatalities) under the assumed conditions. The lower end of the ranges of estimates represents possible degradations in execution and targeting. All estimates assume that the Soviets have missile penetration aids which are as sophisticated as our own are expected to be in the same time period, although [redacted]

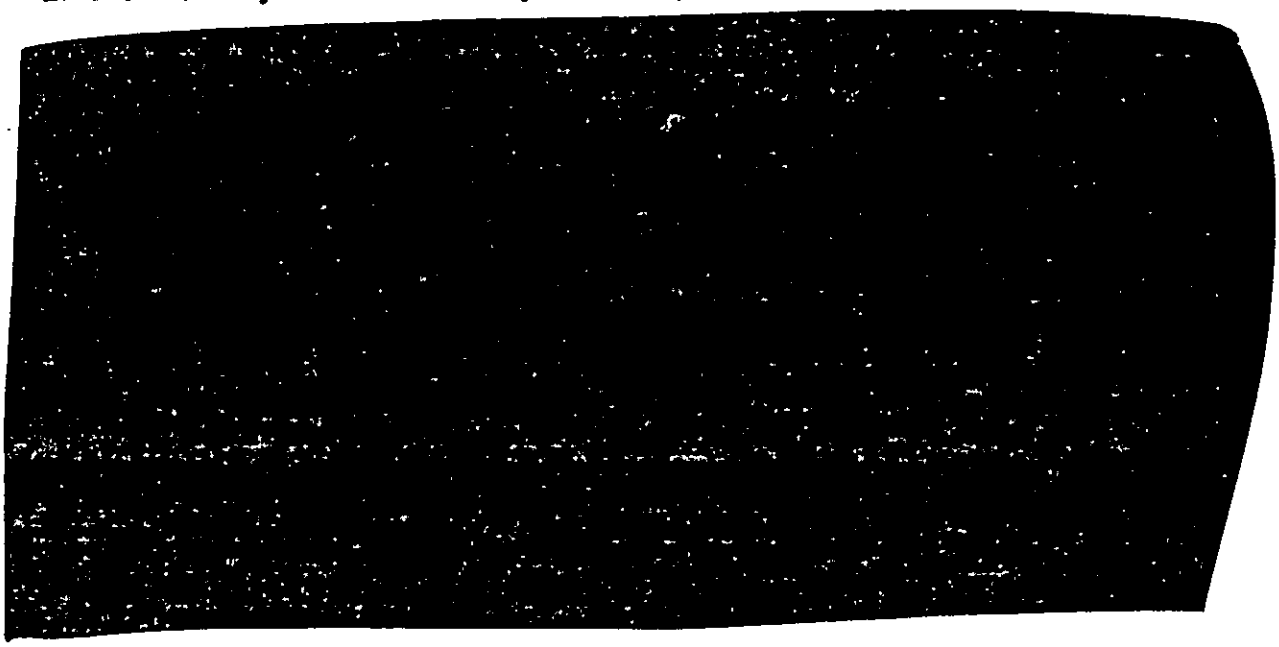
The first line on the table shows the Soviet damage potential against the currently approved U.S. program in 1970. It illustrates the projected performance of the currently approved bomber defenses, the Civil Defense program and the strategic offensive forces. Without these programs, the damage potential could be 160 million or more U.S. fatalities in a mixed Soviet attack on military and civilian targets. This total would not increase very much even if the Soviets directed all of their forces at our cities.

As shown on the second line of the table, the situation is not substantially changed by the assumed Soviet buildup (Threat I) between 1970 and 1975. A Full Fallout Shelter Program, at a cost to the Government of about $3.4 billion, would reduce fatalities by about 15-20 million in both cases. Damage Limiting Posture A (cost -- $22.5 billion) might reduce fatalities to somewhere between 80 and 95 million and Posture B (cost -- $30.1 billion) to between 50 and 80 million in an early urban attack.

[redacted]

But the benefits of these Damage Limiting programs could be substantially offset, especially in the case of a Soviet first strike, if the Soviets were to increase their offensive forces to the levels assumed in Threat II.

Even larger Soviet responses than that of Threat II cannot be ruled out completely by what we know of Soviet technology and resource constraints. Whether or how the Soviets actually would respond depends on how strongly they desired a reliable threat against the United States, and on the alternative military and non-military uses they have for the resources involved.



The costs of the various Damage Limiting programs would, of course, be spread over a period of years. Even so, they would reach $5 to $6 billion per year in the early 1970s. To maintain or improve the postures shown (against an evolving Soviet threat) might involve continuing annual expenditures of $4 to $5 billion.

On the basis of this and other analyses of the Damage Limiting problem in relation to the Soviet nuclear threat, we have concluded that:

1. Against likely Soviet postures for the 1970s, appropriate mixes of Damage Limiting measures could effect substantial reductions in the maximum damage the Soviets could inflict, but only at substantial additional cost to the U.S. over and above that required for Assured Destruction. Even so, against a massive and sophisticated Soviet surprise attack on civil targets, there would be little hope of reducing fatalities below 50 or more millions.

2. An efficient Damage Limiting effort against the kinds of postures which the Soviets could achieve in the 1970s would require a mix of measures, including a full civil defense Fallout Shelter Program, ballistic missile defenses, anti-submarine (SLBM) defenses, and improved bomber defenses. Against a very rapid buildup of Soviet missile forces based in hard silos, additional U.S. missile payload might have to be added.

3. Feasible improvements in missile accuracy, and the use of MIRVs where applicable, could greatly increase the efficiency of our offensive forces against Soviet hard targets. However, the effectiveness of offensive forces in the Damage Limiting role is sensitive to the timing of a nuclear exchange.

4. Assuming that the Soviet bomber threat remained at least as great as we currently estimate, a decision to build a significant U.S. Damage Limiting capability would require the deployment of a force of improved interceptor aircraft. The choice of a specific aircraft and the desired force size would depend on the composition of the threat, the level of Damage Limiting effectiveness aimed at, and the timing of the decision.

5. An ABM system employing long range exoatmospheric interceptors [redacted] in addition to lower altitude interceptors could complicate even a sophisticated attacker's ballistic missile penetration problem. It could also improve overall system performance compared to an equal cost system employing lower altitude interceptors only. However, this conclusion is based on a preliminary analysis and there are still many unresolved questions about the design and performance of a system employing both exoatmospheric and lower altitude interceptors.

6. Since our allies have very little Damage Limiting capability of their own, our offensive forces are likely to remain the primary agent for limiting damage to them.

7. The entire problem of the extent and kind of efforts we should make to limit damage is dominated by the great uncertainty about Soviet responses to those efforts. Accordingly, we should not now commit ourselves to a particular level of Damage Limitation against the Soviet threat -- first, because our deterrent makes general war unlikely, and second, because attempting to assure with high confidence against all reasonably likely levels and types of attack is very costly, and even then unlikely to succeed. Our choices should be responsive to projections based upon the observed development of the Soviet threat and our evolving knowledge of the technical capabilities of our own forces.

[redacted]

b. Damage Limitation Against an Nth Country Nuclear Threat

During the past year, the potential of an Nth country nuclear threat to the United States has become more real and the feasibility of a moderately priced defense against it more promising. As pointed out earlier, the Chinese Communists have detonated two nuclear devices and could develop and deploy a small force of ICBMs by the mid to latter part of the 1970s. Other nations are economically and technologically capable of producing nuclear weapons within the next ten years.

Obviously the threat of greatest concern to the United States is that posed by Communist China. The development and deployment of even a small force of ICBMs might seem attractive to them as a token, but still highly visible, threat to the U.S., designed to undermine our military prestige and the credibility of any guarantee which we might offer to friendly countries. The prospect of an effective U.S. defense against such a force might not only be able to negate that threat but might possibly weaken the incentives to produce and deploy such weapons altogether.

In order to illustrate the possibilities of defense against an Nth country nuclear threat, we have analyzed two possible U.S. Damage Limiting postures in relation to two levels of threat in the mid-1970s. The major ABM components of these postures are shown below:

	Posture E	Posture F
Cities With Local Defense	22	25
Major Components		
TACMAR Radars	0	7
VHF Radars	0	6
Missile Site Radars (MSRs)	75	26
Area Interceptors (ZEUS)	0	1176
Terminal Interceptors (SPRINT)	3480	1088

Posture E provides terminal ABM defense for 22 cities using Missile Site Radars (MSRs) and SPRINT interceptors, but no area defense. Posture F includes an area defense of the entire country, based primarily on TACMAR radars for long range acquisition of targets, and area interceptor missiles with high-yield warheads for long-range kills of re-entry vehicles. The TACMAR is an austere version of the multi-function array radar with reduced tracking and discriminating capabilities. The VHF radars would be used to detect very low radar cross section objects at sufficient range to permit attack with the long range interceptors. Posture F also provides terminal defense for 25 cities. Both postures might also require some anti-bomber, ASW and civil defense.

[redacted]

[redacted]

The effectiveness (and cost) of these postures could be increased further by strengthening them in any of a number of ways. Against attacks employing no penetration aids, increasing the number of long range interceptor missiles might be preferred. Against more sophisticated or larger attacks, the number of Missile Site Radars at each point defended with SPRINT might be increased [redacted] the capabilities of the TACMAR radars might be improved, or more cities might be provided terminal defenses.

A minimum anti-bomber defense could be provided by deploying our current interceptor aircraft around the periphery of the country. Such a force, which would be required for the peacetime air surveillance mission in any event, would provide a relatively effective defense against small bomber attacks. To achieve higher effectiveness, this minimum area air defense could be supplemented: first, by an improved surveillance capability to ensure against enemy aircraft approaching U.S. airspace undetected; and second, by more advanced interceptors capable of attacking enemy aircraft with a higher kill probability and further from our borders.

Our analysis suggests that something less than a Full Fallout Shelter Program may be appropriate in a light Damage Limiting posture designed against small unsophisticated attacks. Fallout shelters are designed primarily to protect against collateral fallout from counter-military attacks, weapons aimed at other urban-industrial areas, and weapons deliberately exploded upwind of population targets in order to avoid terminal defenses. The "area" defense described above might be very effective in denying the last of these tactics, especially against small attacks. The other two sources of fallout are also relatively much less important in light attacks.

ASW might be particularly important in defending against Nth country threats. Submarine delivery of relatively short range cruise or ballistic missiles could represent the earliest form of a Chinese Communist threat against the United States. [redacted] The Navy is studying the adequacy of the currently programmed ASW forces to handle the foreseeable Chinese threat. I will discuss the ASW problem in more detail later in my statement.

Much more analysis of light defense postures is required before we are in a position to choose appropriate combinations of the various components. To illustrate the potentials of a "light" defense, however, we have examined the cost and performance of Postures E and F against

[redacted]

small ICBM attacks of the sort that the Chinese Communists might be able to mount in the latter part of the 1970s. The results of this analysis, which are still highly tentative, are summarized below:

U.S. Posture	Five Year Systems Costs ($ Billions)	Millions of U.S. Fatalities
Approved Program (Extended)		
Posture E	8.0	
Posture F	10.6	

The costs shown are for the ABM components of the program only; they include investment, operating and future R&D.

The lower bound of zero for Posture F represents the defense effectiveness against a very unsophisticated attack, or even an attack on major U.S. cities with a somewhat more sophisticated payload. The upper bound represents an attack (with the more sophisticated payload) designed to maximize the number of fatalities, even if it means avoiding major U.S. cities (which would be defended by SPRINT). The table above does not deal explicitly with the contribution of our offensive forces to Damage Limitation against Nth countries. This contribution, however, would be substantial, both in terms of the retaliatory threat they would pose and in terms of their effectiveness in pre-emptive counter-military strikes.

The table brings out two important points: (1) Posture F, which includes an exoatmospheric missile, would be far superior on a cost-effectiveness basis to Posture E which does not; and (2) the successful development of the exoatmospheric system would, for the first time, give hope of achieving a high confidence defense against a light ICBM attack, not just for a few selected cities but for the entire nation.

Although the problem of designing light Damage Limiting postures is still under study, I believe that the following tentative conclusions can be drawn at this time:

1. A light anti-ballistic missile system using TACMAR radars, exoatmospheric interceptors and a terminal SPRINT defense at a small number of cities offers promise of a highly effective defense against small ballistic missile attacks of the sort the Chinese Communists might be capable of launching within the next decade. The initial investment and five year operating cost (including R&D) would be about $8-10½ billion, depending on the number of cities defended by SPRINT and the density of the area coverage.

2. It appears likely that such a defense would remain highly effective against the Chinese Communist threat at least until 1980.

3. Once fully deployed, this defense system could be augmented to increase its effectiveness against larger or more sophisticated threats -- by adding more long range interceptor missiles, by improving the TACMARs, or by increasing the number of cities with terminal defenses.

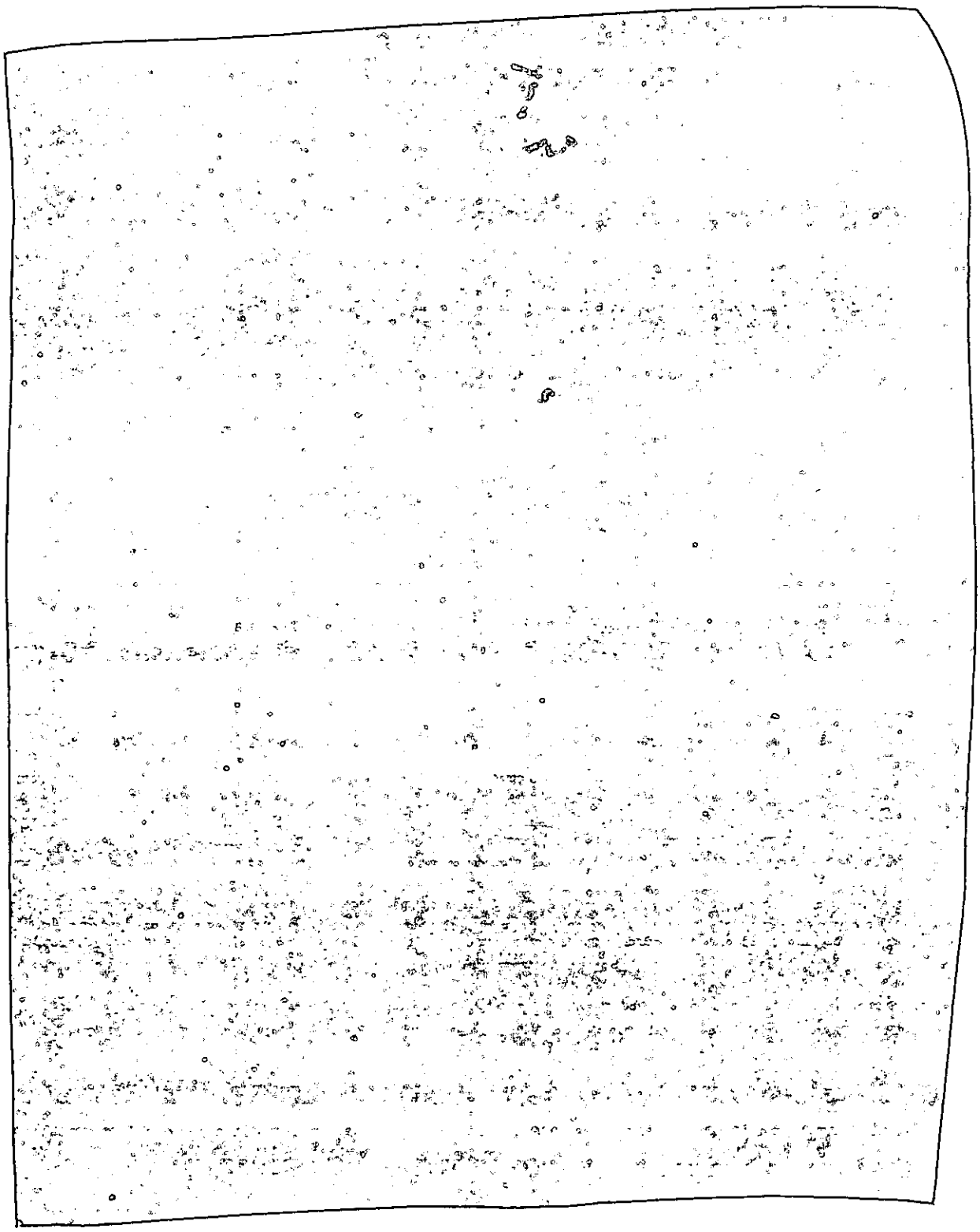
4. On the basis of our present knowledge of Chinese Communist nuclear progress, no deployment decision need be made now. However, the development of the essential components should be pressed forward vigorously.

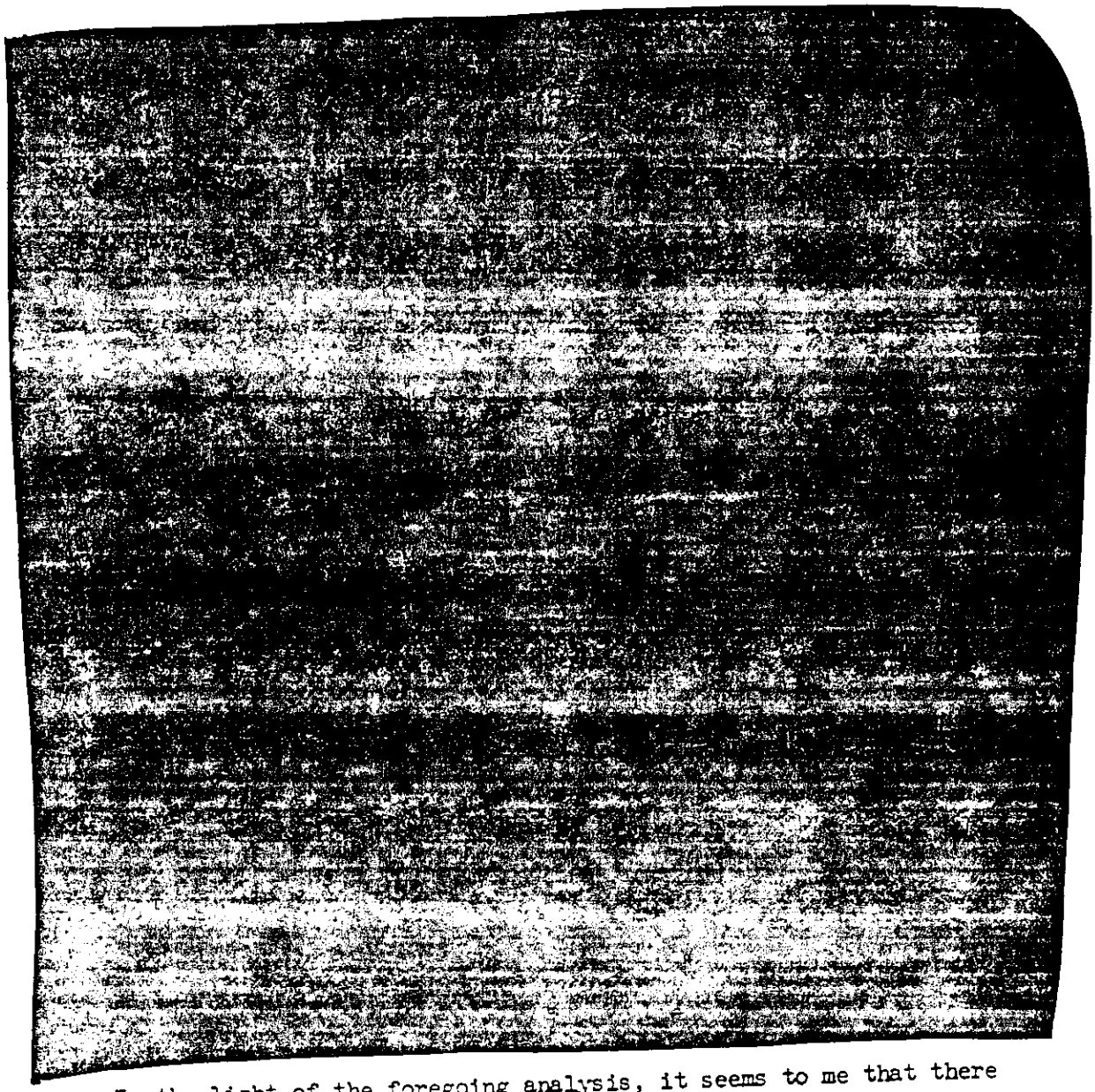
C. ADEQUACY OF OUR ASSURED DESTRUCTION FORCES AGAINST A HIGHER THAN EXPECTED SOVIET THREAT IN THE 1970s.

Earlier in this section of the statement, I noted that we had given special attention this year to an analysis of Soviet threats over and above those projected in the latest intelligence estimates, and that we had done so because of certain recent U.S. technological developments which, if duplicated by the Soviet Union, could have a major impact on our Assured Destruction capability. I also stated that this capability is the vital first objective which must be met in full by our strategic nuclear forces under all foreseeable circumstances and regardless of the costs or difficulties involved.

Perhaps the worst possible threat the Soviets could mount against our Assured Destruction capability would be [redacted] Our MIRV re-entry vehicle (MK 12) is already well along in development and we now propose to produce and deploy it in part of the MINUTEMAN force. Development of an exoatmospheric defense missile has been initiated.

We believe the Soviets are also developing an exoatmospheric defense missile, but we have no evidence that they are developing MIRVs. Nevertheless, the lead time between first identification of a Soviet MIRV development program and the initial operating capability might be as short as 18 to 24 months. The impact of Soviet deployments of both these systems on our Assured Destruction capability would be of such significance that we must carefully examine the implications of such deployments and take now whatever measures may be necessary to hedge against that possibility.





In the light of the foregoing analysis, it seems to me that there are seven major issues involved in our FY 1967-71 programs for the general nuclear war forces. The first five are related primarily to the

threat projected in the latest intelligence estimates. The last two are associated with the more remote possibility of a much more severe threat. These issues are:

1. Should a manned bomber force be maintained in the 1970s; if so, what aircraft should be selected for the force?

2. To what extent should qualitative improvements (in range, payload, etc.) be made in the MINUTEMAN force?

3. Should an anti-ballistic missile system be deployed; if so, when and what type?

4. Should we produce and deploy a new manned interceptor?

5. What should be the future size and scope of the Civil Defense program?

6. Should development of new penetration aid packages for the POLARIS and MINUTEMAN missile forces be accelerated?

7. Should development of the POSEIDON missile be accelerated?

I will discuss each of these issues in context with our other proposals for the two components of our general nuclear war posture -- the Strategic Offensive Forces and the Strategic Defensive Forces, including Civil Defense.

D. STRATEGIC OFFENSIVE FORCES

The force structure proposed for the FY 1967-71 period is shown on Table 2 of the set of tables attached to this statement.

1. The Maintenance of an Effective Manned Bomber Force in the 1970s.

By the end of the current fiscal year the strategic bomber force will consist of 600 operational B-52s and 80 B-58s. (As I informed the Committee last year, two squadrons of B-52Bs will be phased out this Spring.) Some 345 of the operational B-52s will be the older C through F models. Last year we stated that these aircraft could be kept operational through 1972 by a program of life extension modifications and capability improvements, at a cost of about $1.3 billion. To keep them operational through FY 1975 would cost another $600 million for modifications. The 255 operational B-52G-Hs can be maintained in a satisfactory operational status at least through FY 1975, and the modifications necessary to ensure this have already been included in the proposed FY 1967-71 program.

As indicated in the foregoing analysis, a force of 255 operational B-52G-Hs would be sufficient to compel the Soviets to maintain their present anti-bomber defenses. However, if they were to significantly improve those defenses, a mixed force including some more advanced bombers might be desirable. Shown in the following table are the characteristics of the FB-111A compared with the B-52C-E, the B-52F, the B-52H and the B-58.

	B-52C-E	B-52F	B-52H	B-58	FB-111A
Maximum Speed (knots)					
High Altitude	[redacted]				
Low Altitude					

As shown in the table above, on a typical nuclear strike mission the range of the FB-111A exceeds that of the B-52C-Fs and the B-58s. I believe it is clear from this comparison, alone, that the FB-111 is not an interim aircraft but is, indeed, a truly effective strategic bomber.

It is interesting to note in this connection that with one tanker aircraft for refueling and flying with a 10,000 pound bomb load at high altitude all the way, the Soviet BADGER medium bomber has a range of only 4,400 n.mi. and the BISON heavy bomber 8,300 n.mi., compared with the [redacted] n.mi. range of the FB-111. There is no direct evidence that either the currently operational supersonic BLINDER A or the BLINDER B, which is probably not yet operational, has a refueling capability.

Considering the role of the manned bomber in the strategic offensive mission, as we see the threat today and over the next five years, large expenditures on the development and production of a new advanced strategic aircraft (AMSA) do not appear to be warranted at this time. A much more sensible course would be to procure a force of 210 (U.E.) FB-111As configured as closely as possible to the fighter version so that it would, indeed, be

[redacted]

[redacted]

a dual purpose aircraft -- strategic and tactical -- and this is what we propose to do at a total investment cost of about $1.9 billion. Some $26 million of FY 1966 funds are being utilized to initiate the necessary development work this year and $202 million has been included in the FY 1967 budget to continue development and procure the first ten aircraft, including initial spares and advance procurement of long lead-time items. As shown on the Table, we plan to deploy the first squadron by end FY 1969, and the entire force (210 U.E. aircraft) by end FY 1971.

Accordingly, we propose to phase out the B-52C-Fs over the next five years and the B-58s in FY 1971, giving us a modernized force of 465 manned bombers (210 FB-111As and 255 B-52G-Hs) by the end of that fiscal year and at less than the cost which would result from maintenance of the older B-52s and the B-58s in the force.

This decision was reached only after a most careful and lengthy evaluation of all the factors involved. You may recall that when I appeared before this Committee a year ago, I said:

> "There are at least two other alternatives available to us, in addition to the immediate development of the AMSA, which would preserve the manned-bomber option for the period following the retirement of the B-52 force. These are: (a) the procurement of a strategic version of the F-111 (i.e., a B-111), and (b) the initiation of advanced development work on long lead time components which would be needed for the AMSA as well as for other new combat aircraft.
>
> "A strategic version of the F-111 could carry the SRAM or bombs, or a combination of both. Its speed over enemy territory would be supersonic at high altitudes and high subsonic at low altitudes. While a 'B-111' force would have to place greater reliance on tankers than an AMSA force, its range (considerably better than the B-58), its target coverage and its payload carrying capability would be sufficient to bring under attack a very large share of an aggressor's urban/industrial complex. Since the F-111 is already nearing production, and we plan to initiate development of the SRAM in the current fiscal year, a 'B-111' could be made available in the early 1970s at a much lower cost than the AMSA, even if the decision to commence production is postponed for another two or three years."

Since that time, the Air Force has conducted detailed studies on the composition of our future bomber forces, including an evaluation of various strategic configurations of the F-111 and an extensive review of service life modifications for the B-52 fleet. In April of last year, General McConnell made an informal proposal to me to replace the B-52C-F series aircraft with a bomber version of the F-111. In June, the Air Force made a formal proposal to procure 210 (U.E.) FB-111s as a replacement for the 345 B-52C-Fs. In August, the Joint Chiefs of Staff concurred in the Air

[redacted]

[redacted]

Force proposal to deploy the FB-111 and to phase out the B-52C-F aircraft. After a thorough review of all the facets of the proposal in context with the overall Strategic Offensive-Defensive Forces program, I recommended and the President approved, going ahead with development and procurement of this aircraft, beginning in FY 1966, and the phase out of the B-52C-F on the schedule suggested by the Joint Chiefs.

Although we still cannot see a clear need for a new strategic bomber to replace the B-52G-Hs and FB-111s, we plan, as a hedge against some unforeseen improvement in Soviet anti-bomber defenses, to continue development work on the components and sub-systems which would be required if it should ultimately become desirable to deploy such an aircraft. Last year we proposed a four-part program for an advanced manned strategic aircraft (AMSA) which included work on alternative design approaches, the avionics, the propulsion system and the short range attack missile, SRAM. For the first three elements of this program we envisioned a 1966 effort costing $39 million -- $24 million from prior year funds and $15 million from FY 1966 appropriations. In acting on our request the Congress added $7 million specifying that the total of $22 million provided in FY 1966 was to be available only for AMSA. All of this additional $7 million has been applied to the program. Advanced development work on the airframe design and propulsion elements can be continued in FY 1967 with funds already on hand. The avionics development will require an additional $11 million in FY 1967.

As you know, in 1961 we introduced as an emergency measure a capability to fly one-eighth of the B-52 force on continuous airborne alert for 12 months if required. In addition, we have been keeping 12 B-52s airborne at all times. Today, well-protected missiles in silos and submarines are our principal strategic offensive weapons. Moreover, we have greater confidence in our warning systems and in our ability to get our ground alert aircraft airborne within the warning time. Therefore, we now propose to discontinue the airborne alert effective July 1, 1966 and consume over the next few years the extra stocks (valued at $123 million) maintained for this purpose. Savings in FY 1967, including military personnel and operating costs, will amount to about $64 million.

2. Air Launched Missiles

Last year we initiated development of SRAM as an element of the four part AMSA program. Now, given the decision to proceed with the procurement and deployment of the FB-111/SRAM system, this development program must be reoriented to the FB-111 schedule. The cost to complete the SRAM development program is now estimated at $170 million, including the related B-52 and FB-111 avionics. Some $8 million was provided in prior years; about $40 million will be needed in FY 1967. The first procurement is tentatively scheduled for FY 1969. As shown on Table 2, SRAM would enter the force in FY 1970. With an average of [redacted] SRAMs per U.E. aircraft for half the force, a total of [redacted] U.E. missiles would be required. The investment cost for these missiles is estimated at about $95 million.

While we do not now plan to deploy SRAM on the B-52G-Hs, we propose to undertake the necessary avionics development to permit such a deployment

[redacted]

[redacted]

if it should become desirable. We plan to keep the HOUND DOG missiles in the operational inventory through FY 1970. However, in 1971, with the completion of the phaseout of the B-52C-Fs, the number of missiles would be phased down to [redacted]. We also propose to undertake engineering development and test of a terrain contour matching terminal guidance system for HOUND DOG which gives promise of achieving a [redacted] and of improving overall system reliability by about ten percent. Total development cost is estimated at $20.5 million of which $6.6 million would be obtained by reprogramming presently available funds and $8.1 million is included in the FY 1967 Budget.

In summary, the objective of forcing the Soviets to split their defense resources between two types of threats could be performed adequately by B-52 bomber forces considerably smaller than those we now have, i.e., the B-52G-Hs alone. However, a mixed force of B-52G-Hs and FB-111/SRAM would force the Soviets to build expensive terminal bomber defenses or be vulnerable to low altitude attack. Even against very advanced terminal defenses the small size and low weight of SRAM would allow the U.S. to saturate their defenses with large numbers. The cost of the manned bomber force we now propose, compared to the cost of continuing the current forces, is shown in the table below:

	FY 1967	FY 1971	FY 1975
	(Costs in Billions of Dollars)		
Current Force Extended			
Forces (# aircraft):			
B-52	600	600	600
B-58	80	70	64
Costs(Cumulative '67-)		$8.6	$17
Proposed Bomber Force			
Forces (# aircraft):			
B-52	600	255	255
B-58	80	0	0
FB-111	0	210	210
Costs(Cumulative '67-)		$8.4	$14

3. Strategic Reconnaissance

The strategic reconnaissance force as shown on Table 2 is essentially the same as that projected a year ago. The SR-71 force of [redacted] aircraft should be fully operational by the end of FY 1967. All of these aircraft, as well as the 10 RC-135s, were procured in prior years.

4. Strategic Missile Forces

a. Qualitative Improvements to the MINUTEMAN Force

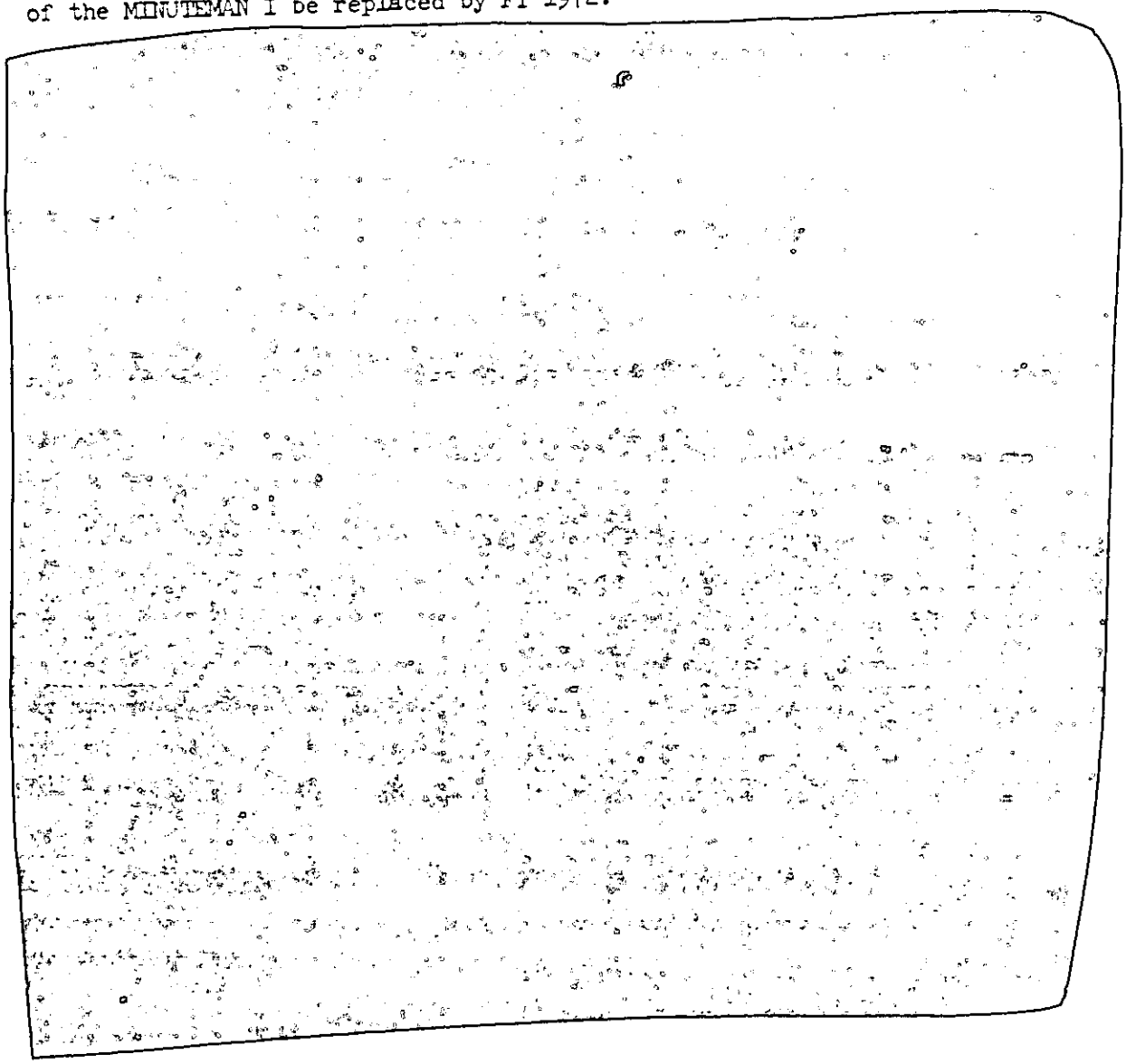
There is now general agreement that a force of about 1,000 MINUTEMAN missiles is appropriate in context with the total strategic offensive forces programmed and in light of the expected threat. Accordingly, the principal concern at this time is the qualitative improvement of the MINUTEMAN force, including the launch and launch control facilities. Three years ago we initiated a program ultimately to replace the MINUTEMAN I

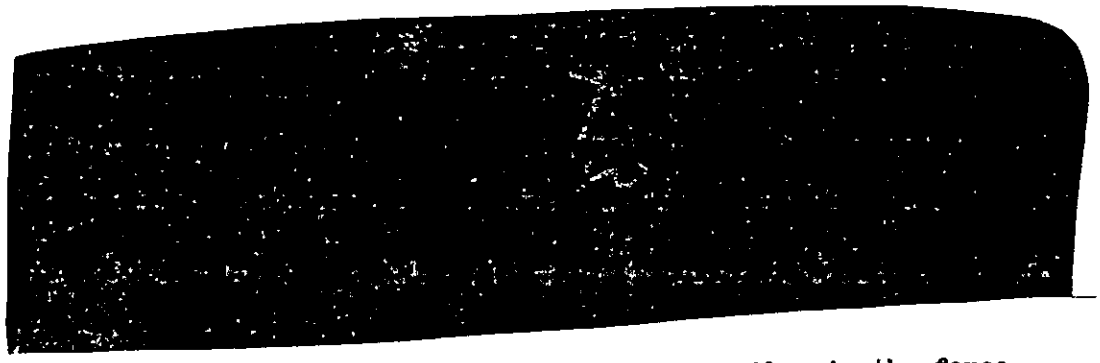
[redacted]

with the MINUTEMAN II, which has much greater accuracy, payload and operational versatility.

In addition, its greater retargeting capability reduces the number of missiles that need to be earmarked against a given target system to achieve one reliably delivered warhead against each target.

The first ten MINUTEMAN IIs became operational last October and 80 will be in place by the end of this fiscal year. We now propose that all of the MINUTEMAN I be replaced by FY 1972.





We still plan to continue the 54 TITAN II missiles in the force throughout the program period.

By the end of the current fiscal year, we expect that 32 POLARIS submarines (512 missiles) will be operational and by the end of the 1st quarter of FY 1968, the entire planned force of 41 submarines (656 missiles) will be operational. The force will then consist of 13 SSBNs with A-2 missiles and 28 SSBNs with A-3 missiles. All five of the earlier A-1 boats will have been retrofitted to carry the A-3 missile. We also tentatively plan to modify four of the A-2 submarines during their first overhaul in the FY 1968-69 period to carry the A-3 missiles, in order to avoid the high unit costs which would be involved in restarting the A-2 missile production line (which closed down in June 1964) when present inventories are depleted by testing and training programs.

b. Accelerated Development of POSEIDON

For reasons I have already discussed, it appears prudent at this time to place ourselves in a position to deploy a force of POSEIDON missiles in the early 1970s if this should be required. Last year we initiated project definition for this missile, using available 1965 funds, but the pace of the development was not precisely established. Now we propose an accelerated engineering development program for the POSEIDON missile on a schedule which would make it operationally available in 1970. The total cost of this development is estimated at about $1.3 billion, of which $301 million will be needed in FY 1967. No decisions need be made now on the number of POLARIS submarines to be ultimately retrofitted with POSEIDON.

With respect to other future strategic missile systems, both the Air Force and the Navy have active study programs underway. The Air Force will continue work on several projects which would contribute to the development of an advanced ICBM, if one should be required at some time in the future. These include advanced propulsion systems, survivable

radio guidance, defense of dispersed and hardened ICMs, and command and control for mobile systems. In total, some $10 million is required for FY 1967 for these projects. The Navy will conduct an advanced development study of improved propulsion systems for future sea-based missiles at an FY 1967 cost of $3 million.

c. Accelerated Development of Penetration Aids

Although we still do not know whether the Soviets will actually deploy an extensive ABM system during the next five or six years, or how sophisticated it might be, the adverse impact of such a deployment on the effectiveness of our strategic missile forces might be severe enough to warrant the installation of penetration aids. If the Soviets were also to deploy a MIRVed ICBM force, we would have to anticipate losing more of our own ICBMs in a Soviet surprise attack and the requirement for penetration aids would become even more acute.

Five years ago, when I appeared before this Committee in support of the first Kennedy Amendments to the original FY 1962 Defense Budget, I said:

> "While we are recommending a sizeable quantitative increase in the strategic missile force we are also concerned with the introduction of qualitative improvements to enhance the combat effectiveness of the missiles. One of the most important such steps is the development of techniques and devices such as decoys, multiple warheads, etc. to help our missile warheads penetrate to their targets. The January budget provides for research and development on these penetration aids, but in view of their importance in staying well ahead of possible Soviet defensive developments we are now recommending that the level of effort on such work be more than doubled from $15 million to $35 million."

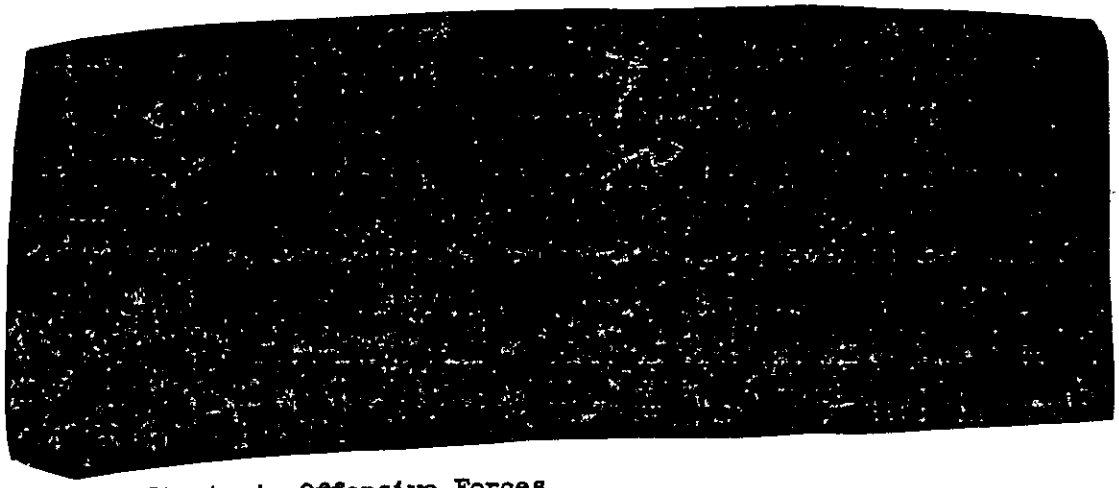
Four years ago, in presenting the FY 1963-67 Defense Program and the FY 1963 Defense Budget to this Committee, I said:

> "Although we do not believe that the Soviet Union now has an operational anti-missile defense system or will have an effective system within the next few years, we know that they are working on such a system and prudence dictates that we take the possibility of a Soviet capability in this area into consideration in our future planning. . . . A careful analysis of the problem which a Soviet anti-missile defense system would pose to our offensive forces leads to the conclusion that an effective solution would require the development of various

penetration aids for our strategic missiles.

Since that time, we have intensively studied all of these and many other penetration aid techniques and have invested a total of about $1.2 billion on research and development in this area.

We now propose to carry this work forward on an accelerated basis, particularly with regard to the development of new area penetration aids, which would be needed to defeat an area ABM defense employing exoatmospheric missiles.



5. Other Strategic Offensive Forces

The other strategic offensive forces shown on Table 2 are the same as those programmed a year ago. With respect to the KC-135s, as the total size of the bomber force declines we intend to retain one tanker for each of the bombers. Most, if not all, of the remainder will be used to improve the air-to-air refueling capabilities of the tactical air forces. However, the specific re-allocation of these KC-135s will be made as they become available for reassignment.

With respect to the Post Attack Command and Control System (PACCS), three EC-135s have been added, raising the total assigned to 27. These aircraft have previously been used principally as refueling tankers with a secondary mission as communications relay aircraft. In 1963, anticipating the time when we might no longer be sure of the survivability of our ground-based missile launch control facilities, we undertook the development of an airborne launch control capability for all of the MINUTEMAN force. The development costs of the necessary equipment through FY 1967 are estimated at $18.6 million. We now propose to begin procurement of the airborne portion of this equipment in FY 1966 at a cost of approximately $22 million with an initial operational capability planned for FY 1967. The ground portion of the airborne launch control capability is included as an integral element of the MINUTEMAN program.

E. STRATEGIC DEFENSIVE FORCES

The forces proposed for the FY 1967-70 period are shown in Table 3.

1. The Overall Level of the Anti-Bomber Defense Program

As I have pointed out in previous years, the elaborate defenses which we erected against the Soviet's bomber threat during the decade of the

1950s, no longer retain their original importance. Today, with no defense against the major threat of Soviet ICBMs, our anti-bomber defenses alone would contribute very little to our Damage Limiting objective and their residual effectiveness after a major ICBM attack is highly problematical. For this reason we have been engaged over the past five years in a major restructuring of these defenses.

a. Surveillance, Warning and Control

Beginning in 1961, we have taken a number of steps to reorient the surveillance, warning and control system to a nuclear war environment in which an early surprise attack by ICBMs and SLBMs would be the most likely enemy tactic. These steps were designed to reduce the vulnerability of the system to such an attack and to bring its operating costs to a level more commensurate with the manned bomber threat as it has actually developed.

(1) Semi-Automatic Ground Environment System (SAGE)

Essentially soft, the SAGE system in 1961 was extremely vulnerable to missile attack. To provide immediate help, an interim manual backup interceptor control capability was established at 27 prime radar sites while work was initiated on a more effective backup system of 34 semi-automatic BUIC II stations co-located with prime radars. Last year we proposed a modification of that plan. Under the revised plan, 19 enlarged BUIC III stations will be fully integrated with 12 SAGE Direction Centers (one of which is a combined Direction/Combat Center and is shown in Table 3 as a Combat Center only). Two BUIC IIIs are to be deployed in each of eight SAGE sectors along the western, northern and eastern borders of the United States. Three sectors will need only one BUIC. In each of these 11 sectors, the Direction Center and the BUIC IIIs will be internetted with ten to 15 radars, thus enabling any one of the Centers or BUIC IIIs to handle the entire sector even if the others were destroyed. The remaining interior SAGE sector will not have BUIC and will operate only with its Direction Center.

All twelve sectors will feed into four Combat Centers. (The fifth Combat Center shown on the table is a manual installation in Alaska.) These, in turn, will feed into the NORAD Combat Operations Center which is currently in the process of moving from its above ground quarters at Ent A.F.B., Colorado, to the new facilities deep in the Cheyenne Mountain caves. An initial operational capability at Cheyenne Mountain is expected before the end of this fiscal year.

The first BUIC IIs became operational last fall and all 14 of those now planned will be operational by April 1 this year. In FY 1967 we will

[redacted]

begin to modify certain of these stations to the BUIC III configuration, thereby causing a temporary drop to 12 operational stations at the end of that year, as shown on the table. By the end of FY 1968, all BUIC IIs will have been converted and by end FY 1969, the entire BUIC III deployment should be complete.

(2) Radars

As shown on Table 3, we are continuing to phase down the radar coverage excess to our needs on the same schedules as shown a year ago. When completed by the end of FY 1967, this reorientation of our radar net will leave a system of 151 search radars, 275 height finders, 91 gap fillers, 39 DEW radars and 67 AEW/ALRI offshore radar aircraft. This system will provide double search coverage above [redacted] and single coverage above [redacted] along our eastern, northern and western borders, with the gap fillers providing coverage below [redacted] All of the DEWLINE extension radars (ships and aircraft) have now been phased out.

We are continuing our program of internetting our radar system with that of the Federal Aviation Agency. Altogether, about 80 radars (one-third of them FAA and two-thirds Defense) have been tentatively earmarked for joint use. As I mentioned last year, in order to make the inputs from the FAA radars compatible with the SAGE-BUIC III system, they must first be converted into appropriate computer language by a special piece of equipment called a "digitizer". Last fall we conducted tests of a new digitizer and we are now proceeding with procurement of the initial quantity. Eventually all of the joint-use radars will be equipped with the new digitizer, with the cost shared equally by Defense and FAA. The Defense Department's share of this program is estimated at $22 million, of which $11 million was included in the FY 1966 Budget, leaving $11 million to be provided in FY 1967.

b. Manned Interceptors

Last year, as part of the effort to restructure the Strategic Defensive Forces, we initiated a major phasedown of the fighter interceptor force. This phasedown contemplated the reduction of the active force from about 775 aircraft at end FY 1965 to about 330 at end FY 1970, with the National Guard's interceptor forces remaining at about 400 aircraft but being progressively re-equipped with F-102s retired from the active force.

This plan has now been projected through FY 1971 with no significant change. We still intend to phase out of the active forces by the end of FY 1967 all of the F-102s, as shown on Table 3, except for 34 aircraft. Eight of these will be retained in the southeastern part of the United

[redacted]

States at least through end FY 1967. These aircraft will be used to help protect against the possibility of attack from Cuba and to perform surveillance of unidentified aircraft in that area. The remaining twenty-six will be deployed to Okinawa to assume an air defense mission, releasing an F-4 squadron for duty in Southeast Asia. The only other change involves a reduction of the authorized unit equipment of two F-101 squadrons, from 24 to 18 aircraft, which we made in the latter part of FY 1965 in order to provide aircraft for the increased flight training program.

In the Guard forces, we have already begun to phase out the subsonic F-89s on a somewhat faster schedule than projected a year ago (45 fewer at end FY 1965 and 25 fewer at end FY 1966). To have maintained them in safe flying condition for only a few more months, these older aircraft would have required expensive engine overhaul. All of them will be phased out of the force next year as the F-102s are received from the active forces. The total number of F-102s authorized for the National Guard, beginning in FY 1967, has been increased by seven to permit the geographically isolated Hawaiian squadron to be maintained at 25 aircraft instead of the customary 18.

c. Surface-to-Air Missiles

With the exception of the HERCULES, the surface-to-air missile forces shown on Table 3 are essentially the same as those projected a year ago. The gradual decline in the BOMARC and HAWK stems from training consumption. In the case of NIKE-HERCULES, we have decided to phase out 22 batteries deployed in defense of soft SAC bomber bases in the U.S. and Greenland. All of the bombers and interceptors have now been withdrawn from Thule, Greenland. The other SAC bases affected would be high priority targets for early enemy missile attack, and it no longer makes much sense to maintain their relatively costly anti-bomber defenses. Currently, we plan to use the assets of 17 of these HERCULES batteries to replenish the maintenance float and the assets of the remaining five for training. Over the FY 1966-71 period, this change will save about $179 million in operating costs.

2. Qualitative Improvements to the Anti-Bomber Defenses

a. Production and Deployment of a New Manned Interceptor

Last year I pointed out that the single most important decision likely to face us over the next few years in the anti-bomber defense area is the production and deployment of a force of the advanced fighter-interceptor aircraft to replace those which we now have. Over the last 12 months we have intensively studied the desirability of procuring a force of F-12 type interceptors for the period beyond 1970. Although a substantial deployment of these aircraft would greatly increase the effectiveness of

our anti-bomber defenses, its very great cost (for example, about $6-1/2 billion for 216 aircraft over the 1967-71 period) would be justified only if we were to decide to seek a very large and effective Damage Limiting program, and then only if the Soviets were to increase their bomber threat in both numbers and quality far beyond that currently projected in the latest intelligence estimates. Neither of these conditions is in prospect at this time.

Therefore, we propose to continue the YF-12A flight test program with the three aircraft now available. We have allocated $23 million to the YF-12A program in the current fiscal year, plus $5 million to the F-12 program for certain improvements in the ASG-18/AIM-47 fire control and missile system. For FY 1967, we are requesting $20 million for the YF-12A test program and $10 million for continuing the F-12 program. The ASG-18/AIM-47 system would be used on either the F-12 or F-111 interceptor. I believe that with either of these aircraft, we could proceed expeditiously with the deployment of a new interceptor later in this decade if that should prove necessary.

If we were to decide to deploy a force of advanced interceptors, we would also wish to consider the simultaneous deployment of a highly survivable airborne warning and control system (AWACS) in the continental defense role. Moreover, an effective airborne interceptor control system would find important application in tactical situations. For these reasons, we initiated two years ago the study of such a system. Five million dollars was provided for FY 1966. We are now requesting $3 million for FY 1967 to undertake a contract definition phase for development prototypes of the aircraft itself. A complementary program to develop the overland radar technology, which is critical to the successful development of AWACS, is funded at $9 million in FY 1966 and $12 million more is requested for FY 1967.

b. Improved Surface-to-Air Missiles

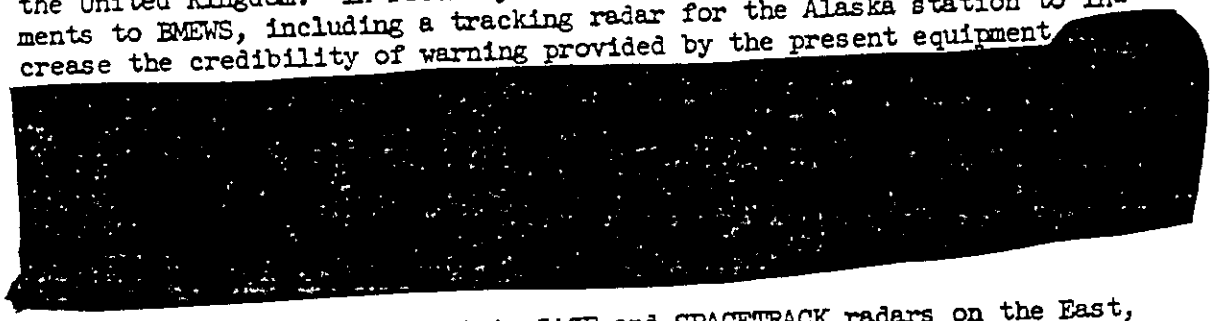
Our FY 1967 Budget request provides for the continued development of improvements to the HAWK missile system with a view to decreasing its reaction time, speeding up its target-handling capability and improving its reliability. It also provides for the continued development of an advanced air defense system as a possible replacement for both HAWK and HERCULES in the 1970s. This effort, now designated SAM-D, and the HAWK improvement program are also oriented to the theater air defense problem and will be discussed further in connection with the Army's General Purpose Forces.

3. Ballistic Missile Warning and Defense

Defense against ballistic missiles, once they are launched from submarines or land bases, comprises the capabilities for detecting, tracking, intercepting and destroying the incoming warheads.

a. Ballistic Missile Early Warning System (BMEWS)

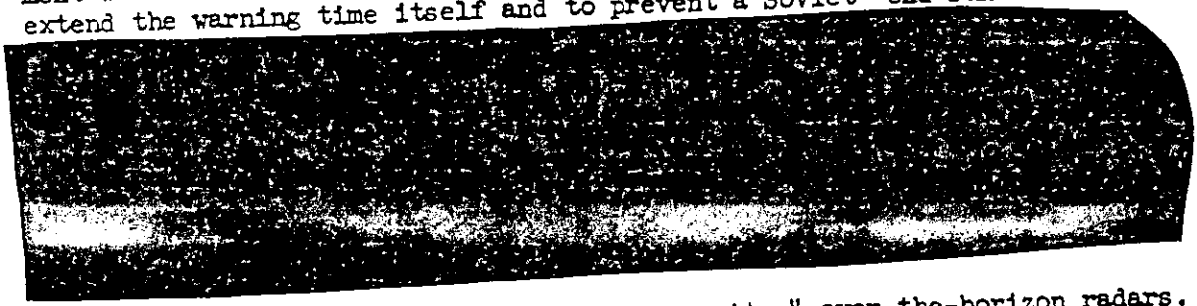
Our principal warning system against land-based ballistic missile attack is BMEWS which consists of three stations in Alaska, Greenland and the United Kingdom. This system would provide early warning of Soviet ICBM raids against the United States and Canada and/or IRBM attacks against the United Kingdom. In recent years we have programmed a number of improvements to BMEWS, including a tracking radar for the Alaska station to increase the credibility of warning provided by the present equipment



The modification of certain SAGE and SPACETRACK radars on the East, West and Gulf Coasts to give them a limited detection capability against sea-launched ballistic missiles, which I mentioned last year, is progressing on schedule. These radars should be able The $19 million already programmed should essentially complete this program.

b. Over-the-Horizon Radar

Last year I described our development of an over-the-horizon radar system capable of the remote detection of missile launches. This development was undertaken to provide increased confidence in BMEWS warning, to extend the warning time itself and to prevent a Soviet "end run" of BMEWS.



We are also continuing work on "back scatter" over-the-horizon radars. In this system, echoed signals from the target would be returned directly

to the transmitter thereby making receiving stations unnecessary. A system based on "back scatter" radars located in the continental United States might be able to extend effective surveillance against aircraft and cruise and ballistic missiles to [redacted] miles from our borders. Although this capability would probably be quite vulnerable to a large scale Soviet attack, it would still be very useful for warning and peacetime air defense identification missions. Based near the Sino-Soviet periphery, a "back scatter" system would also have great peacetime intelligence-gathering potential.

Through FY 1966, about $42 million has been programmed for over-the-horizon radars; and another $23 million is included in the FY 1967 Budget.

c. The Character and Timing of a Deployment of an ABM Defense

As I indicated in the foregoing analysis, there is no system or combination of systems within presently available technology which would permit the deployment now of an anti-ballistic missile defense capable of giving us any reasonable hope of keeping U.S. fatalities below some tens of millions in a major Soviet nuclear attack upon our cities.

Currently, our main potential capability in this area is NIKE X, a defense system based on terminal interception of incoming warheads with a high acceleration SPRINT missile. This development program, which I have described in some detail in previous years, is the outgrowth of the former NIKE-ZEUS effort and is presently proceeding with the highest priority.

Initially, the deployment concept for NIKE X contemplated the point defense of only a relatively small number of the larger cities against a heavy Soviet attack. Subsequently, as I described last year, it became feasible to consider extending protection to smaller cities by modifying certain NIKE X subsystems and using less extensive and sophisticated deployments. Even this concept, however, still left most of the country vulnerable to great damage even from a small attack deliberately designed to avoid our defended cities.

This situation has now been changed significantly by the emergence of the possibility of developing an area missile defense based upon the use of long-range interceptor missiles which I mentioned previously. Against a relatively light attack, such as the Chinese Communists may be able to mount in the mid to late 1970s, an area defense might be very effective, offering the possibility of avoiding any substantial damage. Even against a heavy sophisticated Soviet attack, an area defense would be a valuable supplement. It would reduce the number of incoming objects which the SPRINT would have to intercept while at the same time providing some defense for the areas not protected by SPRINT.

Considering all of the uncertainties involved, including the nature and consequences of the Soviet reaction, the technical problems yet to be solved and the great cost of such a deployment, I do not believe that a decision should be made now to undertake an all-out Damage Limiting effort against the Soviet threat. Nevertheless, this issue should be kept under continuous reassessment, and the development effort on all elements of the system should be pursued with the greatest urgency. An initial operational capability would be possible about four years after a production and deployment program is initiated.

With regard to Communist China, the timing of a U.S. light ABM deployment should be linked to the pace at which the threat actually evolves. Since we do not now believe the Chinese Communists could deploy any significant ICBM force before the mid-1970s, no production decision on that account is needed at this time.

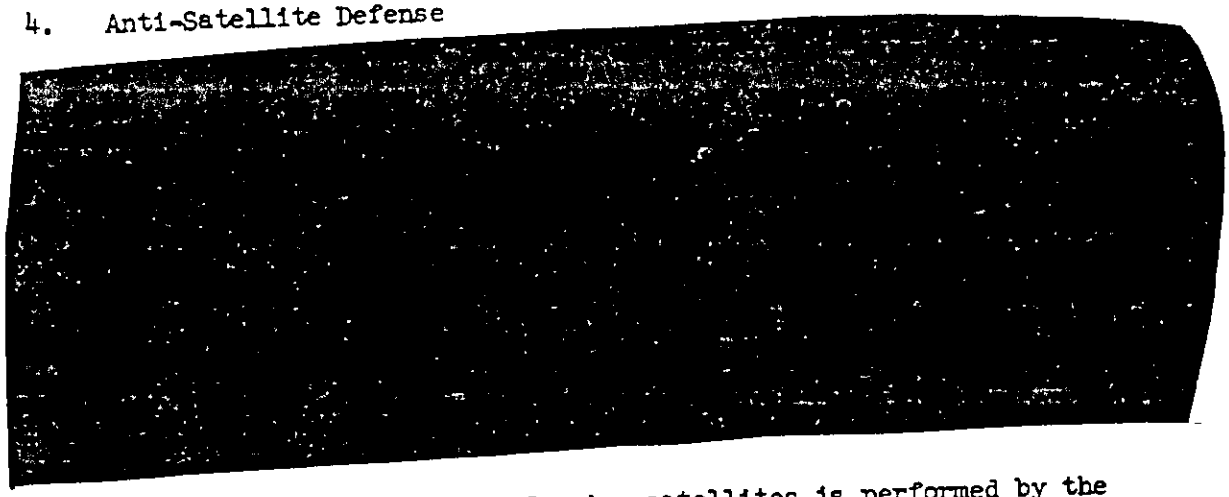
During the past year several SPRINT missile development firings were accomplished and we plan to continue them throughout FY 1967. Construction of the test facilities for the multi-function array radar (MAR) at Kwajalein has begun, and work on the facilities for the missile site radar (MSR) and the SPRINT is scheduled to get under way in FY 1967.

We have also achieved a number of significant design improvements to the radars. We are now employing a modular design concept wherever possible in order to create an entire family of radars which could be used in a variety of combinations against a broad range of threats. These radars would range in cost and capability from the Missile Site Radar (MSR) costing $40 million -- through an augmented MSR, an austere multifunction array radar (which we call TACMAR) -- to a full scale multifunction array radar (MAR) costing about $400 million. Under the present concept the TACMAR could be upgraded on location by the addition of transmitter tubes and antenna elements as required. Alternatively, the MSR could be augmented in capability so that one or two of them could defend sites previously requiring the expensive MAR.

Accordingly, we propose in the coming fiscal year to carry forward this entire broadened NIKE X development, test and evaluation effort: including the SPRINT missile; the new, long-range exoatmospheric interceptor; the new family of radars; and the construction of test facilities. Some $447 million has been provided in our FY 1967 Budget request for this program. In addition, $119 million has been included for the related DEFENDER program, which is concerned with vehicle re-entry measurements and analysis, advanced ABM techniques and devices and system studies.

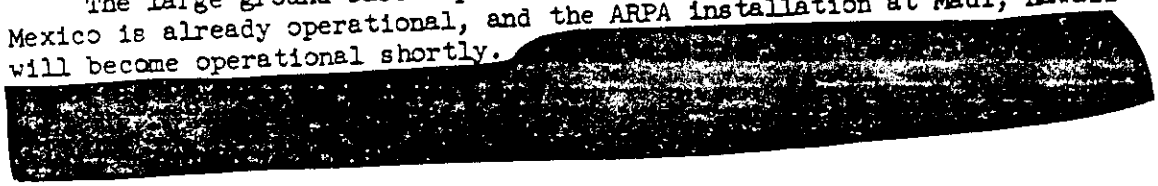
With respect to the defense of hard point targets, we have had for some years a multi-pronged effort to develop the concepts and the components for an advanced weapon system. The two major elements of this effort are HI-BEX-- an extremely high acceleration missile interceptor -- and HAPDAR -- a complementary phased array radar. These projects have already been funded, a number of interceptor tests have been made and the test radar has just recently begun to operate. Over the next several months we will be studying and evaluating the data from these tests.

4. Anti-Satellite Defense



Detection and tracking of foreign satellites is performed by the Space Detection and Tracking System (SPADATS). SPADATS acquires information from three separate sources: the Navy's SPASUR detection fence extending across the southern United States; the BMEWS screen across the northern approaches; and SPACETRACK, the worldwide network of radars and optical sensors. The principal investment now contemplated for SPADATS is the construction of a large phased array radar at Eglin Air Force Base.

The large ground based optical installation at Cloudcroft, New Mexico is already operational, and the ARPA installation at Maui, Hawaii will become operational shortly.



F. CIVIL DEFENSE

The last of the seven major issues involved in our FY 1967-71 general nuclear war program concerns the future size and scope of the Civil Defense program. Considering the great uncertainties regarding the other elements of the Damage Limiting program, I do not believe that we should undertake, at this time, any major change in our present civil defense effort. Therefore, with but one exception, the program I am recommending this year is essentially the same as the one approved by the Congress for FY 1966.

The principal innovation proposed for FY 1967 is a modest experimental program designed to stimulate the use of construction techniques in new public non-federal or privately owned buildings which would at little or no extra cost, provide dual-use fallout shelter space. We propose to do this by subsidizing with federal funds the extra costs, but not to exceed one percent of the total construction cost. This program could provide two valuable options. First, if we should later decide on a major Damage Limiting effort, the experience gained in this experimental program would allow us to eliminate most of the shelter deficit by expanding the program nation-wide. Second, even if we decided against a major Damage Limiting effort, the techniques used in the experimental program could be employed selectively in areas where the shelter survey program cannot locate the shelter spaces required, for example, in the South and certain rural areas. This latter option would be compatible with a lighter Damage Limiting effort such as the one discussed earlier in connection with the possible emergence of a Chinese Communist strategic nuclear threat. I believe that this experimental program is a sound and logical step in our overall civil defense effort, and I urge the Committee's support of our $10 million budget request for this purpose. A financial summary of the proposed Civil Defense program is shown on Table 4.

1. Shelter Survey

The survey of existing large structures has located over 140 million shelter spaces with a protection factor of 40 or above, and more than 90 million of these spaces have been licensed and marked as public shelters. By the end of FY 1966, we estimate that 142 million spaces will have been identified; and nearly 100 million spaces licensed or marked. The continuing survey of new large structures is expected to locate six million more shelter spaces during FY 1967.

Beginning in late FY 1965, a survey of smaller structures (other than 1, 2 and 3 family homes) was initiated in communities preparing Community Shelter Plans. This survey is expected to identify over two million spaces by end FY 1966 and about 4.6 million spaces by end FY 1967.

For 1, 2 and 3 family homes, a pilot test using a questionnaire type technique was successfully completed last September. This test indicates that about ten percent of the homes with basements have a protection factor of 40 or more, and an additional 65 percent have a protection factor of 20 to 40. This survey technique is now being tested in two States, after which it will be offered to all State and local political jurisdictions.

To continue all of these shelter survey activities, $23 million is requested in the FY 1967 Budget, as shown on Table 4.

2. Shelter Development

To insure the best use of existing and projected shelter assets and to identify specifically the remaining shelter deficit in each community by amount and location, we are developing detailed shelter use plans. These plans are prepared by professional urban planners under contract to the Corps of Engineers. To date, pilot Community Shelter Plans are underway in 57 areas and plans will be started in 200 areas during the current year. For FY 1967 $4 million is requested to extend this planning effort to another 200 areas.

As I have noted in previous years, experience indicates that large amounts of suitable shelter space can be obtained at little or no extra cost with only minor changes in the design of new buildings, for example, by reducing window areas and by using partitions, stairwells, retaining walls, and high density materials to reduce radiation. We propose in FY 1967 to continue our efforts to provide the necessary architectural and engineering advice to the construction industry, at a cost of about $3 million.

The balance of the $17 million requested for Shelter Development in FY 1967, i.e., $10 million, is for the new experimental program which I discussed earlier. In essence, this program would provide in areas of known shelter deficits a federal payment to builders for the incorporation of fallout shelter in new construction projects. Payments, not to exceed one percent of total project construction costs, would be made to building owners who agree in advance to the marking, stocking and public use in an emergency of the resulting shelter space. The experimental program would be limited to areas in which Community Shelter plans have identified shelter deficits.

3. Shelter in Federal Buildings

As shown on the table, no additional funds are requested this year specifically for Regional Emergency Operating Centers or for single purpose shelter space in federal buildings. However, we are continuing the program of maximizing the shelter potential in such buildings by applying the design techniques I mentioned earlier in connection with non-federal construction. The General Services Administration is using these techniques in some 16 of their current projects, at an additional cost of only one-half of one percent. Plans have been developed for 52 other federal buildings, with no increase in cost for the additional shelter space to be obtained.

4. Shelter Provisions

No funds are being requested for shelter supplies in FY 1967, except for $800,000 to be used for special protective packing for shelter supplies placed in mines, caves and tunnels and to initiate a quality check of shelter stocks already in shelters.

The balance of the $6.8 million shown for Shelter Provisions is for ventilation kits. The national fallout shelter survey had identified 51 million shelter spaces which, if adequately ventilated, could be added to the present national inventory of 140 million. It is estimated that about 22 million of these spaces are in shelter deficit areas. In addition, we estimate that the continuing survey will identify about another million spaces per year which could be used if adequate ventilation is provided. To meet this need, compact, packaged ventilation device has been developed which can be operated electrically or manually to increase the capacity and habitability of otherwise sub-standard shelter space. Procurement of a test quantity of 2400 units is being made this year. The $6 million included in the FY 1967 budget would provide a sufficient number of kits to make habitable another 2.8 million shelter spaces at a cost of a little more than $2 per space.

5. Warning

The $700,000 requested under this heading is to continue the development effort on a radio system for indoor warning.

6. Emergency Operations

For FY 1967, $13.1 million is included for the Emergency Broadcast System, damage assessment, radiological defense, emergency operations systems development and technical support (primarily for communications and warning).

The Emergency Broadcast System provides the President and governmental authorities at all levels a means of communicating with the public in an emergency. The necessary emergency facilities and equipment, including emergency generators for 599 of the 658 radio stations, needed for complete national coverage have already been financed. About $1.4 million is included in the FY 1967 budget to complete the equipping of the remaining 59 stations and the related remote radio pick-up units.

Operation of the National Civil Defense Computer Facility and support of the damage assessment capability will require $1.5 million in FY 1967; and $6.7 million is needed for procurement of 1000 aerial survey meters for monitoring radiological fallout, engineering improvement of radiological instruments, and for weather services, warehousing and

radiological instrument maintenance and calibration.

The balance of $3.5 million is required for emergency operations systems development -- i.e., the application of results of research, engineering tests and operations analyses to the solution of practical civil defense problems, and for communications advisory services and operation of the Regional Communications Centers.

7. Financial Assistance to States

As shown on the table, $30.5 million in matching funds are requested for FY 1967 for financial assistance to the States, an increase of $7.5 million over FY 1966. This increase reflects the higher demands being made upon State and local civil defense organizations for the operational aspects of the program, i.e., community shelter planning, shelter provisioning and development of emergency operating capacity.

8. Research and Development

The $10 million requested for civil defense research and development will enable us to continue our efforts to obtain: fallout protection at lower costs per shelter space; better means of warning the population and of controlling and directing emergency operations in damaged areas; an improved technical base for post-attack survival and recuperation; and improved data on the countermeasures against all effects of nuclear weapons. It is from this effort that most future improvements in the civil defense program will be generated.

9. Management

For over-all program management, $13.2 million is requested for FY 1967. This amount would provide for some additional personnel who would concentrate essentially on the experimental shelter program and the increased community shelter planning effort.

10. Public Information

The $4 million requested for FY 1967 is for the preparation of emergency information, instruction, dissemination of technical information and for programs to encourage the participation of industry in civil defense activities.

11. Training and Education

The $15.6 million included under this heading will permit a continuation of the University Extension Program which provides professional civil defense training through the state university and "land-grant" college systems. It will also allow for a moderate increase in the civil defense

adult education and rural education programs. The latter program provides instruction for farm families on how to protect themselves and their livestock against fallout.

G. FINANCIAL SUMMARY

The Strategic Offensive Forces, the Strategic Defense Forces and the Civil Defense Program I have outlined will require Total Obligational Authority of $6.5 billion in FY 1967. A comparison with prior years is shown below:

($ Billions, Fiscal Years)

	1962 Orig.	1962 Final	1963 Act.	1964 Act.	1965 Act.	1966 Est.	1967 Prop.
Strategic Offensive Forces	7.6	8.9	8.3	7.3	5.3	5.1	5.1
Strategic Defensive Forces	2.2	2.0	1.8	1.9	1.5	1.6	1.3
Civil Defense	___	.3	.1	.1	.1	.1	.1
Total	9.8	11.2	10.2	9.3	6.9	6.8	6.5

III - GENERAL PURPOSE FORCES

The General Purpose Forces include most of the Army's combat and combat support units, virtually all Navy units (except for the POLARIS forces), all Marine Corps units, and the tactical units of the Air Force. These are the forces upon which we rely for all military actions short of general nuclear war, i.e., limited war and counterinsurgency operations.

A. REQUIREMENT FOR GENERAL PURPOSE FORCES

Last year I discussed in some detail the nature of the limited war problem and our requirements for General Purpose Forces. I believe it would be useful, as a framework for your consideration of our present program proposals in this area, to summarize the main points of that discussion:

1. The distinction between general nuclear war forces and limited war forces is somewhat arbitrary in that all of our forces would be employed in a general war, and certain elements of our strategic offensive-defensive forces could be employed in a limited war; and, indeed, we are today using some of our B-52 strategic bombers against the Viet Cong and North Vietnamese forces in South Vietnam. But it is primarily the limited war mission which shapes the size and character of the General Purpose Forces.

2. The requirement for the bulk of these forces stems from this nation's commitment, in our own security interest, to the principle of collective defense of the Free World. We are members of three regional collective defense organizations: the Rio Pact in the Western Hemisphere; NATO in Europe; and SEATO as well as ANZUS in the Far East. In the Middle East we have a bilateral agreement with Iran, which is a member of another regional collective defense pact, CENTO. We also have bilateral mutual defense agreements with Korea, Japan, the Republic of China and some 40 other sovereign nations. But even without specific agreements, it will always be in our interest to help independent nations defend their freedom against Communist aggression and subversion to the extent they have the will to do so.

3. Forces must be provided for the direct defense of U.S. territories and vital interests, i.e., the protection of U.S. shipping on the high seas, the defense of the Canal Zone, Puerto Rico, etc.

[redacted]

4. Each of these commitments could give rise to contingencies for which we must plan and provide military capabilities. We cannot hope to anticipate and be fully prepared for every conceivable contingency and, for that matter, neither can our opponents. Moreover, the likelihood of predicting contingencies in any degree of detail is, as we repeatedly discover, quite small. Accordingly, we must build into our General Purpose Forces a capability to deal with a very wide range of contingencies. This accounts for the great diversity in the kinds of units, capabilities, weapons, equipment, supplies and training which must be provided and seriously complicates the task of determining specific requirements.

5. Because of the close inter-relationship between our forces and those of our allies in the collective defense of the Free World, it is in our own interest to help them support adequate forces wherever they cannot do the job alone. For this reason I have always considered Military Assistance an integral part of our own defense program.

6. The ability to concentrate our military power rapidly in a threatened area can make a great difference in the size of the force ultimately required and, in some cases, can serve to halt aggression before it really gets started. That is why we have given a great deal of attention in recent years to the various ways of reducing our reaction time to limited war situations -- airlift, sealift, prepositioning of materiel, etc.

7. The currently planned expansion of our airlift, together with the improvement in our sealift and increases in prepositioned equipment, will enable us within a few years to move most of our central reserve of active ground forces [redacted] Thus, to be of maximum value in the kind of limited war situations we see ahead, the readiness of reserve component units should be brought to a level which would permit their deployment in from 30 to 60 days.

Another aspect of the General Purpose Forces problem which I discussed in considerable detail last year was the role of tactical nuclear weapons in a limited war in Europe. I pointed out that our studies in this area were still highly tentative, but that certain preliminary conclusions were warranted. Further study has advanced our understanding of this extremely difficult and complex problem, but our conclusions must still be considered tentative.

With regard to Europe, these conclusions are substantially the same as those I presented last year:

[redacted]

1. Theater nuclear capabilities are a necessary complement to but not a substitute for non-nuclear capabilities which are large enough to meet and withstand a major Soviet non-nuclear assault in Central Europe for a reasonable period of time. (A long, drawn out non-nuclear war in Europe on the scale of World Wars I and II is not considered very likely in an era when both sides have large and varied nuclear forces available.) This non-nuclear capability should be the preferred option in Central Europe, with the objective of stopping the attack far forward in Germany.

2. A theater nuclear capability is needed to deter Soviet use of tactical nuclear weapons in an attack on Western Europe, to permit us to respond in kind if such weapons are used, and to support our forces if they should be unable to hold back a non-nuclear attack.

3. NATO nuclear forces in Central Europe should be oriented primarily to theater nuclear war; targets in the USSR should continue to be covered by forces outside of Central Europe and by the POLARIS forces now assigned to SACEUR. We have provided for this requirement in our Strategic Offensive Forces program.

4. NATO theater nuclear capabilities should provide a broad, flexible range of nuclear options and the means to implement them. These options could include: [redacted] (b) the ability to conduct a short tactical nuclear battle in a relatively narrow zone of territory; (c) the ability to conduct more extensive tactical nuclear operations, and (d) the ability to perform theater tasks in a general nuclear war. While we believe that the number and type of tactical nuclear weapons now programmed for Europe would support all of these options, it is not yet clear how theater nuclear war could actually be executed without incurring a very serious risk of escalating to general nuclear war.

5. The need, at this time, is not for more tactical nuclear weapons (by the end of the current fiscal year we will have more than doubled the number of weapons we had deployed in Europe in January 1961) but rather for weapons which have a better chance of surviving in both nuclear and non-nuclear environments; for improved and more survivable command, control and communications and logistic support; for more flexible use of dual-purpose forces to ensure their availability for the non-nuclear option; and, finally, for a better balance among all the elements of the forces so that they can deal with the entire range of contingencies we face in Europe.

6. The present NATO force posture is still unsatisfactory in the low priority and lack of flexibility which it provides for responding to aggression less than general war. We are now working with our allies in NATO to improve the capabilities of their existing forces and their planning procedures so that NATO forces will be more responsive to the changing Soviet threat to Europe.

With respect to the Far East, we must distinguish between the Soviet and Chinese Communist threats. As I noted earlier in this statement, it is highly unlikely that the Soviet Union would initiate hostilities in the Far East separate from a general world conflict. But, in any event, our present nuclear predominance combined with a strong conventional defense posture in the area is now and should continue to be fully adequate to deter deliberate Soviet aggression, nuclear or non-nuclear.

The Chinese Communists, however, will present a different kind of problem in the years ahead as their small but growing nuclear capability places them in a position to threaten nuclear blackmail against their neighbors. The full implications of this new threat in the Far East are as yet far from clear, and the question of what our theater nuclear posture in the Far East should be in the future will require continuing study. In this connection, there is one lesson that we can draw from our experience in Europe, and that is to avoid a strategy which relies almost wholly on the use of tactical nuclear weapons to cope with the enemy's "massive" ground forces. But, here too, our inventories of tactical nuclear weapons are ample and we do not preclude their use, if required.

B. CAPABILITIES OF THE PROGRAMMED FORCES

As I noted earlier, our General Purpose Forces requirements are derived from analyses of contingencies, including the support of our allies around the world. Accordingly, our General Purpose Forces capabilities must be assessed in conjunction with the capabilities of these allied forces. Although we have considerable knowledge of the force plans of our allies, we cannot be sure that those plans will actually be fulfilled or how they will change with the passage of time. This creates some uncertainty about the specific requirements for U.S. forces in the more distant years of the five-year programming period, for which we must make allowances in our force planning.

The largest potential requirement for U.S. General Purpose Forces relates to a non-nuclear war in Europe. But the most immediate requirement today relates to our military effort in Southeast Asia. I believe it would be appropriate, therefore, to discuss the latter requirement first.

[redacted]

1. Southeast Asia

In my appearance before this Committee in August 1965 in support of the Amendment to the FY 1966 Defense Budget, and again in the first section of this Statement, I reviewed in some detail the strategic importance of South Vietnam to the security of the United States and the Free World. Now I would like to review with you the military aspects of the situation in Southeast Asia, our objectives there, and how we plan to achieve them.

We are dealing here with an immensely complicated problem, involving not only our immediate and longer range military objectives, but U.S. foreign policy and local political, economic and social considerations as well. While the military task in Vietnam is still largely a counterinsurgency effort, it is in many other respects a conventional limited war against external aggression. This is so because the Communist aggression against South Vietnam is directed, controlled and supported by the Government of North Vietnam, not only with men, materiel and money, but with its own regular military forces as well. Moreover, North Vietnam itself is receiving substantial materiel support (but, as yet, no combat forces) from Communist China and, indeed, is being pressured by that country to continue the conflict. North Vietnam is also receiving important materiel support from the Soviet Union, including ground-to-air missiles, but the Soviet Union is apparently urging a more moderate course. This more restrained policy on the part of the Soviets is one among the many issues on which they differ with the Chinese and has further sharpened the division between the two major Communist powers.

Thus, not only has the struggle in South Vietnam become a major test case of the Communists' doctrine of the so-called "wars of national liberation", it has also become a test case between the Soviet and Chinese Communist versions of that doctrine. As I pointed out earlier, according to Chinese Communist doctrine, Vietnam is now the main focus of their campaign to subvert independent nations in Asia, Latin America and Africa. For the Soviet Union, it appears that Vietnam now represents a level of risk beyond which they may not be willing to go in promoting so-called "wars of national liberation".

These are the kinds of foreign policy considerations which must be taken into account in formulating our military objectives and operational plans for Vietnam. It is not in our interest to force the Soviet Union and Communist China into making common cause against us in Southeast Asia. And, as the President has stated repeatedly, we desire no wider war.

We must also take into account, in formulating our military objectives and operational plans for Vietnam, the unique character of that

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conflict. Since it is basically a war of terror and subversion, supported and directed from without, there are no established lines across which armies face armies with each side having well-defined, contiguous areas under its control. Instead, the territory of South Vietnam is controlled in varying degrees by the Government and by the Communists. Some areas are firmly under the control of the Government, some under the control of the Communists, and still other areas are controlled by neither side. This requires that our military efforts in South Vietnam consist of widely dispersed military operations directed at the scattered and changing areas of Communist control.

As I noted in my appearance before this Committee last August, the Communists had apparently decided by early 1965 to make an all-out attempt to bring down the legitimate Government of South Vietnam. The entire economic and social structure was brought under attack. Agricultural products were barred from the cities. Electric power plants and communications lines were systematically sabotaged. Whole villages were burned and their inhabitants driven away, increasing the refugee burden on the Government of South Vietnam.

This onslaught has taken its toll. The economy of South Vietnam is, indeed, now in serious difficulty. The social structure has been disrupted and hundreds of thousands of people have to be resettled and given gainful employment. These problems cannot be solved by military means alone. Indeed, our economic aid effort at this time is at least as important as our military effort, not only in keeping South Vietnam viable as a nation but also in helping consolidate the gains of that military effort.

a. Policy Objectives and Military Tasks in Vietnam

Our overall policy objective in South Vietnam is a stable and independent government free of Communist control. Our immediate objective is to force the Communists to move the conflict from the battlefield to the conference table. The basic tasks which flow from these objectives are:

1. To support the re-establishment of the authority of the Government of South Vietnam over its territory.

2. To exert pressure on the Government of North Vietnam to cease its direction and support of the Communist insurrection in South Vietnam.

3. To deter Communist China from direct intervention in the conflict in South Vietnam and to defeat such intervention if it occurs.

The following concept of military operations has been developed in collaboration with the South Vietnamese military command. The ground forces -- U.S., Korean, Australian, New Zealand, as well as South Vietnamese -- will conduct four major types of operations which broadly overlap one another:

1. "Search and destroy" operations, designed to destroy known or suspected Communist forces and their base areas (supplies, communications and installations). These operations are not intended to seize and hold territory permanently.

2. "Clear and secure" operations to eliminate, permanently, residual Communist forces from specified limited areas. These operations are designed to hold territory and are undertaken only when it is considered possible to conduct, on a continuing basis, the full range of pacification measures required to secure the area.

3. "Reserve reaction" operations, designed to relieve provincial capitals and district towns under Communist attack and to reinforce friendly forces when needed.

4. Defense of government centers, including the protection of provincial capitals, district towns, key governmental facilities and installations.

The strike elements of the regular South Vietnamese forces, together with U.S. and other Free World forces (i.e., Korean and Australian/New Zealand) will concentrate on the first type of operation. The South Vietnamese forces, with some assistance from U.S. and other Free World forces, particularly in areas contiguous to their own bases, will assume primary responsibility for the second type of operations. The third type is again primarily the responsibility of the South Vietnamese forces with such help as may be required from U.S. and other Free World forces. The fourth type is essentially the responsibility of the South Vietnamese forces.

I want to reiterate that the foregoing allocation of responsibilities is very general and, in actual practice, will vary according to the particular circumstances. A maximum degree of flexibility is needed to deal with the very fluid military situation which exists in South Vietnam.

The regular South Vietnamese ground forces will be assisted in the "clear and secure" and the "defense of government centers" operations by the "Regional" forces. The "Popular" forces will assist at the village level in providing long-term security in areas already cleared by the regular combat forces and the "Regional" forces. The "Popular"

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forces will also participate in the pacification task. The re-establishment of normal governmental functions is primarily the responsibility of the civil authorities and the national police.

The air forces (USAF, USN, USMC and VNAF) will conduct close support air strike, suppressive fire, airlift and reconnaissance operations in support of the ground forces and reconnaissance and strike operations in support of the interdiction mission, including sea surveillance. Our concept of operations calls for a massive application of airpower in every form. This is also true in the case of artillery. In effect, we are trying to substitute, to the maximum extent feasible, the expenditure of materiel in place of the expenditure of our manpower. For example, in the case of ammunition, we have added to the $1.1 billion included in the original FY 1966 Budget, $800 million from the August Amendment and $2.1 billion from the FY 1966 Supplemental -- giving us a total of about $4.1 billion for ammunition in FY 1966. And, another $3.7 billion for ammunition is included in the FY 1967 Budget.

We estimate that our ground forces (including associated helicopter units) are now consuming ammunition at the rate of about $100 million per month, and we are budgeting for a consumption rate of about $170 million per month by December 1966. Whereas in 1964 we had no artillery in Vietnam, by July 1965 we had almost 8 battalions and by the end of December we had over 23. In 1964, the U.S. Army and Marine Corps flew an average of 19,000 helicopter sorties per month; by the middle of last year they were flying about 60,000 sorties per month and at the end of the year, about 125,000. This intensive use of helicopters greatly increases our making it possible to operate with a much smaller central reserve and to conduct offensive operations without prolonged depletion of our forces in areas already under our control. Many of these helicopters are armed and provide a highly mobile source of firepower.

With regard to air munitions, we are now consuming at a rate of about $110 million per month; and we are preparing to support a rate of $175 million per month by the end of this year. For example, in March 1965 we flew 800 attack (ordnance-consuming) sorties against targets in North Vietnam and Laos in order to stem the flow of war materiel and personnel into South Vietnam. By June of last year, the number of these sorties had increased to 2,800 and by December to over 5,000. The number of U.S. and Vietnamese attack sorties flown by fixed-wing tactical aircraft against targets in South Vietnam has increased from a monthly average of 1,200 in 1964 to 7,200 in June 1965 and almost 13,000 in December 1965. In addition, we have been flying approximately 300 B-52 sorties, consuming about 6,000 tons of bombs per month since July 1965.

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The total number of attack sorties will continue to increase during 1966. Overall, we consumed about 25,000 tons of aircraft-delivered munitions in July 1965 and more than 40,000 tons in December of that year. By the end of this calendar year, we are preparing to expend about 75,000 tons per month, or at an annual rate of about 900,000 tons. To give you just a few specific examples, we are preparing to support annual rates of consumption of about 500,000 of the MK81 250 lb bombs, 1,000,000 of the MK82 500 lb bombs, 500,000 of the M117 750 lb bombs, 500,000 napalm bombs (approximately 2,500,000 of these types of bombs alone), more than 6,000,000 of the 2.75 inch rockets, and 170,000 of the 5 inch ZUNI rockets. In addition, we are planning for the consumption of about 120 million rounds of 20mm aircraft gun-fired ammunition per year.

Although the aircraft loss rate continues low, the rapidly increasing number of sorties is resulting in larger total losses. In 1964, we lost 38 fixed-wing aircraft and 24 helicopters to hostile action. In 1965, with both the very large increase in activity and the attacks against North Vietnam, we lost 275 fixed-wing aircraft and 76 helicopters. We anticipate that 1966 losses will be on the order of 500 fixed-wing aircraft and 500 helicopters, and somewhat higher losses are expected in 1967. The cost of these aircraft and helicopter losses is on the order of $125 million per month. A total of about $1.8 billion for the replacement of aircraft losses is included in the FY 1966 Supplemental.

The U.S. surface naval forces will conduct the sea surveillance operations off the coast of South Vietnam with the South Vietnamese naval forces concentrating on the "close-in" and river operations. The U.S. Navy will also provide sea-based gunfire support to the land forces where feasible and required. Here, again, we are trying to exploit our superiority in materiel.

With regard to the bombing of North Vietnam and its lines of communication to South Vietnam -- the major responsibility is being carried by U.S. air forces (carrier and land based). We are preparing to fly over 3,000 strike sorties per month in North Vietnam and a similar number in Laos. In addition, about 6,000 support sorties are flown each month in Southeast Asia.

b. The Communist Forces in South Vietnam

When I appeared before this Committee last August in support of the Amendment to the FY 1966 Defense Budget, I said:

"We now estimate the hard core Viet Cong strength at some 70,000 men, including a recently reported increase in the number of combat battalions. In addition, they have some 90,000 to 100,000 irregulars and some 30,000 in their political cadres, i.e., tax collectors, propagandists, etc. We have also identified at least three battalions of the regular North Vietnamese Army, and there are probably considerably more."

We now believe that the Communists' military and paramilitary forces in South Vietnam total over 235,000 compared with the 190,000 - 200,000 estimated last summer. The Communist hard core strength, including some 107 battalions, totals about 87,000, the irregulars number about 110,000, and the political cadres about 39,000. Within these totals, the confirmed North Vietnamese regular Army forces in South Vietnam now number at least 11,000 men organized in 22 battalions, and there are probably more.

The most significant increase during the last three or four months has been in the North Vietnamese forces; the Viet Cong forces appear to be increasing more slowly than heretofore. As I have noted on previous occasions, these trends were anticipated some time ago. The heavy losses suffered by the Viet Cong during the last six months have made it very difficult for them to raise their strength and the Communists have been forced increasingly to rely on the regular North Vietnamese Army in their attempt to match our build-up. For example, during the last half of 1965, Viet Cong combat deaths reached an annual rate of about 47,100 compared with about 16,800 for 1964. Viet Cong captured during this period rose to an annual rate of about 7,300 compared with about 4,200 for 1964 while the rate of known Viet Cong defectors rose to about 12,500 compared with 1,900 in 1964.

We must assume that the number of North Vietnamese regular Army troops in South Vietnam will continue to increase substantially in the months ahead as we step up our attacks on the Communists' main forces and work to expand the Government's control over the population and territory of South Vietnam, thus further limiting their potential sources of supply for indigenous military manpower.

With regard to logistics support, the Viet Cong itself apparently depends upon internal sources for almost all "non-military" supplies, particularly food, clothing and construction materials. It appears that they produce mines and grenades and purchase clandestinely in South Vietnam such items as medicine, storage batteries and other civilian-type goods. But both the Viet Cong and North Vietnamese forces in South Vietnam are becoming increasingly dependent upon external sources of supply (for arms and ammunition, communications equipment, bulk medical supplies, etc.). Particularly important are the 7.62mm rifles and machine guns, grenade launchers, recoilless guns and mortars, and their ammunition. Much of this arms and ammunition is of Communist Chinese

manufacture but some of it has been made in the USSR or in Czechoslovakia.

The supply lines from North Vietnam through Laos and South Vietnam are well known, although they are very difficult to interdict. Not so well understood is the source of supplies coming from Cambodia. Although the Government of Cambodia denies that it is furnishing military materiel to the Viet Cong or that it is permitting their transit, the borders are so inadequately policed that it is probable the Communists are able to infiltrate supplies and troops through that country, both south from Laos and north from the sea. The increasing effectiveness of our sea surveillance leads us to believe that less of the supplies are coming in to South Vietnam directly by sea.

c. South Vietnamese Armed Forces

Opposing the Communists in South Vietnam are the military and paramilitary forces of the Government, totaling 693,000 men in December 1965. compared with about 626,000 in June 1965. The National Military Forces (regular Army, Navy, Marines and Air Force) number about 302,000 compared with 266,000 in June 1965; the Regional Forces, 135,000 compared with 108,000; the Popular Forces, 136,000 compared with 149,000 and the paramilitary/security forces (including the Civilian Irregular Defense Groups, National Police, and Armed Combat Youth) about 120,000 compared with 103,000.

The ground forces are now organized in 133 battalions, five more than the number available in June of last year. It is planned to increase this force to a total of about 155.

The South Vietnamese Air Force, which has a strength of about 13,000 men, now consists of six tactical fighter squadrons, two troop carrier squadrons, four helicopter squadrons and four liaison aircraft detachments. It is planned to increase this force by one troop carrier squadron and several liaison aircraft detachments, while at the same time improving the equipping of some of the units. The Air Force is now heavily engaged in training and currently averages about 2,500 strike sorties per month. With the completion of the training program and through improved maintenance, it is hoped the number of sorties can be increased to about 4,000 per month.

The South Vietnamese Navy currently has 56 ships, 175 river boats and 488 coastal junks manned by about 14,000 personnel. It is planned to increase that force by 24 ships and 46 river boats and modernize the junk force principally by replacing sail-only vessels with motorized vessels.

The Regional Forces, now organized in some 705 companies, will be increased to about 840 companies with a larger proportion of the total

force devoted to "securing" operations. The Popular Forces, which now have about 135,000 men, may be increased to about 185,000 or perhaps 200,000 men. The Armed Combat Youth, which now numbers 38,000, may be incorporated in the Popular Forces. The National Police force will also be increased from the present level of about 53,000 men to perhaps 70,000, as the area of Government control is expanded.

d. Deployment of U.S. and Other Free World Forces to Vietnam

As I noted in my appearance before this Committee in August, the Government of South Vietnam has been finding it increasingly difficult to expand its military forces in pace with the increase in Communist forces. Combat deaths, which had averaged about 143 per week in 1964, had increased to about 260 per week by July 1965, and the number of wounded had increased commensurably. In addition, desertions, particularly from the Regional and Popular Forces, had increased from about 6,000 per month in 1964 to about 10,000 per month by last summer, although it appears that few of them defected to the Viet Cong.

Considering the fact that the Government forces had to defend hundreds of cities, towns and hamlets while Viet Cong were free to choose the time and place of their attacks, it was clear to us then that the United States would have to expand greatly its direct military assistance to the Government of South Vietnam. Our immediate objective was a total of 125,000 U.S. military personnel, but as I pointed out to the Committee at the time, "more help will be needed in the months ahead".

We had at the end of last year a total of about 180,000 military personnel in South Vietnam -- 110,000 Army, 38,000 Marine Corps, 22,000 Air Force and 10,000 Navy and Coast Guard (excluding the 7th Fleet units in the South China Sea). We also had about 14,000 men in Thailand, mostly Air Force, to support the air operations from bases in that country.

Our ground forces at end 1965 were organized in 34 combat-maneuver battalions (22 Army and 12 Marine Corps) supported by some 29 artillery and air defense battalions, 22 engineer battalions, 1,400 Army and Marine Corps helicopters, and about 400 Army and Marine Corps observation, utility, and small transport fixed-wing aircraft. By March of this year we plan to add nine more maneuver battalions (six Army and three Marine Corps) and their combat and combat service support, as well as additional helicopters.

Our "attack capable" air forces in Southeast Asia now number about 700 aircraft, including about 200 based aboard three carriers "on the line" off South Vietnam. The total "attack capable" force will grow to about 780 aircraft by February or March of this year as new air bases

are completed. We also have in Vietnam some 400 U.S. Air Force, Marine Corps and Navy reconnaissance, observation and transport aircraft.

Other naval forces deployed in the South China Sea and the Gulf of Thailand include two more attack carriers (in support of the three "on the line"), an ASW carrier, one and sometimes two cruisers, several submarines and numerous destroyers, fire support ships, amphibious ships, coastal patrol and river control vessels and support ships of all types. During the next few months we plan a substantial expansion of the coastal patrol and river control forces. Nine U.S. Coast Guard patrol craft will be added to the 17 now deployed in Vietnam waters; the number of SWIFT boats will be increased to 86 and more than 100 U.S. river patrol craft will be deployed to assist the Vietnam River Control Groups now in operation.

At the end of 1965, Australia/New Zealand had one maneuver battalion (1,500 military personnel including support units) and Korea nine maneuver battalions (20,700 military personnel including support units) in Vietnam, making a total of 44 battalions of U.S. and other Free World forces. With the nine additional U.S. battalions this total will rise to 53 by March of this year.

e. U.S. Force Structure and Personnel Increases Provided by the August 1965 Amendment to the FY 1966 Defense Budget

The force and personnel augmentations provided by the August Amendment to the FY 1966 Defense Budget were designed to offset the increased deployments to Vietnam and to provide some additional forces for possible further deployments. These augmentations were of three types: (1) additional units for the active forces over and above those reflected in the January budget; (2) additional military personnel to round out existing units in the active forces, to man new bases, to handle the larger logistics workload, etc., and (3) additional personnel and extra training for selected reserve component units to increase their readiness for quick deployment. The call-up of reserve component units and individuals was considered and rejected because we anticipated that the conflict in Vietnam would be drawn out and that, under those circumstances, the reserves would be a wasting asset if called up for only one year.

A total increase of 340,000 military personnel was authorized in August -- Army, 235,000; Marine Corps, 30,000; Navy, 35,000; Air Force, 40,000.

The Army's force structure was increased by one division force, three brigade forces, 35 aviation companies and their combat service support, and provision was made for increased training, logistics support and pipeline.

The Marine Corps force structure was increased to provide new communication, engineer and military police battalions and two helicopter training squadrons; manning levels were raised to bring units deployed to Vietnam up to full strength and to increase the training base and personnel pipeline.

The Navy was authorized to increase the number of active ships in the fleet (by retention of some ships which had been scheduled to be phased out and by new activations), to procure 54 more SWIFT boats, to increase the manning levels of ships operating in the Western Pacific and to provide for necessary increases in logistic support and pipeline.

In the case of the Air Force, the manning levels of the tactical units deployed to Vietnam and the B-52s deployed to Guam were raised, the airlift aircraft utilization rates in both the active and reserve component units were increased, and provision was made for increased training and logistics support.

With regard to the Army reserve components, the manning and readiness levels of three divisions and six brigades, with their supporting forces, were raised. The Marine Corps reserve strength was increased in order to round out the manning of its Reserve Division/Aircraft Wing. In the case of the Air Force's reserve components the manning and training of nine tactical fighter squadrons, four tactical reconnaissance squadrons and eleven airlift squadrons were increased.

All of these actions have been completed or are now well underway.

f. Augmentation of the U.S. Force Structure

In view of the continued build-up of Viet Cong and North Vietnamese forces in South Vietnam, we now believe we should be prepared to deploy promptly additional forces to that area if required. President Johnson has stated categorically that we will give our commanders in Vietnam all the resources they need to carry out their mission.

The deployment of additional forces to Southeast Asia would require some further increases in our force structure and military strength. The major force structure increase proposed now is the addition of one division, certain additional reinforcing units, four tactical helicopter squadrons, two observation squadrons and one air support control unit to the active Marine Corps. To man and support these additional units and provide for increased training and pipeline, we propose to add another 55,000 men to the Marine Corps, providing an FY 1966 end strength of about 250,000 and an FY 1967 end strength of about 278,000.

Although we do not propose the activation of any additional major Army units, i.e., divisions and brigades, the Army will need a number of smaller combat, combat support and combat service units to round out its Strategic Reserve and support the possible deployment of additional forces in Southeast Asia, as well as to provide additional training, logistic and pipeline support. Accordingly, we propose to add another 45,600 men to the Army, providing an FY 1966 end strength of 1,159,000 and an FY 1967 end strength of 1,234,000.

No increase is required in the force structure of the Air Force, but another 4,200 men will be needed to support possible additional deployments to Southeast Asia and the increased pipeline and training needs. The new Air Force strengths will be 854,500 for end FY 1966 and 853,400 for end FY 1967.

We also propose to add another 8,000 men to the Navy to augment the coastal screening effort and Navy patrols, and for the support of the additional Marine Corps units and the additional yard craft. The year-end strengths will be about 724,000 for FY 1966 and about 728,000 for FY 1967.

2. Other Far East Contingencies

Although the President has repeatedly stated that the United States has no desire to widen the war in Southeast Asia, we cannot preclude the possibility that our opponents will nevertheless choose to do so.

While an overt attack by North Vietnamese forces alone is a possibility, a much more serious contingency would be a joint aggression by Communist China and North Vietnam. North Vietnam alone, even if all of its forces were committed to a conventional attack, would have little chance of success, even against the forces presently deployed and earmarked for Vietnam; and we could, of course, deploy still more forces if needed. North Vietnam would be heavily dependent upon external sources of supply, and its own war production capabilities would be highly vulnerable to air attack. Moreover, their entire line of communication is open to interdiction by air and by sea since their air and naval forces are negligible compared with our own. In short, we do not believe that the North Vietnamese, even with logistic support from Communist China and possibly other Communist nations, could fight a conventional war in South Vietnam for very long.

A combined Chinese Communist/North Vietnamese intervention would present a more serious problem. Although the Chinese Communist army includes 2.3 million men organized into about 117 line divisions, we estimate that they could initially attack with a total of only about 31

divisions (including about three North Vietnamese divisions) and could support on a sustained basis only about 22 divisions. These divisions are considerably lighter than our own, not only in equipment but in manpower and combat support as well. Whereas a U.S. division force configured for conventional war in Southeast Asia would total about 52,000 men (16,000 in the division, 20,000 in Initial Support and 16,000 in Sustaining Support), the Chinese Communist/North Vietnamese division force totals about 18,500 men. Also, Communist China's air and naval forces are considerably smaller and less effective than our own, and both their war production centers and their lines of communications would be vulnerable to air and sea attack.

We estimate that to "defend" against such a Communist attack would require about seven U.S. division forces, or about 375,000 men. However, we must also assume that prior to an overt attack, the Communists would try to build up their covert forces in South Vietnam and also send guerrilla forces into Thailand. Thus, most of the indigenous (South Vietnamese) forces and some of the U.S. forces would be required for the counterinsurgency effort. How many U.S. division force equivalents would be required for that purpose cannot be determined in advance since it would depend on how the Communists chose to allocate their effort.

A successful ground offensive against the Communist forces in Southeast Asia would, of course, require additional U.S. division forces. But we might well decide to contain the enemy on the ground and carry the war to him by sea and air, where we have the predominance of military power.

We believe that with a major military commitment in Southeast Asia, and without large scale materiel support from the Soviet Union, the Chinese Communists would be seriously limited in the scope of their military operations elsewhere along their borders. In South Korea, the two U.S. divisions, together with the South Korean forces, should be able to defend against a simultaneous Communist attack in that area. India might need some U.S. logistic and air support if the Chinese Communists were to attack across its borders, but such an attack could not be long sustained because of the enormous logistics problems involved.

Nevertheless, an expanded war in Asia would necessitate at least a partial mobilization, including the call-up of some or all of our reserve forces and the extension of active duty tours. With the three new division force equivalents, we will have a total of 22-1/3 active division force equivalents -- 18-1/3 Army (including four independent brigade forces) and

four Marine Corps. Of the 22-1/3 active division force equivalents, almost five will be deployed in Vietnam by March, two are now deployed in Korea and five in Europe. This means that when the new division force equivalents are in being, we would have 10-1/3 active division force equivalents in the central reserve -- eight Army and 2-1/3 Marine Corps. A portion of the sustaining support for these division forces is in the reserve components since it is not required until about 60 days after deployment of the divisions and their initial support.

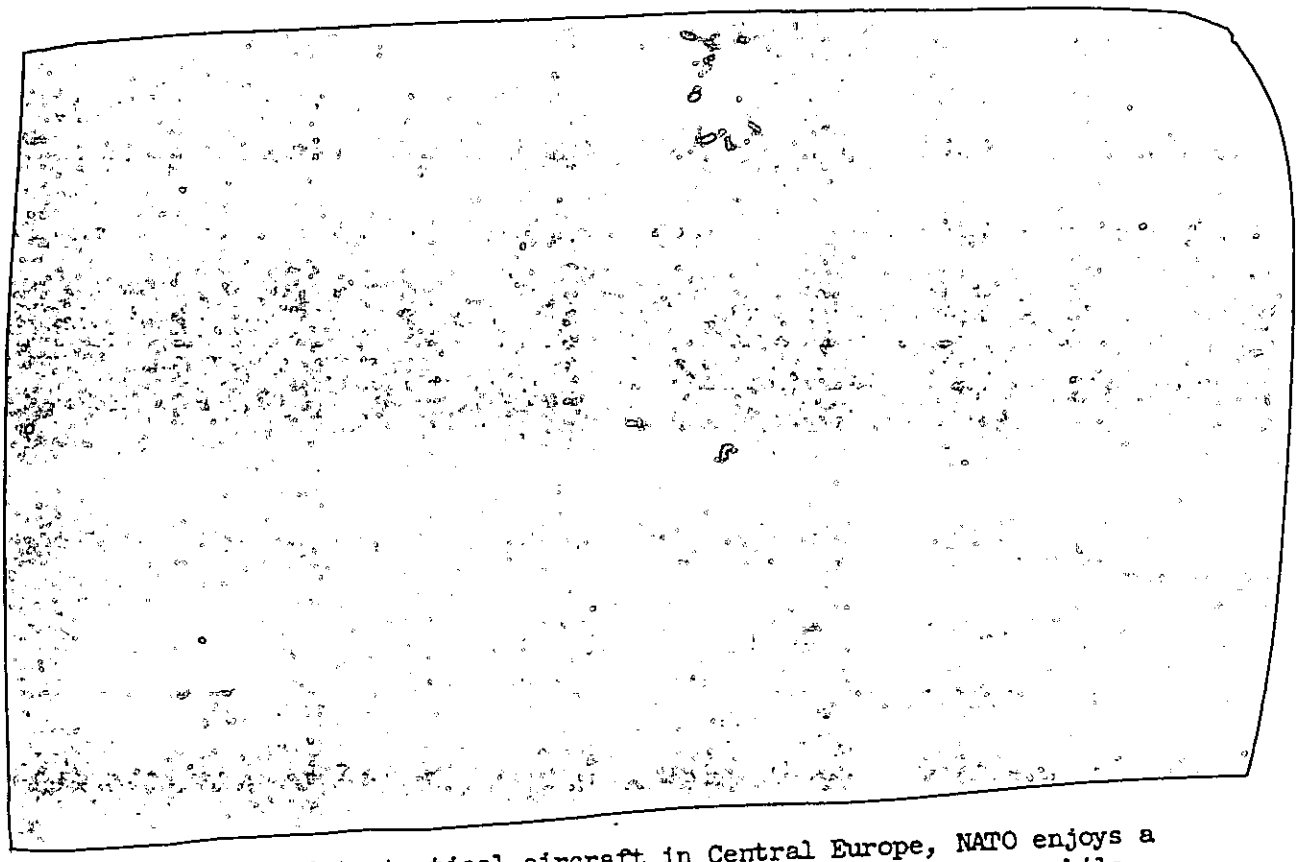
In addition, we plan to maintain ten division force equivalents in the reserve components -- one Marine Corps and nine Army. Thus, including the 10-1/3 active and ten reserve component division forces, our central reserve totals 20-1/3 division forces. These are the land forces upon which we would be able to draw if additional reinforcements were needed in Southeast Asia or if contingencies arose elsewhere in the world.

With regard to tactical air power, we now have a total of about 4,700 tactical aircraft, including both the active and reserve forces of the Air Force, Navy and Marine Corps. As I noted earlier, about 700 tactical aircraft are deployed in Southeast Asia and 360 elsewhere in the Pacific area. About 640 tactical aircraft are stationed in the European area, leaving 3,000 in the Continental United States of which about 900 are in the reserve components.

3. NATO Europe

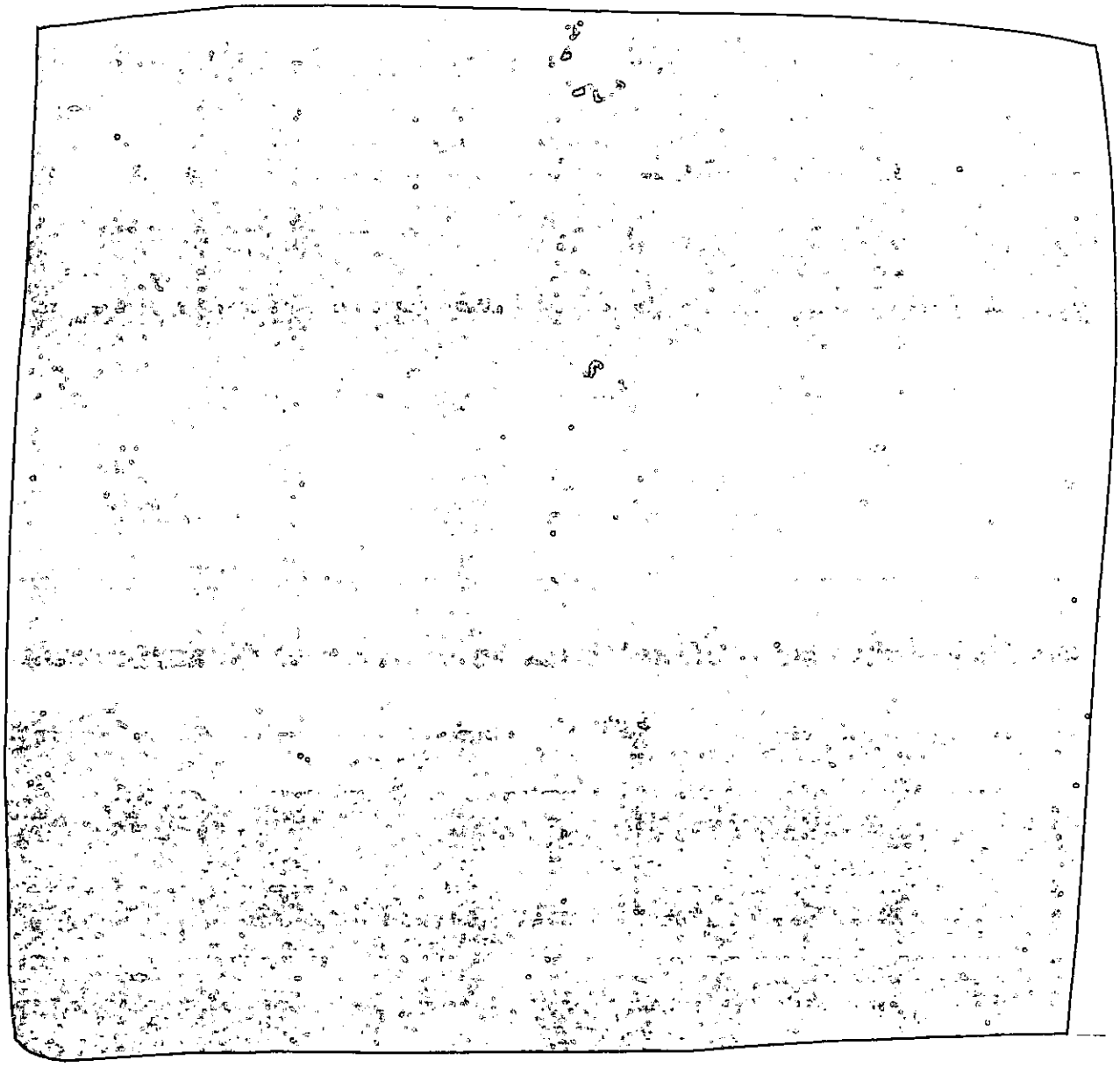
Last year I discussed in considerable detail the General Purpose Forces requirements for a limited war in Europe, particularly in Central Europe -- that region of the Federal Republic of Germany stretching from the Baltic Sea to the Austrian border. Such a war could represent the largest single requirement for U.S. General Purpose Forces. Currently, our NATO partners have 21 divisions committed to SACEUR for the defense of that front -- 12 German, two Belgium, two Dutch, three British and two French. Three more French divisions, not committed to SACEUR, are available in France. The United States has five division forces in Germany, making a total of 26 committed to SACEUR, or 29 if the three French divisions in France are included. In addition, three U.S. armored cavalry regiments in Europe are counted in NATO plans as one division equivalent, raising the total division equivalents available to SACEUR to 30.

These NATO forces are faced by Warsaw Pact ground forces numbering some 800,000 -- about 300,000 Soviet and about 500,000 satellite.



With regard to tactical aircraft in Central Europe, NATO enjoys a modest quantitative advantage vis-a-vis the Warsaw Pact. Even while meeting our expanded requirements in Southeast Asia, we and our NATO partners can provide about 7,000 aircraft for Europe compared with a Warsaw Pact total of about 6,500. NATO's qualitative edge, however, is much more substantial. For example, the bulk of Allied tactical aircraft can carry twice the payload and carry it farther than their Bloc counterparts. In fact, most Bloc aircraft could not reach many important NATO targets from their bases, especially at the low altitudes at which our air defenses would force them to fly. These are very important advantages since air superiority in the NATO area is essential to a successful non-nuclear defense, which requires the disruption of enemy supplies lines and the interdiction of reinforcements for the Bloc ground forces in Europe.

Thus, the NATO forces were they properly manned, trained, equipped and deployed, would be able to give a good account of themselves in a non-nuclear defense of Central Europe, even against a large non-nuclear Soviet attack. But, unfortunately, many of the non-U.S. forces in the Central Region are still not as well manned, trained and equipped as they should be, and the ground forces as a whole are not deployed to the best advantage for defense.



In our view, what needs to be done now is to bring NATO strategy, force goals, and resources into better balance with each other and the threat. Throughout its entire history, NATO's force goals have far exceeded the resources actually made available by the member nations. This has resulted in serious imbalances throughout the entire NATO force structure, and even the resources which have been made available have not

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been applied in such a way as to maximize their value to the overall military strength of NATO.

For many years, I have urged my NATO colleagues to establish the procedures needed to deal with this problem on a systematic, regular basis. As you know, since 1961, the U.S. Department of Defense has operated a programming system which directly relates strategies and war plans to forces and forces to resources and their costs, all projected at least five years into the future. A number of other NATO countries, notably the United Kingdom, the Federal Republic of Germany and Canada, have been moving in the same direction. Now, we have a real hope that the entire NATO organization will adopt these procedures. At its last meeting in December 1965, the NATO Council of Ministers agreed to a Draft Resolution on Defense Planning, which, among other things, instructs the Defense Planning Committee to arrange for studies directed particularly to:

a. The adjustments necessary to bring the NATO force goals into alignment with national force plans and financial budgets.

b. The feasibility and cost implications of the adjustments required in readiness levels, manning, training, equipment and stocking to achieve the force goals at NATO standards.

All member countries are to prepare five-year defense programs for presentation to the North Atlantic Council. It was agreed that the Council of Ministers would review the national plans in May or June 1966, with a view toward the establishment of approved force goals for the Alliance for 1970 and the installation of a regular annual review of the five-year defense programs. The Draft Resolution on Defense Planning, in my judgment, represents the essential first step toward the eventual achievement of a balanced NATO military effort in which resources (and their costs) are directly related to force goals, force goals to strategy, and strategy to the threat.

4. Other Contingencies

In addition to Asia and Europe, contingencies requiring the use of U.S. military forces may arise in other areas of the world. These requirements, however, would be small in relation to our overall military strength.

There is one possible contingency, however, which may require the large scale employment of our naval forces; and that is a war at sea not involving any land battles [redacted] Here, our global naval power would provide us with a unique advantage over the Soviet Union, provided the submarine threat can be contained which we believe it can.

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[redacted]

[redacted] The Soviet surface fleet, without aircraft carriers, would be ineffectual in challenging us for control of the seas. The cost to the Soviets of building an attack carrier force would be enormous and with our already large force we could always stay well ahead of them.

I would now like to turn to the General Purpose Forces proposed for the next five years.

C. ARMY GENERAL PURPOSE FORCES

1. Active Forces

The Army General Purpose Forces proposed for the FY 1967-71 period are shown on Table 5. During the past year, we have reached a number of decisions which require changes in these forces, over and above those related specifically to the buildup for Vietnam.

As you will remember, we conducted a series of field tests during FY 1963 and FY 1964 of new air mobility concepts. Last March, the JCS completed their analysis of these test results, and, in June, on the basis of the JCS recommendations, I authorized the Army to proceed with the organization of a new airmobile division, using the resources of the 2nd Infantry Division and the provisional 11th Air Assault Division which had been temporarily established for the tests. Shortly after forming up last summer, this division was deployed to Vietnam. Completely air-transportable, it has 434 organic aircraft, more than four times the number authorized in a regular infantry division. These aircraft, almost all of which are helicopters, provide such an improvement in mobility and reaction time that entirely new tactics have become possible. On the basis of this division's performance in South Vietnam, we are planning on the conversion of one additional division to the airmobile configuration. Funds have been included in the FY 1966-67 Budget to initiate the procurement of long lead time equipment required for this purpose. Since a date for this conversion has yet to be determined, we do not show it on Table 5.

As shown on the table, the number of infantry divisions remains at six because of the activation of a temporary division force this year to help offset our Vietnam deployments. This division force is now being formed and will become combat ready in December 1966. Our budget request includes provision for an initial set of equipment for this division force. Similarly, three temporary separate infantry brigade forces will be added to the structure in FY 1966-67, but these units will use equipment from Army inventories.

The number of armored cavalry regiments will be increased temporarily to five in FY 1967 to offset the increased deployments to Vietnam. The number of Special Forces Groups is presently scheduled to remain at seven although we have provided for an increase in their authorized strength.

[redacted]

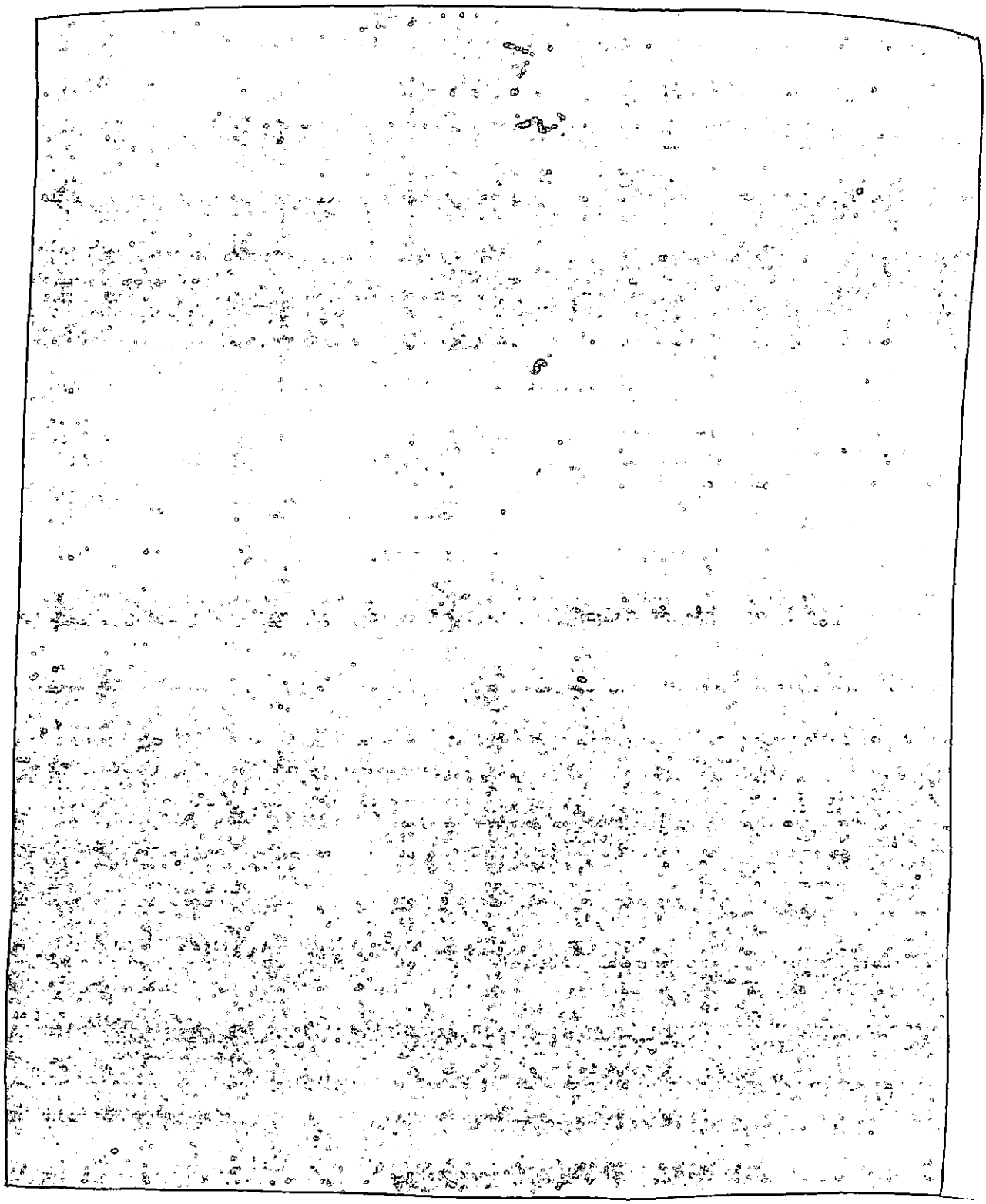
The next entry on the table recapitulates the total number of maneuver battalions, both the separate battalions and those organic to the divisions and the separate brigades. These are the basic building blocks of our ground force organization and are perhaps a better measure

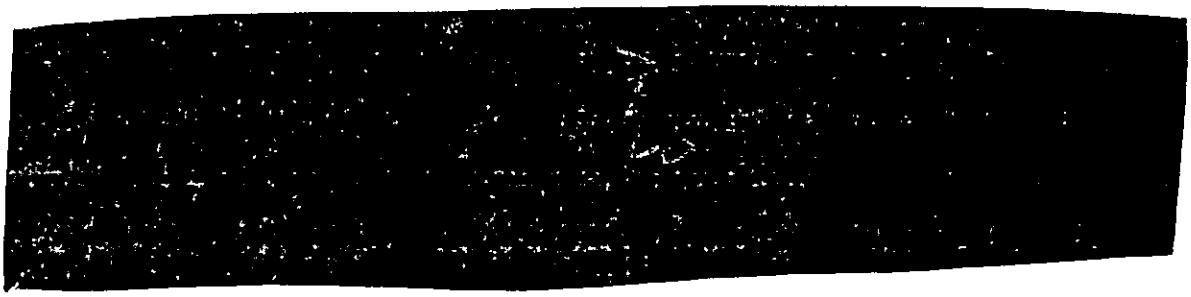
of true combat capability than the larger units which may contain varying numbers and types of battalions. The temporary increase of 18 organic maneuver battalions in FY 1966 reflects the addition of the seventeenth division force and the three brigade forces. The temporary increase of two more organic maneuver battalions in FY 1967 will add one infantry battalion to the 173rd Airborne Brigade (which now has two battalions) and one airmobile battalion to the 1st Cavalry Division (which now has eight battalions). Both of these units are in South Vietnam.

In addition to this temporary increase in numbers, we are planning some important changes, in both the numbers and geographic distribution of the various types of maneuver battalions, which are not reflected on the table. The major purpose of these changes, scheduled to take place this year and next, is to reduce the armor content of the eight permanent active divisions not specifically organized for Europe, substituting lighter infantry units more adaptable to the terrain of underdeveloped countries, and to increase the armor content of the eight divisions in or earmarked for Europe. Within the total of 174 permanent maneuver battalions (excluding the 20 added temporarily for Southeast Asia) the number of infantry battalions is increased from 41 to 43, the number of tank battalions is reduced from 48 to 46, and the number of mechanized battalions is reduced from 64 to 56. The net decrease of eight battalions is offset by an increase of eight new airmobile battalions. These force structure changes should provide a significant increase in combat effectiveness by concentrating specialized combat resources where they are most likely to be needed.

The total number of artillery battalions (including those organic to the major units already discussed) will increase temporarily [redacted] during the current fiscal year and [redacted] in FY 1967 [redacted] This build-up will be achieved by forming new units with equipment drawn from existing Army inventories and from new production. [redacted]

Another significant change being made during this period is the substitution of [redacted] self-propelled 155 mm howitzer battalions for an equal number of older 105 mm howitzer battalions in [redacted] divisions stationed in the United States, thereby providing a substantial increase in the firepower and mobility of these units. As a result, the number of permanent 105 mm battalions will decrease [redacted] while the 155 mm battalions increase [redacted]



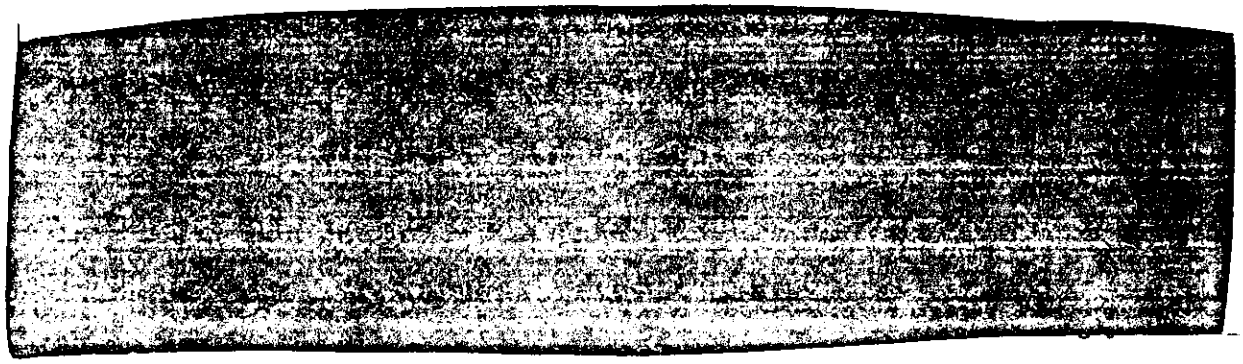


As previously mentioned, one of the major deficiencies in our present military posture, not only in Europe but world-wide, remains the lack of adequate forward area air defense. Because of the disappointing progress and subsequent cancellation last year of the MAULER, which was originally intended to provide such a capability beginning in FY 1965, we have had to develop another program to meet what has now become an urgent requirement. This program consists of several elements directed to our immediate, mid-term and long-term future needs.

First, as I described last year, we have initiated a program aimed at reducing the forward area air defense problem in Europe. Funds were provided in the FY 1966 Budget to add an air defense battalion containing 32 guns and 32 CHAPARRAL weapons to each of the five divisions in Europe and to convert two battalions of HAWK to a more mobile (self-propelled) configuration. We also provided one Gun/CHAPARRAL battalion and one self-propelled HAWK battalion for Strategic Army Command to serve as a reserve and a training base.

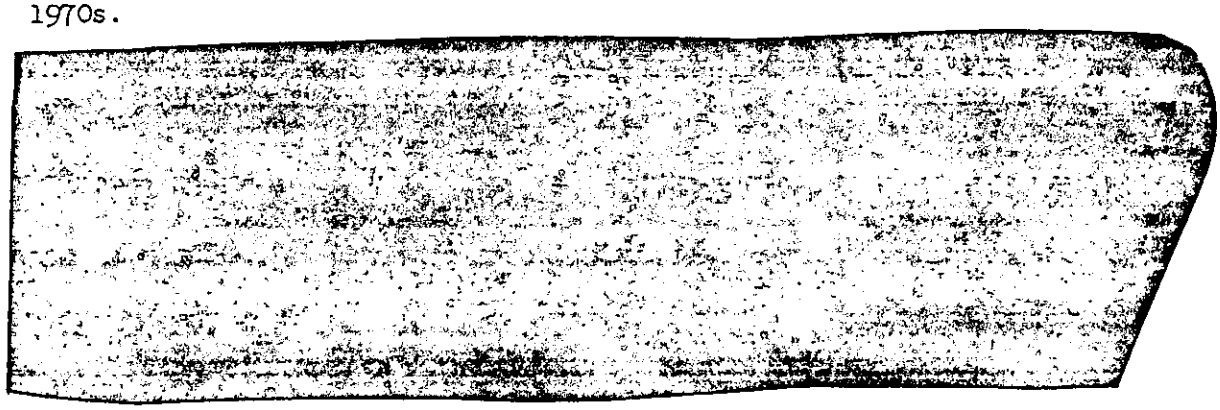
In the process of converting to the self-propelled configuration, total firepower will actually be increased, since the self-propelled battalion will have three batteries of three firing platoons each compared to the four batteries with two platoons each in the fixed-site battalion. We are now in the process of converting the three HAWK battalions approved last year, and the FY 1967 Budget provides for the conversion of two more. These units will be available for deployment early in CY 1968.

Now, as a result of extensive studies and tests, we propose to expand the program begun last year for Europe and extend it to the rest of the Army's needs. Specifically, we propose to increase the number of Gun/CHAPARRAL batteries from the 24 approved last year to a total of 84. This program will provide one battalion (four batteries) for each of the 16 permanent active Army divisions and permit the deployment of three additional battalions for low altitude defense of rear area facilities -- two in Europe and one in Korea. Moreover, we propose to add four special air defense battalions (each consisting of two HAWK batteries and one Gun/CHAPARRAL battery) to the Army's STRICOM forces. These would provide a rapidly-deployable air defense element for contingency operations.



In addition, two other efforts are now underway to improve our air defenses. The first, known as the HAWK Improvement Program, is designed to give this missile system increased effectiveness [redacted] A HAWK system with these improvements would be a hedge against slippage or failure in the development of the next generation of air defense weapons and would provide a better interim system to fill the void left by MAULER's termination. Preliminary work on the improved system will be started in FY 1967 [redacted].

The second effort is the new surface-to-air missile development, SAM-D, which I mentioned briefly in connection with the Strategic Defensive Forces. This system will be oriented principally to the defense of the Army forces in the field against aircraft and short-range tactical ballistic missiles. Eventually, it would replace both NIKE-HERCULES and HAWK in the field, complementing low altitude forward area weapons. It might also be used in conjunction with an anti-ballistic missile system for terminal bomber defense in the continental United States. SAM-D will be designed to meet an F-111 type threat, will have a limited capability against short range ballistic missiles and, as presently conceived, would be the principal tactical air defense weapon for the 1970s.



[redacted]

Reflected on the Table for the first time this year are the self-propelled anti-aircraft gun batteries. The two permanent batteries now in the force are assigned to Panama. To meet the need for an immediate air defense capability in Southeast Asia, we are activating an additional 46 of these batteries, giving us a total of 48 at end FY 1967. We now plan to hold 35 of these batteries in the force through FY 1969 in order to provide an interim capability until the Gun/CHAPARRAL batteries are available.

2. Army Reserve Components

The role of the Army's reserve components in our overall military plans has been a matter of concern to the Executive Branch of the Government for many years. President Kennedy, in May 1961 announced in his Special Message to the Congress "On Urgent National Needs" that the Army had been instructed to develop a plan which would make possible a much more rapid deployment of a major portion of its trained reserve forces. When I appeared before the Congressional Committees a few days later in support of the Defense recommendations contained in that Special Message, I noted that:

> "In the light of the present world situation, it is essential that /the Army/ reserve forces be brought as soon as possible to a state of readiness that would permit them to respond on very short notice to limited war situations which threaten to tax the capacity of the active Army. Moreover, they must be so organized, trained and equipped as to permit their rapid integration into the active Army. The 'One Army' concept must become a reality as well as a slogan.
>
> "In this connection, a highly ready reserve force is of much greater importance than just numbers of reserve units. In accordance with these principles, we are now proposing to realign substantially the Army reserve and Army National Guard."

I then went on to describe the proposed reorganization plan which, with the help of the Congress, was initiated in 1962 and completed in 1963. Under that plan, the Army's reserve component structure was realigned to provide a priority force of six divisions and their supporting forces, 11 brigades, the units required to round out the active Army, the "on site" air defense battalions, and the training and operational base units -- all manned at 75 percent or more of their TOE strengths and with "readiness for deployment" goals of approximately eight weeks. Eight previously existing divisions were eliminated from the reserve component structure.

[redacted]

Although the new structure was a vast improvement over its predecessor, further analyses of the kinds of limited war situations we were likely to face in the future led us a year ago to propose a further reorganization of the Army's reserve components. Inasmuch as I discussed the need for and the advantages of that proposal in considerable detail last year, I will merely summarize its main features at this point. In essence, the plan:

a. Increased the useable combat power in the reserve components by augmenting the "required" force by approximately 100,000 men, adding five brigades, and providing equipment for two additional combat division forces and the five additional brigades.

b. Improved the readiness of reserve units by raising manning, equipping and training levels.

c. Eliminated those units for which there is no military requirement under approved plans.

d. Created a reserve structure in which the number and types of units, personnel authorization and logistics support are in balance with the requirements of the plans.

e. Eliminated duplication and simplified management by placing all paid drill units under the National Guard and retained the management of individual reservists under the U.S. Army Reserve.

f. Spread the resulting force structure over the fifty states, the District of Columbia and Puerto Rico in such a way as to meet their individual needs for military forces, to equalize the burden and the risk of combat, and to provide Reserve and Guard personnel a maximum opportunity for participation in the realigned force.

With the passage of another year, we are now more than ever convinced of the basic soundness of this approach to the Army reserve components. The military buildup required by the rapidly expanding Communist aggression in South Vietnam has again demonstrated (as did the Berlin buildup in the summer of 1961) the overriding importance of combat readiness as compared with mere numbers. Indeed, we have found it necessary to raise still further the combat readiness of selected units, i.e., three divisions, six brigades and other supporting forces, in lieu of ordering them to active duty. We are doing this by manning and equipping these units up to their full TOE's and by giving them additional training.

It was to help provide the additional trained manpower and equipment for these selected units and other high priority units that we decided late last year to disband 751 reserve units for which we have no requirement in our plans. It made no sense, then, to continue to tie up men and equipment in unneeded units, when at the same time we were being strained to provide

men and equipment for the units we do need. By the same token, it makes no sense now to continue to support the remaining unneeded units still in the Army's reserve component structure.

As shown on Table 6, the proposed new structure would provide a force of eight division forces, 16 separate brigades (including three brigade forces), the units required to round out the active Army, establish a mobilization base, furnish support to other Services and the air defense units. The Selected Reserve Force of three divisions, six brigades, and their supporting forces, would be maintained at 100 percent manning for as long as required by the situation in Southeast Asia. The remaining divisions, brigades and the units to round out the active Army would be maintained at an 80 percent manning level, the air defense units at 85 percent, the mobilization base units at 80-100 percent, and the Support for Other Services at 70 percent.

This force would require a total of about 580,000 men on regular drill pay, including the 30,000 extra required to maintain the Selected Reserve Force at 100 percent of its authorized strength. Initial equipment, training and war reserve stocks would be provided for all of these forces on the same basis as the active forces, allowing only for differences in deployment schedules. (Three brigade forces' worth of equipment will be temporarily diverted to the active Army for the three temporary brigades, since procurement of major equipment for them is not considered warranted at this time.)

We again propose to place all of the organized units under the Army National Guard, leaving in the Army Reserve the mobilization reinforcement pool. All Reservists or Guardsmen displaced by this reorganization would be given an opportunity to affiliate with an organized unit or join the pool where, if eligible, they could continue to accrue credit toward retirement.

The implementation of this plan will require certain legislative action both on the part of the Armed Services Committees and the Appropriations Committees. The FY 1966 Appropriation Act provides that "only upon approval by the Congress, through the enactment of law hereafter, of a realignment or reorganization of the Army reserve components, the Secretary may transfer the balances of appropriations made in this Act for the support of the Army reserve components to the extent necessary to implement such a realignment or reorganization...." In addition, the FY 1966 Appropriation Act contained a requirement that the Guard be programmed to attain an end strength of not less than 380,000 and the U.S. Army Reserve be programmed to attain an end strength of 270,000.

Although these limitations automatically expire unless re-enacted in the FY 1967 Appropriation Act, we believe it would be highly desirable if the Armed Services Committees were to consider the proposed

reorganization plan at the present session and recommend whatever legislation they believe is required for its implementation. We made certain legislative proposals last year which we felt would facilitate the proposed realignment. However, no action was taken on them. We stand ready again this year to assist the interested Committees in working out the new legislation. Meanwhile, we have programmed for the Army Reserve the strength stipulated in the FY 1966 Appropriation Act. The Army National Guard, will total approximately 418,500 by the end of the fiscal year. The additional funds required for that higher strength have been included in our FY 1966 Supplemental request.

I again strongly urge this Committee and the Congress to support the proposed reorganization plan. It was developed by and has the full support of the Department of the Army. Its implementation will mark the culmination of many years of effort, under several administrations, to integrate fully the Army's reserve components in our overall military plans and to provide the Nation with the kinds of forces needed to cope with the never ending series of crises which have marked the entire post World War II period.

3. Army Procurement

As I indicated at the beginning of this Statement, we have made very heavy investments in Army procurement since FY 1961. Nevertheless, because of the projected consumption in Southeast Asia and the previously discussed force augmentations, the Army procurement programs which we now recommend for FY 1966 and FY 1967 are the largest since the Korean War.

Our present logistics guidance provides that the Army will procure initial equipment for 26-1/3 division force equivalents including the 16 permanent and one temporary active division forces, the eight priority reserve division forces, four brigade forces (one active and three reserve) and all the related combat, combat support and logistics support units. (The remaining separate permanent brigades -- six active and 13 reserve components are considered as part of the division and brigade forces.) With respect to combat consumables, except ammunition, the Army will buy sufficient stocks to support the entire permanent force (both active and reserve) in combat for six months. Taking account of the fact that the forces would be deployed over a period of a few months and that not all of the divisions would be engaged in combat initially, this equates to 92 division force months of combat consumption (including 16 months at intense rates). In the case of those items where holding to a six month level might seriously impair our ability to maintain 17-1/3 division forces (i.e., the permanent forces oriented to areas other than Europe) in combat indefinitely, additional stocks are authorized. In the case of ammunition,

six months of combat consumption will be procured for the eight European-oriented division forces. For the remainder of the force, sufficient ammunition will be procured to support combat consumption from D-Day to the time when production will have caught up with consumption (P-Day).

Essentially, the FY 1966-67 procurement programs proposed for the Army have been developed to provide for all projected combat consumption in Southeast Asia and to meet in full our war reserve inventory objectives in accordance with the logistics standards just described. The revised FY 1966 program now totals $5,045 million, of which $2,465 million is included in the Supplemental request. The FY 1967 program totals $3,561 million. But, again, I want to remind you that our FY 1967 budget request is based on the assumption that combat operations in Southeast Asia will continue through June 30, 1967. If it later appears that combat will continue beyond that date, more funds will be needed for FY 1967.

a. Aircraft

During the past year the Army completed a comprehensive analysis of its future aircraft needs. The results of this analysis, together with the experience gained in Southeast Asia and the projected combat attrition over the next year and half, explain the very large increases in the FY 1966-67 Army aircraft procurement program. The FY 1966 program now totals $1,333 million for 3,044 aircraft, of which $826 million is included in the Supplemental request. The FY 1967 request includes $593 million for 1,532 aircraft.

The largest single aircraft item is the UH-1B/D (IROQUOIS) helicopter, of which we propose to procure 2,217 in FY 1966 and 900 in FY 1967. This general utility helicopter is in wide use in Vietnam as an aerial weapons platform as well as a transport.

We propose to raise the production rate of CH-47As to fifteen per month early in FY 1967 in order to speed up the achievement of the inventory objective and provide for projected attrition. The procurement of 204 of these transport helicopters in FY 1966 and 120 in FY 1967 will satisfy about 93 percent of the Army's total procurement requirement.

The proposed purchase of 333 LOH-6As in FY 1966 and 458 more in FY 1967 will permit a stepped up modernization of the observation aircraft inventory.

The FY 1966 Supplemental request includes funds for the first six operational CH-54A heavy lift helicopters and 18 more are included in the FY 1967 budget request. This unique aircraft can haul outsized loads such as the 155 mm howitzer or rescue smaller downed aircraft under combat conditions. It has already proven its merit in South Vietnam.

We also propose to procure 48 fixed-wing utility aircraft in FY 1966, as well as 220 trainer aircraft to meet the expanded pilot training requirements of the Army. At this time, no further trainer aircraft procurement is contemplated for FY 1967.

b. Missiles

Army missile procurement (including spares) will total $369 million in FY 1966 ($64 million in the Supplemental request) and $357 million in FY 1967.

The current year's procurement of [redacted] PERSHING missiles will complete the presently planned inventory requirements and provide for training consumption. Funds are included in the FY 1967 budget to help finance the procurement of the improved ground support equipment previously mentioned.

For LANCE, $19 million of available funds will be used in FY 1966 for production tooling and advance production engineering. In FY 1967, we propose to procure [redacted] missiles and the associated ground support equipment.

The revised FY 1966 program for SHILLELAGH includes approximately 17,060 missiles and the FY 1967 request includes 28,800 more. This infrared, command-guided anti-tank missile is the primary weapon for the retrofitted M-60 medium tank and the General Sheridan armored reconnaissance vehicle.

For REDEYE, the man-transportable, shoulder-fired air defense missile, the revised FY 1966 program provides for the procurement of about 9,660 missiles, and the FY 1967 request includes an additional quantity of about 5,560. These programs will meet the present tactical inventory objective and provide for training consumption.

The funds requested for HAWK in FY 1967 will provide the necessary ground support equipment for the previously discussed conversion of HAWK battalions to the self-propelled configuration, advance production engineering for the Improved HAWK missile, and modified fire control equipment designed to increase HAWK effectiveness against high speed, low altitude aircraft.

As shown on the Table, the FY 1967 request includes $62 million for the CHAPARRAL missile system. This amount will provide for the procurement of 2,640 missiles, the self-propelled and towed fire units, and equipment for training and testing the CHAPARRAL.

c. Weapons and Combat Vehicles

The revised FY 1966 program for weapons and combat vehicles totals $521 million, of which $181 million is included in the FY 1966 Supplemental. For FY 1967, $428 million is requested.

As part of the stepped-up program to improve the Army's forward area air defense capability, we are buying this year the first 59 self-propelled VULCAN M-61A 20 mm anti-aircraft guns to complement the capability of the CHAPARRAL missile. Adapted from an aircraft-mounted version, the VULCAN is a six barrel, electrically operated Gatling-type gun with an effective range of about 4500 feet against aircraft flying at altitudes up to 4200 feet. The funds requested for FY 1967 will provide for procurement of 302 more guns together with fire control equipment for both the FY 1966 and FY 1967 programs.

We have also included funds in the FY 1967 budget for the second increment of 1,250 of the Hispano Suiza 20 mm guns, as part of the program to upgrade the fire power of our M-114 armored command and reconnaissance vehicle which presently mounts a 50 cal. machine gun. The required quantity of this gun is being procured over a three-year period.

The FY 1967 program includes 282 self-propelled 155 mm howitzers and 150 M-578 light recovery vehicles. The 155 mm howitzers are replacing the 105 mm weapons.

Included also is the second increment of 560 General Sheridan armored reconnaissance and airborne assault vehicles.

During FY 1967, we plan to maintain the production rate of the basic M-113 chassis at 125 per month. This rate will provide 450 of the self-propelled 81 mm mortar carriers and 1,050 of the XM-548 cargo carriers, both of which use this chassis.

The proposed FY 1967 program provides for the continued modernization of the Army's tank inventory. We now plan to retrofit 605 M-48 medium tanks with new diesel engines and 105 mm guns, and procure 300 new M-60s equipped with the SHILLELAGH/152 mm gun. Together with 30 armored vehicle bridges and 30 combat engineer vehicles which use the same chassis, this quantity of tanks will support the minimum sustaining production rate of 30 per month.

As you know, we presently have under joint development with the Federal Republic of Germany the Main Battle Tank, now scheduled for introduction into the operational inventory in FY 1970. In FY 1967, we are requesting $10 million for advance production engineering. (Thirty-six million dollars is included in the R&D program to support the U.S. share of this development.)

d. Tactical and Support Vehicles

The FY 1966 program for the trucks, trailers, and other non-combat vehicles now totals $608 million, of which $253 million is included in the Supplemental request. For FY 1967, $526 million is requested for about 50,000 vehicles. As shown on the table, the principal items in the FY 1967 program are 17,000 1/4-ton trucks, 8,500 3/4-ton and 1-1/4 ton trucks, 20,100 2-1/2 ton trucks and 7,700 5-ton vehicles of various types. Included in the 1-1/4-ton truck procurement is the GAMMA GOAT (XM561) vehicle which is composed of a separate tractor and powered trailer, joined together to improve off-road mobility. This new vehicle is extremely light, giving it excellent amphibious capabilities and making it air-droppable even with a full payload. We propose to buy the first 1,500 of these vehicles in FY 1967.

e. Communications and Electronics

For communications and electronics procurement, the FY 1967 budget request includes $293 million. The revised FY 1966 program now totals $450 million of which $241 million is included in the Supplemental request. The increase for STARCOM in FY 1966 is related primarily to the installation of an integrated wideband communications system in Southeast Asia.

As shown on the table, in FY 1967 we propose another major purchase of nearly 15,300 AN/VRC-12 vehicular radios. We also propose to start procurement of some of the radio relay equipment for the Army Area Communications System (AACOMS).

f. Ammunition

For ammunition, the Army's revised FY 1966 program includes $1,278 million, of which $671 million is included in the Supplemental request. For FY 1967, $1,052 million is requested.

Very large procurements (2.5 billion rounds) of small arms ammunition (5.56 mm and 7.62 mm cartridges) are proposed for the current fiscal year to meet projected Southeast Asia consumption. The 870 million rounds requested for FY 1967 will fully meet the inventory objective for these items.

As shown on the table, we propose to make very large purchases of both 20 mm and 40 mm ammunition in FY 1966. In both FY 1966 and FY 1967 we will procure 20 mm ammo for the VULCAN air defense gun and for the Hispano-Suiza gun mounted on the M-114 armored command and reconnaissance vehicle. All of the 40 mm ammunition proposed for FY 1966 and FY 1967 are cartridges used with the M-79 grenade launcher and a rapid fire helicopter-mounted version widely employed in Vietnam. Funds are also included in FY 1967 for a new anti-aircraft 40 micro-second

[redacted]

delay fuze. This fuze will be fitted on existing 40 mm ammo to be used by the "Duster" anti-aircraft units which we are reactivating. The new fuze is designed to provide an increase in single engagement kill probability of about 250 percent.

Similarly, most of the large increase in 81 mm, 105 mm, 106 mm, and 4.2 inch cartridges and in 2.75 inch rockets is related to Southeast Asia requirements. The increase in procurement of 152 mm ammunition is to build up initial inventories for the new SHILLELAGH/gun turret on the M-60 tanks and for the gun/launcher on the General Sheridan vehicle. The larger quantities of 155 mm ammunition are required to keep pace with the growing inventory of 155 self-propelled howitzers as well as to provide for increased consumption in Vietnam.

The last major ammunition item, the 66 mm rocket, is the new Light Anti-tank Weapon (LAW) which is replacing some of the 3.5 inch rocket launchers.

g. Other Support Equipment

The revised FY 1966 program for other support equipment totals $312 million, of which $195 million is included in the Supplemental request. These funds are required for such items as electric field generators, road graders, cranes, tractors, bridge components, shop equipment, fork lift trucks, etc. For FY 1967, $262 million is requested.

h. Production Base Program

The revised FY 1966 program for production base support totals $174 million, of which $34 million is included in the Supplemental request. For FY 1967, $50 million is requested.

D. NAVY GENERAL PURPOSE FORCES

The Navy General Purpose Forces proposed for the FY 1966-71 period are shown on Table 8. Except for the Vietnam augmentations, the major changes from the program envisioned last year concern the attack carriers and their air wings, the anti-submarine warfare forces and the guided missile destroyers.

1. Attack Carrier Forces

In my appearance here last year in support of the FY 1966-70 program and FY 1966 Budget, I discussed a plan which would have reduced the attack carrier forces to thirteen ships and thirteen air wings by the early 1970s. A reduction of this order was considered appropriate

[redacted]

for several reasons: the introduction of far more effective ships and aircraft into the Fleet, the release of the attack carriers from the strategic alert mission, and the overall increase in quantity, range and effectiveness of land-based tactical air power generally. Since that time a plan has been developed for the attack carrier forces which I believe is superior to the one discussed last year. Under the new plan, the number of ships would be held at 15 but the number of air wings would be reduced to 12 -- an increase of two ships and a reduction of one air wing compared with the previous plan. Significantly more useable combat power could be obtained from a force of 15 carriers and 12 air wings than from a force of 13 carriers and 13 air wings, and at no increase in cost.

Such a force structure would require some change in the present mode of operation. Carriers would normally deploy with less than the maximum complement of aircraft and additional aircraft would be flown to the carriers as needed. In effect, we would be treating the aircraft carrier as a forward floating air base, deploying the aircraft as the situation requires. It is this almost immediate operational availability which gives the attack carrier forces their unique importance.

a. Ships

As shown on Table 8, our attack carrier forces at end FY 1965 included one nuclear powered carrier, the ENTERPRISE, seven FORRESTAL-class, three MIDWAY-class and five ESSEX-class carriers for a total of 16.

As I indicated last year, we plan to modernize two of the three MIDWAY-class carriers, the MIDWAY and the FDR, during the FY 1966-69 period (the third MIDWAY-class carrier, the CORAL SEA, has already been modernized). The MIDWAY was to have begun modernization last November and was to rejoin the Fleet in FY 1968. The FDR was scheduled to begin modernization in FY 1968 and rejoin the Fleet in FY 1970.

To avoid major fluctuations in personnel and equipment, we had planned to place the CORAL SEA in temporary reserve status when the new FORRESTAL-class carrier, the AMERICA, joined the Fleet last June, retaining an ESSEX-class carrier in service until the MIDWAY phased out for modernization in November. However, because of the additional requirements for Vietnam, the CORAL SEA was retained in the active Fleet; and the start of work on the MIDWAY was deferred to this February, giving us a temporary force of 16 active CVAs during the June-February period. Thereafter, a CVS temporarily diverted from ASW tasks will help support the Vietnam requirement. Thus, by the end of the current fiscal year, the CVA force will be down to the planned 15 ships, plus one CVS functioning as a CVA.

[redacted]

In FY 1969, a new FORRESTAL-class carrier will join the Fleet and one ESSEX-class carrier will be transferred to the ASW carrier force. By end FY 1970, all three MIDWAY-class carriers will be in the Fleet and the number of ESSEX-class carriers will be reduced to three. Thus, the CVA force by that time will consist of the ENTERPRISE and eight FORRESTAL-class, three MIDWAY-class and three ESSEX-class carriers.

The cost of modernizing the MIDWAY and the FDR is estimated at $167 million. Their catapults, arresting gear and elevators will be strengthened to handle the heavy aircraft that will be coming into the Fleet in the latter part of the 1960s. Since these aircraft will have much greater payload capabilities, the ordnance handling and storage facilities of these two ships will also be improved. Finally, the Naval Tactical Data System (NTDS) which is being introduced into the Fleet, will be incorporated on the two carriers. The NTDS more than doubles the number of aircraft that can be tracked and the number of intercepts that can be handled and provides a significant increase in ECCM capabilities. With these modifications, the MIDWAY and the FDR should be able to serve effectively for about another ten years after they rejoin the Fleet.

To provide for the progressive modernization of the attack carrier force, we have included funds for the construction of a new nuclear-powered attack carrier in our FY 1967 request. When this ship is delivered to the Fleet, we will have ten large carriers and three of the MIDWAY-class. Now that we plan to retain a force of 15 carriers, two more new carriers will have to be provided, and these have been tentatively scheduled for the FY 1969 and FY 1971 programs. These, also, would be nuclear-powered. As these ships are delivered to the Fleet, the ESSEX-class carriers will be retired from the CVA force which would then consist of four nuclear-powered, eight FORRESTAL-class and three MIDWAY-class carriers, for a total of 15.

b. Carrier Aircraft

Approximately 80 percent of the total air complement of the attack carrier forces is currently organized into 15 carrier air wings; the remaining 20 percent is made up of aircraft used for combat readiness training. By the end of the current fiscal year, these units will total about 1,600 aircraft, as shown in the middle of the second page of Table 8. The decline in the total number of fighters after FY 1967 reflects two factors -- the reduction from 15 to 12 wings and, beginning in FY 1971, the substitution of the F-111Bs for other aircraft on less than a one-for-one basis. As I noted in previous years, the F-111B promises a substantial increase in effectiveness over the F-4, the Navy's current first-line fighter. By FY 1971, the fighter force will consist of 21 squadrons (12 aircraft each) -- three F-111B, 14 F-4 and

[redacted]

four F-8. The F-8 squadrons are retained for the ESSEX-class carriers which cannot effectively operate the F-4s or F-111Bs.

When the transition to the 12 carrier air wing force is completed, we will have 738 attack aircraft organized in 57 squadrons -- 12 squadrons of A-6s (9 aircraft each) and 45 squadrons of A-4s and A-7s (14 aircraft each). The heavy attack aircraft will be phased out of the force by FY 1972.

In the reconnaissance/ECM area, a new aircraft, the EA-6B will be introduced into the force. It will be far more capable than the EA-1F which it will replace, especially in detecting and pinpointing the electronic emissions of SAM sites and in electronic jamming. I will discuss this aircraft further in connection with the Navy's aircraft procurement program. We will also continue the conversion of the A-5As to the RA-5C configuration for use on the FORRESTAL-class carriers. The RF-8s will continue to be used on the ESSEX-class and MIDWAY-class carriers.

For Fleet early warning, we will complete the procurement of the E-2A in FY 1966. As I noted last year, we have encountered some difficulties with the electronic subsystems of this aircraft but we now believe that these problems can be solved. Twelve of the older E-1Bs will be retained in the force to complement the E-2As, and funds have been included in the FY 1967 Budget to extend the lives of the older aircraft.

2. ASW-Surveillance and Ocean Patrol Forces

Last year I pointed out that the preliminary findings of a Navy study indicated that we were, generally, in better shape with regard to the submarine threat than we had previously thought, but that a continued high level of ASW research and development would be needed to hedge against the possibility of a more sophisticated threat in the future.

a. ASW Carriers (CVS)

At the end of FY 1965, we had nine ESSEX-class CVSs, all but one of which had "angled" decks. The one "straight deck" carrier is less capable than the others and, because of the adequacy of our overall ASW capability, we have decided to phase it out of the force during the current fiscal year, with a reduction in annual operating costs of about $22 million. This will leave eight CVSs in the Fleet, four for the Atlantic and four for the Pacific, plus one training carrier in the Atlantic. (Four additional CVSs in the Reserve Fleet could be made available if required.) I believe this force, together with the many other elements of the ASW forces, will be sufficient to carry out the missions assigned to the CVSs. In this connection, we plan to provide a force of 45 new ASW helicopters (SH-3A/D) for the attack carriers

to enhance their own ASW capabilities. These are the same helicopters used on the CVSs. The present ASW carriers will eventually be replaced by the more up-to-date ESSEX-class CVAs as they, in turn, are made available by the delivery of new ENTERPRISE-class CVAs.

In order to help support five attack carriers off Vietnam, we are, as I noted, temporarily deploying one of the Atlantic-based CVSs, the INTREPID, to Southeast Asia. Very minor modifications were required on this vessel to permit it to operate light attack aircraft and it can be quickly reassigned to its ASW role. What is involved is mainly a change in the aircraft complement. The ASW air group is being retained in the active fleet, thus giving us the capability to operate the carrier as a CVS on short notice.

As shown on Table 8, the ASW carrier forces will continue to be equipped with both fixed-wing aircraft and helicopters. The older SH-34 helicopters have already been replaced with the new SH-3A/D, 16 per CVS. (The figures shown on the second page of Table 8 include the 45 helicopters for the CVAs.) The older S-2s are being replaced by the S-2Es, 20 aircraft per CVS. As I noted last year, we are also providing four A-4s for each CVS in order to give them a limited intercept and air defense capability. In addition, we will continue to maintain eleven squadrons of land-based ASW patrol aircraft, eight squadrons of carrier based ASW search aircraft and four squadrons of ASW helicopters in the Naval Reserve.

b. Attack Submarine Forces

By the end of the current fiscal year, the submarine force, excluding POLARIS, will number 105 ships, 24 of which will be nuclear powered. While last year's program called for 31 nuclear-powered submarines to be in the force by this July, the Submarine Safety Program has resulted in some slippage. However, by end FY 1967 this slippage should be made up and we will be back on schedule. The principal missions of the attack submarine force are the establishment and maintenance of submarine barriers and forward area operations in wartime. Nuclear-powered submarines would be needed for the distant barriers while conventionally powered submarines, although not as effective as nuclear-powered submarines, could be used for the nearer barriers, e.g., off Greenland, Iceland and the United Kingdom.

Our continuing study of the ASW problem indicates that a total of about 64 first class SSNs will be needed for the forward barrier operations. A total of 50 SSNs were funded through FY 1965, one of which, the THRESHER, was lost. Two nuclear-powered submarines (one radar picket and one REGULUS equipped SSN) were reassigned to the SSN role, making a total of 51 avail-able. These two submarines and the two earliest SSNs are not deemed suitable

for forward barrier operations, leaving 47 available for that mission. Six SSNs were provided by the Congress in FY 1966, leaving a total of 11 SSNs to be funded in FY 1967 and subsequent years. We propose to start five SSNs in FY 1967, five in FY 1968 and one in FY 1969. This program will give us a total of 64 first-class SSNs by FY 1972, plus four other SSNs which could be used together with the conventionally powered submarines for other missions. If our continuing study of the ASW problem should reveal that additional SSNs are required, the five-a-year program could be continued.

Sonar improvements will be made on all of the earlier SSNs earmarked for the forward barrier operations to bring them up to the standards of the latest SSNs. About $33 million has been included in the FY 1967 Budget to start this program.

[redacted]

c. Destroyer Escorts

By the end of the current fiscal year, there will be 31 destroyer escorts in the Fleet, including four DEGs armed with the TARTAR missile. Two more DEGs, now under construction, will join the Fleet in FY 1967, thereby completing that program. In addition, we will have 16 DERs with the Fleet, 11 of which are being retained for use in Southeast Asia for the coastal search and surveillance mission. These ships are ideally suited for this type of operation since they have excellent communications equipment, radar, and long endurance, and yet are small enough to navigate in relatively shallow waters.

Last year I stated that we planned to start construction on about 10 new destroyer escorts each year. This is still our plan, and $284 million has been included in the FY 1967 Budget for 10 DEs. Beginning with the ships funded in the FY 1964 program, all of the destroyer escorts now being built will be equipped with the new SQS-26 sonar, a highly effective system for submarine detection. Most of the earlier DEs and a large number of DDs, DDGs, and CGs (a total of 160 ships in all) will be equipped with the improved SQS-23 sonar. This improvement will just about double their submarine detection and classification capabilities. About $14 million of available funds has been programmed for this purpose in FY 1966, and approximately $14 million more has been included in the FY 1967 Budget request.

A slippage in the SQS-26 sonar production schedule will delay the rate of delivery of new destroyer escorts, but by the end of FY 1971 we will be back on schedule with 73 DEs in the Fleet, plus six DEGs. By that time all of the DERs will have been phased out of the active Fleet, most of them in FY 1968, on the assumption that combat operations in Vietnam cease by 30 June 1967.

We also plan to continue our program to improve the ASW capabilities of 13 DD-931 class destroyers, all of which are less than ten years old. These ships will be provided with ASROC (including the Underwater Battery Fire Control System), improved communications equipment, a new variable depth sonar and improved ECM capabilities, plus certain minor structural modifications -- at a cost of about $12 million each. With these improvements, the DD-931 class destroyers will be comparable to and, in some ways, even better in the ASW role than the DEs we are now building at a cost of about $29 million each. Five conversions were funded in FY 1966. Five more are included in the FY 1967 Budget (at a total cost of $63 million) and the last three are scheduled for the FY 1968 program. As was the case last year, we will continue to retain a number of DDs in the active Fleet beyond their scheduled retirement dates in order to increase significantly our escort capabilities at a small increase in program costs.

In addition to the forces specifically identified with the ASW surveillance and ocean control mission, there will also be 181 other destroyer types in the active Fleet by the end of the current fiscal year, as shown in Table 8 under the heading "Multi-Purpose Ships." We also have 38 destroyer types in the Naval Reserve Training Fleet. These ships are kept in operating condition by partially manning them with active duty Navy personnel, the balance of the crews being drawn from the Naval Reserve. Another 51 ships could probably be activated in an "as is" condition from the Category B Reserve Fleet within M+2 months and another 109 from Categories B and C by perhaps M+3 months and, of course, our Allies have several hundred destroyer type ships. Thus, the total number available to the Allied forces would be quite large, even in the first months of a war.

d. Small Patrol Ships

The programs authorized through FY 1966 will provide a total of 33 small patrol craft by FY 1969 as shown on Table 8. No further increases in these types of vessels are being proposed. However, as I indicated in my appearance before this Committee in August, we have greatly increased the procurement of the smaller SWIFT craft which are not included in the Small Patrol Ship category. In addition to the 20 financed from the FY 1965 Supplemental, 30 more have been

financed by reprogramming available FY 1966 funds [redacted] included in the August Amendment to the FY 1966 Budget -- [redacted] at a cost of approximately $19 million. These craft are designed for very close-in coastal search and surveillance and most of them are earmarked for Southeast Asia.

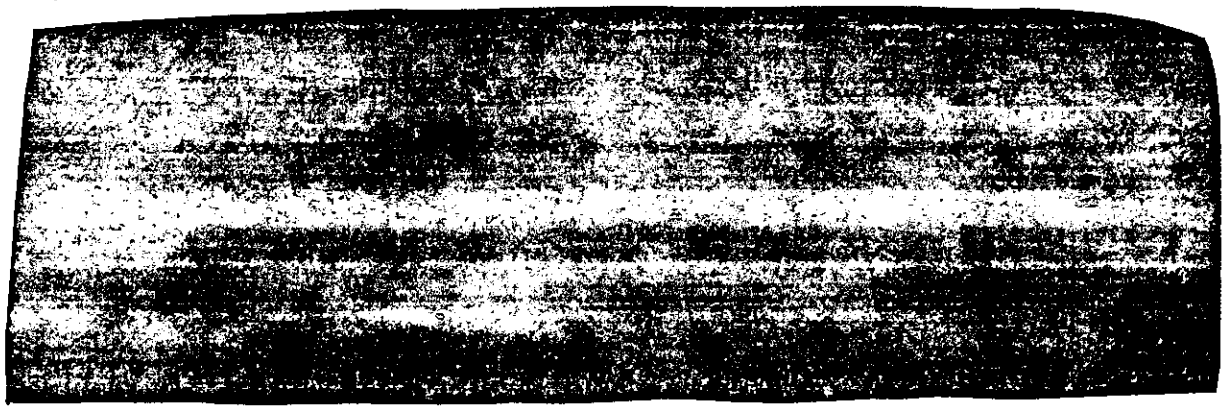
In addition, as I noted earlier, we are procuring 120 river patrol craft (small water jet boats) for use in South Vietnam, financed by reprogramming about $9 million of available funds. We are also testing three air cushion vehicles in South Vietnam.

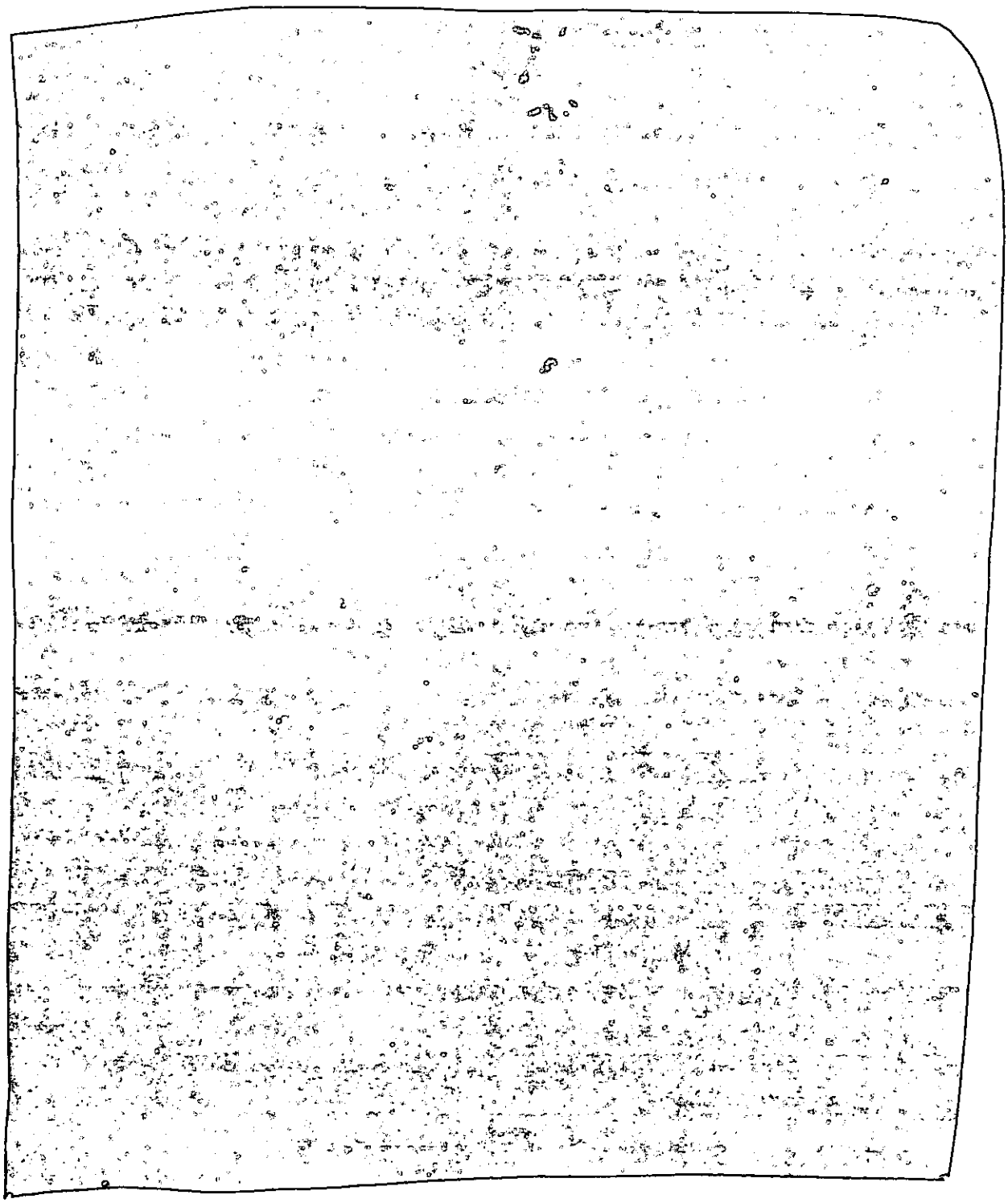
e. Patrol Aircraft

As I indicated last year, we plan to maintain a force of 30 squadrons of ASW patrol aircraft, three squadrons of seaplanes (SP-5s) and 27 squadrons of land-based aircraft (SP-2s and P-3s). By FY 1971, all of the SP-2s will be replaced by P-3s. [redacted]

Beginning with the FY 1968 buy, we plan that all new P-3 aircraft will be equipped with a new avionics system (A-NEW) at a cost of about $1 million per aircraft. This system will greatly improve the effectiveness of the P-3 by increasing its capability to utilize information from either existing or new sensors and by automating more fully the data analysis and correlation operations. [redacted] P-3s will be equipped with the new avionics system by FY 1972. The effectiveness of these and other ASW aircraft will be increased further in FY 1969-70 by the installation of a periscope detection radar and the use of directional JEZEBEL sonobuoys, both of which are now under development.

The patrol aircraft squadrons in the Naval Reserve will be modernized by replacing the earlier SP-2s with the later models as they are released from the active forces.





3. Multi-Purpose Ships

On Table 8, under the heading "Multi-Purpose Ships," we have grouped those ships which possess capabilities for both anti-submarine warfare and Fleet air defense. There will be 265 such ships in the Fleet at the end of the current fiscal year, the bulk of them destroyer types. Sixty-four of them will have a guided missile capability -- 12 cruisers (one nuclear powered), 29 frigates (two nuclear powered) and 23 destroyers -- a net increase of one guided missile ship during FY 1967.

Last year I described the four part program which we were undertaking to improve the air defense capabilities of the Fleet: (1) the TARTAR-TERRIER-TALOS "Get Well" Program, designed to correct deficiencies in missile ships already built or under construction; (2) the SAM (Surface-to-Air Missile) Improvement Program, designed to develop a new and more effective "Standardized" missile for use on both the TARTAR and TERRIER launchers and to provide for the incorporation of other improvements in these systems; (3) the Advanced Surface Missile System (ASMS), designed to provide Fleet air defense for the 1970s; and (4) the Guided Missile Ship Modernization/Conversion Program, designed to improve the air defense capabilities of 22 existing guided missile ships.

Funding for the "Get Well" program has been substantially completed. Necessary hardware is being procured and installed. The SAM Improvement Program is now well underway. Some 100 of the "Standardized" missiles are being procured in FY 1966 (half medium and half extended range) for test, evaluation and documentation. The new missile promises higher reliability, faster reaction time, an improved high altitude and multiple-target capability, and easier maintainability.

Last year, in view of the difficulties experienced with the TARTAR-TERRIER-TALOS systems, it appeared that we should take a completely "clean slate" approach to the development of a new ship-to-air missile system. And because such a system might be very different from existing weapons, it could prove extremely expensive to retrofit into ships built before its general characteristics were established. Therefore, I concluded last year that ". . . no new missile ships should be constructed or additional existing ships converted to missile armament until a completely new surface-to-air missile system is available in the early 1970s." During the past year, the Navy's continuing study of this problem has changed this outlook and it now appears that the Advanced Surface Missile System, which is still in a study and analysis phase, would not be available for introduction into the Fleet until about 1974-75.

[redacted]

Accordingly, we are confronted with the problem of what to do in the interim. It is possible that the Soviets might be able to improve their attack capabilities against naval forces prior to 1975. In that case, some further improvements would be needed in the Fleet's air defense capabilities. Also, the Navy has concluded that by adopting an evolutionary, "building block" approach to the development of a better system for the near term, new ships can be provided with a significantly more effective surface-to-air missile capability than is now available. We, therefore, now propose to start two new guided missile destroyers in FY 1967, at a cost of about $84 million for the lead ship and about $61 million for the follow-on ship, for a total of about $145 million. These two new DDGs will release two less capable DDGs, now assigned to Carrier Task Force Defense, for use with amphibious groups or convoys. This not only reduces our requirement for new DEs, but also increases our overall air defense capability. We are leaving open the decision on the construction of additional DDGs in later years pending further study of our requirements.

The DDGs, proposed for the FY 1967 program, would be significantly more capable than the present DDGs, especially in an ECM environment. Moreover, sufficient space would be provided on these ships for future growth as better electronic equipment becomes available. Initially, these ships will use the TARTAR D, a modified system employing the STANDARD missile, an improved new fire control radar, the latest search radar, and a new digital data handling system. In addition, these ships would be equipped with the Navy Tactical Data System, the variable depth sonar and the SQS-26 sonar, thus providing them a first-class ASW capability.

In addition to these two new ships, we would also continue the Guided Missile Modernization/Conversion Program which I described to you last year. Under this program, four cruisers and 18 frigates would be converted or modernized during the FY 1966-70 period, at a total cost of about $600 million. As shown on Table 9, three of these ships were included in the 1966 program and funds are included in the FY 1967 Budget for six more (one cruiser and five frigates). During the period of actual conversion/modernization, these ships are not considered operationally deployable, which accounts for the slight decline in guided missile ships in the FY 1968-70 period, as shown on Table 8. When this program is completed and the two new DDGs are delivered, we will have a total of 79 guided missile ships in the Fleet, including the six DEGs which I discussed earlier in connection with the ASW forces.

We are also studying the feasibility of providing a "close in" defense system for combat ships to augment their existing air defense capability. The Navy has been experimenting with a short range ship-based version of the air-to-air SPARROW missile and preliminary test and evaluation has produced encouraging results. This system

[redacted]

could be developed quickly,using existing hardware and possibly some components from the Army's MAULER system. The SEA SPARROW air defense system could also be installed on amphibious ships and auxiliaries which at the present time generally have only gun defense against air attack. Presently, $8 million has been included in the FY 1967 Budget for development of this Point Defense Surface Missile System (PDSMS).

The program for other multi-purpose combat ships is substantially the same as the one I presented last year. The principal difference is that we are retaining in the Fleet through FY 1969 six DDRs which received FRAM II modernization in 1960-61. These six ships are in good operating condition and can be used in a variety of missions, including escort duty, during the FY 1968-70 period when a relatively large number of SAM ships will be in conversion or modernization and the DE force will still be building up.

4. Amphibious Assault Ships

Two years ago I presented a program designed to provide a modernized (20 knot) amphibious lift for 1-1/2 Marine Corps Division/Wing teams by FY 1972 plus sufficient older ships to provide a slower lift for another half of a Division/Wing team. This program, as adjusted last year, involved the construction of 65 new ships during the FY 1965-69 period: five AGCs (Amphibious Force Flagship), seven AKAs (Attack Cargo Ship), seven LPDs (Amphibious Transport Dock), four LPHs (Helicopter Assault Ship), 12 LSDs (Landing Ship Dock) and 30 LSTs (Landing Ship Tank). Our goal was to build toward a capability to land about one-third of the assault troops by helicopter, one-third by amphibian vehicles and one-third by either helicopter or landing craft, whatever the specific situation might dictate.

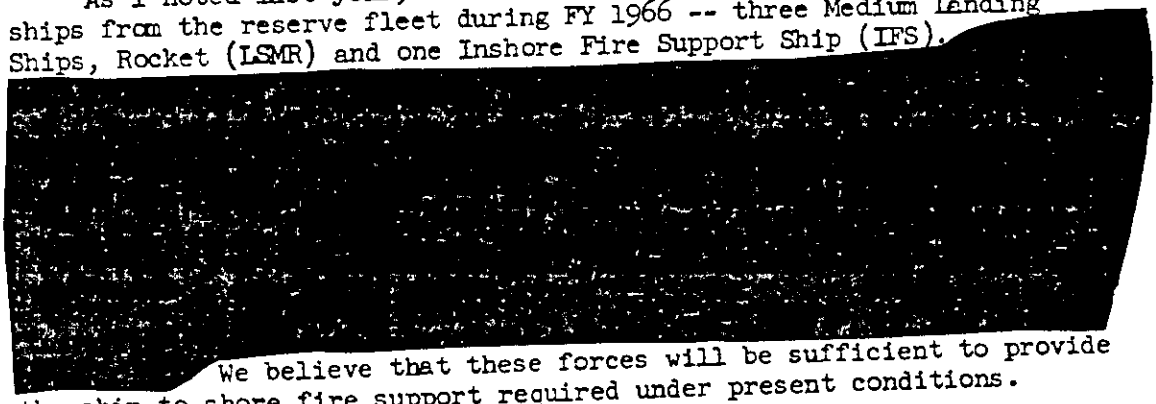
However, further study of this program has convinced us that some modification is desirable. As presently designed, the LPH does not provide for beach landing craft. Thus, if a vertical envelopment operation is not feasible, because of weather or other factors, the troops on board have no method of getting ashore except by borrowing boats from other ships of the task force. In addition, the Navy is considering the desirability of placing some fixed-wing aircraft aboard the LPH to give it some air support capability when operating alone in areas where the air threat is not great enough to justify the presence of an attack carrier. Finally, the Navy is now investigating the possibility of designing a multi-purpose amphibious ship which could combine the features of the LPH, the LPD, the LSD, and possibly of the AKA. Accordingly, we have rescheduled the entire program, first, to provide time to develop a new ship design and, second, to accelerate the construction of LSTs which are now in short supply. (To meet the

immediate requirement for Vietnam, 17 LSTs have been reactivated from the reserve fleet and 11 LSTs now in commission but held in reserve are being brought to full active status.)

We have also dropped one AGC from the program and deferred another from FY 1967 to FY 1969. Two AGCs have already been funded; one will be used in the Atlantic and the other in the Pacific. Since the third is not required until the first of these ships must be overhauled, its construction can be deferred until FY 1969. We now believe that we can operate effectively with only three such ships and the fourth, originally scheduled to be funded in FY 1968, has been dropped from the program.

Under the program now proposed, 12 ships would be started in FY 1967 at a cost of $306 million (11 LSTs and one LSD); 26 ships are scheduled for FY 1968-69 (one AGC, ten LSTs and pending further study of the multi-purpose ship, two AKAs, four LPDs, seven LSDs and two LPHs) -- for a grand total of 38 ships costing about $1.2 billion.

As I noted last year, we are reactivating four "fire support" ships from the reserve fleet during FY 1966 -- three Medium Landing Ships, Rocket (LSMR) and one Inshore Fire Support Ship (IFS).



We believe that these forces will be sufficient to provide the ship-to-shore fire support required under present conditions.

5. Mine Warfare Forces

The mine warfare forces and construction program proposed for the FY 1967-71 period are essentially the same as those presented last year. Five new minesweepers (MSO) will be started in FY 1967 at a cost of $43 million. Another seven will be started in FY 1968, which, together with the four started in FY 1966, will complete the 16 ship program. These new ships will replace the older minesweepers (MSC) which will phase into our Naval Reserve Training Fleet to replace still older ships and expand the force from the present 12 to 19 ships by FY 1972.

[redacted]

We are now accelerating the helicopter minesweeping program which I mentioned last year and have begun procurement of the sweep equipment. We plan to provide this emergency minesweeping capability for about 70 Marine Corps vertical assault helicopters (CH-53As). During FY 1967 we propose to reconfigure 18 of these helicopters to accept the sweep equipment. The equipment will be stowed aboard the helicopter assault carriers where it can be quickly installed in the aircraft as needed. This element of the minesweeping program will give us, at a total cost of only about $12 million during the FY 1967-71 period, a significantly augmented capability to sweep less sophisticated mines which might otherwise delay the landing of an amphibious force.

We also tentatively plan to procure six more helicopters with this emergency sweep capability for use aboard the two mine countermeasure support ships now planned for FY 1969 and FY 1970 procurement. Procurement of the helicopters, at a total cost of about $9 million is scheduled for FY 1970-71.

The FY 1967 cost of the helicopter mine sweeping program is estimated at $3.4 million.

6. Logistical, Operational Support and Direct Support Ships

We presently plan on a force of about 168 logistical and operational support ships at the end of the current fiscal year, slightly more than scheduled a year ago. Because of increased requirements related to Southeast Asia, we have activated eight ships -- two ammunition ships (AE), one oiler (AO), one hospital ship (AH), three gasoline tankers (AOG) and one landing craft repair ship (ARL). Another repair ship (AR), previously scheduled to be deactivated this year, is being retained temporarily for use in Southeast Asia. A number of other changes not related to Vietnam are also being made. These include the transfer of one more icebreaker to the Coast Guard and the retirement of an unseaworthy cable layer (ARC) and two salvage lifting craft.

In FY 1967, we will receive a new fast combat stores ship from new construction and retire an older stores ship (AF), retire two fleet oilers (AO) and transfer the last two Navy icebreakers to the Coast Guard.

[redacted]

For the future, I believe that the number of these fleet support ships can be reduced as faster and larger ships are constructed and delivered. Last year we had tentatively scheduled the construction of 14 ships in FY 1967. However, with all icebreakers being transferred to Coast Guard jurisdiction, the one scheduled for construction in the FY 1967 program has been dropped. We also have deferred procurement of two auxiliary tugs (ATAs) and a fast combat support ship (AOE) until FY 1968. A hydrofoil countermeasures ship (AGHS) has been deferred to permit completion of the testing of the experimental version. Construction of a small replenishment tanker has been rescheduled for the FY 1970 program.

Accordingly, the FY 1967 program now includes eight fleet support ships: two ammunition, one combat stores, two replenishment fleet oilers, two salvage tugs and one fleet ocean tug. Over the entire FY 1967-71 period we have tentatively scheduled the construction of 60 fleet support ships -- at a total cost of approximately $1.4 billion.

7. Other Navy Aircraft

As shown on Table 8, the Navy will gradually reduce the number of Fleet Tactical Support Aircraft from 81 to about 75 during the FY 1967-71 period, as more capable aircraft enter the force. The force presently consists of 31 heavy transports, 14 medium transports and 36 "carrier on-board delivery" aircraft used to deliver high priority items directly to the carrier forces. We will continue our program for modernizing the "carrier on-board delivery" aircraft force, replacing 36 of the older C-1s in the Fleet Tactical Support Squadrons with 30 of the more capable C-2s. Each of the 15 CVAs and eight CVSs will continue to have one C-1 directly assigned to it. (These aircraft are covered in the Other Support Aircraft Category.)

The number of Fleet Support, Other Support, and ~~Missile~~ Mission Support aircraft will gradually be reduced in the future when the older and less suitable aircraft are replaced in the inventory by newer, more effective models.

8. Marine Corps Forces

During the FY 1966-67 period Marine Corps active duty strength will be increased to about 278,000, compared with 190,000 at the end FY 1965.

Shown on Table 10 are the Marine Corps forces programmed for the FY 1967-71 period. As I noted earlier, one division has been added as part of the temporary Vietnam augmentation. To support the additional division we have added a tank battalion, a HAWK battalion and an amphib-

ious tractor battalion. Based on the FY 1966-67 budget assumption, all of these additional units would automatically phase out of the force at the end of FY 1967, as shown on Table 10. The reserve division/aircraft wing team, as I pointed out earlier, is being provided additional personnel to increase its readiness for quick deployment.

At the end of the current fiscal year, the three active Marine aircraft wings will have about 1,202 combat and combat support aircraft, as shown on Table 10. (The aircraft for the reserve air wing are shown together with the Navy's reserve aircraft on Table 11.) The 15 fighter squadrons in these three wings will have a total of 225 operational aircraft, except for FY 1966. The dip in FY 1966 is caused by anticipated attrition in Vietnam. By end FY 1969, all of the older fighters will have been replaced by F-4s armed with SIDEWINDER and SPARROW air-to-air missiles.

The Marine Corps attack aircraft capability will continue to be improved with three squadrons of all weather A-6 aircraft, replacing a like number of squadrons of visual attack A-4s.

Although the number of reconnaissance and countermeasure aircraft remains at 54, beginning in late FY 1968 a new and much more effective countermeasure aircraft, the EA-6B, will be introduced to replace the older and less effective EF-10B. [redacted]

The next category, Tactical Air Control (TAC), is comprised of trainer type aircraft. Because they can carry an observer, these aircraft are effective in locating and spotting targets. In FY 1967 we will introduce a version of the A-4E for this mission and by the end of the decade, the entire force will be equipped with this aircraft.

The tanker-transport forces are about the same as I presented last year. With respect to helicopters, two temporary transport squadrons will be added in FY 1967, and beginning in that year the older CH-37s and UH-34s will be replaced with new CH-53s and CH-46s at a faster rate than contemplated last year in order to meet Southeast Asia deployment requirements, provide for combat attrition in Vietnam and free additional aircraft to equip the reserve aircraft wing. To provide for the higher training load, 48 helicopters (two squadrons) will be diverted temporarily from the reserve forces in FY 1966-67. The increase in the number of light helicopter/observation aircraft in FY 1967 reflects the activation of two new squadrons to support the Southeast Asia deployments and the introduction of the OV-10.

The OV-10 is the counterinsurgency/light armed reconnaissance aircraft (COIN/LARA) which we propose to buy for Marine Corps and Air Force needs. Finally, the number of readiness training aircraft will be increased in FY 1967 to support the higher training load.

9. Navy and Marine Corps Reserve Forces

As shown on Table 11, the Navy will maintain in full operational readiness a total of 50 reserve training ships through FY 1968 -- 38 destroyer types and 12 mine warfare vessels. As more modern ships become available from the active forces, some of the older ships will be phased out, and in FY 1971 the number of minesweepers will be increased from 12 to 17, all of the more modern type.

In addition, as shown at the bottom of the table, the Navy also maintains a large number of ships in the Category B and Category C Reserve Fleets. Unfortunately, the physical condition of many of these ships is such that only a portion of the force is useable at all, and then only after extensive overhaul and modernization. Accordingly, the Navy is making a complete survey of the ships in the Reserve Fleet and has already identified some which have no future usefulness. These ships are being scrapped or otherwise disposed of and the number maintained in the Navy Reserve Fleet is being reduced accordingly. The same situation exists with regard to the vessels maintained for the Navy by the Maritime Commission. As shown on Table 11, many of these ships have already been deleted from the Navy Retention List and some further deletions will be made during the current fiscal year. The ships in this category are mostly non-combatant vessels.

In addition to these naval vessels, the Maritime Commission also maintains a reserve fleet of merchant ships. I will discuss the availability of these ships in connection with the Airlift and Sealift program.

The Naval and Marine Corps Reserve air units are scheduled to be equipped with about 900 aircraft over the FY 1968-71 period. The principal changes involve the addition of approximately 150 helicopters for the Marine Corps Reserve aircraft wing and the reduction of aircraft in the Search Unit category. We had planned about 120 S-2s for the reserve forces in order to provide two squadrons each for six CVSs in the Reserve Fleet. Inasmuch as two of these carriers have limited usefulness because of their present materiel condition and the length of time required to restore them for active service, it was decided not to provide reserve aircraft squadrons for them. Accordingly, only eight squadrons are needed for the remaining four carriers and the number of S-2s planned for the reserve forces has been reduced to 80.

All of the fighters and about one-third of the attack aircraft are earmarked for the Marine Corps Reserve's aircraft wing. The balance of the attack aircraft are for the carrier forces.

10. Navy and Marine Corps Aircraft Procurement

Shown on Table 12 are the Navy and Marine Corps Aircraft Procurement Programs. To continue the modernization of the forces and provide for combat attrition in Vietnam, we now propose to increase the FY 1966 procurement program to a total of 1,129 aircraft and buy another 620 aircraft in FY 1967. You may recall that when I appeared before this Committee last August, I stated that we are planning to increase aircraft production rates by using some of the funds provided in the FY 1966 Amendment for advanced procurement of long lead-time aircraft components. In effect, therefore, we have already started the procurement of these additional aircraft; and the funds required to complete this financing are included in the FY 1966 Supplemental request, raising the total for this year to $2,231 million. The proposed FY 1967 aircraft procurement program would cost $900 million.

In the fighter category, we have increased the FY 1966 buy from 94 to 160 aircraft. Procurement of F-4s in FY 1966 will total 156 (66 more than planned a year ago). Based on current planning assumptions and force build-up schedules, the final procurement of 76 F-4s for the Navy and Marine Corps will not have to be made until FY 1968.

As I noted last year, we encountered a number of problems in the development of the PHOENIX missile and the airborne missile control system for the F-111B. These problems have not as yet been fully resolved and some delay in the program appears inevitable. As a result, we have had to slip the aircraft production program by one year. Procurement of the first operational quantity of the F-111B is now scheduled in FY 1968 instead of FY 1967.

In order to provide for attrition in Vietnam and continue the modernization of the Navy and Marine Corps attack forces, we now propose to buy 315 attack-type aircraft in FY 1966 (101 more than planned last year), and another 230 such aircraft in FY 1967. Included in the FY 1966 program are 46 A-4Es financed in the Supplemental. Although the last procurement of these aircraft was made in FY 1964, the TA-4E, a trainer version of the A-4E (which I will discuss later), is still in production.

Last year we had planned to complete the procurement of the A-6A over the FY 1966-68 period, and 74 aircraft were included in the FY 1966 Budget. We now propose to increase our FY 1966 procurement to 112. Another 66 aircraft are programmed for FY 1968-69 in order to provide for Marine combat readiness training.

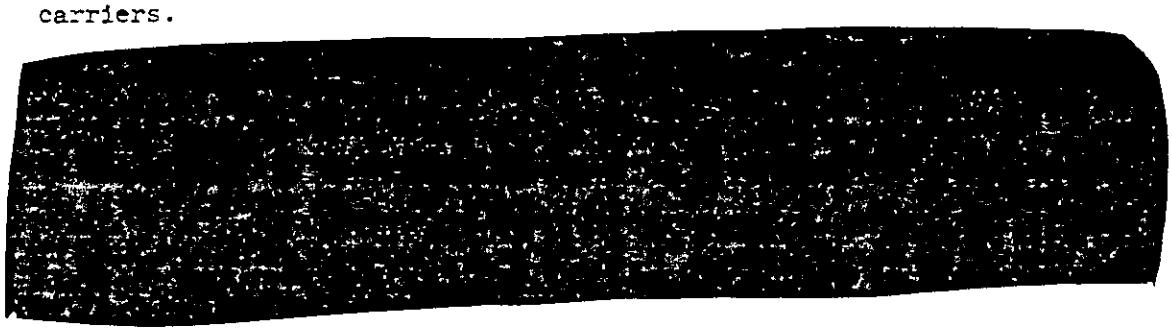
The FY 1966 procurement of A-7As will be increased by 17 aircraft over the number planned last year, for a new total of 157. Another 230 aircraft will be procured in FY 1967 and additional aircraft in later years.

As shown on the table, we propose to make the first procurement of 100 OV-10s (COIN-LARA) for the Marine Corps in FY 1967.

As I noted earlier, we propose to initiate in FY 1966 the development of a new electronic countermeasure aircraft, the EA-6B. We propose to buy the first 13 aircraft this year, tentatively planning on 53 more in FY 1968 and the final 19 in FY 1969.

I pointed out last year that we had encountered difficulties in the development of the radar for the E-2A fleet early warning aircraft. Although these problems have been overcome to some extent, we do not now plan to buy any more of these aircraft, beyond the ten funded in FY 1966. Sufficient aircraft will be available to provide four for each of the 12 attack carrier wings.

The FY 1966 procurement of S-2E ASW carrier search aircraft will be reduced from 36 to 24, reflecting the reduction of one CVS. We have added another 20 SH-3A helicopters in FY 1968 to complete the requirement for the 45 ASW helicopters to be used on the attack carriers.



The helicopter program is essentially the same as I presented last year except that we have increased the number to be procured in FY 1966-67, partly to provide for attrition in Vietnam and partly to release more helicopters to the Marine Corps Reserve aircraft wing. We now plan to buy 258 CH-46As in FY 1966-67 compared with the previously planned 190, and 86 CH-53As compared with the previously planned 64. Our request includes sufficient funds to install the new Integrated Helicopter Avionics System (IHAS) on 177 of the CH-46s. This avionics system permits precise all-weather operations, including close formation tactics.

Twelve, instead of six, C-2As will be procured in FY 1967 and nine more in FY 1968 in order to provide an operating force of 30 aircraft for the Fleet Support Squadrons.

[redacted]

To provide for increased pilot training in support of the Vietnam operation and free some more A-4s for the operating forces, we are increasing our FY 1966 procurement of the TA-4E, from the 73 originally planned to 130. These additional TA-4Es will be assigned to the Combat Readiness Air Wings (CRAWs) and to the Marines.

11. Other Navy Procurement

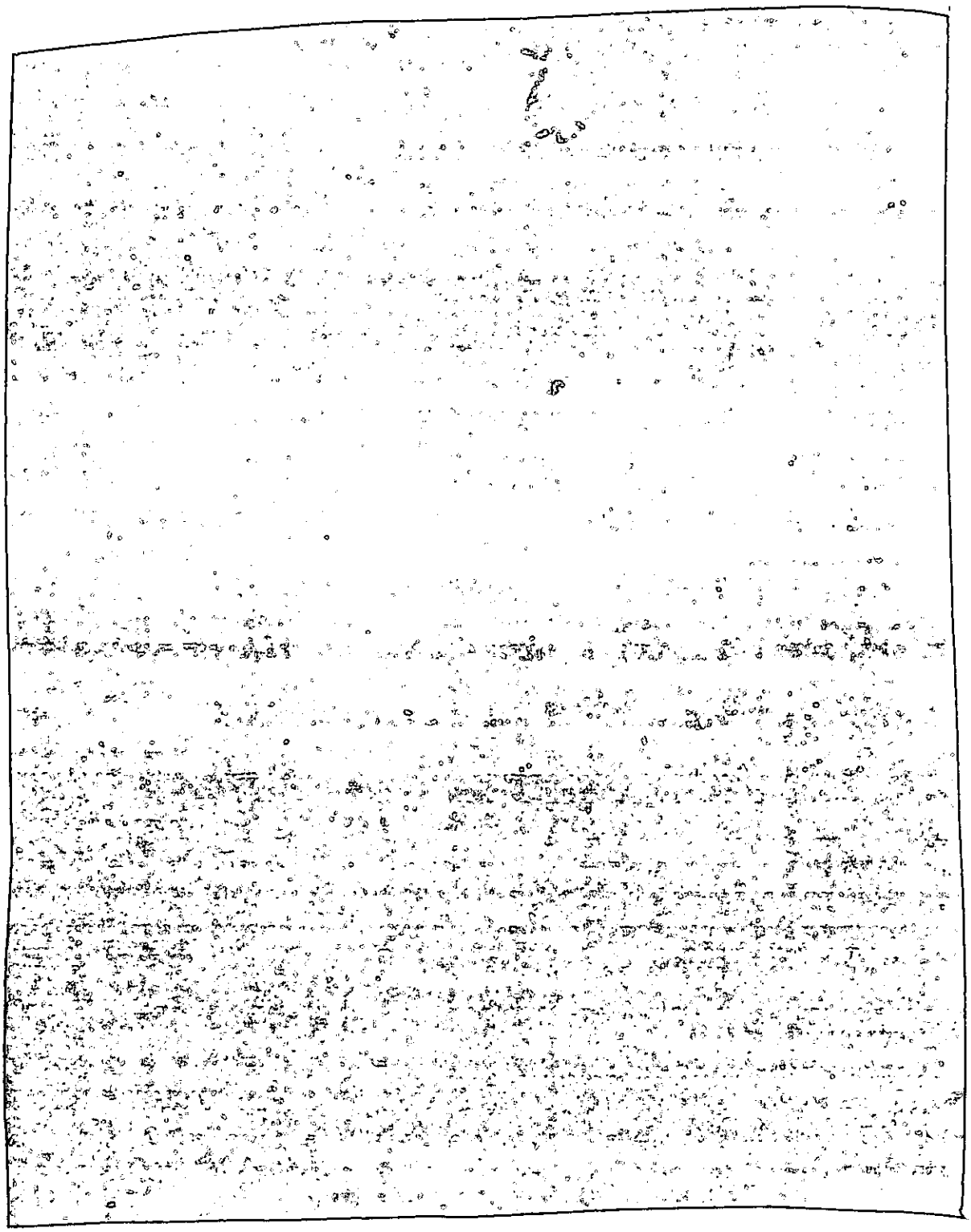
The Navy's logistics objective for FY 1967 is essentially the same as last year, namely, "to acquire sufficient stocks to support [redacted] combat consumption with an average of two-thirds of the force committed." More specifically, we propose to provide ship fills [redacted] of combat consumption for the active Fleet [redacted] high-readiness reserve ships (Category ALPHA). In addition, we propose to provide ship fills, plus [redacted] of combat consumption for one-third of the other selected reserve (Category BRAVO) ships. Anti-aircraft missile requirements are based on our estimates of the number of enemy aircraft that might have to be engaged.

With respect to attack carrier aviation, [redacted]

To achieve these materiel objectives and provide for combat consumption in Southeast Asia through FY 1967, we are requesting about $1,832.3 million for Navy missiles, ordnance, ammunition and other combat consumables; $474.3 million in the FY 1966 Supplemental, and $1,358.0 million in the FY 1967 Budget. With this Supplemental, the amount provided for FY 1966 would total $1,192.4 million compared with $679.4 million for FY 1965.

The largest increases, compared with last year, are in air-to-ground ordnance, reflecting the consumption requirements in Southeast Asia and the expanded logistics objectives. For example, [redacted] BULLPUP B missiles have been added to the FY 1966 program and the total number of MK-82 bombs to be procured has been increased to 258,000. Included in the FY 1967 program are [redacted] MK-81 and [redacted] MK-82 bombs. [redacted] of the new WALLEYE television-guided glide bombs

[redacted]



[redacted]

Accordingly, we are now reviewing the DASH requirement in relation to the cost and effectiveness of alternative systems, such as ASROC or a manned helicopter. The proposed FY 1967 procurement will be sufficient to cover the production lead time until this study is completed, and if the continued use of DASH is indicated, we will still have ample time to provide for additional production.

As I pointed out in previous years, one of our most pressing needs in the ASW area is more modern torpedoes. Last year we requested funds to buy 3,500 of the MK-46 lightweight ASW torpedo. This torpedo is much more effective against high speed, deep diving, nuclear-powered submarines than the MK-44 which it is replacing; and it can be launched by surface ships (tubes and ASROC) and by aircraft (helicopters and fixed-wing). For FY 1967, we propose to buy another [redacted] of these torpedoes at a cost of $137 million.

The first increment [redacted] MK-48 torpedoes for operational evaluation was funded in FY 1966. This is primarily a submarine launched, wire guided, long range, high speed, acoustic homing torpedo for use against deep diving, fast, evasive nuclear submarines. It promises to be much more effective against such targets than the current MK-37. In order to keep the production line open during operational evaluation of the first [redacted] torpedoes, we will begin procurement toward our inventory objective [redacted] with a buy [redacted] in FY 1967.

We have included funds in our FY 1967 Budget for the procurement of 50 mobile torpedo targets for use in the evaluation program. The speed, weight and operating depth of the MK-48 torpedo is such as to preclude the safe use of submarines as targets.

Funds are included in the FY 1967 Budget for [redacted] JULIE sonobuoys to replace peacetime training consumption and [redacted] JEZEBEL sonobuoys for both training consumption and additions to inventory. These are the same procurement levels funded in FY 1966. Finally, the FY 1967 Budget provides for the continued procurement of 3" and 5" shells and 5" rockets to replace consumption in Southeast Asia and to continue the build-up of our stocks of these rounds.

12. Marine Corps Procurement

Our logistics objective for the Marine Corps ground forces is to provide sufficient materiel to equip five divisions and sustain a force of four divisions in combat for six calendar months with five-sixths of the force committed. This works out to a total of 20 division months of combat consumption, of which four months are computed at assault rates (i.e., double the normal rate of combat consumption).

[redacted]

For the Marine Corps aircraft wings, we are providing equipment for four wings (one reserve) and sufficient materiel to support four wings in combat for six months with two-thirds of the force committed, for a total of 16 wing months or an estimated 47,000 combat sorties.

A total of $791 million is now estimated for Marine Corps procurement in FY 1966, of which $517 million is included in the Supplemental request. For FY 1967, $288 million is requested. A large portion ($338 million) of the additional funds requested for FY 1966 is for the procurement of ammunition and ordnance equipment. In FY 1967, we propose to procure about $130 million of such materiel.

The FY 1966 Supplemental includes about $60 million for the procurement of support vehicles and another $41 million is included in the FY 1967 Budget. The FY 1967 program includes about 1,360 1/4-ton, 1,650 2-1/2-ton and 800 5-ton trucks. A large portion of the FY 1966 Supplemental represents initial procurement for the new Marine Division.

In the electronics category, the Marine Corps will buy, in FY 1967, a variety of radar, radio and other communications and electronic gear, at a cost of $72 million, including equipment for the Marine Tactical Data System, the Field Surveillance Radar AN/PPS-6 (a single-man pack radar which replaces a five-man pack radar), Multi-Channel Terminal Equipment which adds additional capacity to existing radios, etc. An additional $43 million has been included in the FY 1966 Supplemental Budget for electronic gear.

E. AIR FORCE GENERAL PURPOSE FORCES

During the past year, we have continued our program of studies to determine the proper size and composition of the tactical aircraft forces. The results of these studies, combined with the impact of the conflict in Southeast Asia, are the source of several recommendations for change in the Air Force General Purpose Forces at this time.

Recent operational experience in Southeast Asia and knowledge gained from a number of practical test exercises conducted last year have convinced us that the capability of our tactical air forces to engage in sustained combat over extended periods of time could be further improved. Our analysis and experience suggest that by adding additional ground equipment, maintenance personnel and spare parts, and by increasing the number of crews per wing, we can raise average aircraft utilization rates from the present 25 hours per month to 40 hours or more. For units engaged in combat, this is equivalent to increasing the attack sortie generation rate by as much as 60 percent. For units engaged in rotational training in the United States, the increased utilization rate means that their task can be accomplished

with fewer aircraft, freeing a greater percentage for use in combat. With more aircraft deployable, and with each aircraft capable of as much as half again as many sorties, we will be able to achieve a very significant increase in effective combat airpower at a relatively modest increase in total operating costs.

However, the full benefits of this program cannot be obtained until the higher manning levels have been actually achieved and the units have received the necessary additional spares and equipment. Exactly how many additional personnel and how much extra equipment can be beneficially absorbed is still unclear and this will require further study before a final decision can be made.

Experience in Southeast Asia has also demonstrated the need to increase our advanced flying training capability. Until just recently, the Air Force has relied on the Combat Crew Training Squadrons for this type of training. In FY 1965, for example, about 14 percent of the operational fighter inventory was allocated to these squadrons. For the kind of sustained operation now planned for Southeast Asia, this allocation of resources cannot provide the number of trained crews required, and the Air Force has found it necessary to use as many as 17 operational Tactical Air Command squadrons as Replacement Training Units. Although these units are still available to meet known commitments and unforeseen contingencies, their deployment would increase yet further the combat crew training requirement. Therefore, we are undertaking a program which will substantially increase the advanced flying training base for all the Air Force General Purpose Forces. Instead of one-eighth of the operational aircraft, about one-fifth will be allocated to this function in the future.

1. Tactical Fighters

As shown on Table 13, we are still programming a tactical fighter force of 24 wings of 1,728 U.E. aircraft to be achieved by end FY 1969 and maintained thereafter, essentially the same size force planned a year ago.

However, there are a number of changes within the force structure and procurement programs that we now believe should be made. For the short run, we want to: (1) replace in the active forces the aircraft lost as a result of combat in Southeast Asia and the higher tempo of operations generally; (2) provide for possible future combat attrition which we must now, in prudence, anticipate; (3) provide for the necessary expansion of the training base; and (4) take advantage of opportunities to improve the operational effectiveness of the present force. For the longer run, we want to obtain a better balance within the overall fighter force between multi-purpose aircraft which, though

[redacted]

capable of both air-to-air and air-to-ground operations, are necessarily expensive, and more specialized aircraft which, though designed primarily for air-to-ground operations, can be procured and operated in larger numbers for the same cost. The net result of this more efficient mix of the two classes of aircraft will be an increase in our overall tactical air capabilities.

As shown on the Table, the number of F-100s in the active force will decline to 576 by the end of the current fiscal year, 81 fewer than planned last year, principally because of combat attrition in Southeast Asia. A further decline is anticipated in FY 1967. However, nine squadrons of Air National Guard F-100s (225 aircraft) are being maintained on a fully ready status and could be quickly deployed, if needed. After FY 1967, the F-100s will be transferred more rapidly to the Guard until they phase out of the active force completely in FY 1971.

Last year we planned on reducing the active F-104 force from two squadrons to one by the end of this fiscal year, transferring the aircraft to the Air National Guard in FY 1967. We now propose to keep both squadrons in the active force through FY 1967.

A year ago, we were tentatively planning to retain the F-105s in the operational force through the end of the decade, transferring a few of them to the Guard in the later years. That program called for 504 F-105s at the end of the current fiscal year. Now, because of attrition and the needs of the expanded training base, we will have 402 F-105s at end FY 1966. In FY 1967, the operational F-105 force will decline to 288, again principally because of projected attrition. In FY 1968, as additional F-4s become available from new production, two F-105 squadrons will be transferred to the Guard, leaving 240 aircraft in the active force. By end FY 1971, all but one wing of the F-105s are now programmed to phase out of the active force into the Guard.

The F-4 has proven very effective in Southeast Asia and we propose to increase the size of the operational force to 936 aircraft by end FY 1969 compared with 873 envisioned last year. This would give us a force of nine squadrons of F-4Cs, 21 squadrons of F-4Ds with improved ground attack features and ten squadrons of F-4Es with both the ground attack features and an improved low altitude intercept capability. We would also build up the F-4 component of the training base.

Last year we were tentatively programming an F-111 force of ten wings although I cautioned at that time that it was too soon to settle on the size of the ultimate force. We believe that with the 210 aircraft force of dual-purpose FB-111s now planned for SAC and the other force changes which I have discussed, we should now program toward an F-111A force of six wings (72 U.E. aircraft each) plus 108 aircraft for the readiness training and rotation base. As shown on Table 13, the first operational F-111As should be available next year and the first full wing by end FY 1968.

[redacted]

As mentioned earlier, one major consideration bearing on the future composition of the tactical fighter forces concerns the question of finding the proper mix of expensive, multi-purpose aircraft and less expensive more specialized aircraft. Our studies during the past year indicate that greater overall effectiveness across the entire spectrum of tactical missions can be achieved by including a substantial number of lower cost aircraft in the forces.

Accordingly, we now propose to procure the A-7 as an attack aircraft for the Air Force. This subsonic aircraft offers several desirable operational features such as relatively long range, a large ordnance carrying capability, long loiter time, and a good close ground support capability. Moreover, the A-7 is relatively inexpensive compared with the F-111 or even the F-4. For planning purposes, we have established a force objective of five A-7 wings plus 25 percent (or 90 aircraft) for the readiness training and rotation base (a total of 450 aircraft). This goal, however, should be considered highly tentative. Although we are sure that we should have some of these more specialized aircraft in the force, exactly how many is still to be determined. As shown on Table 13, the first Air Force A-7s enter the force in FY 1968 and by end FY 1969 there would be seven operational squadrons (168 U.E. aircraft).

The presently proposed procurement schedule for Air Force tactical aircraft is shown on Table 14.

A year ago, assuming an F-4 force of 12 wings, we proposed a FY 1966 procurement of 157 aircraft and tentatively planned on completing the program in FY 1967 with 174 more. Now, to replace Southeast Asia attrition, to provide for the expanded readiness training and rotation base, and to increase the force to 13 wings, we propose to buy 618 F-4s in FY 1966 and 102 in FY 1967. Funds for 157 F-4s were provided in the FY 1966 Appropriation Act; funds for the additional 461 aircraft, except for long lead-time components, are included in the FY 1966 Supplemental. Financing for some of the long lead-time components was provided by transfer from "Emergency Fund, Southeast Asia" appropriations. We are tentatively scheduling the final buy of 32 F-4s for FY 1968.

The F-111A procurement schedule has been changed slightly from that forecasted a year ago in order to accommodate changes in the F-111B program and the decision to procure a bomber version of the aircraft. For FY 1967, we now propose to procure 117 F-111As. The number scheduled for procurement in the subsequent years has been adjusted to the new force goal of six operational wings plus an expanded readiness training and rotation base.

With respect to the A-7, we propose to procure seven of the Navy model this year for test and modification to Air Force requirements. Funds have been included in the FY 1966 Supplemental request for this purpose and for additional production tooling. Funds will also be needed in FY 1967 to develop an afterburner for thrust augmentation to improve the A-7's take-off characteristics from land bases. (In carrier based operations adequate take-off performance is assured by the combination of catapults and the speed of the carrier steaming into the wind.) Although the Marine Corps has catapults for its expeditionary land bases, they are currently considering whether this afterburner would also be desirable for their A-7s. For FY 1967, 99 A-7s have been included for the Air Force. The procurement schedule for future years, shown on Table 14, should be considered tentative since, as I noted earlier, we have not fully determined the future composition of the force.

2. Interceptor Fighters

Last year, we planned on phasing down the F-102s to 98 aircraft by end FY 1966 and on retiring all of them by end FY 1969. We now propose to retain one additional squadron (33 U.E. aircraft) at Clark Air Base in the Philippines through FY 1967.

3. Tactical Bombers

The two B-57 squadrons (48 U.E. aircraft) that we are holding in the force for use in Vietnam are tentatively scheduled to be phased out after FY 1967.

4. Tactical Reconnaissance Forces

The size of the tactical reconnaissance force presently scheduled for the FY 1967-71 period is essentially the same as recommended a year ago, with the force to consist eventually of 20 squadrons of RF-4C and RF-101 aircraft. However, anticipated attrition in Vietnam, together with increased training requirements, is expected to reduce the number of RF-101s available for the operating forces. This shortfall will be made up, initially, by retaining more of the RB-66s and, eventually, by additional RF-4s from new production.

Another 42 RF-4s have been added to the FY 1967 program and 23 more in FY 1968. As these aircraft are delivered, the RB-66s will be phased out and the RF-4 force will be built up to its full, planned strength of 288 U.E. aircraft by end FY 1969.

As a possible future replacement for the presently planned reconnaissance aircraft, we now propose to develop a reconnaissance version of the F-111. This development will be designed to minimize the number

of changes in the aircraft's present configuration and is estimated to cost $50 million, of which $12.5 million is to be reprogrammed from available funds in FY 1966 and $12.5 million is requested in the FY 1967 Budget. No production decision on this aircraft is required at this time.

5. Tactical Air Control System (TACS)

The Tactical Air Control System provides the command and control capability for the tactical air commander in field operations. As shown on Table 13, the Air Force presently has four squadrons (30 U.E. aircraft each) of O-1 aircraft, engaged in forward air control, reconnaissance and surveillance, all in South Vietnam. These aircraft were transferred from the Army, beginning in FY 1964, and are now used principally in locating, fixing and marking targets. We now propose to procure 157 of the more capable OV-10 (formerly the COIN-LARA) aircraft, 11 in FY 1966, 123 in FY 1967 and 23 in FY 1968, to replace the older O-1s and build up the force to four squadrons of 24 U.E. aircraft each by end FY 1969.

6. Special Air Warfare Forces (SAWF)

[redacted] During the last year we have added 39 aircraft, including [redacted] U-10s and [redacted] C-47s for psychological warfare missions (leaflet dropping, etc.), [redacted] AC-47 direct fire support aircraft and [redacted] in Vietnam.

7. Advanced Flying Training

As previously discussed, we are undertaking a substantial expansion of the advanced flying training base for the active forces, to be accomplished initially by using aircraft previously scheduled for transfer to the Air National Guard and, later, by increased deliveries from new procurement. As shown on Table 13, the total number of aircraft assigned to this role will be raised from about 280 at end FY 1965 to about 500 in the FY 1967-71 period.

8. Tactical Missiles

By the end of the current fiscal year, we currently plan that all of the MACE-As deployed in Germany will be phased out as their quick reaction role is taken over by the PERSHING missiles. As the PERSHING build-up progresses, we intend to phase out the remaining 18 MACE-Bs in Germany. The 36 MACE-Bs on Okinawa, however, will be retained throughout the planning period.

9. Air National Guard

To offset the delay in the transfer of aircraft from the active forces, we now plan to retain more of the F-84s and F-86s in the Air National Guard, until the F-100s and F-105s become available. As shown on the table, this will give the Guard about 570 tactical fighters over the FY 1966-71 period. The number of tactical reconnaissance aircraft remains unchanged from that programmed last year.

As I noted earlier, nine Air National Guard F-100 squadrons (225 aircraft) and four RF-84 squadrons (72 aircraft) will be maintained on a fully ready status. Additional manning and training have been provided in the FY 1966-67 budgets for this purpose.

* * * * * *

As shown on Table 14, the Air Force will procure a total of 780 tactical, air control and reconnaissance aircraft for the General Purpose Forces in FY 1966, at a total cost of $2,175 million. (Of this total, 479 aircraft costing $767 million are included in the FY 1966 Supplemental request.) For FY 1967, 485 aircraft costing $1,572 million are requested for these forces.

10. Other Air Force Procurement

For the past several years our logistics objective for the Air Force General Purpose Forces has been support of six months of combat with an optimum balance of supplies for all forces engaged. More specifically, we assumed a tactical fighter force of 1,000 aircraft engaged, flying an average of 21 sorties per month, per aircraft. As an interim goal, we planned to acquire sufficient modern ordnance to support this force for three months, retaining enough of the older ordnance to support the force for another three months.

We now plan to provide a war reserve of non-nuclear ordnance sufficient to support:

a. A force of 1,100 tactical fighters for 45 days of combat in Europe.

b. A force of 800 tactical fighters for six months of combat in the Pacific.

c. The Special Air Warfare Forces, assuming two-thirds of the aircraft engaged, for six months of combat.

d. A force of 60 B-52s for six months of combat.

Combat consumables will also be procured to support the tactical reconnaissance forces, assuming two-thirds of the force engaged, for six months of combat.

In total, these changes serve to raise the FY 1970 inventory objective to about 470,000 tons of ordnance (168,000 sorties) compared with about 220,000 tons (130,000 sorties) envisioned last year.

The Air Force's aircraft non-nuclear ordnance program for FY 1966 totals $1,359 million, of which $738 million is included in the Supplemental request. The proposed FY 1967 program totals $1,780 million. Except in those few cases where existing production capacity makes it impossible, this combined FY 1966-67 funding will fully meet the revised inventory objectives as well as provide for all projected combat consumption in Southeast Asia.

Among the principal items in our programs for these two years are large quantities of "iron bombs" used by our forces (especially B-52s) in Southeast Asia. In total, for FY 1966-67 some $824 million is requested for these bombs, including 368,000 250-lb. bombs, nearly 1.1 million 500-lb. bombs, 533,000 750-lb. bombs and 20,000 1,000-lb. bombs; $138 million is for 568,000 napalm bombs and $542 million is for 2.75 inch rockets and 20 mm ammunition. Nearly 9,200 BULLPUP missiles would be purchased at a cost of $57 million. For "cluster" type weapons, the CBU family and other cannister bombs, $399 million is included for nearly 690,000 units.

We also propose to procure for the Air Force about $107 million of sophisticated special purpose weapons -- 3,600 WALLEYE, 1,000 ROCKEYE and 9,100 SADEYE, and about 2,500 SHRIKE anti-radar missiles costing $48 million.

To date, our military activity in Southeast Asia has involved only a minimal expenditure of air-to-air ordnance and the Air Force's FY 1966 and FY 1967 programs of $30 million and $48 million, respectively, reflect this fact. Almost all of these funds will be used to give some 7,000 FALCON missiles an infrared homing capability and to procure 845 SPARROW missiles.

11. Theater Airbase Vulnerability

For some time, we have been concerned about the vulnerability of our overseas tactical airbases and of the aircraft on them to non-nuclear attack. During the past year, a special Air Force team has

made an extensive analysis of the entire problem of airbase vulnerability -- how bad it is, what can be done about it, and what the benefit of vulnerability-reducing measures would be. As a result, we now know a good deal more -- in particular, that the need for covered revetments, though obvious, is really only part of the problem. There are other things, most of which do not entail large expenditures, that we must do at the same time. For example, we need to protect our supplies of aviation fuel on the bases as well as the tank trucks that take the fuel to the aircraft; we need better protection for our communications facilities, many of which are unnecessarily exposed; we need better provisions for dispersing the aircraft; we need protection around the bases against guerrillas and saboteurs; we need to protect our vital, specialized aircraft maintenance equipment, without which our aircraft cannot operate; we need to "tone down" the visual contrasts on our bases so that an enemy pilot will be denied easy identification; and, of course, we need a rapid runway repair capability. If these things are done, together with the improved Gun/CHAPARRAL/HAWK defenses, described earlier, we can turn a potentially bad situation into one in which the cost to the enemy of attacking our airbases can become prohibitive.

I might also mention our experience in Southeast Asia. During the period from November 1, 1964 through November 18, 1965, the Viet Cong attacked eight airbases. [redacted] While no feasible amount of airbase vulnerability-reducing measures can guarantee immunity from this type of sneak attack, this kind of loss can be cut down drastically.

We have included about $26 million in the FY 1967 budget to get this program underway. While its total cost is still to be worked out, I can assure you that it will be but a fraction of the value of the aircraft alone which we would otherwise lose in an attack on our air bases. Few, if any, other areas in our tactical air program offer so great a potential return on the investment. For the past three years, the Congress has denied our budget requests for tactical aircraft shelters. In view of the seriousness of the vulnerability problem I must once again urge your favorable consideration of this program in our FY 1967 Budget request.

F. TACTICAL EXERCISES

In peacetime, tactical exercises help the General Purpose Forces to maintain a high state of combat readiness, provide opportunities to practice close coordination among the Services and with Allied forces, and furnish a realistic testing environment for new concepts

and weapon systems. However, beginning in FY 1965, the pace of larger scale exercises directed and coordinated by the Joint Chiefs of Staff has slowed down with our increasing involvement in Southeast Asia. Many of the purposes of these exercises are, of course, regularly accomplished in the course of preparing, deploying and actually engaging our forces in Vietnam. For that reason, the cost of such exercises in FY 1965 totaled $42 million compared with $110 million estimated a year ago; and the current year's program is estimated at only $28 million compared with $131 million included in our original request. On the assumption that the situation in Vietnam will continue to require substantial U.S. military participation, the tentative FY 1967 program has been set at $60 million. The actual conduct of the program will be decided as events unfold.

In addition to these larger JCS directed and coordinated exercises, the Services will continue to conduct training and readiness exercises, including a number with elements of Allied military establishments.

G. FINANCIAL SUMMARY

The General Purpose Forces Program, which I have outlined above, will require total obligational authority of $30.0 billion in FY 1966, of which $8.8 billion is included in the Supplemental request, and $25.7 billion for FY 1967. A comparison with prior years is shown below:

($ Billions, Fiscal Year)

	1962 Original	1962 Final	1963 Actual	1964 Actual	1965 Actual	1966 Est.	1967 Prop'd
Total Obligational Authority	$14.5	$17.5	$17.5	$17.7	$19.0	$30.0	$25.7

[redacted]

IV. AIRLIFT AND SEALIFT FORCES

Included in this program are the Military Airlift Command transports, the Air Force's Tactical Air Command troop carrier aircraft, the transport and troop carrier aircraft in the Air Force's reserve components, and the troop ships, cargo ships, tankers and "forward mobile depot" ships operated by the Military Sea Transport Service.

I believe it is apparent from my discussion of the limited war problem and our General Purpose Force requirements that an adequate airlift/sealift capability is essential to our global strategy in the collective defense of the Free World. As I have pointed out in previous years, there are at least four ways in which a quick-reaction capability can be achieved:

1. Military forces can be deployed, in advance, to potential trouble areas.

2. Equipment and supplies can be prepositioned in those areas and military personnel airlifted in as required.

3. Equipment and supplies can be stored aboard ships deployed near potential trouble spots, again with the men airlifted in as needed.

4. Both men and equipment can be held in a central reserve in the United States and deployed by airlift and sealift as required.

Each of these methods has its own advantages and disadvantages. For example, while the prepositioning of our forces overseas probably provides the fastest response capability and reduces the need for airlift and sealift, it also introduces a greater degree of rigidity into our military posture by committing forces in advance. Moreover, this approach increases our overall requirement for men, materiel and foreign bases and involves the operational uncertainties and diplomatic difficulties which often arise from such semi-permanent overseas deployment; it also increases defense expenditures abroad.

In contrast, a central reserve of mobile General Purpose Forces in the United States, ready for immediate deployment provides considerably more operational flexibility and does not require as big an overseas military establishment as does a strategy which relies on such geographically dispersed forces. However, timely deployment from a central reserve requires very large strategic airlift and sealift forces readily available at all times.

[redacted]

[redacted]

The prepositioning of equipment and supplies overseas either in land-based or sea-based depots is something of a compromise between the two extremes. This approach to the problem of quick response, while economizing on manpower, requires larger stocks of supplies, and some manpower, since such stocks must be maintained at each overseas pre-positioning site. And, of course, we must also have the airlift needed to move the men to where they can be joined with the materiel. However, our capacity to move men is far greater than our capacity to move equipment and supplies, and for this reason, prepositioning has proven very attractive in certain situations during the past few years, especially in the case of very heavy and very bulky equipment.

Prepositioning on land, although necessary in many instances, involves in addition many of the same problems encountered in deploying large forces in foreign countries. Political restrictions imposed by the host country can jeopardize the immediate availability of the stocks and thereby limit our own freedom of action. Moreover, maintaining the materiel overseas in a ready-to-use condition can be quite costly, and almost always involves substantial foreign exchange outlays. Also, in places such as Southeast Asia, the costs of maintaining certain types of equipment which are especially susceptible to deterioration in hot and humid climates can be quite high.

It was these factors, in particular, which led us to view with favor the so-called "floating depot" concept which we have developed and expanded over the last few years. By loading the equipment and supplies aboard ships in which the temperature and humidity can be controlled and by stationing these ships in Far East waters, we are able to move the materiel to any part of that area in a matter of just a few days. And the troops can be moved by air well within the time these ships require to get to their destinations.

Although the concept of a mobile central reserve of General Purpose Forces had long been accepted in the Defense Department, the lift necessary to move these forces promptly to where they might be needed had not been provided. Thus, one of the first military measures initiated by President Kennedy in late January 1961 was the expansion of the air-lift. You may recall that in his first State of the Union Message, delivered to the Congress just about one week after his inauguration, President Kennedy said:

> "I have directed prompt attention to increase our airlift capacity. Obtaining additional air transport mobility -- and obtaining it now -- will better assure the ability of our conventional forces to respond, with discrimination and speed, to any problem at any spot on the globe at any moment's notice. In particular it will enable us to meet any deliberate effort to avoid or divert our forces by starting limited wars in widely scattered parts of the world."

[redacted]

A little later, in my appearances before the Congressional Committees in support of the first set of Kennedy Amendments to the FY 1962 Defense Budget, I described the actions we had taken to achieve a prompt increase in the airlift -- the increase in C-130E production, the procurement of C-135s and the acceleration of the C-141 development.

As we continued our reappraisal of the Defense program in the spring of 1961, it became apparent to us that further increases in our overall lift capacity would have to be made promptly. When I appeared before the Congressional Committee in July in support of the third set of Kennedy Amendments to the FY 1962 Defense Budget, I described our plans to reactivate 15 troop transport ships, and enhance the short-term airlift capacity by retaining in the active force a number of transport squadrons previously scheduled to be phased out in FY 1963 and by ordering to active duty a number of reserve transport squadrons. (We also recommended at that time an increase in the amphibious lift for Marine Assault Forces, from 1-1/2 to a full two-division capability.)

These were necessary but only interim adjustments in our airlift/sealift programs. The first comprehensive revision was contained in the initial five-year Defense program (FY 1963-67) which I presented to the Congressional Committees in January and February 1962. This program envisioned a major increase in our overall airlift capabilities. In addition to the procurement of another large quantity of C-130Es, we committed to production the new C-141 with an ultimate goal of 13 operational squadrons. This plan would have increased our thirty-day airlift capability to Southeast Asia from about 14,700 tons in FY 1961 to about 63,000 tons by FY 1967.

With respect to sealift, the Defense Department, as a matter of policy, has traditionally depended on the Merchant Marine, retaining in the military sealift forces only those special capabilities not ordinarily available from commercial sources. Accordingly, we concentrated our attention at that time on roll-on/roll-off and "forward floating depot" ships and I recommended in 1962 a force of seven roll-on/roll-off ships (sufficient to move an entire armored division with all of its vehicles) and a fleet of six rehabilitated Victory ships to serve as forward floating depots.

From that time on we have each year consistently raised our goals both with regard to the airlift and the sealift. We are now proposing an expanded airlift program which will provide by FY 1973 an equivalent 30-day lift capability from West Coast airfields to Southeast Asia of more than 172,000 tons at wartime surge utilization rates compared with the 14,700 ton capability available in FY 1961. This is nearly double the 90,000 ton goal I talked about last year and is to be achieved through two major changes in the program.

First, we are now proposing a program of six squadrons of C-5As (96 U.E. aircraft) instead of three squadrons (48 U.E. aircraft).

Second, as I informed the Committee last August when I appeared in support of the Amendment to the FY 1966 budget, we have substantially increased the planned utilization rates of airlift aircraft by raising the manning levels of selected units, both active and reserve. For example, the Military Airlift Command will raise the peacetime daily utilization rate of its C-130s, C-135s and C-141s to eight hours compared with five hours previously. This will also provide resources to increase the wartime surge rate from eight to ten hours. The planned daily utilization rate of troop carrier aircraft in the Tactical Air Command and in the Pacific Theater is also being increased -- the C-130Es from 1.5 to 5 hours, and the C-130A/Bs from 1.5 to 2.5 hours.

With respect to the intra-theater and assault airlift capability, generally, we will have by end FY 1967 30 squadrons of C-130s (472 U.E. aircraft), including 16 squadrons of the longer range C-130Es. All but two of the C-130 squadrons will have been assigned to the Tactical Air Command or theater air commands, with a primary mission of providing tactical airlift. Moreover, we are now planning to retain in the Air Force Reserve 336 C-119 "Flying Boxcars" through FY 1967 and 208 through FY 1968.

By end FY 1968 we will have more than 700 C-130s and C-141s in the active forces. Like the C-130, the C-141 has been designed to support both the strategic and tactical airlift missions, and its airdrop and assault landing capabilities are now being tested under practical conditions. The two missions, of course, require different training and, indeed, the Military Airlift Command is now cross-training its crews for both missions. Both the C-130s and C-141s are far more efficient for the tactical airlift mission than the C-119s which have a relatively short range and modest load carrying capabilities. The C-141, for example, could be loaded with troops and equipment in the United States and flown directly to battle areas overseas, thus eliminating the need for moving men and equipment by strategic airlift to an overseas assembly point and then loading them on tactical aircraft. Thus, the distinction between the strategic and tactical airlift missions may become less important in the future.

In addition, the Air Force will shortly begin a program to modify 120 C-123 aircraft, now assigned to the Special Air Warfare Forces, with jet engines and anti-skid brakes. These modifications will enable the C-123 to take off and land with a full 21,000 lbs. payload on a 1,300 foot airstrip. Sixty-five of these aircraft are now in Vietnam where they are moving nearly 20,000 tons of cargo per month in tactical missions.

The C-124 also provides a limited but valuable tactical airlift capability. Although it is not designed for forward area assault landing operations, the C-124 can airdrop 112 paratroopers or 22,000 lbs. of high density cargo per sortie. Some of these aircraft have already been transferred from the active to the reserve forces and more will be transferred over the next few years.

Later, as the new C-5As are delivered to the active forces, a large number of C-130s will be transferred to the reserve forces to replace the C-124s.

Over and above these programs, we are re-examining the entire problem of "retail" airlift within the theater. It is clear that an efficient mix of tactical airlift aircraft must be available to assure that our deployed forces can be promptly committed to combat once they deploy to the theater of operations. Exactly what this mix of aircraft should be, however,is still not clear. Therefore, the Services are undertaking a comprehensive study of our tactical airlift requirements for the longer term.

With regard to sealift, we have continued to concentrate our attention on the special purpose ships, increasing the VICTORY-class forward mobile depot ships to 19 by the end of the next fiscal year and adding 18 Fast Deployment Logistic (FDL) ships by end FY 1973.

The ultimate number of FDL ships may be even higher. It is clear from our experience over the last six months that in a limited war it may be desirable to supplement the U.S. Merchant Marine with DoD special purpose shipping.

In a general war there is no question that we can commandeer for military purposes all of U.S. Flag shipping, if required. In a limited war, however, the situation is never as clear cut, particularly in the kind of military operation we are now supporting in Southeast Asia. Yet this is precisely the kind of situation we are most likely to be confronted with in the years ahead.

Even last year I pointed out to the Committee that while we depend very heavily on the Merchant Marine for our sealift, it takes time to assemble the ships and load them. Therefore, if we want a capability to deploy [redacted] we need both additional airlift and immediately available fast sealift. Our immediate problem of sealift in support of our effort in Southeast Asia is being solved by reactivating additional National Defense Reserve Fleet ships and by using whatever other shipping is available, with first priority for "U.S. Flag" vessels. Already we have reactivated 58 ships from the Reserve Fleet. Another 25 ships will be reactivated over the next few months, making a total of 83. These ships, together

with the MSTS nucleus fleet and other available private shipping, should be sufficient to meet our requirement for about 800,000measurement tons per month to Southeast Asia, required in support of the forces which the President has thus far authorized to be deployed. More ships may have to be reactivated if the additional forces earmarked for Southeast Asia are actually deployed.

A. AIRLIFT

Shown on Table 15 are the airlift forces we plan to support through FY 1971. Our present schedule calls for the first two C-5A squadrons to become operational in FY 1970 with two more scheduled during FY 1971 and the entire tentatively-approved six squadron forces by end FY 1972. (The first two squadrons in FY 1970 will be rounded out to 16 U.E. aircraft each by retaining eight C-133s. These C-133s will be phased out in FY 1971.)

The proposed C-5A procurement program is shown on Table 16. Funds for the procurement of the first eight aircraft are included in the FY 1967 Budget. The first large procurement will be made in FY 1968. The design selected is an aircraft of about 700,000 lbs. gross weight, twice that of the largest cargo carrier now in our inventory. The aircraft will be powered by four newly developed turbofan jet engines, each capable of 40,000 lbs. of thrust, and will be able to deliver 250,000 lbs. of cargo over 3,000 statute miles, and 100,000 lbs. non-stop across the Pacific. It will have a rapid loading and unloading drive-through feature plus the ability to operate from short, low-strength airfields. The last is of considerable importance,since it will permit routine delivery of troops and equipment well forward into the theater of operations.

The dimensions of the cargo compartment, which will provide 2,700 sq. ft. of loadable areas (including the ramps), have been very carefully worked out in relation to the typical kind of load this aircraft would have to carry in the deployment of large Army forces from the Continental United States.

For example, the fuselage width will be about 19 ft., making possible the loading of two columns of Army vehicles and cargo pallets side by side compared with one column in the C-141. This would permit a much more efficient utilization of available floor area. The C-141, when used for this kind of load, can carry only about 50 to 55 percent of its maximum structural capacity compared with 90 percent for the C-5A. Because of its better balance between available floor area and maximum structural load-carrying capacity, as well as its other operational efficiencies, one C-5A should be able to do the work of four to five C-141s in deploying typical Army units. Indeed, 12 C-5As could have handled the entire Berlin Airlift which required more than 300 C-54s; and in 13 hours 42 C-5As could have handled the 15,000 troops moved to Europe in Exercise BIG LIFT by 243 aircraft in 63 hours.

Even though the C-5A would be very expensive to acquire -- $3.4 billion for a force of 96 aircraft -- on a ten year systems cost basis (i.e., including the cost of development, procurement and ten years of operation), the C-5A would be a much better buy than additional C-141s.

[redacted]

It would take a force of almost 400 C-141s to do the work of the 96 C-5As. On a ten-year systems cost basis the cost per ton delivered to Southeast Asia, for example, would be about $50 for the C-5A compared with $74 for the C-141 (includes development costs for the C-5A but not for the C-141).

The C-141 program which we presented here a year ago envisioned an ultimate 13 squadron force (208 U.E. aircraft), an FY 1966 procurement of 84 aircraft and a final FY 1967 buy of 31. However, the higher utilization rates we are now planning on, together with increased requirements for training, will result in faster attrition that we would otherwise have had. To make certain that we will be able to maintain the 13 squadron level well into the 1970s and to provide a highly desirable early increase in total airlift capability, we have accelerated C-141 production from seven per month to nine per month and we now propose to buy 19 more aircraft than previously planned -- 16 more in FY 1966 (for a total of 100) and three more in FY 1967 (for a total of 34). This will enable us to achieve a 14 squadron level by end FY 1968 and maintain it through FY 1971.

This expanded C-141 capability, in addition to increasing our overall airlift, will also enable us to make other desirable changes in the force. With an additional C-141 squadron this year, one C-130E squadron (16 U.E. aircraft) will be disbanded and its aircraft redistributed to replace the command support aircraft previously withdrawn from other aircraft units to meet advanced flying training needs. In FY 1967 another C-130 squadron will be converted to C-141s and its aircraft redistributed to other units to help absorb the higher attrition resulting from the stepped up utilization rates. The 30 squadron C-130 force (472 U.E. aircraft) will be maintained through FY 1969 and thereafter will begin to decline as a result of attrition and scheduled transfers to the reserve components.

The C-133s, C-135s and C-124s will continue to be phased out of the active forces as the new aircraft become available from production. The phaseout schedules for these aircraft shown on Table 15 are essentially the same as envisioned last year except that we are now tentatively planning on holding five C-124 squadrons (80 U.E. aircraft) instead of only three into FY 1970 in order to sustain the heavy airlift capability during the initial stages of the C-5A phase-in.

As I noted earlier, we now plan to retain over the next two years a larger number of C-119s in the Air Force Reserve than we had previously planned, primarily to augment the tactical assault capabilities of the active forces until more C-141s become available. We had also planned last year that the Air Force Reserve in FY 1970 would receive three squadrons of C-130s (24 U.E. aircraft) and simultaneously make an offsetting reduction in its C-124 fleet from 152 to 128 U.E. aircraft. Now the Reserve will delay the phase down of its C-124s until FY 1971 when it is scheduled to receive five squadrons of C-130s (40 U.E. aircraft).

[redacted]

The Air National Guard is now scheduled to receive one squadron of C-130s (8 U.E. aircraft) in FY 1970 and four more squadrons (32 U.E. aircraft) in FY 1971. In addition, the Guard will retain six C-97 squadrons (48 U.E. aircraft) in FY 1969, five C-97 squadrons in FY 1970, and one C-97 squadron in FY 1971. These retentions will offset the phaseout of six squadrons of C-124s in FY 1969 and FY 1970 which we had earlier planned to keep.

Eventually, all the C-124s will be phased out of the Air Force Reserve and the Air National Guard and replaced by C-130s, 104 U.E. aircraft for each component.

B. SEALIFT

As previously mentioned, we intend to proceed with the construction of a fleet of Fast Deployment Logistic ships. Last year we requested funds for four of these ships and tentatively scheduled the procurement of two a year throughout FY 1970. Although Congress funded only two of these ships in the FY 1966 budget, all of our analyses during the past year confirm their value to the sealift force. Therefore, we have tentatively scheduled the construction of 16 more in the FY 1968-71 period. However, we propose to build these ships under much the same kind of "total package" contracting procedure used for the C-5A. Our schedule calls for a contract definition competition in mid-FY 1967 with contractor selection and award of the two FY 1966 ships coming in the Spring of 1967. Considering the length of time necessary to make this selection and get production facilities and procedures organized, we have decided to defer further procurement of these ships until FY 1968. However, $10 million in research and development funds will be needed to initiate contract definition and these funds are included in the FY 1966 Supplemental.

As shown on Table 15, the two ships funded this year are presently planned to become operational in FY 1969. The deployment schedule shown for the rest of the proposed FDL fleet should be considered highly tentative, pending the completion of studies on the production method to be used, etc.

The Three VICTORY-class cargo ships which were converted to forward mobile depots in FY 1963 are presently deployed around Subic Bay in the Philippines. Last year we tentatively planned on converting 14 more of these VICTORY ships with the entire force of 17 to be operational by end FY 1967. We now plan to convert an additional two ships to give us a total of 19 by the end of FY 1967 and this force would be retained through FY 1970. As shown on the table we would then begin to phase out these ships in FY 1971 as the new fast deployment logistic ships become available for this role.

One additional general purpose cargo ship was retained in the force last Spring to help meet the increased demands in Southeast Asia. Last year we had tentatively planned on phasing this force down to 12 ships by end FY 1966 and eventually to eight ships by end FY 1970. As shown on the table, we now plan on a slower phasedown, meshing more closely with the deliveries of the fast deployment logistics ships in the FY 1969-71 period.

In the case of special purpose cargo ships, seven LSTs were added in late FY 1965 from the Pacific Command Reserve Fleet to meet Vietnam requirements and one older medium cargo ship was phased out, for a net increase in the force of six ships. Nine more LSTs and two aircraft transports have been added this year raising the total to 60 special purpose cargo ships. One LST must be dropped in FY 1967. After FY 1967 (on the assumption that the Vietnam conflict ends by that time) the number of special purpose cargo ships is scheduled to return to pre-Vietnam levels as the LSTs and aircraft ferries leave the force.

One shallow draft tanker, especially suited for operations in Southeast Asia, has been activated this year, raising the total tanker force to 26. As shown on the table, we propose to keep the tanker force at this size through FY 1971.

The program which we began in FY 1965 of rehabilitating and lengthening the MSTS tankers built during World War II will be continued. Funds for modernizing four of these ships were provided in the FY 1965-66 budgets and additional funds are requested for two more in FY 1967. Tentatively, we plan to continue this program at the rate of two ships per year through FY 1970. We are also studying the desirability of replacing some of these older tankers with new ships.

As mentioned last year, we intend to keep 16 troop ships in the force through FY 1970 as a hedge against emergencies. If not needed in active status, they will be held in ready reserve, manned by a nucleus of civil service crews. Up until last fall, the 16 troop ship force was composed of 13 ships manned by civilians and three ships manned by military crews. We have now activated another three troop ships from the National Defense Reserve Fleet for civilian manning and retired the three military manned ships to reserve status.

C. FINANCIAL SUMMARY

The Airlift and Sealift Forces I have outlined will require Total Obligational Authority of $2.2 billion in FY 1966, of which $0.5 billion is included in the Supplemental request; and $2.1 billion in FY 1967. A comparison with prior years is shown on the following page.

[redacted]

($Billions, Fiscal Years)

	1962 Orig.	1962 Final	1963 Actual	1964 Actual	1965 Actual	1966 Est.	1967 Proposed
Total Obligational Authority	.9	1.2	1.3	1.2	1.5	2.2	2.1

[redacted]

V. RESERVE AND GUARD FORCES

A. GENERAL

In the preceding sections of this statement, I have discussed the Reserve and Guard forces as they contribute to our various military missions. In this section, I will summarize the numbers of men serving on a paid drill status and the costs of the program. The numbers of Reserve and Guard personnel in regular paid training for the fiscal years 1961 through 1967 are shown on Table 17.

As shown on the bottom of the table, we have budgeted for 985,600 Reserve and Guard personnel on paid status at the end of FY 1967. This compares with 1,002,000 at the end of FY 1965 and an expected 1,086,300 at the end of the current fiscal year. Of these numbers, 884,600 personnel are expected to be in a paid drill training status by the end of FY 1967, compared with 990,100 at the end of FY 1966 and 932,100 at the end of FY 1965.

B. ARMY RESERVE COMPONENTS

In accordance with the intent of Congress, we are programming a strength of 270,000 for the Army Reserve through FY 1966. Although about 750 Army Reserve units (with about 55,000 men) which are not required by our contingency plans have been inactivated, the authorized manning levels of remaining Reserve units have been raised sufficiently to accomplish this programmed objective. The Guard's programmed strength for end FY 1966 was raised from 380,000 to 418,500 in order to man the Selected Reserve Force units at 100 percent and other units at their authorized strengths.

In FY 1967, we hope to be able to carry out the realignment plan which was proposed last year and which I discussed earlier. Under this plan, paid drill training strength would total 580,000, including 30,000 to man the Selected Reserve Force at 100 percent.

Because of the demands on the recruit training system we have had to reduce the number of Reserve Enlistment Program (REP) trainees from about 110,000 to about 65,000 during the current fiscal year. However, for FY 1967 we have scheduled 130,000 REP trainees. In addition, the FY 1967 budget provides two weeks annual active duty training for 81,400 Army Reservists, compared with about 78,400 this year.

C. NAVAL RESERVE

For the Naval Reserve, we have programmed a total of 126,000 men on paid drill training status for the end of FY 1967, the same number estimated for the end of the current fiscal year and about 3,000 more than end FY 1965. In addition, about 9,100 Naval Reservists (the same as last year) are expected to perform short active duty training tours during FY 1967.

D. MARINE CORPS RESERVE

Last summer, the Marine Corps Reserve authorized paid drill training strength was increased by 2,500, to a total of 48,000, to increase the readiness of the reserve division/air wing. This strength will be maintained through FY 1967.

E. AIR FORCE RESERVE

The original FY 1966 Budget request provided for 45,800 Air Force Reservists on paid drill training. Last August we raised the manning level of eleven airlift squadrons to full authorized strength and these units were given about 2,200 additional personnel spaces. It now appears that the end FY 1966 strength will be about 47,800 men, slightly lower than planned. We are now in process of modernizing the lift capability of the Air Force Reserve by converting older C-119 units to the more modern C-124. Six squadrons are being converted during the current fiscal year and eight more are now planned for conversion in FY 1967. Also, eight C-119 squadrons previously scheduled to phase out in FY 1967 will be retained. Accordingly, we are requesting a paid drill strength of 50,800 for the Air Force Reserve at end FY 1967.

In addition, 7,500 Air Force Reservists will receive two weeks active duty training during FY 1967, about 2,000 more than the number now estimated for FY 1966.

F. AIR NATIONAL GUARD

The FY 1967 budget provides an end year paid drill training strength of 79,800 for the Air National Guard, the same number estimated for the end of the current fiscal year. As I noted earlier, the Guard was authorized additional spaces last August to raise the manning level of one tactical air control group, nine F-100 squadrons and four RF-84 tactical reconnaissance squadrons to 100 percent of authorized strength.

G. OFFICERS EDUCATION PROGRAM (ROTC)

The Senior Reserve Officers Training Corps represents a primary source of officer input for all of the military services. The Reserve Officers Training Corps Vitalization Act of 1964 (P.L. 88-647) has further enhanced the effectiveness and importance of this program. Under the provisions of this Act, the Army and the Air Force have now been authorized to increase the number of ROTC scholarships from 1,000 per year for each Service in FY 1966 to 2,000 in FY 1967. The Navy, which had previously been authorized to grant such scholarships, will award 5,400 during FY 1967, the same number as in FY 1966. These scholarships provide for tuition, lab fees and books and entitle the recipient to subsistence

pay of $50 per month for four years, compared with $40 per month received by students in the non-scholarship program during the last two years of college.

The new ROTC law also permits colleges to conduct a two-year advanced course, the traditional four-year program or both. We now estimate that perhaps ten to twenty percent of potential officer candidates will delay entering the program until their junior year. An estimated 244,000 students, of which 45,000 are in the third and fourth year classes, are expected to participate in the Senior ROTC program during FY 1967. We estimate that 15,600 will complete the course and become commissioned Second Lieutenants or Ensigns.

An estimated 164,000 students are expected to participate in the Army Senior ROTC during FY 1967, an increase of about 6,100 over the current year. It is estimated that the total production of commissioned officers in FY 1967 will be about 9,880, a decrease of 500 from the number expected this fiscal year.

The Navy's regular (scholarship) ROTC program, as noted earlier, will remain at the presently authorized level of about 5,400 officer candidates in FY 1967. The FY 1967 contract (non-scholarship) program of 3,700 students is about the same as this year's. The regular and contract programs should produce about 920 and 340 officers, respectively, in FY 1967.

Participation in the Air Force Senior ROTC program is estimated at 71,800 students in FY 1967 with a production of 4,500 commissioned officers, about the same as in FY 1966.

Pursuant to the direction of the President, we undertook a study last year of how the Junior ROTC (high school) program could be made more responsive to military requirements and, at the same time, carry out the letter and spirit of the Reserve Officers Training Corps Vitalization Act of 1964. As you know, this Act provided for the expansion of the Junior ROTC program from 287 schools (includes 36 full-time military institutions) to 1,200, at a rate not exceeding 200 schools per year. This study was completed late last fall, and Department of Defense Instruction on implementation and management of the Junior ROTC program was issued in December.

The reoriented program contemplates two significant changes in present practice. First, by using qualified military retirees in lieu of active duty personnel, except in the case of the full-time military

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institutions, the cost per school to the Department in terms of both dollars and trained manpower, will be lowered. Second, by broadening the focus of the program to include students completing their education with high school, we hope to attract them as career enlisted men. To this end, we propose to establish a dual track system consisting of (1) an academic course for college preparatory students and (2) a new course tailored to the interests of the terminal student.

Although we have yet to gain experience with the new program, we have provided in the FY 1967 Budget for the participation of about 490 schools (430 Army, 30 Navy and 30 Air Force), the maximum increase authorized by the new law. A large proportion (90-100) of the 130 National Defense Cadet Corps high schools (all Army) will probably transfer to the Army Junior ROTC program. If the additional 200 schools participate, the Junior ROTC program in FY 1967 will cost $12.1 million compared with $5.4 million in the current fiscal year.

H. FINANCIAL SUMMARY

The Reserve and Guard Forces I have outlined will require total obligational authority of $2.4 billion for FY 1967. A comparison with prior years is shown below:

($ Billions, Fiscal Year)

	1962 Original	1962 Final	1963 Actual	1964 Actual	1965 Actual	1966 Est.	1967 Proposed
Total Obligational Authority	1.7	1.8	1.8	1.9	2.1	2.2	2.4

[redacted]

[redacted]

VI. RESEARCH AND DEVELOPMENT

Included in this major program are all the research and development efforts not directly identified with weapons or weapon systems approved for deployment.

We have made a special effort this year not only to cull out any marginal projects in the FY 1966 and 1967 research and development programs, but also to defer to future years all projects whose postponement would not have a seriously adverse effect on our future military capabilities. But even while we have eliminated, reduced and deferred projects in some areas of this program, we have had to add, increase and accelerate projects in other areas to meet newly recognized urgent requirements.

You may recall that one of the items included in our first set of amendments to the FY 1962 Budget was the sum of $122 million for research and development of non-nuclear weapons and equipment specifically designed for limited wars and counterinsurgency operations. Since that time, we have vigorously pursued our efforts in that area and many of the new weapons, equipment and techniques now being employed in Vietnam came out of this work, e.g., the armed helicopter, jungle communications equipment, battlefield radars, improved night vision devices, defoliation agents, emergency airfield equipment, lightweight body armor, minigun armed aircraft, ammunition for M-79 grenade launchers, jungle boots, [redacted]

Many other items of this type are now well along in development. In order to make them available for use in Vietnam at the earliest possible time, we have undertaken a new effort called Project PROVOST (Priority Research and Development Objectives for Vietnam Operations Support), designed to identify those current R&D projects which could make a significant contribution to our military operations in Vietnam, and which, with additional funds, could be brought to fruition relatively quickly. So far the Military Departments and ARPA have identified over 150 items of this type, and we have already reprogrammed almost $58 million of FY 1966 R&D emergency funds for their support. We are now requesting an additional $152 million for FY 1966 to continue and expand this effort and to meet other urgent requirements. Among the items to be supported with these additional funds are the EA-6B electronics countermeasure aircraft, modifications to the A-7 aircraft to adapt it for Air Force use, modifications to the F-4 to provide a nose gun, improvement to SHRIKE anti-radar missile to make it more effective against SAM site radars,

[redacted]

and a wide variety of surveillance devices, weapons, munitions and personal equipment.

Before I turn to the specifics of the FY 1967 Research and Development program, there are two general areas which might usefully be discussed as entities rather than in terms of the separate projects which they comprise. These are nuclear testing and test detection, and the space development projects.

A. Nuclear Testing and Test Detection

As I pointed out in past years, the Defense Department, in cooperation with the Atomic Energy Commission (AEC), is committed to four specific safeguards with relation to the Test Ban Treaty. For the Defense Department's portion of this program, we have budgeted a total of $239 million for FY 1967, compared with $241 million in FY 1966 and about $250 million in FY 1965 as shown in Table 18.

In support of the first safeguard -- the underground test program -- we have included $28.5 million in the FY 1967 Budget, compared to $30.6 million in FY 1966. The weapons development test portion of this program is the responsibility of AEC while Defense is responsible for the weapons effects tests. During calendar year 1965, Defense conducted and participated AEC's. The other tests are designed to provide data on cratering effects, vulnerability of ballistic missile re-entry vehicles and satellite components transient radiation effects on electronics equipment, etc.

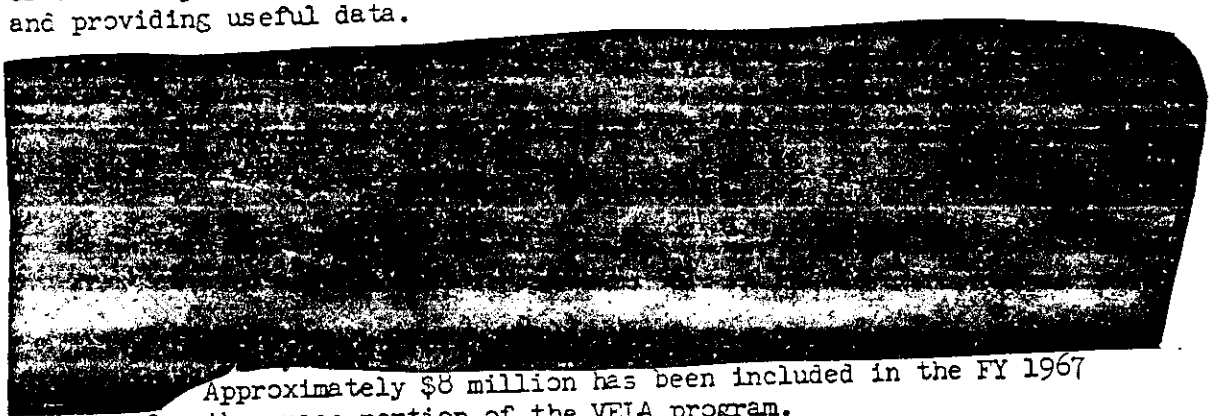
In support of the second safeguard -- maintenance of modern nuclear laboratory facilities and programs in theoretical and exploratory nuclear technology -- our FY 1967 Budget includes $53 million. The character of this program was described to you last year. It continues to meet our objective of attracting and retaining a highly qualified staff of civilian scientists.

About $35 million has been included in the FY 1967 Budget in support of the third safeguard -- the maintenance of a stand-by atmospheric test capability. About $2 million of this amount will be used to improve and maintain the facilities on Johnston Island. The balance is for continued research and development, the procurement of certain improved prototype

test equipr ., maintenance of equipment already on hand, and support of Joint Task Force 8 which has been established to maintain a "readiness-to-test" capability. One exercise designed to verify our ability to resume atmospheric testing promptly was completed in October 1964. Three more exercises were conducted in March, August and December of 1965. We are now confident that we have a capability to resume weapon effects testing in the atmosphere on six-month notice and operational system testing on two or three-month notice. Accordingly, in the future we plan to conduct at least one exercise each year to maintain that capability.

In support of the fourth safeguard -- the monitoring of Sino-Soviet nuclear activities -- we have included a total of $122.2 million in the FY 1967 Budget, compared with $113.5 million in FY 1966 and $111.9 million in FY 1965. We conduct two principal programs to support this safeguard -- the Advanced Research Project Agency's VELA program and the Air Force's Atomic Energy Detection System (AEDS).

The VELA program is directed to the development and demonstration of an advanced surveillance system for detecting, locating and identifying nuclear tests underground, underwater, in the atmosphere and at high altitudes in space. The first VELA space launch occurred in October 1963 when two atomic nuclear test detection spacecraft were placed into a nearly circular orbit at 55,000 n.mi. A second launch was made in July 1964 and the third and fourth VELA spacecraft were successfully placed into similar orbits. The latest launch was made in July 1965 and a fifth and sixth spacecraft were placed in basically the same orbits. These two satellites carried fireball, light and electromagnetic pulse experiments to determine the feasibility of detecting surface and low altitude nuclear tests with satellite-based sensors. They were also provided with a "station keeping" capability which will permit positioning them in orbit for optimum area coverage. All six satellites are still operating and providing useful data.



Approximately $8 million has been included in the FY 1967 program for the space portion of the VELA program.

The VELA underground test detection program is also progressing very well and another $32 million has been included in the FY 1967 Budget to continue this work. The construction of a Large Aperture Seismic Array (LASA) was completed last year in eastern Montana. This array utilizes some 525 detectors buried at a depth of 200 feet and spaced out over an area of 150 by 150 miles. Preliminary results indicate that LASA promises to be an effective system for detecting underground nuclear detonations. Further study will be needed to determine its ultimate capability. We have also included $10 million in the FY 1967 Budget for site survey and design of a system of LASA arrays in other parts of the world, but these funds will not be committed until the effectiveness of the Montana LASA system is fully evaluated.

A significant event in the development of our test detection capabilities took place in October last year when an 80 KT nuclear device was detonated at a depth of 2300 feet on Amchitka Island in the Aleutians. (This was one of the five underground nuclear tests conducted by the Defense Department in 1965.) The seismic waves from this test, designated LONGSHOT, were recorded worldwide by some 250 stations in some 25 foreign countries, as well as by all 525 detectors of the LASA array in Montana. It will take several months before all the data from this shot can be completely analyzed.

The present Air Force Atomic Energy Detection System, designed to detect and identify nuclear detonations, now represents a facilities investment of about $72 million. As I noted last year, we initiated in FY 1964 a six-year program to cost over $100 million to expand the number of stations and modernize the equipment at existing stations. About $46 million of this program was funded in the FY 1964-66 Budgets. Another $16 million has been included in the FY 1967 Budget to continue this investment program and about $46 million has been included for RDT&E and operating costs.

B. SPACE DEVELOPMENT PROJECTS

While the various elements of the Defense Department's space effort are spread, on a functional basis, throughout the program and budget structures, I believe this effort can be more meaningfully discussed as a separate entity. Accordingly, we have assembled on Table 19 all of the major projects and activities which constitute the Defense "Space Program".

Again, I want to remind you that the Defense space program is an integral part of the much larger National Space Program, expenditures

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for which now total over $7 billion a year. The Defense portion of this national program is designed (1) to utilize the space environment for military purposes, (2) to complement the work of NASA and other Government agencies in those fields in which the Defense Department has already achieved a high degree of technical competence, and (3) to explore the usefulness of manned space systems for military purposes. It is not necessary, nor is it justifiable, for the Defense Department to duplicate the work of NASA or any of the other agencies engaged in the national space program. The products of their efforts are fully and freely available to the Defense Department and vice versa. Indeed, military personnel have from the very beginning actively participated in the civilian space program, and there are now about 240 officers assigned to NASA. Most of the NASA astronauts, for example, are military officers.

Accordingly, from the outset, I have laid down two fundamental criteria which the Defense space effort must meet. First, it must mesh with the efforts of NASA in all vital areas, that is, the Defense and NASA programs taken together must constitute a single, integrated national program. Second, projects supported by the Defense Department must hold the distinct promise of enhancing our military power and effectiveness.

Thus, the Defense Department's program will continue to provide, together with the programs of other agencies of the Government, a broad base of technology and experience to permit the timely development and exploitation of space systems and capabilities which may be needed in the future, recognizing that lead times in certain areas such as manned military space operations may be ten years or longer. Speaking broadly, about one-half of the Defense space effort is directly associated with the unmanned military uses of space, while the other half is devoted to the creation of technology for future applications, i.e., exploratory and advanced developments. We can be sure that new discoveries and developments growing out of this effort will eventually open up entirely new applications and capabilities which cannot now be clearly foreseen. At the same time we pursue those efforts whose military applications are evident, we must also insure against an uncertain future by continuing to create a foundation of space technology, knowledge and experience which is sufficiently broad to provide for future applications as they materialize and are identified.

In total, about $1621 million of our FY 1967 Budget request is for the space program, slightly less than in FY 1966.

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1. Spacecraft Mission Projects

The largest space mission project in terms of total program cost is the Manned Orbital Laboratory (MOL). Last year I described four courses of action which we planned to take preliminary to a final decision on proceeding with this program. Briefly they were as follows:

a. The Air Force was to define an experimental program to meet the broadened military objectives of MOL, placing emphasis on developments which might lead to operational systems. The Air Force was also to determine the essential vehicle characteristics required to meet those objectives and, in cooperation with NASA, was to define any additional significant experiments of a general scientific and technological nature which should be carried out.

b. The Air Force was to assess the proposed specifications of a MOL system, i.e., the GEMINI B vehicle, the laboratory section and the TITAN IIIC booster, against the needs of the experimental program. Three preliminary design studies were to be initiated with industry to provide the cost and technical information needed to select the final configuration. The Air Force was also to examine various configurations of the APOLLO system that were being studied by NASA to meet its own objectives.

c. To preserve the option of proceeding with MOL on an orderly basis and to make effective use of the TITAN III R&D flight program, action was to be taken to qualify components of the GEMINI B plus laboratory configuration aboard TITAN IIIC approved development vehicles. (No men were to be carried on these flights.)

d. $150 million was to be included in the FY 1966 Budget for continuing design studies, narrowing the effort to two contractors for program definition and to a single contractor for subsequent full-scale development. The study contractors were to be selected on the basis of their ability to execute development, whether the approach finally selected was the GEMINI B or a version of the APOLLO system. No FY 1966 funds were to be obligated until we were convinced that a satisfactory approach had been found, and that the expected results of the program would be commensurate with the cost.

These actions (including the provision of $150 million in FY 1966) were carried forward during the spring and summer of last year and after

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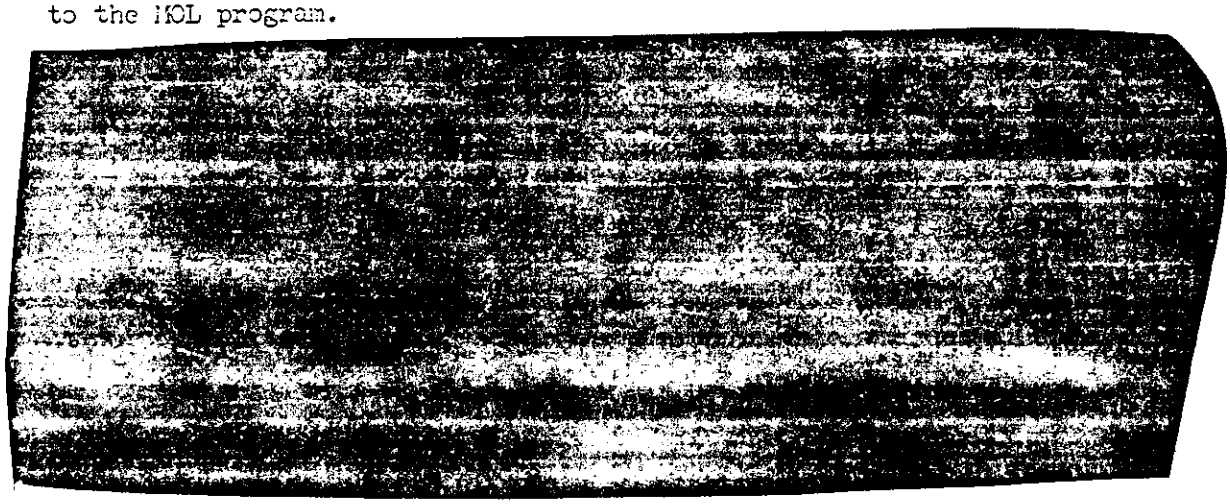
a thorough discussion of the MOL project with the Space Council, the President on August 25th decided to proceed with its development at an estimated cost of about $1.5 billion.

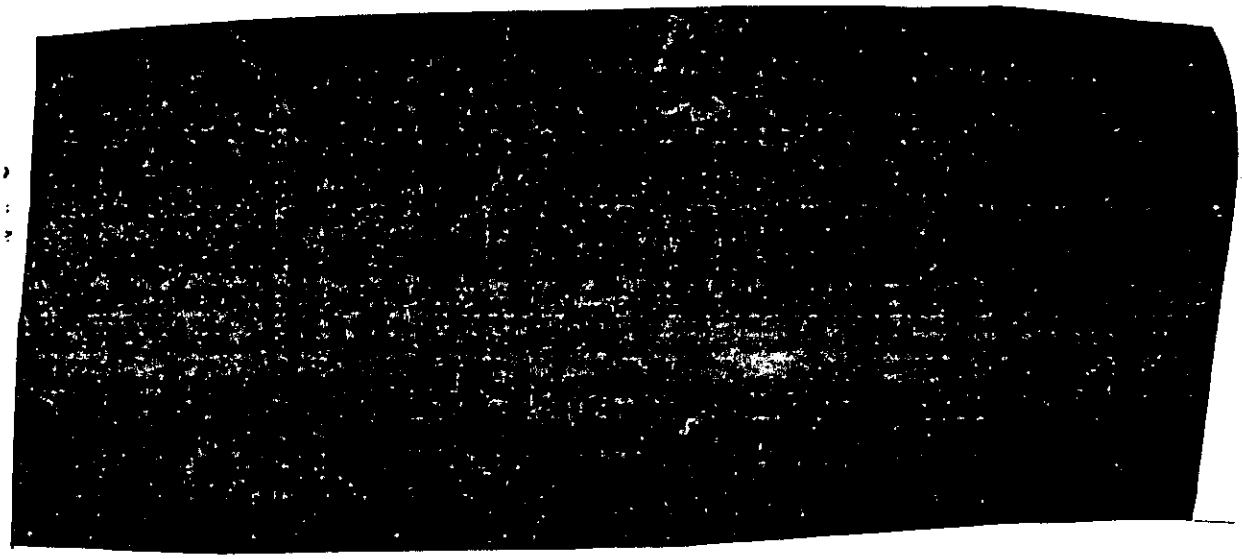
NASA will study the MOL to determine the feasibility of using it for experiments of a general scientific and technological nature. The Air Force will attempt to accommodate these experiments wherever possible as long as they do not seriously interfere with the military objectives. As in the past, NASA and DoD will continue to work closely to ensure that the manned space flight effort of both agencies is fully coordinated and that the program is integrated with the national effort.

The initial MOL astronauts have been drawn from a preselected group of candidates. These men are all military test pilots and graduates of the Aerospace Research Pilot School at Edwards Air Force Base, California. They include both Air Force and Naval aviators.

We intend that the MOL development program should proceed on a deliberate and orderly schedule, using the $150 million provided for FY 1966 and the $159 million requested for FY 1967. Design definition, system integration, development of specifications and determination of firm cost proposals are scheduled for completion during this coming spring and summer, after which contracts will be awarded for the full-scale development of hardware.

The next item, "GEMINI (Manned Space Flight)" represents the Defense Department's participation in the NASA-GEMINI program. The $2 million provided for FY 1966 will complete the remaining military experiments planned through the end of this calendar year. The basic knowledge and experience we are gaining from this project is an important contribution to the MOL program.





I have already discussed the next item, "Nuclear Test Detection (VELA)", in connection with the test ban treaty safeguard. The FY 1967 budget includes about $8 million for this program.

A total of $62 million is requested in FY 1967 to continue work on Defense satellite communications development programs, which I described to you in some detail last year. The first phase of this program is directed towards the design, development, deployment, test and operation of an Initial Defense Communication Satellite system consisting of both the space and surface segments and the overall network control. Twenty-two satellites will be launched into high, randomly spaced equatorial orbits, using a total of three TITAN IIIC boosters. The launchings will take place over the next six months. The ground element will consist of a number of fixed and transportable terminals deployed both in the United States and overseas locations.

The system will first be tested to demonstrate operational feasibility; then it will be used, starting approximately in mid-1967, to provide a world wide operational capability for high priority traffic (up to four voice and two teletype channels). Additional ground terminals will be acquired and deployed to establish the necessary communication links, with priority for Southeast Asia. To sustain this initial capability until the "next generation" equipment becomes available, we plan to be ready to launch additional satellites, as early as two years after the initial launches, should this prove necessary.

I noted last year that, concurrent with the development of the initial system, studies are being conducted to determine the operational

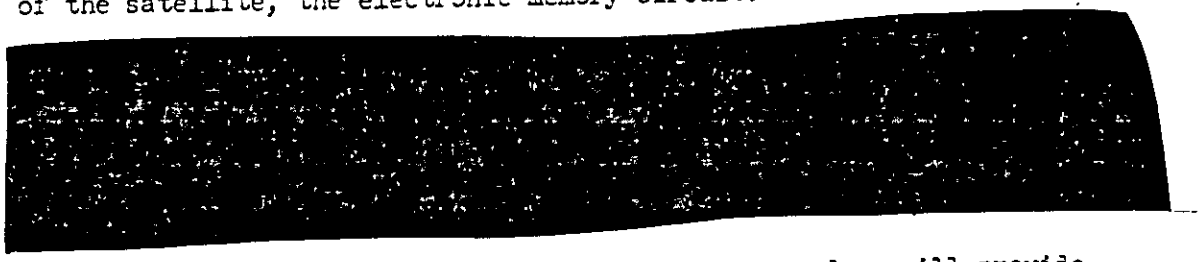
and technical characteristics required for a more advanced and longer life system. When these studies are completed, they will be analyzed to establish a comprehensive technical basis for an advanced Defense communication satellite system for use late in this decade and beyond. We expect this system to provide a significant increase in the effective life of the satellite, greater satellite power and sensitivity, and important advances in the area of anti-jamming and multiple-access techniques. These improvements would enable us to use smaller, less costly surface terminals, thus allowing a greater survivability and flexibility in military uses and deployment.

While such an advanced system would be able to meet some tactical communication requirements, the full potential of satellite communications for tactical use still has to be developed. Our efforts to date have been concerned with providing a relatively few survivable and flexible long distance circuits, primarily between fixed but transportable surface terminals. In order to achieve a long and reliable lifetime in orbit, the satellite design was kept relatively simple; it was also kept lightweight so that it could be launched into high orbit with the boosters then available. Such satellites, therefore, necessitated the use of relatively sophisticated ground terminals.

Now that both satellite and booster technology has reached the stage where we can plan on relatively complex and heavy satellites being placed into high orbit and operating reliably for extended periods, we have begun to study the application of such satellites to the communication problems of the field army, naval forces, aircraft, etc. In these applications, where a very large number of users must be able to communicate with each other, the terminals must be small, lightweight and highly mobile. About $36 million of the $62 million requested for this program in FY 1967 is for the space segment, the launch vehicles and the airborne terminals which are the responsibility of the Air Force. Another $18 million is required for the ground terminals which are the responsibility of the Army. About $5 million is required for shipborne and shore terminals which are the responsibility of the Navy. And, $3.5 million is required for overall engineering and systems management which is the responsibility of the Defense Communications Agency.

Approximately $21 million is required in FY 1967 for "Program 435 (TRANSIT)", the Navy's navigational satellite system. About $18 million of this amount is for annual operating costs, including the purchase of launch vehicles required to replace inoperative or dying satellites. The balance of about $3 million will be devoted to further improvements in the life and reliability of the satellites and to the preparation of

an almanac predicting the orbital paths of the satellites over a six to twelve month period. Presently, master ground stations have to send these data to the satellite every twelve hours for rebroadcast by the satellite during the next twelve hours. The availability of a published almanac would permit simplification of the most complex part of the satellite, the electronic memory circuit.



The FY 1967 request of $7 million for space geodesy will provide the Army about $2 million for satellite geodesy and the Navy about $5 million to man and operate the world wide tracking network. The DoD is participating in the National Satellite Geodetic Program with NASA and other government agencies, and all three Services have geodetic sensors deployed in the NASA GEOS series satellites. In addition, the Army is flying its SECOR (Sequential Correlation of Range) satellite as a secondary payload on NASA, Air Force and Navy launches as a geodetic tool. The Navy continues to operate a world-wide network of geodetic satellite tracking stations in support of the National Program.

2. Vehicle, Engine and Component Developments

The largest project in this category is still the TITAN III development, for which about $66 million is requested in FY 1967. Of this amount, $40 million will be needed to continue the basic development of the TITAN vehicle in accordance with the stretched out schedule discussed last year. The remaining $26 million will be used to complete the development of a seven segment 120 inch solid motor and the changes associated with improving the performance of the first stage liquid rocket engine. Both of these changes are required to give the TITAN IIIC vehicle the increased payload delivery capability necessary for the MOL. The improved performance will also benefit other future user programs, such as the replenishment launches for the Initial Defense Communication Satellite Program and the Advanced Defense Communication Satellite Program.

As will be noted on the table, the total cost of the TITAN III, through FY 1967, is about $955 million. However, this amount includes $84 million in military construction funds for the launch facilities at

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the Eastern and Western Test Ranges. Hence, the basic R&D program is still within the original estimate of $800 to $900 million.

Last year four flights were conducted under the TITAN III R&D program. The February and May flights were of the TITAN IIIA vehicle and were completely successful, leading to the decision to cancel the planned fifth TITAN IIIA flight and convert the remaining vehicle to the TITAN IIIC configuration.

On 18 June 1965, the first TITAN IIIC vehicle was flown. This flight was highly significant in that for the first time the two 120 inch diameter solid motors, developing approximately 2.2 million pounds thrust at lift-off, were successfully flown. All test objectives of this launch were met and all components of the TITAN IIIC were successfully demonstrated in flight. The second and third flights, conducted on 15 October and 21 December, respectively, again successfully demonstrated the performance of the 120 inch solid motors and the first and second stages of the basic vehicle. However, unrelated malfunctions in the maneuvering stage (transtage) prevented the achievement of a completely successful orbital mission in both cases. This is typical of the kind of problems we must expect during the flight test period.

As I noted earlier, three Initial Defense Communication Satellite payloads are scheduled to be launched in the next few months, using TITAN IIIC vehicles. Additional launches are scheduled with a VELA payload, a MOL heat shield qualification payload and other multiple engineering experiments.

Last year we initiated the development of the TITAN IIIX, which uses the basic TITAN III core suitably adapted to carry the already developed AGENA vehicle, to meet certain firm, current military needs for increased payload capacity at the Western Test Range (WTR). TITAN IIIX/AGENA will be able to place about 7,100 pounds in a 100 nautical mile polar orbit, launched from WTR (8,800 pounds if launched from ETR). The program is proceeding on schedule and will be completed with the $70 million of FY 1965-66 funds. The initial launch will be made in the 3rd quarter of CY 1966.

Under the START (Spacecraft Technology and Advanced Re-entry Tests) program the ASSET flight test project was successfully completed in February 1965, at a cost of about $41 million of FY 1961-65 funds. Six flights were made of which five were successful.

The current principal effort under the START program is project "PRIME", for which we included $16 million in the FY 1967 Budget.

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This is a feasibility demonstration of returning a data capsule from orbit using maneuvering during re-entry for more timely and precise recovery at a designated site. The experience and information obtained will contribute to future decisions relative to the development of maneuverable re-entry spacecraft, both manned and unmanned. The program will use four vehicles launched atop ATLAS boosters from the Western Test Range on a sub-orbital trajectory for recovery in the vicinity of Kwajalein Island. The majority of wind tunnel tests have already been completed. A final design is in progress and hardware components are being fabricated. The first vehicle is scheduled to be launched in November 1966 and the final vehicle about July of 1967.

The $2 million requested for Advanced Space Guidance is to support four major tasks: definition of guidance and control requirements for advanced manned orbiting systems and re-entry spacecraft and conceptual development of techniques and components to support these requirements; investigation of horizon sensing techniques and sensors to establish capabilities for precision space nevigation; investigation of star tracking techniques and sensors to determine space capabilities and limitations; study of known and unknown landmark tracking for autonomous space navigation.

The $2 million included in the FY 1967 Budget for "Solid Rocket Engine Development" is for the continuation of studies in large solid motors for future ballistic missile and space launch vehicles. NASA has taken over the funding of the 260" motor development and the Defense Department is concentrating on the demonstration of the 156" segmented motors and supporting technology. The maximum thrust of this latter engine is in the three million pound class.

Two years ago we initiated a new "liquid rocket engine program", designed to demonstrate the feasibility of the modular approach to large rocket engine development. This program now includes two efforts, advanced storable liquid rocket technology and high performance cryogenic liquid rocket technology. The first is designed to provide a technical base for the development of a storable liquid engine of modular construction which would have about double the payload capability, at the same weight, as the TITAN II type booster. The second is designed to provide a technical base for the development of an engine capable of multiple restart, long duration and variable thrust operations, to serve both as a high energy upper stage or, when used in clusters, as a versatile launch vehicle. A sum of $19 million is required for this program in FY 1967.

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3. Other Defense Activities Supporting the Space Program

The Ground Support category shown in Table 19 includes the prorated cost of the missile ranges and test instrumentation as well as the satellite detection and tracking systems. The largest item in this category is the $134 million for the Eastern Test Range.

The next largest item is the ground based system for satellite detection, tracking and control -- "SPACETRACK (USAF)" and "SPASUR (Navy)". These are the field elements of the NORAD Space Detection and Tracking System (SPADATS). SPACETRACK is a global network of conventional radars and optical devices which detect and track satellites to determine their precise orbits. SPASUR is essentially a warning screen which, when penetrated by a satellite, sounds an alarm. The position of the satellite is then determined by triangulation. The FY 1967 Budget includes $33 million for SPACETRACK and $6 million for SPASUR.

The $59 million requested for "Satellite Control Facilities" will continue the modernization and improvement of the existing network of six permanent tracking stations and one control center and provide for the construction of a new permanent tracking station on Guam to replace the temporary mobile unit now being used there. The Guam station is needed to fill a void in present tracking coverage. The satellite tracking and control system provides an "on-orbit" tracking, command and control, data "read-out" and recovery for all major Defense space vehicles except those of the Navigational Satellite program.

The last two categories, "Supporting Research and Development" and "General Support", include a wide range of activities constituting essentially the overhead of the space program.

* * * * *

I would now like to turn to the details of the Research and Development program proposed for FY 1967. As you know, our research and development effort is organized in five sequential steps: Research, Exploratory Development, Advanced Development, Engineering Development and Operational Systems Development. The first four constitute the Research and Development Program; the last, which pertains to systems approved for production and deployment is spread throughout the other major programs.

C. RESEARCH

It is quite apparent from Congressional action on our research and development budgets of the last few years that there is a general uneasiness in the Congress about the "research" area of the R&D program.

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This, as you know, is the effort directed toward the expansion of knowledge of natural phenomena and our environment, and the solution of problems in the physical, biological, medical and social sciences, etc. Still, I believe we can all agree that our military strength a decade or more from now will depend importantly on the skill and energy with which we conduct our current research effort. It is from this realm of ideas and theory that the new devices and inventions applicable to military requirements will eventually emerge. What may be in question, is whether the program, presently, is properly organized and effectively managed.

The Research program consists of literally thousands of individual tasks and projects, most of which involve relatively small amounts of money. For example, in addition to our own in-house laboratories, the Department of Defense supports nearly half of all the academic research in the physical sciences and engineering now being done in American universities and colleges. Obviously it would be impossible to review in the Pentagon -- not to speak of managing from the Pentagon -- each of these individual research grants or contracts. Consequently, we have to manage them on a level of effort basis, and in such a way as to advance our knowledge in a balanced manner across the entire spectrum of science and technology pertinent to the Defense effort.

Since the Department of Defense cannot manage this program in detail, some other method must be used to ensure that at least the overall program is in proper balance and that it is fully responsive to changes in our fields of interest. To meet this need, we have, during the last few years, reorganized the research program into six major categories. This year we are transferring "Nuclear Weapons Effects Research" from the General Support Program to this program where it more properly belongs and, in addition, we are instituting a new activity, the University Program, which I will discuss later.

As shown on Table 20 the first five are categories organized by discipline. This arrangement permits us to examine the internal balance of the program and to shift the emphasis from one area of science to another, as our needs dictate. The effort in each of these categories is in turn divided among the military departments and the Advanced Research Projects Agency (ARPA).

By and large, the allocation of effort by discipline among the components of the Defense Department is based on their primary fields of interest and competency. For example, most of the Defense Department's research in oceanography is done by the Navy, which, obviously, has the primary interest. In contrast, most of the research in biological and medical sciences is done by the Army which, over the years, has developed

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a considerable competency in this field. The small amount of biological and medical science research done by the Air Force is chiefly related to space flight. Similarly, the Air Force predominates in astronomy and in atmospheric and astrophysical research, all of which are directly related to its space mission. Again, the Navy leads in nuclear physics since it is now the principal user of nuclear power (all research on nuclear weapons is, of course, the responsibility of the Atomic Energy Commission).

In view of the Congressional concern with the Research program, which I fully share, and the need to give priority to our Vietnam requirements, we have made a special effort this year to hold the FY 1967 Research program to the lowest feasible level. As you know, we have argued in the past that the Research program should grow at a rate of about ten percent each year. About half of this increase was to offset the rise in research costs, which have been moving up at a rate of about five percent annually. The other half of the increase was to take advantage of the steadily expanding research potential in our universities and colleges where much of our research work is performed. We have always felt that it is extremely important that we maintain our contacts with the creative research people who staff these institutions. These are the people who in the past have been responsible for some of the most important technical improvements in the equipment now being used by our military forces, and we felt that we should not deprive our national defense of the benefits of their creativity.

However, in the light of the present situation, we have decided not to request the usual ten percent increase in research funds; for FY 1967, we are asking a total of $417 million. This is about $27 million more than the $390 million available for FY 1966 with most of the increase ($18 million) devoted to the new "University Program". As I informed the Committee last year, the Executive Branch under the leadership of the President's Office of Science and Technology has undertaken a program to develop centers of technical excellence in <u>all</u> parts of the country, for both civilian and military purposes. The concentration of the government's research effort in a relatively small number of the larger universities has been a matter of concern for many years. The new University Program will seek to broaden the research base by helping other institutions participate in the effort. With regard to the Defense portion of this program, we plan to take the initiative and systematically visit those universities which have not as yet had the opportunity to bid for Defense research work. In the course of these visits, we hope to help these institutions determine their capabilities and inform them on how to prepare proposals. This new effort should help broaden the research base and enable the government to tap the full potential of the Nation's existing capabilities in this area.

I believe it would be useful at this point to review very briefly the character of the Research program as summarized on Table 20.

1. Defense research in the Engineering Sciences, for which we are requesting a total of $119 million in FY 1967, is directed primarily toward the solution of problems anticipated in the development of hardware for future operational systems.

a. Electronics research is concerned with the discovery of new concepts and techniques for the development of electronic devices. This effort has produced the laser and advanced microwave technology and led to the development of more efficient image intensifiers for night vision devices.

b. Materials research is directed toward the development of new compounds, composite structures, plastics and alloys. Recent advances include a much more effective rust inhibitor, an improved rocket propellant binder, light armor, and new ferrites that permit the construction of power transformers which can operate at up to 150 megacycles.

c. Mechanics research investigates the behavior of structures and machines under static and dynamic loads. Considerable progress, for example, has been made in the understanding of target damage from air blast and ground shock, and the relationship of the distance from explosion to the target and the degree of damage to be expected.

d. Energy conversion studies try to improve thermoelectric and solar energy devices. From this effort has come a new 100 watt fuel cell which can be operated on low cost, impure hydrogen.

2. Research in the Physical Sciences, for which we are requesting $95 million for FY 1967, advances our understanding of natural phenomena. Such progress is fundamental to all other research.

a. General physics concentrates on the classical fields of optics, thermodynamics, and statistical mechanics. The largest effort is in solid state physics and is devoted to exploring the nature of crystals. This work is directly applicable to developments in electronics.

b. Nuclear physics is concerned with both nuclear structure and cosmic ray propagation. A better understanding of cosmic rays is of great importance to the safety of men in space.

c. Defense research in chemistry is devoted particularly to the synthesis of new compounds and materials. One of the recent products of this effort is a new polymer plastic which has great stability at high temperatures, an important characteristic for materials used in rocket motor cases.

d. Mathematics research develops new methods of calculating and representing natural phenomena. This work is essential to the full understanding of modern physics, and, in particular, to the correct calculation of missile trajectories and satellite orbits. Because of the complex nature of this work, much of it is done with computers which accounts for the relatively large amounts of funds required for this purpose.

3. Environmental Sciences, for which we are requesting about $57 million, investigate the earth, air and sea around us and are increasingly important as man extends his domain into space and under the sea.

a. Terrestrial sciences support basic research in seismology, geodesy and soil mechanics. These disciplines have laid the groundwork for the detection of underground nuclear explosions, have significantly advanced military mapping techniques by improving aerial photography and have developed new methods of stabilizing poor soils encountered in combat zones.

b. Atmospheric research investigates the air nearest the earth. The study of low level air currents has improved considerably the accuracy of missile launch corrections for wind.

c. Astronomy and Astrophysics are concerned with natural phenomena beyond the earth's atmosphere. Emphasis is given to the investigation of the extraterrestrial atmosphere and its effect on the earth and on space flight. The work is also closely linked to problems of stellar inertial guidance.

d. Oceanography explores the nature of the sea and maps the ocean floor, the knowledge of which is vital to our undersea warfare effort. For example, a better understanding of temperature gradients and their effect on sonar transmission is essential to the improvement of our ability to detect enemy submarines.

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4. Research in Biological and Medical Sciences, for which we are requesting $34 million, is directed toward reducing the impact of military casualties and toward providing the Nation with an adequate posture in chemical and biological weapons and defense. Past efforts in this area, for example, have enormously advanced our techniques for treating serious burns.

5. Behavioral and Social Sciences, for which we are requesting $13 million, concern the psychological and physical factors which influence human performance. This includes the development of new techniques for personnel selection, training and management. We are also investigating how to maximize the efficiency of our equipment in actual operation by tailoring it to the actual strengths and weaknesses of human operators, e.g., designing radar scopes so as to minimize eye fatigue. Information developed by this work has been extensively applied to psychological warfare operations. The amounts shown include funds for ARPA to establish "university centers" in various parts of the country for long range, "in depth" research in the behavorial sciences.

6. The Nuclear Weapons Effects Research program is managed by the Defense Atomic Support Agency (DASA) under the general direction of the Joint Chiefs of Staff and the Office of the Secretary of Defense. The program includes applied research in the fields of air blast, nuclear and thermal radiation, and biomedical, electromagnetic, and other militarily significant effects. (This effort is included in the second of the four safeguards related to the Test Ban Treaty previously discussed.)

7. The In-House Independent Laboratory Research Program, for which we are requesting about $36 million, is a special category under which funds are allocated directly to the laboratory chiefs to be used at their discretion in exploiting promptly new ideas in their respective areas of responsibility. We believe that the use of these funds has considerably strengthened the scientific and engineering competence of the In-House Laboratories. Among the accomplishments achieved through this program are the development of solid lubricants for high temperature machinery and of special chemiluminescent compounds which glow in the dark and are used for signals and landing panels.

8. I have already discussed the University Program which is designed to develop centers of technical excellence.

9. Other Support represents the initial effort to identify the costs of military personnel assigned to the research program.

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Last year I noted that a general upgrading of the utilization of the In-House Laboratories was urgently needed. Significant progress toward this goal has been made. The Office of Laboratory Management has been established within the Office of Defense Research and Engineering to review the management practices of our research facilities. As a result of this continuing review, the Services are establishing new management arrangements for the laboratories under which the latter will have control over a greater share of their resources and be subjected to fewer detailed administrative restrictions on their technical operations.

We have also made further progress in the elimination of unnecessary duplication in research and development. Two new information retrieval systems began operations this fiscal year. The Department of Commerce's Clearinghouse for technical information has begun to process requests from the public for Department of Defense unclassified reports. More recently, we have begun to operate our automated management information system with which we monitor our current R&D work. This system, which I mentioned last year, is based upon standard Research and Technology Resumes which are translated into digital language and stored in computer memories. Scientists and contractors of the Military Services and the Defense Agencies and, by cooperative arrangement, NASA can now query the system for information about projects that may be going on in their fields of interest.

D. EXPLORATORY DEVELOPMENT

This is the effort directed toward the expansion of technological knowledge and the development of materials, components, devices and systems which it is hoped will have some useful application to new military weapons and equipment. Here the emphasis is on exploring the feasibility of various approaches to the solution of specific military problems, up to the point of demonstrating feasibility with a "bread board" device and prototype components and subsystems. Along with Research, Exploratory Development forms the pool of technical knowledge from which future systems will be devised and designed.

Although the Congress has not specifically expressed concern about this portion of the Research and Development Program, it involves many of the same problems encountered in the Research portion. It, too, includes a large number of individual projects, each involving relatively small amounts of funds. Accordingly, the Office of the Secretary of Defense generally reviews the Exploratory Development program on a level-of-effort basis. The Services manage the program on a much more detailed basis.

As I pointed out to the Committee in previous years, we have been working hard to improve the utilization of these funds, particularly in our own

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laboratories, by identifying those management conditions which, in the past, have proved to be highly productive of useful military results and then applying them throughout the Defense establishment. We are also trying to categorize the Exploratory Development projects by area of technology, e.g., communications and electronics, aeronautics, ordnance, materials, etc. in order to gain a better appreciation of the relative emphasis being placed on each area. Although such a breakdown of the Exploratory Development program has been prepared, and is shown by Service on Table 21, the various categories are not yet strictly comparable and, therefore, cannot be properly aggregated into Defense Department totals. Accordingly, I will again discuss this program in terms of organizational components, as I have in the past.

As shown on Table 21, we are requesting a total of $1,063 million for Exploratory Development in FY 1967, $97 million less than the amount provided in FY 1964, notwithstanding the steady rise in civilian wage and salary rates. I believe that this is a good indication of the care with which we have reviewed the exploratory development projects proposed for the coming fiscal year.

1. Army

The Army's Exploratory Development effort is directed to devising new means to provide the front line soldier with effective close support and to protect him against all possible forms of enemy attack.

About two fifths of the Army's Exploratory Development program is concentrated on techniques or equipment directly applicable to front line combat with emphasis on communications and electronics, ordnance and medicine. More specifically, this work includes: counter-countermeasures for rockets; radios, antennas and survival kits specially adapted to operations in tropical jungles; light intensifiers for night vision devices; experimental radar to penetrate foliage; technology to increase the capability of combat surveillance; investigations of new concepts of boats for assault operations and for the emplacement of bridges; new vaccines, techniques to treat burns and prosthetic devices.

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Somewhat less than one fifth of the Army's Exploratory Development effort is divided between aeronautics and materials. Past work in these areas has resulted in a more than twenty percent improvement in helicopter stability, a new helicopter air delivery method, an improved light titanium alloy for aircraft, and expendable paper clothing and linen for use in field hospitals and by rocket fuel handlers.

The balance of the Army's program is devoted to such projects as the development of new support and logistics techniques, automated systems for compiling maps, and improved techniques for construction on ice caps. The Army will also continue to carry out laboratory projects in nuclear effects in support of one of the safeguards to the limited Nuclear Test Ban Treaty.

2. Navy

The principal Exploratory Development effort of the Navy "Sea Warfare Systems" is directed toward achieving better performance in naval weapons and equipment. About forty percent of the $ 304 million requested for FY 1967 will be devoted to this category. Approximately $80 million of that amount is for the refinement of surveillance and navigation devices. Nearly $44 million is for the development of new design concepts for naval vessels, such as the ALBACORE type of submarine hull; captured air bubble ships; bow sonar domes, hydrofoil craft and new hulls to penetrate ice more easily. The remainder of the "Sea Warfare Systems" effort is directed toward better countermeasures, torpedo decoys and logistics. The decrease in funds allocated to this category in FY 1967 does not reflect a de-emphasis of Sea Warfare Systems but rather the maturing of some major efforts to the Advanced Development stage.

With respect to communications, electronics and ordnance, the Navy is especially interested in anti-radiation missiles which can home on enemy electronic emissions and in the development of missiles able to discriminate between enemy small craft and the background radar clutter created by waves. The Navy's work on aeronautics is concerned with the special problems of developing aircraft suitable for carrier operations.

A familiar example of the Navy's effort in the life sciences is part of the SEALAB project in which we are attempting to study how men can live and work at great depths.

3. Air Force

About half of the $316 million requested for the Air Force's Exploratory Development program in FY 1967 will be devoted to space investigations and related projects. This emphasis flows naturally from the fact that,

[redacted]

whereas the problems of operating in the atmosphere are relatively well understood, we are, at this time, really "exploring" space. Currently, the major effort is directed towards achieving better systems for controlling missiles in flight. Particularly, we are working on inertial guidance, spaceborne computer techniques, navigation sensors, methods of identifying targets for missiles, and terminal guidance. We are trying to develop means to make telemetric transmissions more secure and to improve the pumps, nozzles and combustion chambers of the rocket motors. In the area of bioastronautics, we are concerned with designing devices to sustain life in space and to counteract the lethal radiations and extremes of heat and pressure found in that environment.

About one sixth of the total Air Forces' Exploratory Development program will be devoted to the improvement of surveillance techniques. Particular attention will be paid to perfecting our photographic, infrared and electronic over-the-horizon capabilities. New techniques, such as the use of long wavelength radars, are being investigated for reconnaissance in areas of dense foliage.

Finally, the Air Force will continue work on such areas as improving the arming and fuzing of conventional ordnance, better lightweight, high strength alloys, and investigating gravitational and geodetic problems.

For Air Force Exploratory Development Laboratory Support, $97 million is requested for FY 1967. This category reflects the Air Force's traditional method of budgeting separately for these expenses rather than prorating certain of them among the applicable projects as the other Services do. We are taking action to eliminate this difference in the future.

4. Advanced Research Projects Agency (ARPA)

ARPA operates as a small research and development management team, supervising its Service-conducted programs by overall financial control and technical direction. A total of $211 million is included in the FY 1967 program for ARPA's projects in Exploratory Development, compared with $223 million in FY 1966 and $234 million in FY 1965.

a. Project DEFENDER

For Project DEFENDER, which is a broad program of research and exploratory development in the field of ballistic missile defense, penetration aids and defense against satellites, $119 million is requested for FY 1967. About 40 percent of this effort will be devoted to the missile phenomenology program which concentrates on re-entry measurements and includes both full-scale and sub-scale experiments as well as theoretical research. The principal series of full-scale tests is called the Pacific Range Electromagnetic Signature Studies, Project PRESS. This project

involves precise measurements of ballistic missile flight phenomena, and, in particular, the disturbances caused by missiles as they pass through the atmosphere. During the coming year, we intend to emphasize the study of the characteristic wakes by which missiles are principally identified.

More than one fifth of Project DEFENDER is devoted to the investigation of electromagnetic devices which increase the utility and lower the cost of missile defense systems. During the next several years, we plan to experiment with high frequency over-the-horizon radar techniques in an attempt to achieve instantaneous or "real time" tracking of missiles in the launch phase, so as to determine the precise time and place of an offensive missile launch.

The remainder of the DEFENDER effort concerns penetration aids and missile interceptor technology, with principal interest in high acceleration missiles that will maximize the time available for discriminating between enemy missiles and decoys. In the HiBEX (High-G Boost Experiment) program, which is now almost complete, accelerations two to three times greater than that of the SPRINT missile have been obtained. Work is also progressing in ionospheric physics which provides the groundwork for determining the ultimate performance of the long range radars used in missile and satellite defense systems.

b. Project VELA

I have already discussed this project in connection with the Test Ban safeguards program. To continue this project, $49 million is requested in the FY 1967 Budget, somewhat less than the preceding two years due to the completion of certain phases of the work, such as the previously mentioned installation of the LASA in Montana.

c. Project AGILE

AGILE is the research and development effort directed to the special problems of remote area conflicts. Its primary emphasis is on the requirements arising from the unique conditions of insurgency warfare. AGILE, however, is only part of a much larger effort in counterinsurgency research conducted by the Defense Department. Although, the needs of the conflict in Vietnam are receiving our urgent attention, emphasis in this project has been shifted away from "quick fix" solutions to equipment problems, for which the Services have assumed responsibility, to the longer range aspects of counterinsurgency warfare. For example, no funds are requested for weapons research by ARPA in FY 1967.

To deal more effectively with the long-term problems, Project AGILE has now established field offices not only in Vietnam and Thailand, but also regional offices in Lebanon and the Canal Zone. At each location the work is being conducted in close cooperation with the local governments.

Principal attention ... given to the analysis of the specific requirements of ... errilla warfare situations in the respective areas including: ... aerial reconnaissance techniques, battle-field radars and acoustic sensors for personnel surveillance, and systems for village se... ty. The AGILE program's applied behavioral ... less than $2 million is requested for ... study of the political, social, and economic ... icable part of counterinsurgency operations.

This category ... projects which have advanced to a point where the development of experimental hardware for technical or opera- ... prior to the determination of whether the ... r engineered for eventual Service use. In contrast to engine... evelopment where design specifications are employed, advanced dev... pment permits the use of performance specifi-cations which provide ... contractor greater latitude in meeting the requirement, thereby enc... raging innovation. Both the Over-the-Horizon radar and the anti-satellite systems were developed in this category but turned out to be eas... ly convertible to operational systems. To encourage innovation, we plan to continue the advanced development effort at a high level about $835 million in FY 1967 compared with $... million ... FY 1966 ... nd $588 million in FY 1965.

1. Army

The first tw... on the Army's list of advanced developments -- "Operational Evaluation V/STOL" and "New Surveillance Aircraft" -- are both part of a broader Defense Department program for the development of experimental prototype vertical, or short, take-off and landing air-craft suitable for operational testing by the three Services.

... about $380 million has been programmed by the three military departments for this effort, from its inception through FY 1966, including:

... n for five XC-142As, a tilt wing turboprop ... ss weight of about 37,000 lbs., a 4-ton ... a cruise speed of more than 250 knots, and a combat radius of 200 n.mi. The first prototype flew as a conven-tional-type aircraft in September 1964 and successfully transitioned ... ering to conventional flight in January 1965. Technica... operational evaluation is still being conducted on ... aircraft by the Tri-Service Test Group, with participation b... NASA and FAA to ensure maximum use of the knowledge obtained from this program.

b. $31.5 milli... n for two X-22s, a twin tandem, tilting duct, fan-powered fl... ght research vehicle. This aircraft

incorporates a variable stability and control system which enables it to simulate the characteristics of other aircraft designs, thus providing valuable technical data on stability and control criteria for V/STOL aircraft generally. First flight is now scheduled for early 1966.

c. $14 million for two X-19As, another research aircraft with twin turbines and four tandem tilted propellers. Two prototype aircraft were built. First flight was made in November 1963. One of the two aircraft was completely destroyed in a crash last August and the program has now been terminated.

d. $38 million for the XV-6A (P-1127), a British designed, lightweight V/STOL strike-reconnaissance aircraft which was first flown in October 1960. Although the operational capabilities of this aircraft were marginal, it nevertheless promised to provide an early source of technical and operational experience with a V/STOL aircraft in a fighter configuration. Accordingly, in 1962 the United States joined with Germany and the United Kingdom in the further development of this aircraft. A total of nine aircraft have now been constructed under the joint program. The Tripartite evaluation of this aircraft was completed last year. U.S. tests and evaluations will be continued. In addition to the P-1127 program, the U.S. is participating in several cooperative R&D programs with Germany and France which provide for an exchange of technical data on V/STOL technology. The German and French V/STOL projects incorporate variations in airframe and propulsion design which have not been duplicated in the U.S.

e. $4.2 million for two XV-4As, an experimental, augmented jet lift aircraft. The first conventional flight was made in July 1962. The aircraft hovered in June 1963 and transitioned from hovering to conventional flight in November 1963. One aircraft was lost in the spring of 1964. This Army project was completed in May 1965; and the remaining aircraft has now been turned over to the Air Force for further test and evaluation.

f. $16 million for two XV-5As, an experimental, fan-in-wing aircraft. The first conventional flight was made in May 1964 and a full V/STOL transition was demonstrated in November 1964. One aircraft crashed in April 1965 but testing is continuing with the second aircraft.

g. About $120 million for propulsion, including a variety of test engines.

h. About $30 million for other experimental work, studies and analyses.

Although this extensive effort has greatly increased our fund of V/STOL technology, it is clear that the development of a practical V/STOL aircraft will be costly and time consuming. All of the V/STOL aircraft flown so far have experienced stability and control problems. Propeller-driven V/STOL aircraft have also experienced static thrust deficiencies in addition to problems of vibration, noise and reliability of components, particularly in the power transmission systems. We have recognized the need for more effective power plants with considerably higher thrust-to-weight ratios, and last year we initiated two new engineering development projects which I will discuss in connection with the Air Force's Advanced Development program.

Clearly, a great deal of work still remains to be done before we can undertake the full-scale development of an operational V/STOL aircraft. Although we believe that the technical problems can be solved eventually, the military worth of V/STOL aircraft in relation to their high cost has yet to be fully demonstrated. We have included a total of about $72 million in FY 1967 for V/STOL developments compared with $69.5 million in FY 1966.

The $1 million shown under Advanced Development, Army for "Operation Evaluation V/STOL" in FY 1967 is to cover the Army's cost of testing the XC-142A. The $3 million shown for "New Surveillance Aircraft" is for test and evaluation of the P-1127, XV-5A and OV-10A.

The next item on the Army list of advanced developments is the "Heavy Lift Helicopter". This project was started in FY 1963 with the purchase of six off-the-shelf CH-54 "flying crane type" helicopters. These machines, including four in Vietnam (one of which has been lost), are being used to test the feasibility of moving heavy Army equipment over otherwise impassable terrain in support of combat operations. Their performance has been highly satisfactory, and we are initiating production for operational use.

Four million dollars is requested for the "Research Helicopter" development effort. Because there is a practical limit to how fast conventional helicopters can fly, we are investigating compound helicopters which would permit higher speeds. Work currently underway includes preliminary study and evaluation of helicopters with small stub wings and auxiliary propulsion systems.

For "Aircraft Suppressive Fire Systems", $4 million is included in the FY 1967 budget. This program provides for the translation of exploratory research in airborne weapons into prototype hardware. During 1965 a stabilized sight line system was successfully tested for the TOW wire-guided, anti-tank missile in the helicopter role. In addition, work continued on a stabilized optical tracking device and the evaluation of various range finder techniques for helicopter use. The $4 million requested for FY 1967 is principally for the evaluation of the missile subsystems.

The "Automatic Data Systems for the Army in the Field" program is an effort to develop an integrated command and control information system for field army use by applying automatic data processing techniques to the interrelated functions of fire control, intelligence, operations, logistics and personnel. Four million dollars is requested in the FY 1967 Budget to continue work on various aspects of this effort.

The next item, "Surface-to-Air Missile Development (SAM-D)," for which $40 million is requested in FY 1967, is the advanced missile system designed for use against sophisticated aircraft and short range ballistic missiles which I discussed earlier in connection with continental air defense and defense of the Army in the field. The FY 1967 effort is directed toward the start of Engineering Development, assuming that the current contract definition is successfully completed. In addition, investigations are underway to determine the extent to which common subsystems and components could be developed for both the SAM-D and the Navy's Advanced Surface-to-Air Missile (ASMS). The cost of developing the SAM-D is estimated at approximately $550 million (includes $14 million for the predecessor AADS-70 program).

The next item, "DOD Satellite Communication, Ground", is the Army portion of the Defense satellite communications program for which $13 million is required for FY 1967. I discussed this system earlier in connection with the space programs.

The $1 million requested for "Anti-tank Weapons" is to support the development of a stabilized sight for combat vehicles.

The last item, "Limited War Lab", was formerly included in Exploratory Development. But now, in view of its particularly successful development of items for field use in Vietnam, it will be carried under Advanced Development. Specifically, this facility has been responsible for the development of a new high frequency radio, battlefield flares, devices which permit helicopters to lay smokescreens, chemiluminescent markers and panels, and a special item to detect ambushes by reacting to human exudations. A total of $7 million is requested for the Limited War Laboratory in FY 1967.

The $11 million requested for "Therapeutic Development" will provide for accelerated antimalarial research to counter the drug resistant malaria being experienced in Southeast Asia.

[redacted]

2. Navy

The first two items in the Navy list of advanced developments represent the Navy's participation in the Department of Defense V/STOL development program. The $4 million requested for "V/STOL Development" is to continue work on the X-22 which is now being completely funded by the Navy. Test and evaluation of this aircraft by a Tri-Service Group will start this coming May.

I have already touched upon the next item, the "Advanced Surface-to-Air Missile System" (ASMS) for which $2 million is requested in FY 1967. This is the system which we hope will eventually replace TERRIER-TARTAR-TALOS in the mid-1970s. Current technology indicates that a significantly more advanced system is possible although more effective radars and launching systems would have to be developed. As I noted earlier, we are also investigating the possibility of developing some of the subsystems and components so they can be used for both the ASMS and the Army SAM-D. We now plan to go forward first with the development of the SAM-D, utilizing to the maximum extent feasible the technology, components and subsystems developed for SAM-D in the Navy ASMS. Accordingly, the ASMS will be held in the early development stage for another year.

The $2 million requested for the "Landing Force Support Weapon" (LFSW) is to provide for the flight testing of the Army's LANCE missile in a sea environment, i.e., launching the missile from a ship in support of landing forces.

The $13 million requested for "ARM I" is to carry forward the development of a new anti-radiation missile system as a follow-on for the SHRIKE missile in the early 1970s. Excellent progress has been made in the development and laboratory tests of broad band antennas and associated seeker circuitry. Work is progressing on the processing equipment, on the flight testing of guidance hardware and on the airframe and propulsion components.

Advanced ARM technology is a new effort to be initiated in FY 1967, which looks beyond the ARM I. The sum of $4 million is requested to initiate this program in FY 1967.

The $3 million included for "Augmented Thrust Propulsion" is to continue work on an advanced sea-based deterrent, i.e., a broad program of investigation and applied research focused on possible configurations of future sea-based strategic systems from which an advanced weapons system may eventually evolve.

The $3 million requested for "Astronautics" in FY 1967 is for the Navy's portion of the Defense satellite communications program, more specifically, for the development of new ship-based terminals. No additional funds are required for the geophysical satellite (Project ANNA).

[redacted]

The remaining items on the Navy's Advanced Development list are all related to antisubmarine warfare. We have included in the FY 1967 Budget a total of $355.4 million for ASW RDT&E, $90.5 million of which is for Advanced Development.

The first item in this group, "Advanced Undersea Surveillance", includes two projects for which a total of $6 million is requested in FY 1967. The first of these, "ASW Surveillance", for which $4 million is requested, is the combination of the ARTEMIS and TRIDENT efforts. ARTEMIS is a large scale experimental effort in the long range detection of enemy submarines by active sonar.

[redacted] The TRIDENT effort which has comprised a large number of advanced development tasks in the ASW surveillance area will be largely completed in FY 1966. The remaining $2 million is required for a new project, "Inshore Undersea Warfare", which is designed to explore detection techniques to counter very small underwater craft and frogmen attacking ships, harbor installations and amphibious assault areas.

The next item, "Airborne ASW Detection Systems", for which $23 million is requested in FY 1967, includes a number of related projects. One project involves the development of an advanced airborne integrated avionics system to counter high speed deep diving submarines. This is the A-NEW system which I discussed earlier in connection with the P-3 program. Another project is concerned with the development of an ASW helicopter-based detection system which could shift from the search to the attack role without loss of target contact. Development work on this system will be completed with FY 1967 funds and only test support funds will be required in subsequent years. Work is also being conducted on an active sonobuoy system which will be sufficiently accurate to allow ASW aircraft to attack submarines

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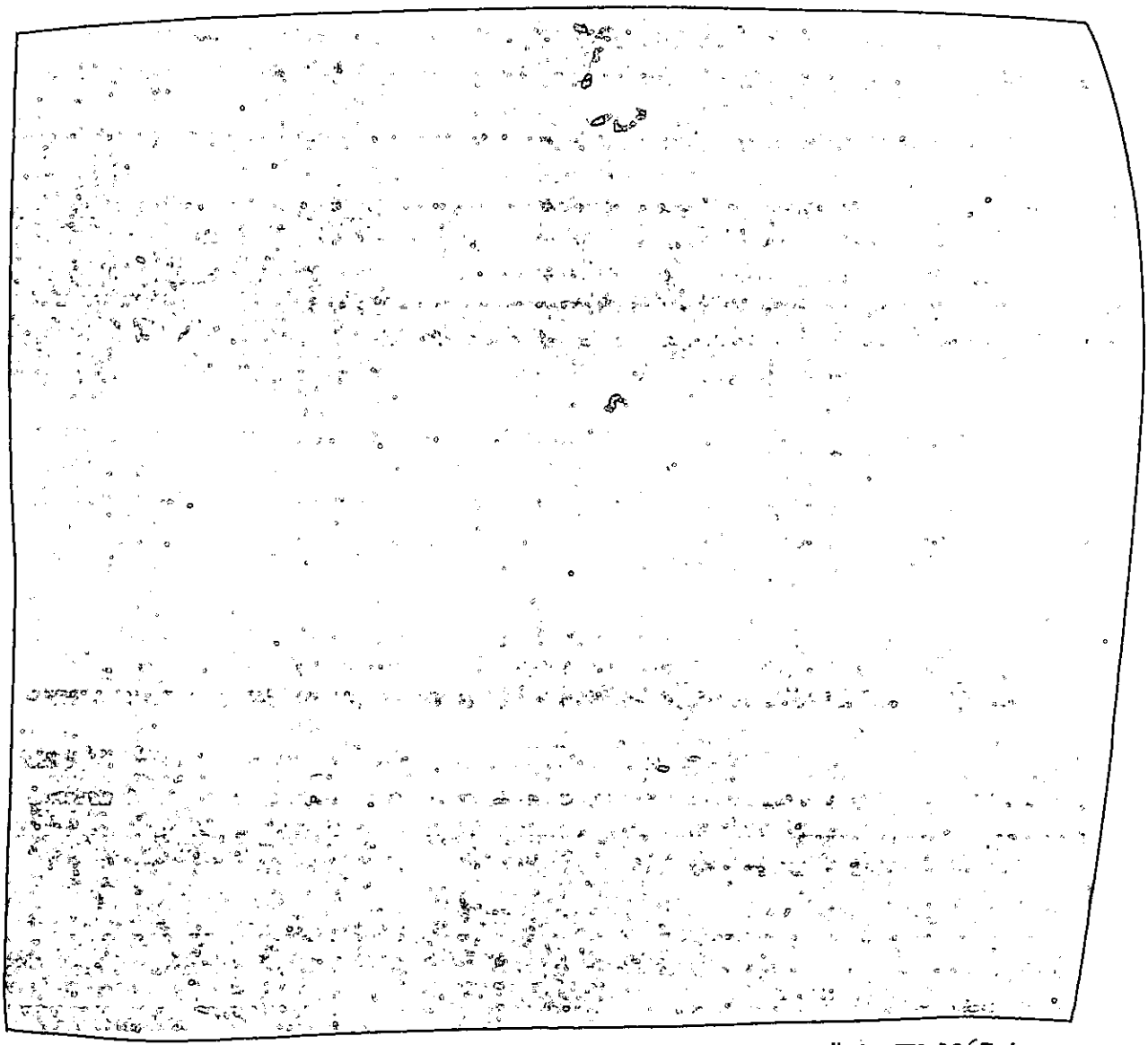


The $4 million requested for "Advanced Surface Craft" in FY 1967 is for the evaluation of the 110 ton, 45 knot hydrofoil patrol craft (PCH) already completed and the 320 ton, 50 knot hydrofoil auxiliary ship (AGEH) to be completed this spring. This evaluation effort will concentrate on hydrodynamics, structure, propulsion and control systems in order to determine the utility of these ships in the ASW and other roles. In addition, new concepts such as air cushion ships, ski craft, etc., will be investigated. One of the most interesting of these new concepts is the "Captured Air Bubble (CAB) Ship", a 50 foot working model of which has been demonstrated at the David Taylor Model Basin. This ship rides on a bubble of air trapped beneath it by means of a system of sideboards and flaps, thus greatly reducing drag. Calculations indicate that it may be possible

to build even larger models in the several-thousand ton class which could operate at speeds of 100 knots, or more, through eight-to-twelve foot waves.

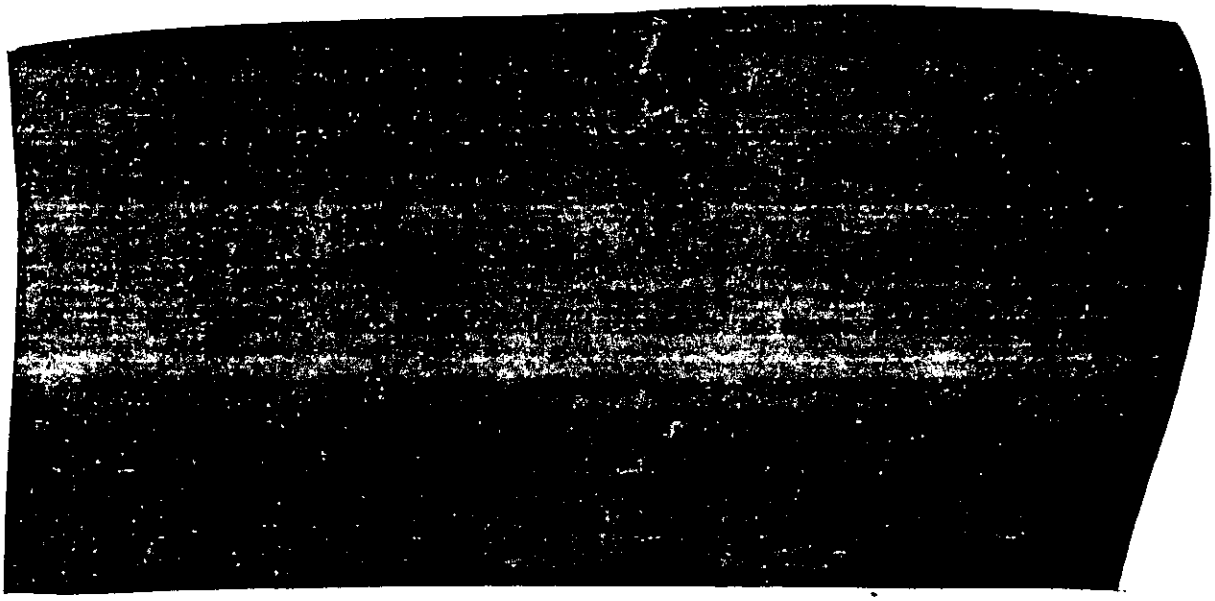
One of the important efforts being pursued in FY 1967 is the "Deep Submergence Program" for which $22 million is requested. This program is concerned with the exploration and exploitation of the continental shelf and the ocean depths including: extended manned operation at air pressures corresponding to 600 feet depths; submarine personnel escape and rescue down to depths of 2,000 feet; the location, identification and recovery of small objects down to depths of 20,000 feet; the recovery and salvage of large objects in depths down to 600 feet; deep diving submersibles; and oceanographic research. Included in this program are the SEALAB II experiments which were completed last year. Work on the first prototype rescue vehicles will be started early this year.

The program "Reactor Propulsion Plants", for which $13 million is requested in FY 1967, covers two major projects. One of these is directed to the development of a "natural circulation" nuclear power plant which would provide a quieter, safer, more reliable propulsion plant for submarines. This project will require $5.5 million in FY 1967. The second project is directed to the development of a [redacted] nuclear propulsion plant suitable for use on attack carriers. This project was started last year and the $7.5 million included for FY 1967 will complete the Navy's share of the development (propulsion plant machinery as opposed to the reactor development of the AEC), and will provide for testing certain prototype components.

As I told you last year, the "SEA HAWK/ASW ESCORT" project was being reduced from a full systems development to work on the principal components. The first of these projects, "Combined Gas Turbine Propulsion", is concerned with the overall performance and potentials of ship-based gas turbine machinery and will require $5 million in FY 1967.

The second is the "Active PLANAR Array Sonar" for which $10 million is requested for FY 1967. This sonar would be built into the hull of the ship, thus providing a much larger radiating and receiving aperture. Its performance would be far superior to that of current sonars in terms of detection ranges and maximum ship speeds at which effective sonar operation is possible.

The "ASW Ship Integrated Combat System", for which $9 million is requested, now includes two items -- 'ASW Ship Command and Control", formerly carried in engineering development, and the 'ASW Ship Integrated Combat System". The former will investigate the cost and feasibility of developing a single system which would integrate command and control with the control of weapons and the sonars. Five million dollars will be required to install experimental systems in one CVS and two DEs in CY 1967. The remaining $4 million is required for the 'ASW Ship Integrated Combat System', a longer term development which will build upon the technology gained from the preceding effort.



3. Air Force

The first five items on the Air Force list of advanced developments are all part of the V/STOL aircraft technology program discussed earlier.

The $3 million for V/STOL Assault Transport (CX-6) will support preliminary studies for the development of a full-scale prototype aircraft capable of carrying a 17-1/2 ton payload over an operating radius of about 250 n.mi. This airplane's design payload would be more than four times that of the XC-142A.

The $10 million requested for Tri-Service V/STOL development will continue operational evaluation of the XC-142A.

The "V/STOL Aircraft Technology" program for which $3 million is requested in FY 1967, will provide for evaluation of various domestic and foreign V/STOL concepts, designs and equipment with a view towards the eventual design of a common operational V/STOL fighter aircraft. The Federal Republic of Germany is funding parallel studies under a joint program.

The $20 million requested in FY 1967 for "V/STOL Engine Development" provides for the development of two different types of engines -- the first, a pure lift engine and the second, a lift cruise engine which can deflect its thrust to produce lift during takeoff and landing and also be used for forward propulsion. During the past year we entered into a joint development effort with the United Kingdom for the pure lift engine, the total development cost of which is estimated at about $40 to $50 million. Under this agreement, U.S. and U.K. contractors will have an equal opportunity to bid for the work and each nation will finance the work of its own contractors. The total development cost of the lift cruise engine is estimated at $100 million.

The fifth project, for which $6 million is requested in FY 1967, is "Lightweight Turbojet" and is intended essentially to demonstrate the technology for lightweight turbojet engines for various purposes including V/STOL. The thrust-to-weight ratio being obtained with the present demonstrator test lift engines is about 18 to 1, much higher than existing engines.

The next two projects which were discussed briefly in connection with our future manned bomber defense program -- "Overland Radar" and "AWACS" -- are closely related. The first, for which $12 million is requested in FY 1967, is concerned with the development of the radar technology which would be needed in airborne warning and control systems such as the Air Force's Airborne Warning and Control System (AWACS) and the Navy's Advanced Airborne Early Warning Aircraft. For these missions we need a radar capable of detecting and tracking airborne targets over land in the presence of severe ground clutter. With respect to AWACS, studies are now underway to define the technical performance characteristics of the entire system, preparatory to contract definition for development prototypes. The $3 million requested for AWACS will support continuation of this effort.

The next item is "Advanced Filament Composites" for which $10 million is requested to provide for the fabrication of test quantities of high strength, lightweight components made of glass fibers. This type of material shows great promise for a variety of uses such as helicopter blades, aircraft structures, etc.

For "Tactical Fighter Avionics", $4 million is requested for advanced development efforts on radars, fire control, etc. The MK-II Avionics effort for the F-111, formerly a part of this program is now in "Engineering Development".

The $6 million requested for "Reconnaissance Strike Capability" is to develop and demonstrate a capability with multiple high-resolution sensors such as side looking radars for both Strategic and General Purpose Forces. These include foliage penetration radars, high altitude-high resolution radars, forward looking infrared sets, optical image enhancement for low light level conditions, etc.

The FY 1967 Budget includes $6 million to continue the X-15 project. This rocket powered research aircraft has contributed a great deal of useful knowledge, not only to aircraft design but also to our space effort. The X-15 is now being used as a "test bed" aircraft for a group of advanced experiments in aeronautical and space sciences, including aerodynamic research, air-breathing propulsion, micrometeorite collection, atmospheric density measurements and the demonstration of supersonic transport structural techniques.

The $8 million requested for "Advanced ASM Technology", formerly known as "Tactical Missile Guidance Development", would provide for the development of both all-weather and fair-weather command and automatic guidance techniques for missiles employed against non-radiating targets. Present efforts include the testing of terminal tracking techniques, terrain correlation techniques and radar/radio command guidance systems.

The next project, Stellar Inertial Guidance, is substantially completed.

The $9 million for "Tactical Air-to-Ground Missile (MAVERICK)" will support advanced development of this TV-guided missile designed for use against relatively small hard targets. It would be used with the F-4, F-105 and possibly the F-111.

Ten million dollars is requested for FY 1967 for continued study of the various technological and operational concepts for an "Advanced ICBM" as mentioned previously in connection with the Strategic Offensive and Defensive Forces.

The next item, "SABRE" (Self-Aligning Boost and Re-Entry), for which $13 million is requested, provides for the development of advanced guidance system technology, in particular for maneuverable re-entry vehicles. This work is in addition to the MARK 12/MIRV effort being financed as part of the overall MINUTEMAN development.

The FY 1967 Budget includes $2 million to continue work on "Low Altitude Supersonic Vehicles". The design and construction of a chemical-powered, supersonic, low altitude vehicle is now underway with first flight planned for early in FY 1967. This test vehicle will have a 50 n.mi. range at sea level and employ an integral rocket/ramjet power plant. Possible applications include advanced air-to-surface penetration missiles for future strategic aircraft.

The "AMSA" program, for which $11 million is requested in FY 1967, was discussed in connection with the strategic bomber forces in Section II of this statement.

The remaining items identified on the Air Force list of advanced developments are all space projects which I discussed earlier.

F. ENGINEERING DEVELOPMENT

This category includes those projects being engineered for Service use, but which have not as yet been approved for production and deployment.

1. Army

I have already discussed in considerable detail, in the section on Strategic Offensive and Defensive Forces, the first two items on the Army list. The "NIKE-ZEUS Testing" program was completed during FY 1965 and all further testing taken over by the NIKE X program. The $447 million requested for "NIKE X" will continue, on an urgent basis, a reoriented ABM effort emphasizing the development of an austere version of the multi-function phase array radar (TACMAR), the missile site radar (MSR), high speed data processing equipment, the high acceleration SPRINT missile and the new exoatmospheric (DM15X2) missile which I mentioned previously. Of the above amount approximately $30 million will be used to initiate the development of the DM15X2. This new extended range ZEUS will be slightly longer and heavier in weight; it will employ two solid propellant motors and will carry a new type of nuclear warhead. Like the present ZEUS, the DM15X2 will be guided in flight by ground based radars in conjunction with high speed computers.

The principal element of the next item on the table, "Forward Area Air Defense" was the MAULER program which has now been terminated. As originally conceived, MAULER was expected to provide an all-weather air defense capability for front line troops beginning in the 1964-65 period. The development, however, encountered repeated technical difficulties with both the missile and the radar, as well as major cost overruns and schedule delays. Through FY 1965, some $200 million was invested in MAULER and it was estimated that another $180 million and several more years of work would have been required to complete the development. In addition, more recent intelligence estimates indicated a less severe, all weather, low altitude threat for the time period prior to 1975 than was originally anticipated. Therefore, as I described to you a year ago, we halted further major investments in MAULER pending a restudy of the entire forward area air defense problem, including possible alternative programs. As a result of this study, we decided last July to cancel MAULER entirely. Although it was a failure as a weapon systems development, much of the radar and missile technology, as well as the miniaturization techniques which it produced, are directly applicable to other programs, including the Army's interim and advanced forward area air defense systems and the Navy's point defense system.

Forty-six million dollars is requested in the FY 1967 Budget to continue engineering development of a variety of other weapons other than missiles. Included in this category is the Special Purpose Individual

[redacted]

Weapon (SPIW) which may be considered as a possible replacement for the M-14 rifle and M-79 grenade launcher. Competitive models are under development and the better of the two will be selected in FY 1967. In a related effort, an evaluation of all competing small arms weapons, including SPIW, is being conducted to determine the best successor to the present small arms family. Recommendations from this evaluation, expected in July 1966, may affect the decision to complete the SPIW project. Development of the 107 mm Heavy Mortar as a replacement for the current 4.2" mortar is continuing. The new mortar will weigh considerably less than the present one and would offer an increase of at least 50 percent or more in range. [redacted]

Another major effort is the Medium Anti-tank Weapon (MAW) system. Two competitive systems have been considered and a final selection has been made. Active development will commence this year.

A new major development in artillery weapons is the 155 mm lightweight Close Support Weapon System. This weapon will have a range of [redacted] A major effort has been directed toward NATO standardization of the interior ballistics which would permit the ammunition of several countries to be fired interchangeably.

Also contained in this line item are atomic munitions, advanced fusing techniques, new types of anti-personnel, anti-materiel and dual-purpose munitions, as well as support of guerrilla and counter-guerrilla ordnance and demolition items, field artillery fire direction control systems and improved fuses.

The next two items, "Aircraft Suppressive Fire System" and "Advanced Aerial Fire Support System" are closely related. The former, for which $16 million is requested, is concerned with the development and adaptation of weapon sub-systems for Army aircraft; and it was under this program that the presently operational helicopter armament systems were developed. During FY 1966 we initiated development of a second generation hard point target weapon system, TOW, to replace the French developed and produced SS-11 anti-tank missile which had been adapted to helicopter use. Preliminary design release and the delivery of two TOW systems, adapted to a helicopter, are expected during the latter part of FY 1967 and will undergo development tests. The second main task under this element is the WECOM 30 mm anti-personnel and anti-light-materiel gun system which is to be one of the armaments for the Army Aerial Fire Support System (AAFSS). The WECOM 30 mm development will be completed during

[redacted]

FY 1967 and a qualification firing program will be initiated. It will also be adapted to the UH-1 helicopter. The latter, Advanced Aerial Fire Support System project, for which $25 million is requested, will initiate engineering development of a completely integrated armed "helicopter-like" system as a replacement for the present improvised armed UH-1B system. The new vehicle would have a speed in excess of 200 knots, (more than 50 percent faster than any other operational helicopter), an advanced fire control system and an avionics system based upon the Navy's Integrated Helicopter Avionics System (IHAS) program. In battle, the AAFSS with its two-man crew will employ a variety of weapons including such weapons as a new "high rate of fire" machine gun, the TOW anti-tank missile, and the WECOM 30 mm gun.

The $2 million provided in FY 1966 for Tactical Transport Aircraft will complete the development and evaluation of the CV-7 (BUFFALO). This airplane was developed jointly by the U. S. and Canada for Army use, and four prototype aircraft have been delivered to the U.S. Army. We have decided not to produce and deploy this aircraft since other aircraft are available to meet Army needs.

The $14 million requested for Combat Surveillance and Target Acquisition includes a number of different projects. Development is proceeding with a hand-held radar for the detection of moving vehicles and personnel in forward combat areas, and a standardized tactical image processing and interpretation system. A contract for test models of a new type of sound ranging equipment to help locate hostile weapons will be awarded in FY 1967. Tests of a new unmanned aerial surveillance system, designed to provide target coverage when the weather or enemy action restricts manned aircraft flights, were conducted last year and we will now begin studies of more advanced concepts in this area.

Thirty million dollars is requested for "Communications and Electronics". Included in this element is $14 million for strategic and tactical communications to provide an integrated theater army communications network interconnecting with the world-wide Defense Communication System. Five million dollars is required for the night vision effort which offers, in addition to an early increase in operational capability, a definite possibility of a second generation of such equipment. Prototype equipment consisting of goggles, rifle scopes, and artillery sighting pieces were tested during CY 1965. Three million dollars is required for development and test of the crypto MARK XII IFF system for use in HAWK and Army aircraft. Delivery of this equipment is scheduled for mid-calendar year 1967. The remaining funds are necessary to support an interim air traffic control system, the development of ECM and automatic data processing equipment.

The nine million dollars for the next item, "Heavy Anti-Tank Assault Weapon (TOW)" will provide for an expanded test program needed to ensure a high level of reliability for this front line weapon system.

2. Navy

The first item on the Navy's list, "POSEIDON", was previously discussed in connection with the Strategic Offensive and Defensive Forces in Section II of the statement. The $301 million requested in FY 1967 will provide for the accelerated program designed to meet an operational availability date of mid-1970. Total development cost is estimated at $1.2 billion.

The next item, "Medium Range Air-to-Surface Missile (CONDOR)", will require $19 million in FY 1967. Following completion of contract definition this year, we propose to start full scale engineering development of this tactical, air-to-surface stand-off missile next year. The CONDOR will permit aircraft, such as the A-6A or the F-111B, to attack targets with high accuracy at distances up to 50 nautical miles, [redacted]

The $8 million requested for "Point Defense Surface Missile System (PDSMS)" will support a two-pronged effort -- a near term, flexible air defense system for the many smaller ships which presently have no on-board capability of their own, and a follow-on effort to provide a significantly better system for the future. For the first effort the SEA SPARROW will be utilized as was discussed earlier in connection with Fleet air defenses. The follow-on effort may draw on some of the Army's MAULER components and technology .

The next four items on the Navy's list of engineering developments are all associated with undersea warfare and, in total, amount to $70 million in FY 1967. The largest single item in this category is the $35 million requested to continue development of the "MK-48 Torpedo", which is perhaps the most important ASW weapon in the development program. Basic development is now well under way and we expect that the torpedo should be available for Fleet use some time in 1968, a year earlier than previously anticipated. The MK-48 will have more than twice the speed, range, and operating depth of our present first line torpedo and should provide a major improvement in ASW weaponry.

The next item, "Directional JEZEBEL", provides for the development of a sonobuoy capable of giving the bearing of a target directly to the attacking aircraft. [redacted] The successful development of this new sonobuoy would add greatly to the effectiveness of ASW aircraft. The $8 million requested for FY 1967 will essentially complete this effort which was begun last June with $2 million of FY 1965 emergency funds.

[redacted]

About $9 million is included in the FY 1967 request for "ASW Rockets". This project is directed to the development of a rocket-boosted ballistic flight missile which will be compatible with the ASROC launcher and fire control system and which will increase the effective range [redacted] Contract definition and the start of engineering development are planned for FY 1967 and introduction in the Fleet about 1970-1971.

"Other ASW" engineering developments include a linear array passive sonar system which can be towed by a submarine outside of its noise field. This system will improve reception of acoustic signals and detection and classification of emitting objects. [redacted] Also included in this category are a number of mine warfare developments, including new mine firing devices, mine hunting sonars and the use of helicopters to sweep sea mines.

The $8 million requested for "Unguided/Conventional Air Launched Weapons" will support the following ordnance development efforts: BRITEYE, a flare dispenser designed to achieve five million candlepower for five minutes; FIREYE, an improved fire bomb; SNAKEYE II, a second generation retarded bomb; and DENEYE, an area denial munition.

The $12 million requested in FY 1967 for "Marine Corps Developments" includes: an amphibious assault personnel carrier capable of transporting infantry weapons and supplies through very rough surf; a landing force amphibious support vehicle for rapid movement of supplies and equipment from ship to shore and over land; a lightweight, helicopter-transportable, high performance ground radar; an automated system for integrating air support activities into the Marine Corps tactical data system; and a new data transmission system for use with standard communications equipment.

The COIN/LARA (OV-10) aircraft, discussed in this section last year under the heading "Special Warfare Navy Aircraft", is now an operational systems development and will be placed in production as I indicated earlier. We are presently studying the possibility of a larger transport version of this aircraft.

3. Air Force

I have already discussed most of the Air Force engineering developments in connection with other programs.

[redacted]

The $23 million shown for the "J-58 Engine" for FY 1967 will continue the development of this advanced power plant used in the SR-71 and the YF-12.

As I pointed out last year, after the initial flight test program of the XB-70 was completed, there might be other exploratory test programs in which this aircraft could be used, for example, in connection with supersonic transports or general aeronautics research in such areas as general handling qualities of large supersonic aircraft and sonic boom measurements. The $18 million shown for the "XB-70" in FY 1967 is for the Defense Department's share of a follow-on test program to be jointly funded with NASA. This program, which would extend through FY 1968 at a total cost of about $54 million, would provide experimental data on structures, engines, aero/thermodynamics, etc. for large aircraft in supersonic flight.

The $4 million requested for "Close Support Fighter" will carry forward preliminary studies of an advanced fighter attack aircraft for both the Navy and the Air Force.

The fourth item, "Short Range Attack Missile (SRAM)", has been moved into Operational Systems Development.

The sixth item on the Air Force list is the "YF-12A" for which $20 million is requested for FY 1967. Of this amount, $3 million will be used to continue work to improve the ASG-18/AIM-47A fire control and air-to-air missile systems, already installed in the YF-12A.

The $10 million shown for the "F-12" will provide for the adaptation of the ASG-18 fire control system and AIM-47 missile for installation into the SR-71/F-12 airframe.

For continued development of "Advanced Ballistic Missile Re-entry Systems", we are requesting $141 million in FY 1967. This effort includes a wide variety of techniques designed to improve the capabilities of our strategic missiles to penetrate anti-missile defenses as well as to improve their accuracy and overall weapon system effectiveness. These advanced re-entry development programs require substantial numbers of flight tests and, for this purpose, we are using ATLAS missiles, phased out of the operational force, at a considerable saving in the total cost of this program.

As previously mentioned, the "MARK II Avionics" project, for which $35 million is requested, has been moved this year from "Advanced" to "Engineering" development. This follow-on replacement for the F-111's present avionics system is being designed to provide a significant increase in reliability, ease of maintenance and combat effectiveness. Now undergoing contract definition, we expect to select a development

contractor this year. The MARK II will have many of the same components of the Navy's Integrated Light Attack Avionics System (ILAAS). Introduction of the MARK II as an operational system is tentatively scheduled for FY 1969 in the third wing of F-111A aircraft.

For "NIKE-ZEUS Targets" to support the NIKE X development program, $8 million is requested for FY 1967. These target systems are developed and fabricated to Army requirements and are delivered by ATLAS boosters launched into the Kwajalein area from the Western Test Range.

I have already discussed the next item, "TITAN IIIA and IIIC".

The $11 million requested for the "Joint Advanced Tactical Command and Air Control System" will provide for a new program to develop a family of standard equipment such as displays, computers and communications items for use in the tactical command and control systems of all the Services. By using integrated circuit technology we believe that we can reduce overall system failure rates to perhaps ten percent of that previously anticipated. The funds requested will initiate the development phase and permit the determination of the joint funding program for future years.

G. MANAGEMENT AND SUPPORT

1. Army

As shown on Table 21, $93 million is requested for the support of the White Sands Missile Range. Test programs are conducted at this range for all the Services and NASA. Among the specific projects are the Air Force's Advanced Ballistic Re-entry System (ABRES), the Navy's A-6A Intruder, the Army's SHILLELAGH and LANCE, as well as certain safety devices for NASA's APOLLO mission. A major effort at this facility is the range instrumentation improvement program, now in its second year, which will refine the data collected on the range, improve the data reduction capability and augment the range communication system.

We are also requesting $33 million for the Kwajalein Test Site, now operated by the Army. We are now developing a capability at this site to recover re-entry vehicles that impact in the lagoon. The creation of an ICBM impact corridor has required the relocation of the natives from outlying islands to Ebeye Island, and new housing for them is now under construction on a neighboring island.

The $195 million requested for General Support covers the costs of all Army R&D installations and activities other than White Sands and Kwajalein. This support includes equipment procurement for research laboratories, test facilities and proving grounds, the cost of civilian and military salaries, and the construction of new facilities.

[redacted]

2. Navy

The Pacific Missile Range with headquarters at Point Mugu, California, is responsible for range scheduling, communications, weather and meteorological services and data reduction in support of assigned missile and space launch operations in the Pacific. Facilities located at Barking Sands and Kaneohe in the Hawaiian area provide communications and range instrumentation. The FY 1967 request of $72.7 million is $1.4 million more than currently programmed for FY 1966, principally because of the increased testing of fleet and tactical weapons required by the conflict in Vietnam. Among the test programs supported by the Pacific Missile Range are those for TERRIER, TARTAR, and TALOS, the new Standardized Ship-to-Air Missile and the PHOENIX air-to-air missile.

The Atlantic Undersea Test Evaluation Center (AUTEC) will have three underwater test ranges sited in a deep sea canyon off the Bahamas, designed to test weapons, sonars and acoustics systems. The $12 million request for FY 1967 is $4 million more than the current FY 1966 program, primarily because of higher construction requirements next year.

For the General Support of all other Navy R&D laboratories and test facilities, $200 million is requested for FY 1967.

3. Air Force

For the Eastern Test Range, $205 million is requested in FY 1967, somewhat lower than for the current fiscal year. This range consists of a complex of instrumented networks including fixed and mobile land-based stations and airborne and shipborne instrumentation extending from Cape Kennedy southeastward through the mid- and south Atlantic area, South America and Africa to the Indian Ocean. The Eastern Test Range supports such Defense programs as MINUTEMAN, POLARIS and the Defense Satellite Communications Program, together with such NASA programs as GEMINI, APOLLO, RANGER and MARINER. Future test activities will involve greater accuracies, larger payloads and more complex reentry vehicles as well as more sophisticated missions. To meet these more demanding requirements, the funds included in the FY 1967 request will provide a capability for covering different launch azimuths, including a capability to assist the Western Test Range in tracking polar-orbiting satellites. The program will also provide for the support of two new APOLLO ships and eight C-135 aircraft to facilitate the activities associated with the manned space flight programs. About $70 million is requested for FY 1967 to support the Air Force Western Test Range (AFWTR) which consists of a complex of range instrumentation networks supporting

[redacted]

Air Force, Navy and NASA launches from Vandenberg Air Force Base, Point Arguello and Point Mugu.

General Support, including "Development Support," will require $612 million in FY 1967. This item carries the major support of the Air Force Systems Command and its nation-wide complex of research, development and test installations, the construction of additional research and development facilities and other support programs. It includes about $85 million for the cost of services provided under contract by organizations such as RAND, Aerospace Corporation and the Lincoln Laboratory.

4. Defense Supply Agency

The Defense Documentation Center which acquires, stores and disseminates scientific and technical documents to the "defense community", will require $11 million in FY 1967, about the same as the current fiscal year.

H. EMERGENCY FUND

For the Department of Defense Emergency Fund, we are requesting the appropriation of $125 million and transfer authority of $150 million, the same amounts provided for FY 1966.

I. FINANCIAL SUMMARY

The Research and Development Program, including the development of systems approved for deployment, will require $6.9 billion in New Obligational Authority for FY 1967. A comparison with prior years is shown below:

	($ Billions, Fiscal Years) 1962 Actual	1963 Actual	1964 Actual	1965 Actual	1966 Est.	1967 Proposed
R&D - except systems approved for deployment	4.2	5.1	5.4	4.9	5.3	5.5
R&D - systems approved for deployment	2.6	2.5	2.2	2.0	2.1	1.9
Total R&D	6.8	7.6	7.6	6.9	7.4	7.4
Less: Support from other appropriations	-0.5	-0.5	-0.5	-0.4	-0.5	-0.5
Total RDT&E (TOA)	6.3	7.1	7.1	6.5	6.9	6.9
Less: Financing Adjustments	-0.9	-0.1	-0.1	-	-0.1	-
Total RDT&E (NOA)	5.4	7.0	7.0	6.5	6.8	6.9

[redacted]

VII. GENERAL SUPPORT

General Support constitutes the "all other" or residual category and includes all costs not capable of being directly or meaningfully allocated to the other major programs. Because of the large number and wide variety of the functions encompassed, this major program is best discussed in terms of its constituent parts.

For purposes of convenience, the various elements of the General Support Program have been divided into ten broad groupings: individual training and education; intelligence and security; communications; logistic support; military family housing; medical services; headquarters and support services; the National Military Command System; the Defense Atomic Support Program; and miscellaneous Department-wide activities. The estimated costs of these broad groupings are shown on Table 22.

Much of the General Support Program represents "fixed charges." But, wherever we had some discretion, we eliminated marginal items and activities or, in some cases, deferred desirable but less urgent projects to future years.

The following describes the general content of the program and highlights some of its important aspects.

A. INDIVIDUAL TRAINING AND EDUCATION

This portion of the General Support Program includes the cost of equipment, base support, construction, instructors, students and travel directly related to recruit, technical, professional and flight training, as well as support of the Service academies. The sharp increase in FY 1966 and 1967 reflects the force build-up I described earlier.

1. Recruit Training

Included here are the basic training programs for recruits and inductees and certain advanced individual training courses for Army personnel conducted in recruit training centers.

Overall recruit training loads have risen considerably higher this fiscal year than was anticipated a year ago due to the force buildup, but should decrease in FY 1967 as the expansion is completed. The number of basic trainees required in FY 1967 is presently estimated at about 750,000, about 150,000 less than the revised figure for the current fiscal year. Approximately 450,000 are scheduled for the Army, about

[redacted]

110,000 for the Navy, 80,000 for the Marine Corps, and 110,000 for the Air Force.

In order to give priority to the active forces, the Army, which has by far the largest training load, has temporarily reduced its recruit training for Reserve Enlistment Program (REP) trainees, as I mentioned previously. It has also opened a recruit training center at Ft. Benning, Georgia; added basic training to its facility at Ft. Bliss, Texas; opened three new officer candidate schools at Ft. Belvoir, Virginia, Ft. Gordon, Ga. and Ft. Knox, Kentucky; and changed its advanced individual training curriculum to include instruction especially oriented toward Vietnam. The Navy, Air Force and Marine Corps have also expanded their recruit training establishments and intensified their training schedules to accommodate the increased requirements for trained manpower. In FY 1967 the Navy will start construction of a third recruit camp at Orlando, Florida to relieve the strain on its other facilities which were already overburdened before the buildup for Southeast Asia began.

As announced last fall, we have revised our enlistment selection and training techniques to help ensure that no suitable prospect is denied an opportunity to serve. Study had revealed that the prevailing selection procedures were turning away capable volunteers. Now,enlistment standards for those Services using the draft have been brought generally into line with the standards for induction, and a high school diploma is being accepted as the equivalent of a passing grade on the supplementary aptitude tests for those scoring 16 or higher on the basic mental screening test. These changes are expected to increase the number of voluntary enlistees by approximately 25,000 annually. In addition, all basic trainees are now being evaluated after five weeks instead of eight weeks, and those failing to meet standards are given a period of special intensive military instruction. If they can be brought to standard, they are returned to regular training; if not, they are given an honorable discharge.

2. Technical Training

This category covers the hundreds of specialized skills required by our military personnel, other than flight training or professional-level courses. A large majority of the new personnel who enter military service each year require an initial period of formal technical schooling before they can be assigned for duty to an operating unit. In addition, advanced or specialized training must be provided to many of our career personnel to train them in new equipment or procedures and to qualify them for higher levels of responsiblity.

[redacted]

In order to protect our heavy investment in the training of men for electronics and other hard skills, we must reduce to a minimum the loss of these specialists to the civilian economy. To this end, we changed the proficiency pay structure, as I mentioned last year, and are this year instituting a program of variable re-enlistment bonuses which were authorized as part of last year's military pay act. The higher proficiency pay scales, which are paid, for example, to guided missile electronics repairmen, radar technicians and nuclear submarine powerplant operators, have now been in effect for two years, and we are studying their affect upon the retention rates. Preliminary reports indicate that proficiency pay has increased first term re-enlistment rates in most of the specialties where it is used.

The variable re-enlistment bonus, which is paid at the first reenlistment, can be as much as four times the regular amount. It will be awarded to approximately 61,000 men in FY 1967 and should be a further valuable inducement for highly qualified personnel to remain on active duty.

3. Professional Training

Professional training encompasses primarily college and post-graduate level instruction and includes the joint Service colleges, staff schools, post-graduate schools, officer candidate schools, and the education of military personnel at civilian colleges and universities. We can expect the importance of this type of training to continue to increase as the requirement for personnel with a scientific or engineering background rises every year. In response to this need,we have recently established Defense courses in Weapons Program Management and Systems Analysis, both of which are designed to provide an understanding of the modern managerial techniques which we have instituted in the last four years.

4. Flight Training

Because pilots are the most expensive military specialists, we have continued to review closely the requirements for flight training and to seek out every opportunity to conduct this activity more efficiently.

The output of pilots from the Air Force's program in FY 1967 will be about 3,000,up from 2,300 in FY 1966. This increase is needed both to meet the higher requirements caused by the conflict in Vietnam and to replace the large number of pilots who entered service during World War II and who will be leaving flying status over the next four years.

[redacted]

The Army will train 3,550 pilots in FY 1967, almost double the 1,800 being trained this year, particularly to meet Southeast Asia needs and for the new aviation units described earlier. Reflecting the increasing predominance of rotary wing in the Army's aircraft inventory, the proportion of helicopter pilots trained will rise from 50 percent this year to over 90 percent in FY 1967. The additional training burden will be accommodated by rearranging training schedules,and no new bases will be required. As a result of a review of its career program, the Army has identified about 2,500 pilot positions which do not have command responsibility; and these are now being filled by warrant officers instead of commissioned officers.

The Navy's production of pilots (including those for the Marine Corps) will increase to 2,200 in FY 1967, compared with about 1,900 in FY 1966, again to provide for Vietnam requirements and to replace the rising number of older pilots who will be leaving flying status.

To carry out these larger pilot training programs, the FY 1966 Supplemental and FY 1967 Budget requests provide for over 340 trainer aircraft for the Army and the Navy. No new trainer aircraft are requested at this time for the Air Force which is presently procuring its final increment of T-38 advanced supersonic trainers to replace the ageing T-33s.

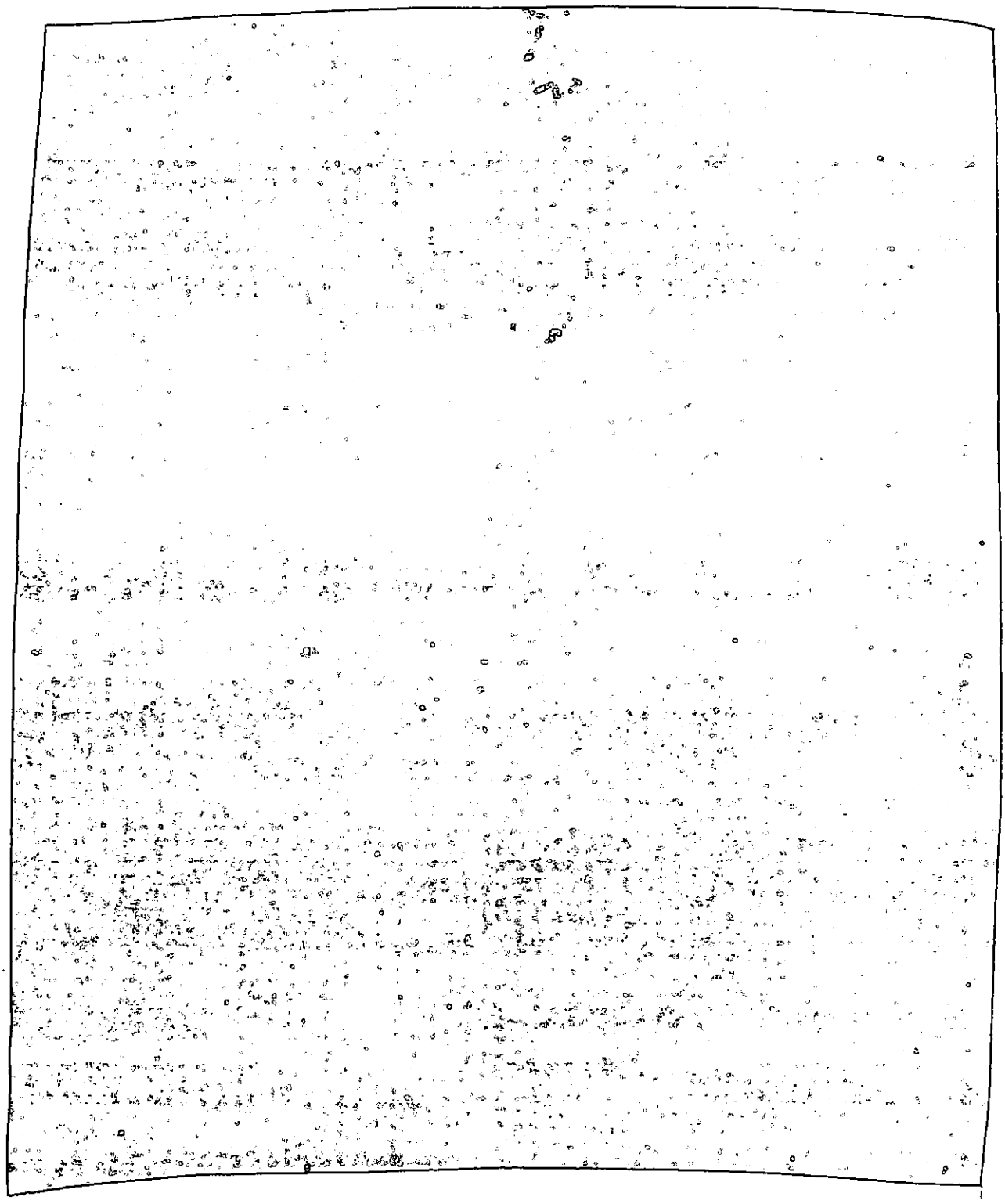
5. Service Academies

As provided by legislation passed two years ago, we plan to increase the average enrollment at the Military Academy from about 2,550 in FY 1965 to about 3,100 in FY 1968, and at the Air Force Academy from about 2,600 to 3,100. Enrollments at each institution will rise by about 200 cadets in each fiscal year, 1966 and 1967. The average enrollment at the Naval Academy will remain at the current level of about 4,000 midshipmen.

In accord with our policy of postponing all projects not absolutely needed at this time, we have deferred $14 million of construction scheduled for the Service Academies in FY 1966, $10 million at the Military Academy and $4 million at the Naval Academy. The Academy construction program for FY 1967 has been limited to about $14 million (less than one-third of last year's request), of which $11 million is for essential student quarters at the Air Force Academy, and $3 million is for the rehabilitation of antiquated utilities at the Naval Academy.

6. Headquarters and Support

Included in this category are the costs of general training devices, films, publications, testing activites, correspondence schools and other miscellaneous training support activities, as well as the operating costs of the major training command headquarters of each Service.



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C. COMMUNICATIONS

The communications category includes both the Defense Communications System (DCS) and certain non-DCS communications operated by the military departments. The DCS elements include the world-wide, long-haul, owned and leased, point-to-point wire, cable and radio communications facilities. Its two principal elements are the Automatic Voice Network (AUTOVON) and the Automatic Digital Network (AUTODIN). The non-DCS elements include: those communications operated by the military departments which serve the subordinate commanders of unified commands (or are self-contained within tactical organizations); self-contained local communications facilities such as those serving an individual Army base; land, ship and airborne terminal facilities; and ship-to-shore, ship-to-ship, air-to-air and ground-air-ground systems.

The AUTOVON system, which was established in April 1964 by combining existing Army and Air Force voice networks, is essentially a direct dialing system now consisting of ten switching centers. Because of our growing need for automated voice communications, we plan to expand the AUTOVON system to 55 centers by end of FY 1967 and ultimately to 97 by FY 1970 of which 23 will be overseas and nine in Canada. The European network is scheduled for completion by FY 1968 and the Pacific network by FY 1969.

As these new centers become available, certain voice traffic now handled by toll calls and leased private lines (which are funded as "base operating" costs in other parts of the General Support program) will be transferred to AUTOVON. Also, in FY 1967, new AUTOVON lines will replace existing Government-owned voice circuits whose costs are currently reflected in other major programs, e.g., the voice networks for SAGE/BUIC in the Continental Air & Missile Defense Program.

In addition, we are continuing to expand and modify the Automatic Digital Network (AUTODIN) so as to constitute a single digital communication system for the whole Department. By early FY 1967, it will

[redacted]

consist of eight switching centers serving 2,400 lines in the continental United States, up from five centers and 550 lines when AUTODIN first opened in February 1963. An additional center previously scheduled for the continental United States will be located in Hawaii in order to facilitate communications with Southeast Asia. The overseas portion of AUTODIN is now being implemented with three switching centers planned for completion in Europe in FY 1968, and ten centers to become operational in the Pacific in FY 1969.

We are continuing to install the DCS Automatic Secure Voice Communications Network (AUTOSEVOCOM), a world-wide automatically switched secure voice communications system. About 3,900 DoD users have been identified as requiring secure voice communication and these requirements will be phased for accomplishment over a 10 year period.

D. LOGISTIC SUPPORT

Logistic support comprises a wide variety of activities which cannot be readily allocated to other major programs or elements. Included under this heading on Table 22 are the costs of: (1) moving passengers and freight (except for first destination transportation) by commercial carriers, the Military Sea Transportation Service, the Military Airlift Command and contract airlift; (2) purchasing, storing, and inspecting materiel; (3) those parts of the industrial preparedness program (e.g., the provision of new industrial facilities and the maintenance of reserve facilities and equipment) not identified with elements of other major programs; and (4) the major overhaul and rebuild activities for items which are returned to a common stock and cannot, therefore, be related directly to specific military forces or weapon systems.

The management of our logistic support activities will be covered in the discussion of the Cost Reduction Program in Section IX of this Statement.

E. MILITARY FAMILY HOUSING

A total of $527 million is included in the FY 1967 budget for family housing; $359 million for operation and maintenance including the cost of units leased; and $168 million for payments on indebtedness and for mortgage insurance premiums.

As I mentioned at the beginning of this statement, we are not asking for any FY 1967 funds for construction of new units or for improvements to existing quarters. Because we are also deferring construction

of the FY 1966 increment of 8,500 housing units so that expenditures from this construction will not occur until after FY 1967, we are requesting Congress to extend the authorization. In lieu of another increment of new construction, we are requesting that the statutory limitation on leasing in the United States be increased from the 7,000 units allowed in FY 1966 to 13,000 units, our best estimate of the number of rental units likely to be available where we need them. While leasing does not provide a permanent solution to the military family housing problem, it will provide some relief during this period when we are trying to minimize capital outlays. We still have a deficit of over 40,000 units, based upon our long term projection of peacetime force levels. We hope, at a more propitious time, to resume our program to overcome this deficit.

F. MEDICAL SERVICES

Medical services include those costs for medical and dental services not directly associated with military units in our other major programs, the costs of medical care for military dependents at non-military facilities, and activities such as the Armed Forces Institute of Pathology and veterinary services.

The military departments now operate more than 250 hospitals and 450 dispensaries, representing a capital investment of more than a billion dollars and employing about 170,000 military and civilian personnel. In the current fiscal year, the annual operating costs of these facilities and related medical services will exceed the billion dollar level. In order to ensure their efficient operation, the Department is conducting, with the assistance of private consultants, a comprehensive study of Defense hospitals and out-patient clinics in the continental United States. A Hospital Management Evaluation Committee has been established within the Department of Defense (including the three Surgeons General) to recommend a comprehensive plan for improving the management of military medical services. By this time next year, we should be able to report on its findings.

The higher cost of medical services in FY 1967 reflects the expansion of our active forces as well as the increase in the number of dependents eligible for military medical care. In addition, the rising cost of this care, both within our own facilities and in the private institutions used by many dependents, means higher total costs if we are to continue to provide the same level of service.

Last year, I briefly discussed the problems of providing health care for retired military personnel and their dependents, as well as the dependents of active duty personnel, indicating that I had hoped to be

able to recommend some solution when I appeared here again this year. Based upon an exhaustive study of this very complex issue, we are proposing three items of legislation.

First, we propose to provide a program of health care available to all retired members of the uniformed services and their dependents, which would relate Government-sponsored benefits very generally to the length of the service of the retiree. Since the number of retirees and their dependents is increasing more rapidly than the availability of Government medical facilities, a growing proportion of this care will have to be provided at civilian medical institutions.

Second, we propose a liberalized "Dependents' Medical Care Program" for dependents of active duty personnel to increase the attractiveness of a military career. This program would make military medical benefits, which have not changed since 1956, comparable to those offered under the present Federal Employees Health Benefits Program and other private programs. The principal feature of this proposal is to offer civilian out-patient care to dependents who reside where Government facilities are not available.

The third legislative proposal is directed specifically to the mentally and physically handicapped children of active duty military personnel. The care and training of such children is frequently so serious a drain on the financial resources of a military man as to make it impossible for him to maintain an acceptable standard of living for his family, thereby forcing him to leave the Service in search of more income. We propose the establishment of a program for the care, training and education of such children in civilian facilities. In order to provide time to work out the administrative details of these programs, the proposed effective date in each instance is July 1, 1967.

In line with our policy of postponing non-urgent construction programs, about $27 million of previously authorized hospital and dispensary projects have been deferred. The FY 1967 hospital program has, in general, been limited to projects directly related to our efforts in Southeast Asia.

G. HEADQUARTERS AND SUPPORT SERVICES

This aggregation includes a number of essentially unrelated activities.

1. Headquarters

This element comprises the headquarters activities of the military departments, the unified and specified commands, the Military Assistance

[redacted]

Advisory Groups, data processing units, fiscal and audit activities, engineering and inspection services and a wide variety of other centralized administrative and logistical activities. The scope and cost of these activities are generally related to the overall size and pace of the total Defense program.

2. Weather Service

This program comprises the aerial weather reconnaissance, air sampling, and sea conditions and weather observing and forecasting systems of the Navy and Air Force which compile and analyze meteorological and geophysical data affecting the operations of our military forces and the Government's missile and satellite activities.

No new aircraft are requested for the weather service in FY 1967. As of the end of the current year, the Air Force will have received the ten specially modified WC-135Bs programmed last year. In addition, five WC-130Bs, previously scheduled to be returned to the Tactical Air Command, have been retained in the Weather Service. These aircraft have proven especially useful in the reconnaissance role during the Atlantic hurricane season, and their retention enhances our ability to forecast weather at low altitudes.

The Weather Service will continue to sample the air from near the surface to very high altitudes as one of the safeguards to the test ban treaty.

3. Air Rescue and Recovery

The air rescue and recovery program comprises the U.S. Air Force Air Rescue Service, specialized forces of the Navy and assigned forces of the Army and Marine Corps. Essentially, each Service provides facilities for sea-air rescue in support of its own operations. The Air Force operates and maintains eight rescue coordination centers, 13 air rescue squadrons, and 64 local base rescue detachments. Sixteen additional rescue coordination centers are maintained by the other Services.

With the exception of the Air Force, rescue helicopters and fixed-wing aircraft are assigned as needed from available forces. Helicopter rescue detachments are maintained by the Navy on each carrier and cruiser, and on the frigate patrolling the Tonkin Gulf.

The Air Force rescue squadron, established last year at Danang, is equipped primarily with helicopters, and comprises one rescue coordination center and a local base rescue detachment. So far, it has rescued over 100 combat personnel from hostile areas; Army, Navy and Marine Corps rescues have been in excess of this number.

[redacted]

To increase further the Air Force air rescue capability in Southeast Asia, funds are included in the FY 1966 Supplemental and the FY 1967 Budget to procure 24 HH-3Es.

As you know we are now procuring 63 HC-130s for the air rescue and recovery program to replace older aircraft and are receiving them at the rate of three per month.

4. DEEP FREEZE

Operation DEEP FREEZE is the U.S. scientific effort in Antarctica sponsored by the National Science Foundation for which the Navy provides logistic support. In FY 1967 we will provide two radar escort ships for weather service, search and rescue, and air navigation; two oilers; two transports; and one air squadron of 20 aircraft of various types. Two Navy icebreakers in Antarctica will be transferred to Coast Guard jurisdiction in FY 1967. At the request of the State Department, we also plan in FY 1967 to exercise our rights under the Antarctic Treaty to inspect the foreign stations there. This was last done in FY 1964.

Three years ago, we decided that Defense support of Antarctic research should be funded at a stable level, consistent with national objectives. In line with this concept, $20 million is requested for FY 1967 for the Navy's support of this project, the same amount as for the last three years.

H. NATIONAL MILITARY COMMAND SYSTEM

The National Military Command System (NMCS) is the primary component of the world-wide Military Command and Control System. It was established specifically to provide the national command authorities with the means to provide strategic direction to the armed forces under all conditions, and, therefore, includes several alternate command posts. Related elements of the world-wide system that directly support the command and control functions -- i.e., the headquarters of the unified and specified commands, Service Headquarters, component commands, DASA, DIA, and DCA with their supporting communications, etc., -- are included elsewhere in General Support, or as integral elements of other programs such as the Post-Attack Command and Control System in the Strategic Offensive Forces Program.

The NMCS comprises the National Military Command Center (NMCC) at the Pentagon, the Alternate National Military Command Center (ANMCC), the National Emergency Command Post Afloat (NECPA), the National Emergency Airborne Command Post (NEACP), and the various warning, sensor and communications networks linking these command facilities, the unified and specified commands and the Service headquarters.

As part of our continuing effort to improve the NMCS, we are replacing this year the three modified EC-135H aircraft assigned to the National Emergency Airborne Command Post with three EC-135J aircraft transferred from the Post-Attack Command and Control System. This substitution will provide the Airborne Command Post with aircraft having significantly improved performance qualities and better communications facilities. The three EC-135Hs thus made available will be used to help satisfy the Airborne Command Post needs of CINCEUR, those of CINCPAC having already been met. Also, the enlarged National Military Command Center discussed last year has been completed and became operational last fall.

Our continuing study of the Deep Underground Command Center (DUCC) has strengthened our previous convictions that this concept offers a unique contribution to our capability to protect our national command structure and that there is a vital need for such protection. The Army currently is engaged in refining our estimate of DUCC cost and further development of our understanding of the engineering problems involved.

I. DEFENSE ATOMIC SUPPORT AGENCY

The Defense Atomic Support Program includes the activities of the Defense Atomic Support Agency (DASA) which provides: specialized staff assistance to the Secretary of Defense and the Joint Chiefs of Staff; operational, logistical and training support for the Military Services; liaison with AEC on weapons development and the planning and conduct of weapons effects tests; and management for the national atomic weapons stockpile. The amount shown in Table 22 also includes the cost of military personnel assigned to DASA.

As has been the case for the last few years, most of DASA's research, development and military construction effort in FY 1967 will be in support of the nuclear test ban treaty safeguards which were discussed earlier in the section on the Research and Development program under the heading "Nuclear Testing and Test Detection". DASA's FY 1967 construction program includes further shore line protection work at Johnston Island and a further addition to the Physical Sciences Building of the Armed Forces Radiobiology Research Institute at Bethesda, Maryland.

J. MISCELLANEOUS DEPARTMENT-WIDE ACTIVITIES

Miscellaneous Department-wide activities include: the management and staff advisory functions of the Office of the Secretary of Defense

and the Organization of the Joint Chiefs of Staff; Department-wide funding for claims; a contingency fund for military purposes controlled by the Secretary of Defense; and the troop information and education program.

1. Contingencies

For many years now, Congress has provided funds for emergencies and extraordinary expenses arising in the Department of Defense. Use of these funds is authorized by the Secretary and accounted for on his certificate, and Congress is informed as to their status. In FY 1965, $7 million of the $15 million appropriated for this purpose was obligated; and in FY 1966 we estimate that all $15 million appropriated will be used. For FY 1967 we are again requesting $15 million.

2. Claims

These funds provide for the payment of all non-contractual claims against the Department of Defense. A total of $25 million is requested for this purpose for FY 1967, an increase of $1 million over the current fiscal year to provide for the anticipated rise in claims related to the increase in troop strength and movement. The Department of Defense has been authorized under the various statutes to settle certain small claims in order to expedite their payment, but it appears than an annual appropriation for a definite amount has not satisfactorily accomplished the purpose in the past and may not in FY 1967. We are, therefore, again requesting the Congress to appropriate this amount on an annual indefinite basis so that we may pay all valid claims promptly.

K. FINANCIAL SUMMARY

The General Support Program I have outlined will require Total Obligational Authority of $16.7 billion for FY 1967, and $1.8 billion is included in the Supplemental request for FY 1966. A comparison with prior years is shown below:

	(Fiscal Year, $ Billions)						
	1962 Orig.	1962 Final	1963 Actual	1964 Actual	1965 Actual	1966 Est.	1967 Prop
Total Obligational Authority	11.4	12.1	12.9	13.8	14.5	16.8	16.7

[redacted]

VIII. RETIRED PAY

This section covers the pay, as authorized and prescribed by law, of military personnel on the retired lists and provides for payments to survivors pursuant to the Retired Serviceman's Family Protection Plan.

In FY 1967, the average number of retired military personnel is expected to rise to about 567,500, an increase of about 54,700 over the current year. As shown below, a continuation of this trend should see the average number of annuitants on the retired rolls reaching 771,000, and the annual cost **almost $2.5 billion, by FY 1971.**

Fiscal Year	Average No. of Retirees (Thousands)	Average Cost ($)	Total Cost ($Millions)	Unfunded "Past Service" Liability* ($Millions)
1961	275.9	2,856	788	45,105
1962	313.4	2,858	896	47,337
1963	358.8	2,828	1,015	48,868
1964	410.9	2,948	1,211	56,071
1965	462.5	2,997	1,386	58,252
1966	512.8	3,125	1,600	66,535
1967	567.5	3,137	1,780	69,164
1968	616.0	3,169	1,952	71,723
1969	670.0	3,171	2,125	74,182
1970	722.0	3,173	2,291	76,578
1971	771.0	3,175	2,448	78,907

* End Fiscal Year

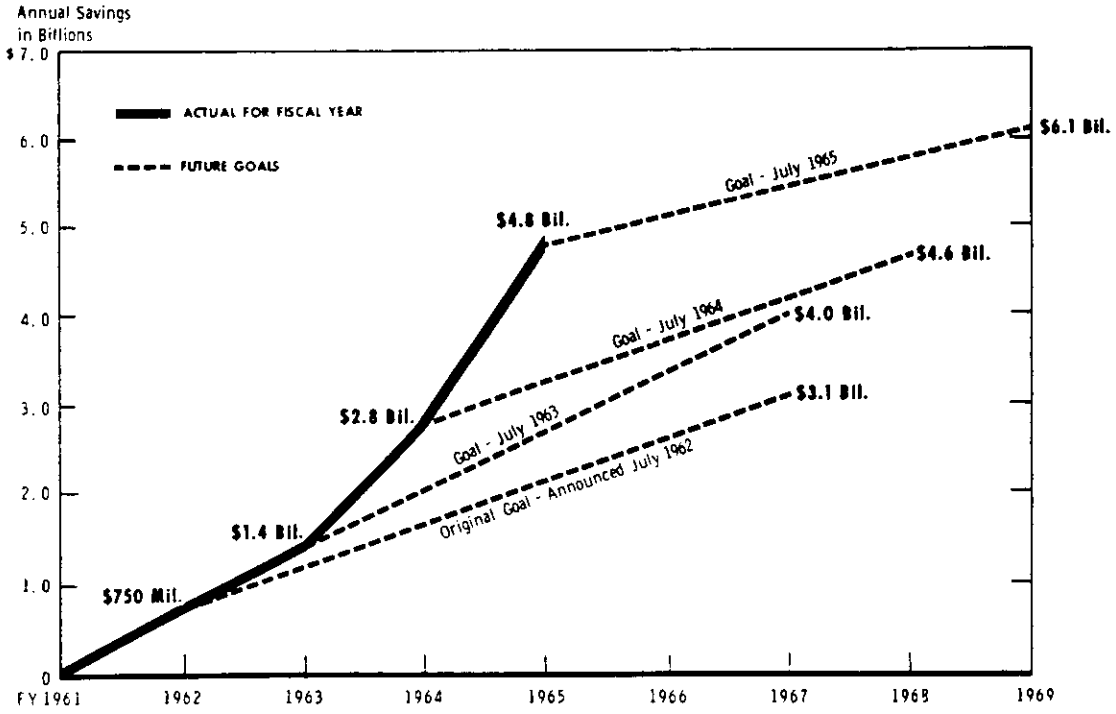
In addition to the $1.8 billion estimated for FY 1967, we are requesting an additional $71.0 million for FY 1966 to finance two increases provided by last year's military pay legislation (PL 89-132). The first increase stems from the higher pay rates for those personnel retiring on or after Sept. 1, 1965, and the second results from the provision that individuals on the rolls as of that date would receive an annuity increase equal to the percentage rise in the Consumer Price Index from 1962 to the effective date of the legislation.

[redacted]

IX. THE DEPARTMENT OF DEFENSE COST REDUCTION PROGRAM

The results achieved from the Defense Department's Cost Reduction Program through the last completed fiscal year, 1965, have again far exceeded our original expectations as shown on the chart below. Savings actually realized in FY 1965 rose to over $4.8 billion, a goal which, even as recently as last January, we had not expected to reach until FY 1968.

PROGRESS OF DoD COST REDUCTION PROGRAM



Although the extraordinary requirements for Vietnam, superimposed on our regular defense requirements, have created some uncertainties as to the results to be expected in FY 1966 and FY 1967, I still believe the goal established last July, $6.1 billion in savings to be realized in FY 1969 and every year thereafter, can still be achieved.

[redacted]

The detailed accomplishments in the various elements of the program are shown in Table 23 and are summarized below:

	Savings Realized in FY 1965 (Billions)	Savings Goal By FY 1969 (Billions)
1. Buying only what we need	$2.5	$2.6
2. Buying at the lowest sound price	1.2	1.2
3. Reducing operating costs	1.1	2.3
	$4.8	$6.1

These achievements do not represent merely the totaling up of chance economies. Rather, they are the product of a carefully planned and audited program which enlists the continuing efforts of tens of thousands of Defense managers, both military and civilian, at every level of the Department. I believe that the savings reported have been objectively measured and validated and they will continue to be audited with great care.

In previous appearances before this Committee, I have discussed the character of our savings programs in some detail. At this time, I would simply like to give you a progress report, highlight recent developments, and outline some future plans.

A. BUYING ONLY WHAT WE NEED

1. Refining Requirements Calculations

Cost reduction efforts in this area continue to yield significant savings. However, the more we improve our requirements calculation techniques, the more we reduce the opportunities for further savings, and this is reflected in the figures shown on Table 23.

2. Increased Use of Excess Inventories

At end FY 1961 the long-supply stocks of the Defense Department totaled $13 billion; by the end of FY 1965, they had been reduced to about $10 billion. Even so, we succeeded in reutilizing within the Defense Department a total of $1,451 million of such stocks in FY 1965 compared with $956 million in FY 1961 when the total available was about $3 billion greater. Much of this improvement can be attributed to the new screening procedures which require that all proposed procurements be

[redacted]

matched against long-supply stocks to determine if they can be used in lieu of new purchases. Our progress since FY 1961 is shown below:

Fiscal Year	Value of Long Supply Stocks Returned to Productive Use	Increase Over FY 1961
	(Millions)	
1961	$ 956	$ -
1962	1,080	124
1963	1,120	164
1964	1,287	331
1965	1,451	495

Here are some recent examples of how these stocks were reutilized:

- Army received 913 excess RT-178 ARC-27 Radio Receiver-Transmitters from the Air Force for use in Army aircraft and helicopters, saving..... $1,386,800

- Marine Corps received 6,078 120mm projectiles from Army, saving..... $ 551,000

- Air Force used 24 excess aircraft engines to support the RC-135B production contract, saving... $2,776,000

3. Eliminating Goldplating Through Value Engineering

To ensure that we do not buy quality features in our weapons and equipment which are not necessary for military effectiveness, design specifications must be continually challenged in order to rid them of "frills" or "goldplating". The analytical techniques and systematic processes that pinpoint and eliminate these unneeded qualitative features are called "value engineering".

Last year, value engineering saved us $204 million, or $128 million more than in FY 1964. Our objective is to save at least $500 million by FY 1969. We are now adding 265 more value engineering specialists throughout the Department, confident that the efficiencies they achieve will not only pay their salaries many times over but will also make a positive contribution to military effectiveness by improving the reliability and maintainability of our weapons and equipment.

Whenever appropriate, Defense contracts now provide for the producer to share in savings resulting from value engineering improvements proposed

by him. The incentives contained in these contracts have been made more attractive by:

- enabling a contractor to share in follow-on contracts in savings resulting from his earlier value engineering improvements;

- providing for a larger contractor share where his value engineering change produces savings in such collateral functions as maintenance or logistics support;

- extending value engineering sharing incentives to subcontractors.

Partly as a result of these changes, the number of value engineering proposals received from contractors has increased dramatically. About 700 such proposals were approved in FY 1965, more than double the number accepted in FY 1964. Some examples of recent savings achieved by eliminating "goldplating" are:

	Unit Cost		Savings
	Before Redesign	After Redesign	on Recent Procurement
Change in Injector Housing, LANCE Missile System			
Machining costs were reduced by using an aluminum alloy casting in place of forging	$2,933.60	$2,656.85	$ 125,500
Redesign of XM169 Cartridge Case			
Number of component parts were reduced from 6 to 3	1.15	.54	1,073,500
Redesign of Waveguide Tube for SPS-52 Radar			
Machining operations were eliminated by reducing the wall thickness on the waveguide tube	48.04	12.42	108,400
Elimination of Non-Essential Items - C-130 Stall Warning System			
"SCAT" system for alerting crew to impending stall replaced by simplified "MONITAIR" system	14,650	1,820	3,877,290

[redacted]

During the past year and a half, the Defense Department has strongly encouraged and supported "Zero Defects" programs for both our own activities and for our contractors. More than 1,000 defense contractors, employing over 2,000,000 workers, have already instituted such programs. By emphasizing pride of workmanship and giving appropriate recognition to defect-free work, scrap and re-work costs are lowered and the potential for error in the design, production, maintenance, and operation of military equipment and materiel is reduced. When a single tube failure can result in the destruction of a multi-million dollar missile, the importance of "Zero Defects" can be readily understood. Through these programs, defense contractors and "in-house" activities have been able to reduce their overall defect rates by as much as 30 to 60 percent. The resulting savings are real, but because they are hard to measure they have not been included in the Cost Reduction totals.

4. Inventory Item Reduction

Our continuing effort to reduce the variety, sizes and types of items in use was even more productive in FY 1965 than in the preceding year. Through a standardization and identification of interchangeable and substitute parts, the Services and DSA were able to eliminate nearly 632,000 individual items from their respective inventory lists, an increase of more than 48,000 over FY 1964. As shown on Table 23, actions taken through FY 1965 in this area have cut supply management costs by $83 million annually.

B. BUYING AT THE LOWEST SOUND PRICE

I believe that we have made good progress during the last five years in improving the effectiveness of our contracting activities. As you know, at an early stage in this program, we established two principal objectives in this area -- (1) to increase the use of competition in our procurement and (2) to limit the use of cost-plus-fixed-fee (CPFF) contracts to a minimum. Our progress to date in both areas continues to exceed our earlier expectations.

During the next two years, our efforts must be directed toward holding on to these gains and, to that end, we are further streamlining our contracting procedures and improving the skills of our procurement personnel through intensified training programs.

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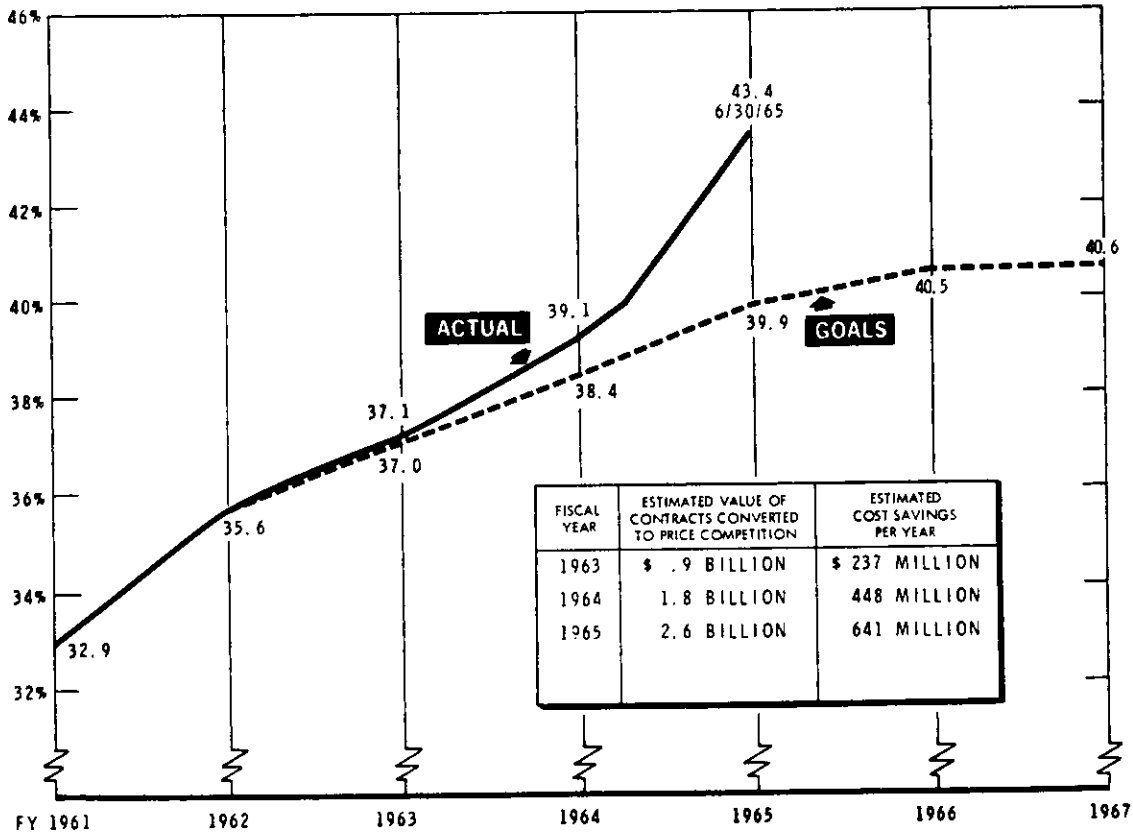
1. Shifting from Non-Competitive to Competitive Procurement

As shown in the chart below, 43.4 percent of our prime contracts were awarded on the basis of price competition during FY 1965, an increase of 3.5 percentage points over our goal for the year.

CONTRACTS AWARDED ON BASIS OF COMPETITION AS A PERCENT OF TOTAL CONTRACT AWARDS



FISCAL YEAR	ESTIMATED VALUE OF CONTRACTS CONVERTED TO PRICE COMPETITION	ESTIMATED COST SAVINGS PER YEAR
1963	$ .9 BILLION	$ 237 MILLION
1964	1.8 BILLION	448 MILLION
1965	2.6 BILLION	641 MILLION

We shifted $2.6 billion of our procurement from non-competitive to competitive contracts, at an estimated average savings of 25 cents

[redacted]

for each dollar shifted, or about $641 million in FY 1965. Some recent examples of how savings were achieved in this area are shown below:

Item	Non-Competitive Unit Price	Competitive Unit Price	Percent Reduction	Savings On Recent Procurement
Power Control Box	$ 1.50	$ 1.11	26	$ 214,838
Extendible Earth Anchor	75.43	52.25	30	231,800
Radio Set (AN, PRC-47)	4,370.87	2,797.67	36	1,296,317
R-1051 Receiver	24,473.00	11,750.00	52	4,016,718
Portable Ship Instrumentation Package	795,777.00	595,987.00	25	399,554
Bomb Fuze, M905, Tail Assembly	18.06	15.14	16	168,797
Power Supply (PP-2058/ULA-2(V))	1,238.59	834.10	32	27,118
Shroud, Steering Control Module (SP GAX-5766)	750.00	538.00	28	27,560
Doppler Navigation Radar (AN/APN-153 (V))	2,924.00	1,567.00	46	4,221,135

Thus far in the current fiscal year, the level of competitive contracting has held near or above the record level of FY 1965. I must caution, however, that much of the procurement associated with our Southeast Asia effort will be, essentially, additions to ongoing contracts and therefore may not qualify as competitive procurements. Nevertheless, we have no intention of relaxing our efforts.

One of the most encouraging developments in this area during the last year has been the evolution of the "total package" contracting concept which we have recently applied to the C-5A transport aircraft program. In my judgment, the C-5A award represents a major breakthrough in contracting techniques. Heretofore, it has proved most difficult to avoid sole source procurement of major weapon systems such as missiles or aircraft which require extensive development effort. The development contractor, having already amortized large engineering and tooling costs, usually has such a great advantage in bidding for the production contract that meaningful competition, for all practical purposes, is impossible. Furthermore, in these large, technically complicated projects, contractors are often prone to propose unrealistically low prices on the development phase, with the expectation of making their profit on the production contract. Under the new "total package" concept, however, a single competitive contract is awarded covering not only the development but also production and system support for a specified time period.

[redacted]

In the case of the C-5A, the airframe contract covers the development, test and production of 58 aircraft, with specifically priced options for 57 more, and a formula priced option for another 85. The engine contract parallels the airframe contract. Both the aircraft and engine contracts employ flexible incentive features which, by holding out the possibilities of higher profits, are designed to induce the contractors to assume more responsibility for cost overruns, thereby increasing the incentive for cost reduction. The contracts, of course, are written so as to limit the Government's liability if they have to be terminated before completion.

The main elements of the "total package" concept are also being extended to the major subcontracts. Being committed to overall target costs and performance specifications before completion of the detailed design, the major subcontractors, as well as the prime contractors, have great incentives to design for more economical production, higher reliability and greater ease of maintenance.

In a significant departure from traditional shipbuilding practice, the Navy, too, is now applying the "total package" concept to the construction of Fast Deployment Logistic Ships. Interested bidders were requested last December to submit their qualifications and a formal request for proposals is scheduled to be issued late this spring. Later, in the summer, two or three successful bidders will be selected to conduct a six-month study of the program. Contract definition should be completed by the spring of 1967 and negotiation on the total procurement package should begin in the summer.

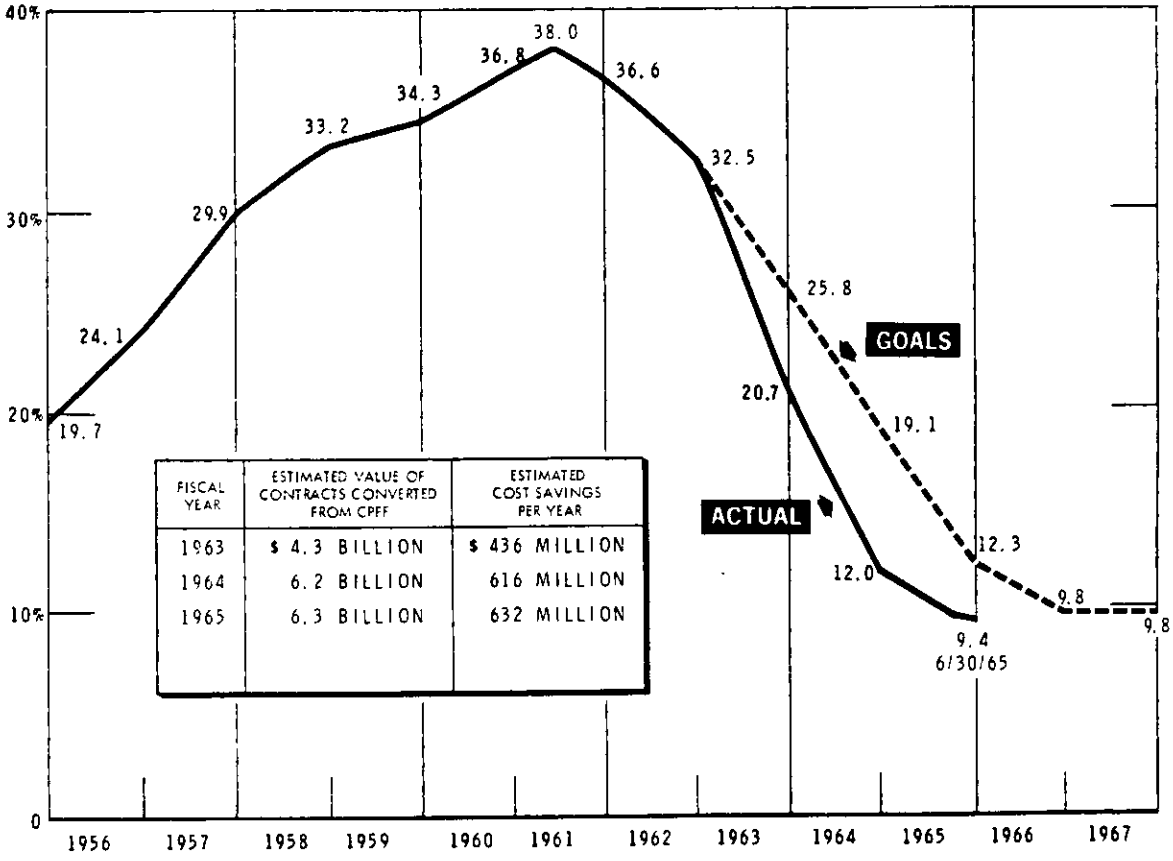
Bidders will be asked to submit costed proposals to meet performance and reliability standards, rather than detailed ship characteristics or material specifications. By avoiding rigid specifications and requiring the bidders to guarantee their cost estimates and ship performance proposals, we hope to provide them with a strong incentive to engineer and design for maximum efficiency. The final contract award will cover the design, construction and selected support aspects of a fleet of these ships. By employing a multi-year contract, and taking advantage of "learning curve" economies, we should be able to reduce construction costs considerably as well as obtain a highly desirable degree of standardization in this class of ship.

The Air Force is presently planning to develop and procure the Short Range Attack Missile (SRAM) under the "total package" concept and the Army may employ a modified version of it for the Advanced Aerial Fire Support System. As we and our contractors gain more experience with this new method of procurement, we may be able to widen its use considerably.

2. Shifting from Cost-Plus-Fixed Fee (CPFF) to Fixed Price and Incentive Contracts

A contractor's motivation for good management and tight cost control usually varies in direct proportion to the degree of risk he bears. CPFF contracts, being virtually risk-free, provide no such motivation. In contrast, fixed price or incentive contracts offer strong inducements for managerial efficiency because they impose serious financial penalties on the contractor who exceeds his cost estimates, defaults on his delivery schedule, or who fails to meet the performance specifications. As shown in the Chart below, CPFF contracts accounted for only 9.4 percent of total awards in FY 1965, compared with the peak of 38 percent reached in March 1961.

COST PLUS FIXED FEE CONTRACTS AS A PERCENT OF TOTAL CONTRACT AWARDS



FISCAL YEAR	ESTIMATED VALUE OF CONTRACTS CONVERTED FROM CPFF	ESTIMATED COST SAVINGS PER YEAR
1963	$ 4.3 BILLION	$ 436 MILLION
1964	6.2 BILLION	616 MILLION
1965	6.3 BILLION	632 MILLION

The conversion from CPFF contracts to more preferred types resulted in savings of $436 million during FY 1965 (allowing for a two year lag until the savings are actually realized).

Now that contracts entailing higher risks for the contractor predominate in our procurement, we are seeking ways to eliminate some of the administrative controls heretofore required under CPFF contracts for the Government's protection. These controls will be eliminated on an individual contractor basis, depending on the degree to which he has assumed the cost risks on his current contracts.

In addition, we are extending our Contractor Performance Evaluation Program, which centrally records the past performance of major contractors in meeting their commitments, i.e., delivery schedules, technical specifications, and costs. As I reported last year, our procurement offices are required to evaluate these records before selecting a contractor for a new development project, and before negotiating fees on non-competitive contracts. We are now planning to use this information wherever applicable.

3. Multi-Year Procurement

This year, for the first time, savings resulting from "multi-year procurements" are being included in our Cost Reduction Program. By ensuring longer production runs, we enable the contractor to avoid annual "start-up" costs, thereby making it possible for him to offer us lower prices. In FY 1965, the first full year of this effort, savings from multi-year contracts totaled $67 million. Shown below are some recent examples:

	Unit Price		Percent	Savings On Recent
	Single Year	Multi-Year	Reduction	Procurement
Truck 1/4-ton,M-151A1 Less Engine	$ 2,293	$ 2,035	11	$1,419,000
Digital Data Computers (CP-624B/USQ,20V)	170,000	125,000	26	916,700
General Purpose Bomb (M81,Mod.1, Empty)	101.34	87.37	14	537,845
Wing Tank and Pylon Assembly	912	844	17	314,160
Pylon Assembly	1,967	1,547	11	292,320

C. REDUCING OPERATING COSTS

Reductions in operating costs resulted in savings of $1.1 billion in FY 1965.

1. Terminating Unnecessary Operations

Because the Defense program is greatly influenced by changes in the international situation and in military technology, frequent, and at times, drastic shifts in requirements for weapons, manpower and facilities cannot be avoided. Even while we have been steadily increasing our military strength, many existing military installations have become surplus to all foreseeable peacetime and wartime needs. These facilities must be closed if the Defense program is to be managed efficiently and waste eliminated.

Although the impact of scientific and technological progress on weapons is generally well understood by the American people, not so well understood is its effect on our requirements for military facilities. Yet, the very fact that radically new weapons are continually replacing old ones means that we must often build new specialized facilities even though existing facilities become idle.

The impact of technological change on our installation complex goes very deep, affecting not only the operational facilities but also training, support, maintenance and supply facilities. The depth and scope of this impact is well illustrated by the shift from manned bombers to strategic missiles which has taken place over the last five or six years. At the end of FY 1961 we had about 2,500 strategic bombers and tankers compared to about 100 strategic missiles. By the end of this fiscal year we will have about 1,300 bombers and tankers and almost 1,500 missiles; and during this same period we phased out some 180 ATLAS and TITAN I missiles. Clearly, such a shift in weapons was bound to have a major impact on the required base structure; and the same kinds of changes, although to a lesser extent, have been taking place in the other Services.

In addition, the improvements in logistics management which both you and we have been striving towards, in themselves, result in reduced requirements for supply and maintenance facilities.

It was in recognition of these changes that the Defense Department in 1961 undertook a comprehensive, systematic review of all of its thousands of major and minor military installations around the world. These installations were examined category by category -- the Army's supply and distribution facilities, the military ocean terminals, the naval shipyards, the Strategic Air Command base structure, the Air Force's supply and maintenance depots, etc. In each case, the facilities excess to our present and foreseeable requirements, including all emergency and mobilization needs, were identified and scheduled for closure or reduction.

Let me give you just one specific example. In 1960 the bulk of the Air Force's supply and maintenance workload was being performed

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by nine major depots. (This was the year in which the phaseout of the B-47 force began.) Since that time, the total workload of these depots has declined very sharply and is projected to decline still further. Depot stocks, for example, declined from about 3.2 million tons to about 2.4 million tons by end FY 1964, and a further reduction to about 1.8 million tons is projected by FY 1970. The number of maintenance personnel (which is a good measure of the maintenance workload) declined from 57,000 to about 45,600 during the FY 1960-1964 period and is projected to decline to about 44,500 by 1970. In the light of these trends and on the basis of a detailed study of its depot needs over the balance of this decade, the Air Force concluded that five depots would provide all the warehousing required and more than enough maintenance capacity. Accordingly, a year ago last November we decided to close three depots, in addition to the one closed in 1963. The closing of these three depots will free almost 4,300 acres, eliminate about 7,500 positions, and save about $86.5 million annually when completed.

The present status of the program to terminate unnecessary operations (on a "when completed" basis) is shown below:

. Number of actions to close or reduce.....	852
. Real estate released	1,752,378 acres
. Industrial plants with commercial potential made available for sale.....	66
. Positions eliminated.....	200,001
. Recurring annual savings.....	$ 1,444 million

Obviously, some of these base closures could have a serious impact on the employees and communities involved, at least in the short run. But it should be clear to all Americans that the continuing obsolescence of existing military facilities is one of the inescapable consequences of our efforts to keep our armed forces modern and equipped with the latest products of our extensive research and development program. No one would argue that we should retard the progress of military technology simply because it causes obsolescence. Yet, when technological progress makes facilities obsolete, there is frequently resistance to closing them, even though we have no further military requirement for them. Keeping unneeded facilities open not only results in inefficiency and unnecessarily increases the cost of national defense, but, even worse, deprives our Nation of the use of very valuable human and physical resources -- without contributing one iota to our military strength.

The dislocations created by the onrush of science and technology are not unique to the Defense program. Indeed, their effects on the economy as a whole are not much different, either in kind or degree, from those which periodically take place as a result of changes in civilian demand or technology, or the exhaustion of natural resources in a particular geographic area. Under our free enterprise system,

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competition in the market place eventually forces the reallocation of resources from older, less efficient uses to new, more efficient uses and no business firm can long survive unless it responds promptly to these market pressures. The ability of our system to adjust to such changes quickly is one of its greatest strengths and is one of the major factors contributing to the growth and efficiency of our economy.

But while the Nation as a whole benefits from the prompt shift of resources from old to new uses, the employees and the communities directly involved may, temporarily, be adversely affected. From the viewpoint of both social equity and economic efficiency, these people should not be asked to bear the full burden of such adjustments unaided. The Defense Department, therefore, has adopted the policy of assisting in such adjustments to the extent that the law permits and its own capabilities allow.

With respect to its own employees who are dislocated by the closing of military installations, the Defense Department bears a special responsibility, both as an employer and as an agency of the Government. To assist in carrying out this responsibility, the Department has adopted a seven point program, making full use of all existing legislative authority. Under this program we:

- Guarantee a new job opportunity to each displaced employee
- Operate a nation-wide system for matching displaced employees with job vacancies
- Restrict hiring of new workers, giving preference to displaced employees
- Facilitate the placement of dislocated employees by the temporary waiver of job qualifications and by retraining programs
- Protect the income of displaced employees during the period of transition
- Reimburse a displaced employee for the costs of moving to a new job in the Defense establishment
- Make full use of the "job finding" resources of the U.S. Civil Service Commission and the state employment offices

This continuing Employment Opportunity Program is designed to protect the job security of the Department's employees, to minimize personal hardships resulting from Defense program shifts, to preserve the talents and experience of its work force, and, over the long run, to improve the climate for change itself.

Every Defense Department career civilian employee dislocated by a base closure is offered another job opportunity, and wherever possible, he is given a choice of location. For example, between January 1, 1964 and December 1, 1965, over 59,000 of the 74,600 civilian employees affected by base closures, reductions, etc., were placed in other positions. (Military personnel affected by such actions are simply reassigned to other duties, a completely normal feature of Service life.)

A centralized Referral Activity has been established in Dayton, Ohio. Here, with the help of a computer, displaced employees reported to the Center are matched against job vacancies elsewhere in the Defense establishment. The releasing activities provide the Center with information on the skills of the employee and the grades and locations he is willing to accept. Every two weeks the Center sends to each Defense installation at locations for which displaced employees have indicated a preference, a "stopper list" of the job categories for which these employees qualify. The installations receiving these lists must stop hiring new employees to fill vacancies in those job categories, and report their requirements to the Centralized Referral Activity. An exception is allowed where the vacancy is filled by a transfer of a displaced employee within the same military department or Defense Agency. In the first ten months of the operation of the Referral Activity, about 9,000 registrants were placed in new jobs. Since excess military installations are phased out over extended periods, in some cases as long as three to four years, there should be sufficient time for normal personnel turnover to provide new job opportunities for displaced employees.

To facilitate further the placement of employees affected by base closings, the Defense Department has secured the agreement of the Civil Service Commission to waive, temporarily, qualification requirements for certain positions and to permit on-the-job and off-the-job training of such employees to help them qualify for those positions. Agreement has also been reached with the Department of Labor for the training of displaced Defense Department employees for non-Federal jobs under the Manpower Development and Training Act of 1963 as amended. Over 500 applications for such training have been submitted by employees of the New York Shipyard, and we hope many more of our displaced employees will take advantage of this opportunity to gain new skills.

To minimize the financial impact on displaced employees who have to move to new Defense jobs at other locations, the Department now pays the moving expenses. Moreover, career employees may now continue to receive their present pay for a period of two years when they accept a lower paying job or move to a lower pay rate area.

Finally, the Defense Department is utilizing fully the resources of the Civil Service Commission in locating job opportunities in other

Government Agencies and those of the state employment services in finding jobs in industry for displaced Defense Department employees.

To ease further the financial burden on displaced employees, the President last year requested new legislation, applicable Government-wide, which would provide for severance pay and more liberal payments of moving costs. The severance pay provision has already been enacted. An eligible employee can now receive one week's pay for each year of service up to ten years and two week's pay for each year of service beyond ten years, plus an additional ten percent of severance pay for each year he is over forty years of age, providing the total does not exceed one year's pay.

We are also developing a plan for the implementation of Section 108 of the National Housing Act of 1965, which authorizes the Secretary of Defense to acquire private dwellings owned by Defense Department personnel affected by base closures.

Experience to date with the new Employment Opportunity Program has been very encouraging. Action has now been completed on 42 base closures which displaced 6,600 Defense Department career civilian employees. As shown in the Table below, all of these employees were offered other job opportunities and 73 percent accepted a new position or a transfer to a new location in the same position.

EXPERIENCE WITH THE EMPLOYMENT OPPORTUNITY PROGRAM AT 42 BASES WHERE CLOSING ACTION HAS BEEN COMPLETED

	Employees	
	Number	Percent
Moved to another Department of Defense job	4096	62.1
Placed in another Federal job	595	9.0
Placed in a non-Federal job	153	2.3
Declined job offer, transfer or placement assistance	906	13.7
Retired or resigned	748	11.3
Other (death, mil. service, etc.)	102	1.5
Total employees affected	6600	100.0
Separated without job opportunity	None	None

Of the 4,844 employees who accepted a new position (or transfer), about 72 percent made the change at the same or higher grade (or job level); a substantial proportion of those who accepted lower grades did so without loss of pay due to the "pay saving" policy I mentioned earlier.

The Defense Department's efforts to help its own employees do not necessarily solve the problems of the communities affected by base closures, especially when the new jobs offered are at other places. We recognize and accept our responsibilities to these communities to do what we reasonably can to alleviate the impact. It was for this reason that I established, in March 1961, the new Office of Economic Adjustment. As you know, this office provides, on request, advice and technical assistance in the development of economic recovery programs and helps mobilize the resources of the entire Federal Government in support of these efforts. Since its establishment, the Office has helped some 53 communities in 29 states. In order to provide these communities with a maximum amount of time to do their planning and prepare for the necessary adjustments, we announce these closings at the earliest possible time and where feasible, we extend the closing over a period of years.

The land and facilities released by the base closing program can usually be turned to productive non-defense uses, to the ultimate benefit of the community and the entire economy. The disposition of military property released during the 1961-1965 period is shown below:

New Use	Number of Locations	States	Acres
Civic Airports	23	13	6,478
Schools and Universities	98	34	11,617
Parks, Recreation, Community Development	78	32	39,486
Private Industry for Production	37	18	12,647
Individuals and Small Companies	171	39	55,472
Federally Owned Reserved Lands	6	3	627,785
Other Federal Agencies	57	25	36,336

In many cases, the facilities released can be converted directly to civilian industrial use. You may recall one of the earliest examples in this category, the Navy Ordnance Plant at York, Pennsylvania. The closure of this facility, which employed some 1,100 skilled workers, was announced in January 1963, to be completed in mid-1965. The General Services Administration invited competitive bids to acquire the entire plant and complete on-going work. The American Machine & Foundry Company purchased the facility, hired the work force without loss of retirement pay or other benefits and has since increased employment by over half of the original number.

Last year I told you that we were trying to make a similar arrangement for the disposition of the Naval Ordnance Plant at Macon, Georgia. Last November this facility was sold by the General Services Administration to Maxson Electronics Corporation under the same conditions and with the same employee privileges as the York transaction. Employment at this plant is already back to the pre-sale level.

A somewhat different example is the Army Signal Depot at Decatur, Illinois. At the time the closure of this facility was announced, there was much concern in the community as to the future of the local economy and efforts were made to delay or forestall the closure. Yet, by 1964 the community was urging us to speed up the closure so that they could capitalize on industrial interest in this 200-acre property, and we accommodated them by moving out some three months earlier than originally planned. Now, the General Electric Co. and the Firestone Tire & Rubber Co. employ well over 50% more civilians than were formerly employed by the Army.

A more recent case is the Erie Army Depot at Port Clinton, Ohio, which employed about 1,700 civilians and is now phasing out. Already, one modern large warehouse has been sold to Uniroyal and we have every reason to expect that the rest of this facility will be sold for industrial use; and I would not be at all surprised if private employment eventually exceeds the original 1,700 level.

Many installations, with their large barracks areas, dining halls, and shop and classroom facilities are uniquely suited to the expanding educational needs of the nation. The following are several examples of surplus military facilities being used for this purpose:

- Lake Charles, Louisiana -- McNeese State College has expanded onto the former Chennault Air Force Base, establishing a new school of engineering.

- Salina, Kansas -- A regional vocational school had already been established on the former Schilling Air Force Base and special legislation authorizing the establishment of a state-wide technical institute has been enacted by the Kansas Legislature.

- Waco, Texas -- James Connally Air Force Base is scheduled to lose its two major training missions late this spring. Through the foresight of the State government and with the assistance of the Department of Defense, the entire base is rapidly being converted to a state-wide technical institute under the supervision of the Texas A&M University. The first technical training course started on January 11 with some 70 students. Facilities have been made available to the University for an anticipated resident enrollment of over 500 in September of this year. The 867 family housing units at the base are scheduled for use by faculty and students and other personnel associated with the technical institute.

The Job Corps program of the Office of Economic Opportunity has been another important user of surplus Defense installations:

- Large urban Job Corps centers for men have been established at eight former Defense installations, including Camp Kilmer, New Jersey; Camp Parks, California; Camp Atterbury, Indiana; Camp Breckinridge, Kentucky; and Camp Gary, Texas. At Camp Gary, for example, there are now in excess of 2,500 Job Corps trainees working and learning to fit themselves into our complex society.

- Smaller defense installations are being used for other Job Corps activities, such as the conservation camps at the former Cottonwood Air Force Station, Idaho, and the former Dickenson Air Force Station in North Dakota.

One of the major requisites for community economic progress is the availability of modern air transportation facilities. The large investments in airfield facilities found at surplus Air Force bases are of unique value in this regard. The following are some examples:

- Albuquerque, New Mexico -- The transfer of the airfield portion of Kirkland AFB to the City of Albuquerque has assisted that community in its efforts to update and modernize its terminal and other airfield facilities.

- Salina, Kansas -- The Salina Municipal Airport is small and unsuited for modern jet aircraft. The runways and aircraft parking areas at the former Schilling Air Force Base represent a major resource since they can handle any aircraft now in use. With the assistance of the Federal Aviation Agency and GSA, plans have been developed to close the present Municipal Airport and relocate all commercial flying to the Schilling complex.

- Harrisburg, Pennsylvania -- The airlines using the present Harrisburg/York State Airport are converting to jet equipment this year. There was some fear that the inability of the present airport to handle these jets safely would affect airline service into the Harrisburg area. The planned closing of the nearby Olmsted AFB has given the State an opportunity to update its airfield resources at minimal cost. The State now intends to take over the Olmsted airport as a modern regional jet facility, beginning this calendar year -- some three years before the final closure of the Air Force base.

Because many military installations are communities within themselves, containing industrial, residential and community facilities, they lend themselves readily to a number of community needs. The following are two of the most recent examples of multiple use:

- Olmsted Air Force Base, Middletown, Pennsylvania -- This depot, which employed in excess of 11,000 civilians, is being phased out over a 4-year period, from June 1965 to June 1969. Through the joint efforts of the Department of Defense, the Commonwealth of Pennsylvania, and local citizens, plans have been developed for productive civilian use of the entire base, beginning early in the phaseout period. The major features of the plan involve:
  (1) Industrial use of two modern warehouses (660,000 square feet). The Defense Department has expedited the movement of supplies from these warehouses so that they can be made available for civilian use during 1966.
  (2) Use of the office building on the base (some 199,000 square feet) as the center of a new Pennsylvania State University campus. University staff personnel have already occupied a portion of this building and are planning for classes to begin this fall.
  (3) Use of the family housing (141 units) on the base for graduate students and junior faculty members.
  (4) Use of the airport facilities as a modern regional jet airfield, beginning this calendar year, as I noted earlier.

- Dow Air Force Base, Bangor, Maine -- These B-52 and fighter interceptor facilities are scheduled to be vacated early in 1968. The community of less than 40,000 has taken vigorous steps to use this base for:
  (1) A modern university campus for first and second year students at the nearby University of Maine.
  (2) A modern jet airport.
  (3) An industrial park designed to attract air-associated industries.
  (4) A residential community for college personnel and low- to medium-income families. (The base has 1,010 military family housing units.)

2. Consolidation and Standardization of Operations

Significant operating economies, usually accompanied by increases in efficiency, can often be obtained when common support activities are consolidated. During the past year we have continued to seek out such opportunities, and to improve the operating procedures of the Department as a whole.

The consolidation of common supplies and services in the Defense Supply Agency continues to yield impressive savings. In FY 1965, DSA achieved savings in annual operating costs of $59 million.

As reported last year, we are consolidating under single management the 150 offices and 20,000 people involved in the administration of defense contracts after their award. The contract administration field offices of the military departments are being merged into eleven Defense Contract Administration Services regions under the management of DSA.

We have now also established a Defense Contract Audit Agency which will bring under one management the audit activities previously performed by some 3,600 people in the three military departments. Up to five percent of these positions will be eliminated when this Agency becomes fully operational a year from now.

Savings in Departmental Operating Expenses are usually the product of the thousands of actions taken at the lower management levels to improve administrative procedures. Many of these changes produce annual savings of less than $100,000 each, and many stem from individual employee suggestions. Total savings reported in FY 1965 were $186 million.

3. Increasing Efficiency of Operations

The final category of cost reduction projects is concerned with the logistic support services of communications, transportation, maintenance, the management of real property, etc. In FY 1965, savings totaled $390 million as a result of our actions in these areas. As a group, these activities offer a very great potential for future savings and we intend to exploit this potential intensively.

X. PERSONNEL STRENGTHS AND COMPENSATION

A. PERSONNEL STRENGTHS

Principally as a result of the force augmentations related to Southeast Asia, the overall numbers of military and civilian personnel will rise in FY 1966 and again in FY 1967.

1. Civilian Personnel Strengths

The increased requirements for support of our effort in Vietnam and our program to replace 74,300 military with 60,500 civilian personnel (including 2,500 indirect hire personnel) will combine in FY 1966 and FY 1967 to reverse the consistently downward trend in Defense civilian employment. By end FY 1965 we had been able to reduce the number of direct hire civilians in the military functions of the Department to about 988,300, compared with 1,038,000 at end FY 1962. We now estimate the end FY 1966 strength at 1,087,116, about 124,000 more than planned a year ago. In FY 1967, employment would increase slightly to about 1,093,000.

These FY 1966-67 increases would have been much higher had we not reduced the Services' requests in anticipation of greater employee productivity and achieved personnel savings from such actions as the base closings and consolidations. Shown below are the end fiscal year strengths for Defense direct hire civilian personnel:

	End FY 1965 (Actual)	End FY 1966 (Estimated)	End FY 1967 (Planned)
Army	328,233	359,632	357,923
Navy	329,940	357,601	362,893
Air Force	288,299	301,378	308,717
Defense Agencies	41,845	68,505	63,848
Total DOD	988,317	1,087,116	1,093,000

2. Military Personnel Strengths

Total active duty military strength now budgeted for end FY 1966 is 2,987,000, about 347,000 more than contemplated in the original budget. As shown on the following page, total strength will rise to 3,093,000 by end FY 1967.

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	End FY 1965 (Actual)	End FY 1966 (Estimated)	End FY 1967 (Planned)
Army	968,313	1,159,043	1,233,693
Navy	671,009	723,723	727,873
Marine Corps	190,187	250,079	278,184
Air Force	823,633	854,498	853,359
Total DOD	2,653,142	2,987,343	3,093,109

B. MANPOWER PROCUREMENT

These increases in military personnel strengths have required a sharp step-up in both voluntary manpower procurement and the draft. About 900,000 new entrants into active military service will be needed in the current fiscal year, compared with an average of slightly over 500,000 in the five preceding years. Contributing to this rise is the requirement to replace a relatively large number of draftees completing their tours of duty this year. For FY 1967, our current projections indicate a smaller total requirement but still well above the annual average needed prior to the current force buildup.

In meeting these needs, our policy continues to be one of maximum reliance upon voluntary recruitment. All of the Services have intensified their recruitment efforts during the past half year and the results to date have been very encouraging. Following the President's announcement of the Vietnam force buildup in late July, enlistments in the next five months were 85 percent higher than in the comparable period a year earlier. This, of course, is the traditional response we have come to expect from our young men when the Nation is in need of their services. Although some of them have, undoubtedly, chosen to enlist in the Service of their choice rather than wait to be drafted, I know you will all be proud to learn that the Army and Marine Corps -- the Services directly engaged in ground action in Vietnam -- have fully shared in the enlistment gains.

Despite these large gains in recruiting, it has been necessary to increase sharply our monthly draft calls. Since last September these calls have ranged between 27,000 and 40,000 per month, compared with a monthly average of about 8,500 in FY 1965. Presently, we anticipate that draft calls will continue at a relatively high level during most of this calendar year, with month-to-month fluctuations depending upon such factors as the trends in enlistments and reenlistments.

Our recent experience with the Vietnam buildup again demonstrates the critical importance of the Selective Service System in meeting our military manpower needs. But we have been concerned for some time about the way in which the draft selection system has operated. Because of

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this concern, you will recall that President Johnson in April 1964 directed me to undertake a comprehensive study of the draft system and of related military manpower policies. The staff work on the study, which involved the efforts of many federal agencies, was substantially completed last summer. Although the Vietnam buildup has required the revision of many of the detailed estimates and projections included in this study, it has not affected its major findings. These can be summarized as follows:

1. We cannot look forward to discontinuation of the draft in the coming decade unless changing world conditions permit the reduction of our regular forces substantially below the levels which have proved necessary since the beginning of the Korean War.

2. Increases in military compensation do not provide a viable alternative to the draft in meeting our manpower needs. Our study indicates that, even prior to the current buildup, very large expenditures would have been required to attract a sufficient number of volunteers. Even with large expenditures, exclusive reliance on the market place would make it very difficult, if not impossible, to guarantee that the necessary manpower would be available in time to meet the kinds of rapid changes in military requirements which we have encountered in recent years.

3. Our review of various alternative criteria for selecting men under the draft leads us to conclude that the existing system of deferments (on such grounds as dependency, student status, occupation and unfitness) is basically sound from the viewpoint of the national interest. However, some changes have been made where these rules were found susceptible to abuse. For example, the policy initiated in 1963 of placing married men without children in a lower order of call for induction was discontinued by President Johnson last August. In addition, the Selective Service System is closely supervising student deferments to assure that they are, in fact, in the national interest as provided under the law.

4. Even though the authority to draft will probably continue to be needed, we should place maximum reliance upon volunteers and find ways to reduce reliance on demands on the draft. One such way is to substitute civilian for military personnel in various support-type functions. Another is to

ensure that every man who wishes and is able to serve his country has the opportunity to do so through voluntary enlistment. As I noted in the Section on General Support, we have undertaken new programs in both these areas. We also anticipate that men now ineligible for service may be helped to qualify through the educational and training programs of the Job Corps and other civilian manpower and educational agencies.

C. MILITARY COMPENSATION

We will undertake this year a major review of all the basic concepts and elements entering into the military compensation structure. We are now developing our plans and selecting the specialized personnel needed to conduct this study, which is to be completed by the end of this calendar year.

One of the major objectives of the study is to provide an analytical framework and the informational base needed to develop sound recommendations for changes in the existing pay structure which will attract and hold the kinds and numbers of men our Armed Forces need. It is plain that the existing pay structure is not producing the desired results. For example, personnel loss rates are highest in those technical specialties which require the longest and most expensive training and lowest in occupations which require little training and where a higher turnover rate might even be desirable.

The study will examine in detail the adequacy and appropriateness of each component of military pay, including supplemental benefits, and the non-monetary aspects of military service such as hazards and hardships. It will be organized around four major tasks:

1. The development of estimates of military personnel requirements by occupational group and skill level.

2. The determination of alternative civilian employment opportunities for personnel with different military skills.

3. The calculation of total military earnings by Service, occupation, skill level, experience and dependency status.

4. The ascertainment of the magnitude of the adjustments in military compensation required to make service in our Armed Forces fully competitive with opportunities in the civilian sector of the economy.

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The completion of these tasks will give us the basis for recommending the changes necessary in the military compensation structure to ensure that career personnel are properly compensated in relation to the compensation received by people with similar skills and experience in the civilian economy.

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XI. FINANCIAL SUMMARY

The programs proposed for FY 1967, including Military Assistance, Military Construction, Military Family Housing, and Civil Defense, aggregate $61,423,876,000 in total obligational authority. A summary by major programs for fiscal years 1962, 1963, 1964, 1965, 1966 and 1967 is shown on Table 1.

Of the $61,423,876,000 in obligational authority required to finance the 1967 program:

. $1,098,352,000 would be obtained from prior year funds available for new programs, including balances brought forward and recoupments anticipated during the year.

. $470,824,000 would be obtained from anticipated reimbursements which would be available to finance new programs, leaving, therefore,

. $59,854,700,000 of new obligational authority, the amount requested in the President's FY 1967 budget.

Of the $59,854,700,000 of new obligational authority requested, the following amounts will be presented separately:

$917,000,000 for Military Assistance
$593,047,000 for Military Construction
$521,900,000 for Military Family Housing, and
$133,400,000 for Civil Defense

Provision for a number of items of proposed or possible legislation is made within the Government-wide "Allowances for Contingencies".

Of the $59,854,700,000 of new obligational authority, $16,801,959,000 is requested to be authorized for appropriation under the provisions of Section 412(b) of Public Law 86-149, as amended. Of this amount: $10,021,600,000 is for procurement of aircraft, missiles, naval vessels and tracked combat vehicles; and $6,780,359,000 is for all research, development, test and evaluation.

In addition, we have requested an FY 1966 Southeast Asia Supplemental of $12,345,719,000 in new obligational authority, which will require another $3,569,350,000 of Section 412(b) authorizations; $3,417,700,000 for procurement and $151,650,000 for RDT&E.

The specific amounts for each Service and each category are shown in the Bill which this Committee will consider. Tables 24 and 30 compare

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the authorization amounts requested for FY 1967 and the amounts authorized and appropriated for FY 1966. Tables 25-29 and 31-36 provide the details supporting the authorizations requested for FY 1967.

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APPENDIX

Selected Excerpts From the Article "Long Live The Victory of The People's War" by Lin Piao, Vice Chairman of the Chinese Communist Party Central Committee and Vice Premier and Minister of National Defense, Foreign Broadcast Information Service Daily Report Supplement Far East No. 171 (4s)--1965, 3 September 1965, Pages 20-22, 25-30, passim.

"In the last analysis, the Marxist-Leninist theory of proletarian revolution is the theory of the seizure of state power by revolutionary violence....

"It was on the basis of the lessons derived from the people's wars in China that Comrade Mao Tse-tung, using the simplest and the most vivid language, advanced the famous thesis that 'political power grows out of the barrel of a gun'.

"He clearly pointed out: The seizure of power by armed force, the settlement of the issue by war is the central task and the highest form of revolution. This Marxist-Leninist principle of revolution holds good universally, for China and for all other countries.

"Comrade Mao Tse-tung points out that we must despise the enemy strategically and take full account of him tactically.... Without the courage to despise the enemy and without daring to win, it will be simply impossible to make revolution and wage a people's war, let alone to achieve victory.

"It is likewise impossible to win victory in a people's war without taking full account of the enemy tactically, and without examining the concrete conditions, without being prudent and giving great attention to the study of the art of struggle, and without adopting appropriate forms of struggle in the concrete practice of the revolution in each country and with regard to each concrete problem of struggle.

"It must be emphasized that Comrade Mao Tse-tung's theory .... is of outstanding and universal practical importance for the present revolutionary struggles of all the oppressed nations and peoples, and particularly for the revolutionary struggles of the oppressed nations and peoples of Asia, Africa, and Latin America. . . .

"In the final analysis, the whole cause of world revolution hinges on the revolutionary struggles of the Asian, African, and Latin

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American peoples who make up the overwhelming majority of the world's population. The **socialist** countries should regard it as their internationalist duty to support the people's revolutionary struggles in Asia, Africa, and Latin America.

"Today, the conditions are more favorable than ever before for the waging of people's wars by the revolutionary peoples of Asia, Africa, and Latin America against U.S. imperialism and its lackeys.

"U.S. imperialism is stronger, but also more vulnerable, than any imperialism of the past. It sets itself against the people of the world, including the people of the United States. Its human, military, material, and financial resources are far from sufficient for the realization of its ambition of dominating the whole world. U.S. imperialism has further weakened itself by occupying so many places in the world, overreaching itself, stretching its fingers out wide and dispersing its strength, with its rear so far away and its supply lines so long.

"Everything is divisible, and so is this colossus of U.S. imperialism. It can be split up and defeated. The peoples of Asia, Africa, Latin America, and other regions can destroy it piece by piece, some striking at its head and others at its feet.

"U.S. imperialism relies solely on its nuclear weapons to intimidate people. But these weapons cannot save U.S. imperialism from its doom. Nuclear weapons cannot be used lightly.

"However fully developed modern weapons and technical equipment may be and however complicated the methods of modern warfare, in the final analysis the outcome of a war will be decided by the sustained fighting of the ground forces, by the fighting at close quarters on battlefields, by the political consciousness of the men, by their courage and spirit of sacrifice.... The reactionary troops of U.S. imperialism cannot possibly be endowed with the courage and the spirit of sacrifice possessed by the revolutionary people.

"The fundamental reason why the Khrushchev revisionists are opposed to people's war is that they have no faith in the masses and are afraid of U.S. imperialism, of war, and of revolution.... They... are afraid that, if the oppressed peoples and nations rise up to fight people's war...they themselves will become involved, and their fond dream of Soviet-U.S. cooperation to dominate the world will be spoiled.

"The Khrushchev revisionists assert that nuclear weapons and strategic rocket units are decisive while conventional forces are insignificant, and that a militia is just a heap of human flesh. For ridiculous reasons such as these, they oppose the mobilization of and reliance on the masses in the socialist countries to get prepared to use people's war against imperialist aggression.

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"The Khrushchev revisionists maintain that a single spark in any part of the globe may touch off a world nuclear conflagration and bring destruction to mankind. If this were true, our planet world would have been destroyed time and time again.

"The Khrushchev revisionists claim that if their general line of 'peaceful coexistence, peaceful transition, and peaceful competition' is followed, the oppressed will be liberated and a 'world without weapons, without armed forces, and without wars' will come into being ....The essence of the general line of the Khrushchev revisionists is nothing other than the demand that all the oppressed peoples and nations and all the countries which have won independence should lay down their arms and place themselves at the mercy of the U.S. imperialists and their lackeys who are armed to the teeth.

"....Subscribing to this imperialist philosophy, the Khrushchev revisionists shout at the Chinese people standing in the forefront of the fight for world peace: 'you are bellicose'....The Khrushchev revisionists regard imperialists like Kennedy and Johnson as 'sensible' and describe us together with all those who dare to carry out armed defense against imperialist aggression as 'bellicose'. This has revealed the Khrushchev revisionists in their true color as the accomplices of imperialist gangsters.

"....The sacrifice of a small number of people in revolutionary wars is repaid by security for whole nations, whole countries and even the whole of mankind; temporary suffering is repaid by lasting or even perpetual peace and happiness. War can temper the people and push history forward. In this sense, war is a great school.

"The struggle of the Vietnamese people against U.S. aggression and for national salvation is now the focus of the struggle of the people of the world against U.S. aggression."

TABLE 1
FINANCIAL SUMMARY
(In Billions of Dollars)

	FY 1961	FY 1962 Orig.	FY 1962 Final	FY 1963	FY 1964	FY 1965	FY 1966 Enacted & Auth a/	FY 1966 SEA Suppl	FY 1966 Total	FY 1967
Strategic Offensive Forces		7.6	8.9	8.3	7.3	5.3	4.6	.5	5.1	5.1
Continental Air & Missile Defense Forces		2.2	2.3	1.9	2.0	1.6	1.7	-	1.7	1.4
General Purpose Forces		14.5	17.5	17.5	17.7	19.0	21.2	8.8	30.0	25.7
Airlift/Sealift Forces		.9	1.2	1.3	1.2	1.5	1.7	.5	2.2	2.1
Reserve and Guard Forces		1.7	1.8	1.8	1.9	2.1	2.1	.1	2.2	2.4
Research and Development		3.9	4.2	5.1	5.4	4.9	5.2	.1	5.3	5.5
General Support		11.4	12.1	12.9	13.8	14.5	15.0	1.8	16.8	16.7
Retired Pay		.9	.9	1.0	1.2	1.4	1.6	-	1.6	1.8
Military Assistance		1.8	1.8	1.6	1.2	1.3	1.6	-	1.6	1.0
Total Obligational Authority	46.1	44.9	50.7	51.5	51.7	51.4	54.6	11.9	66.5	61.4
Less Financing Adjustments	-3.0	-1.3	-1.3	-.4	-.8	-.9	-3.6	+.4	-3.2	-1.5
New Obligational Authority	43.1	43.7	49.4	51.1	50.9	50.5	51.0	12.3	63.3	59.9
Adjustment to Expenditures	+1.6	+1.0	-1.2	-1.1	+.3	-3.1	- .7	-8.4	-9.1	-1.6
Total Expenditures	44.7	44.7	48.2	50.0	51.2	47.4	50.3	3.9	54.2	58.3
TOA by Department & Agency										
Army	10.4	10.4	12.5	11.9	12.5	12.2	13.2	4.8	18.0	17.4
Navy	12.7	12.4	14.7	14.8	14.7	15.0	16.3	3.2	19.4	17.6
Air Force	19.9	18.5	19.7	20.5	20.2	19.6	19.7	3.7	23.4	21.5
Civil Defense			.3	.1	.1	.1	.1	-	.1	.1
Defense Agencies	.3	.4	.3	1.0	1.1	1.1	1.3	.2	1.6	1.5 b/
Retired Pay	.8	.9	.9	1.0	1.2	1.4	1.6	-	1.6	1.8
Defense Family Housing c/	.5	.5	.5	.6	.7	.6	.7	-	.7	.5
Military Assistance	1.5	1.8	1.8	1.6	1.2	1.3	1.6	-	1.6	1.0
Total d/	46.1	44.9	50.7	51.5	51.7	51.4	54.6	11.9	66.5	61.4
Memo: Increases since FY 1961 in payments to retired personnel and in rates of compensation included above:										
Increased Compensation Rate:										
Military				.1	1.1	1.6	2.4	-	2.4	2.5
Civilian				.2	.3	.6	.7	-	.7	.8
Increased Payments to Retired Personel		.1	.1	.2	.4	.6	.8	-	.8	1.0
Total		.1	.1	.5	1.8	2.8	3.9	-	3.9	4.3
Unfunded Mil. Ret. Past Service Liability	45.1		47.3	48.9	56.1	58.3	66.5	-	66.5	69.2

a/ Included is authority granted by August 1965 Amendment (i.e., $1.7 billion for Southeast Asia), plus $.9 billion for increased personnel compensation.
b/ At current pay rates, it would require $2.1 billion in FY 1967 to fund "current service costs".
c/ In 1961 and 1962 funds for this activity were appropriated to the military departments.
d/ Excludes cost of nuclear warheads.

TABLE 2 - STRATEGIC OFFENSIVE FORCES (AT END OF FISCAL YEAR)

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
Bombers a/											
B-52	555	615	630	630	630	600	555	510	435	330	255
B-58	40	80	80	80	80	80	78	76	74	72	
B-EB-47	900	810	585	450	225						
FB-111A									15	105	210
Total Bombers	1495	1505	1295	1160	935	680	633	586	524	507	465
Air-Launched Msls											
HOUND DOG	216	460	580	580	560	540	540	540	520	520	350
SRAM										150	450
Total	216	460	580	580	560	540	540	540	520	670	800
Strategic Reconnaissance											
[redacted]											
RC-135							10	10	10	10	10
RB-47	90	45	30	30	27	14					
Total	[redacted]										
Surface-Surface Msls b/											
MINUTEMAN I			160	600	800	800	700	550	400	250	100
MINUTEMAN II						60	300	450	550	570	600
MINUTEMAN III									50	180	300
ATLAS	28	57	126	113							
POLARIS	80	96	144	240	464	512	640	656	656	656	656
TITAN		21	67	108	54	54	54	54	54	54	54
Total ICBM/Polaris	108	174	497	1061	1318	1446	1694	1710	1710	1710	1710
Other											
QUAIL	224	392	392	392	392	390	390	390	390	390	390
KC-135 c/	400	440	500	560	620	620	620	620	620	620	620
KC-97	600	580	340	240	120						
REGULUS	17	17	17	7							
PACCS											
EC-135			17	18	24	27	27	27	27	27	27
B-47		18	36	36							

[redacted]

a/ Numbers of aircraft do not include command support or reserve aircraft.

b/ Numbers of Polaris missiles show cumulative numbers which will have been deployed as ships become operational and are deployed. The number on alert is reduced from this figure by overhaul and retrofit schedules and refit between patrols.

c/ Excludes National Emergency Airborne Command Post, Post Attack Command and Control System, and Airborne Command Posts-CINCS aircraft.

[redacted]

[redacted]

[redacted]

TABLE 3 - CONTINENTAL AIR AND MISSILE DEFENSE FORCES
(Number at End of Fiscal Year)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
Surveillance, Warning & Control a/											
NORAD Combat Opns Ctr	1	1	1	1	1	1	1	1	1	1	1
Combat Centers	8	8	8	7	7	5	5	5	5	5	5
Direction Centers	20	21	18	15	15	13	13	11	11	11	11
BUIC II Control Ctrs						14	12				
BUIC III Control Ctrs								14	19	19	19
Search Radars	182	179	169	168	162	158	151	151	151	151	151
Height Radars	313	313	313	310	309	282	275	275	275	275	275
Gap Filler Radars	112	103	96	100	92	91	91	91	91	91	91
DEW Radar Stations	67	67	67	39	39	39	39	39	39	39	39
DEW Extension Systems											
Aircraft	50	44	45	43	20						
Ships	5	5									
Offshore Radars											
AEW/ALRI Aircraft	60	60	67	67	67	67	67	67	67	67	67
Ships	21	22	22	22	19						
SAM Fire Coord Centers	10	28	28	26	25	19	22	22	22	22	22
Air National Guard											
Search Radars	6	6	6	6	6	6	6	6	6	6	6
Manned Interceptors b/											
Air Force											
F-101	384	312	312	312	270	270	270	198	108	108	108
F-102	393	293	255	235	235	111	34				
F-104			42	42	36	36	36	24	24	24	24
F-106	270	276	240	240	234	228	216	210	204	198	192
Navy											
F-6	25	27									
Air National Guard c/											
F-86	250	200	150	100							
F-89	250	250	225	225	180	100					
F-100	66	67	72	42							
F-102	130	127	152	191	208	313	403	403	403	403	403
F-104	61										
Surface-to-Air Missiles											
BOMARC (on Launchers)	238	307	383	200	180	172	164	156	148	140	132
NIKE-HERCULES (Reg) d/	2340	2340	2154	1764	1548	1152	1152	1152	1152	1152	1152
NIKE-HERCULES (ARNG) d/	108	108	396	756	936	936	936	936	909	832	802
NIKE-AJAX (ARNG) d/	1520	1440	720								
HAWK (Reg) d/			576	576	576	576	576	576	576	560	544
Ballistic Missile Warning											
BMEWS Sites	2	2	2	3	3	3	3	3	3	3	3
OTH Radar Sites, Transmit/Rec					2/5	2/5	3/6	4/6	4/6	4/6	4/6

[redacted]

a/ Includes CONUS, Alaska, Greenland, Iceland and Canada
b/ Number of aircraft are obtained multiplying authorized squadron unit equipment by number of squadrons
c/ Possessed aircraft where less than U.E.
d/ NIKE-HERCULES, AJAX, HAWK, and NIKE-ZEUS/X reflect number of missiles authorized or programmed.
e/ Number of U.E. missiles

[redacted]

[redacted]

TABLE 4
FINANCIAL SUMMARY OF CIVIL DEFENSE
(TOA,* $ in Millions)

	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67
A. Shelter Survey	58.4	9.3	7.8	11.7	20.4	23.4
B. Shelter Development	-	-	-	5.9	3.0	17.1[c/]
C. Shelter in Federal Bldgs.	19.8[a/]	-	-	-	7.8	-
D. Shelter Provisions	90.3	32.7	23.5	2.6	1.5	6.8[d/]
E. Warning	6.8	4.1[b/]	1.8	2.7	.4	.7
F. Emergency Operations	19.8	13.1[b/]	13.1	14.3	11.3	13.1
G. Financial Asst. to States	18.9	27.5	23.7	25.6	23.0	30.5
H. Research & Development	19.0	11.0	10.0	10.0	10.0	10.0
I. Management	12.4	13.6	13.9	14.3	12.4	13.2
J. Public Information	4.0	4.3	2.7	2.2	3.5	4.0
K. Training & Education	2.9	9.9	14.1	12.2	13.5	15.6
TOTAL	252.3	125.4	110.5	101.5	106.8	134.4

SHELTER SPACES [e/]
(Millions Cumulative)

Identified	103.7	121.4	135.6	145.0	161.0
Marked	42.8	63.8	75.9	85.0	95.0
Stocked	9.7	23.8	33.8	45.0	56.0

a/ Includes $2.3 million transferred from OCDM for construction of a Regional Center; $13.4 million returned to Treasury, not used by GSA in Federal building construction.

b/ Excludes $2.2 million transferred to Army for civil defense warning and communications networks.

c/ Includes Architect and Engineer advisory services on design techniques, Community Shelter Planning Program, and a one year experimental program for the inclusion of dual use, low-cost shelter in new construction.

d/ Includes Packaged Ventilation Kits. No procurement of Shelter Provisions, other than Ventilation Kits, is included in FY 67.

e/ Shelter spaces resulting from the currently approved program; FY 63-FY 65 are actual, FY 66-FY 67 are estimated.

NOTE: Totals may not add due to rounding.

* Total Obligational Authority.

[redacted]

TABLE 5 - GENERAL PURPOSE FORCES - ARMY
(End Fiscal Year)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
Active Forces a/											
Division Forces											
Airborne	2	2	2	2	2	2	2	2	2	2	2
Airmobile						1	1	1	1	1	1
Armored	3	3	3	4	4	4	4	4	4	4	4
Infantry	6	7	6	6	6	6b/	6b/	5	5	5	5
Mechanized		2	5	4	4	4	4	4	4	4	4
Total	11	14c/	16	16	16	17	17	16	16	16	16
Combat Ready	11	14c/	16	16c/	16d/	16	17	16	16	16	16
Training Divisions	3	2									
Brigade Forces a/			1	1	1	4b/	4b/	1	1	1	1
Brigades (Separate)											
Airborne								1	1	1	1
Armored			1	1	1	1	1	1	1	1	1
Infantry	2	1	2	3	3	3	3	2	2	2	2
Mechanized				2	2	2	2	2	2	2	2
Total	2	1	3	6	6	6	6	6	6	6	6
Armored Cavalry Regts	5	5	4	4	4	4	5b/	4	4	4	4
Special Forces Grps	3	4	6	7	7	7	7	7	7	7	7
Missile Commands	4	3	2	2	2	1	1	1	1	1	1
Infantry Battle Groups	8	9	6								
Maneuver Bns											
Organic	108	119	138	169	167	185b/	187b/	167	167	167	167
Separate	14	14	10	7	7	7	7	7	7	7	7
Total	122	133	148	176	174	192	194	174	174	174	174
Artillery Bns											
Organic	60	65	66	67	67	74b/	74b/	67	67	67	67
Separate	42	39	51	48	48	51a/	59a/	47	47	47	47
Total	102	104	117	115	115	125	133	114	114	114	114
Signal Combat Bns-Organic	14	16	16	16	16	17b/	17b/	16	16	16	16
Engineer Combat Bns											
Organic	14	16	16	16	16	17b/	17b/	16	16	16	16
Separate	17	19	19	22	22	24b/	27b/	22	22	22	22
Total	31	35	35	38	38	41	44	38	38	38	38

a/ The Division Force consists of three increments: (1) the division; (2) the nondivisional units required to support the division during initial entry into combat and during the initial defensive phase; and (3) the additional nondivisional units required to support the division during sustained combat operations beyond the initial defensive phase. The division force excludes theater and higher headquarters, certain special activities, and the CONUS operating base. Brigade Forces are similarly organized.

b/ The following temporary forces are included:

	FY 66	FY 67
Infantry Division Force	1	1
Brigade Forces	3	3
Maneuver Battalions	18	20
Armored Cavalry Regiments		1
Artillery Battalions	10	19
Combat Engineer Battalions	3	6
Combat Signal Battalions	1	1

c/ Excludes two National Guard Divisions on active duty.

d/ Plus 15,000 men in units required to test air mobility concepts.

TABLE 5 - GENERAL PURPOSE FORCES - ARMY
(End Fiscal Year) - Cont'd

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
Aviation Companies											
Organic	21	24	30	43	41	48a/	33a/	28	28	28	28
Separate	34	37	38	34	37	67a/	105a/	77	78	78	78
Total	55	61	68	77	78	115	138	105	106	106	106
Aircraft b/											
Helicopters	1339	1488	1535	1766	2385	2943	3861	4012	4023	4027	4025
Fixed-Wing	977	1086	1097	1108	1150	1298	1080	471	471	471	471
	2316	2574	2632	2874	3535	4241	4941	4483	4494	4498	4496
S-S Missile Bns											
REDSTONE-Separate	3	3	3								
CORPORAL-Organic	3	2	2								
CORPORAL-Separate	9	8	5								
SERGEANT-Organic				1	1						
SERGEANT-Separate		3	6	6	6	7	7	7	7	7	7
PERSHING-Separate		1	3	5	5	5	5	5	5	5	5
LACROSSE-Separate	6	6	6								
HONEST JOHN-Organic	12½	9½	10½	14	14	14a/	14a/	13	12	12	12
HONEST JOHN-Separate	7	7	6	6	6	6	6	5	2	1	1
LITTLE JOHN-Organic		5	4	3	3	1	1				
LITTLE JOHN-Separate	2	2	3	3	3	3	3	3			
LANCE-Separate								1	5	6	6
Total	42½	46½	48½	38	38	36	36	34	31	31	31
Air Defense Batteries											
HERCULES	51	55	51	51	55	59	59	59	51	51	51
HAWK-Separate	48	76	76	76	76	76	88a/	71	79	79	79
Gun/CHAPARRAL								24	52	76	84
AWSP 40mm/50 Cal MG-Sep	2	2	2	2	2	22a/	48a/	35	35	2	2
Priority Reserve-Major Units											
Division Forces											
Armored	2	2	2	2	2	2	2	2	2	2	2
Infantry	4	4	4	4	4	6	5	5	5	5	5
Mechanized							1	1	1	1	1
Total	6	6	6	6	6	8	8	8	8	8	8
Special Purpose Divisions	1	1	2	2	2						
Brigade Forces						3	3	3	3	3	3
Brigades (Separate)											
Airborne							1	1	1	1	1
Armored			2	2	2	1					
Infantry	3	3	7	7	7	8	10	10	10	10	10
Mechanized			2	2	2	2	2	2	2	2	2
Total	3	3	11	11	11	11	13	13	13	13	13
Armored Cavalry Regts	2	3	3	3	3	3	4	4	4	4	4

a/ Following temporary forces are included:

	FY 66	FY 67
Aviation Companies	13	34
HONEST JOHN Battalions	1	1
HAWK Batteries		12
AWSP Air Defense Batteries	20	46

b/ Only aircraft assigned to Program III units, less maintenance float, are reflected.

TABLE 6
COMPARISON OF THE PRESENT AND PROPOSED
ARMY RESERVE COMPONENT STRUCTURES

UNIT CATEGORY	PRESENT STRUCTURE [a]					PROPOSED NEW STRUCTURE [a]		
	Army National Guard	US Army Reserve	Total	Manning Level	Readiness Goals (Weeks)[b]	Army National Guard	Manning Level	Readiness Goals (Weeks)[b]
Units for which there is a military requirement								
Air Defense	7,400		7,400	85%	0	7,400	85%	0
Units to Round out Active Army	75,800	90,200	166,000	80%	4,8	162,700	80%	4,6
8 Division Forces	152,800	76,400	229,200	75-80%	4,8	223,300	80%	4,8
Brigades [c]	28,000	18,500	46,500	75-80%	8	69,600	80%	6
Mobilization Base	7,900	67,900	75,800	75-100%	1,4	66,300	80-100%	1,2
Support to Other Services	2,200	12,400	14,600	70%	8	11,200	70%	8
State Hq & School Units	3,900	4,600	8,500	100%		9,500	100%	
TOTAL	278,000	270,000	548,000			550,000		
Selected Reserve Force Add-on	18,500 [f]		18,500 [f]			30,000 [f]		
	296,500		566,500			580,000		
Units for which there is no military requirement								
Other Divisions [d]	107,200		107,200	50%	[e]			
Non Divisional Units	14,050		14,050	50%	[e]			
Command Hq Divisional	750		750	100%				
TOTAL	122,000		122,000					
TOTAL: Strength	418,500	270,000	688,500			580,000		
No. of Units			7,350			6,100		

[a] The Selected Reserve Force (3 divisions, 6 brigades, and support forces, all manned at 100%) is drawn from the categories below as follows:

Category	Present Structure ARNG	Present Structure USAR	Present Structure TOTAL	Proposed Structure
Units to Round-out Active Army	18,100	12,400	30,500	5,000
Division Forces	57,800	12,700	70,500	93,500
Brigades	11,400	200	11,600	21,800
Support to Other Services	1,600	6,200	7,800	
Other Divisions	11,400		11,400	
Selected Reserve Force Add-on	18,500		18,500	30,000
	118,800	31,500	150,300	150,300

[b] Total time from alert for mobilization to actual readiness for deployment (including training time).
[c] 11 in the present structure; 16 in the proposed structure, including 3 brigade forces beginning in FY 1966.
[d] 15 Divisions (Guard) in present structure.
[e] Actual deployment is dependent on the availability of equipment, filler personnel and activation, manning and training of necessary Support Forces.
[f] In the present structure, 18,500 overstrength spaces were required to bring ARNG elements of the Selected Reserve Force to 100% strength; all spaces required to bring USAR elements to 100% were obtained by inactivating reinforcing reserve units. In the proposed structure, 30,000 overstrength spaces will be required to bring elements of the Selected Reserve Force from the 80% basic manning level to 100% strength.

[redacted]

TABLE 7 - ARMY PROCUREMENT
(TOA, $ Millions)

TABLE 8 - GENERAL PURPOSE FORCES - NAVY
(End Fiscal Year)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
Attack Carriers											
Enterprise		1	1	1	1	1	1	1	1	1	1
Forrestal	5	6	6	6	7	7	7	7	8	8	8
Midway	3	3	3	3	3	2	2	2	2	3	3
Hancock/Essex	7	6	5	5	5	5	5	5	4	3	3
Total	15	16	15	15	16	15	15	15	15	15	15
Attack Carrier Air Wings											
Fighter Bombers											
F3B/F6A	167	121	72	19							
F8A/B/C/D	177	124	127	64	46						
F8E		35	69	107	100	120	120	120	120	108	48
F4B/G/J		77	108	161	188	240	240	228	216	192	168
F-111B										12	36
Total	344	357	376	351	334	360	360	348	336	312	252
Attack											
A-1	215	197	183	145	109	108	84	60	24		
A-4B/C	306	383	330	262	253	266	238	154	28	14	
A-4E			37	119	157	168	168	210	210	210	168
A-6A				14	18	54	72	90	108	108	108
A-7A							56	140	294	364	462
Total	521	580	550	540	537	596	618	654	664	696	738
Heavy Attack											
A-5A		7	21	15							
A-3B	92	93	84	76	43	45	45	33	33	33	9
Total	92	100	105	91	43	45	45	33	33	33	9
Recon/ECM											
RF-8A/G	55	55	48	45	33	23	23	23	20	21	21
RA-3B	14	20	19	19	19	18	18	18	16	16	16
EA-3B	14	17	18	18	18	18	18	18	18	18	18
EA-1F	29	33	29	30	24	30	30	26	25		
EA-6B									18	36	36
EC-1A	3	4	3	3	4	4	4	4	4	4	4
EC-121L/M	6	6	6	7	7	6	6	6	6	6	6
RA-5C				10	21	48	48	54	48	48	42
A-3B Tanker				4	2	2	2	2	2	2	2
Total	121	135	123	136	128	149	149	151	157	151	145
Fleet Early Warning											
A-1E/G		1	3	5	2						
E-1B	55	71	70	46	40	28	20	20	16	12	12
E-2A				10	18	32	40	40	44	48	48
Total	55	72	73	61	60	60	60	60	60	60	60
Replacement Carrier Wings											
Fighter Bombers											
F-6A/F-3B	55	35	13								
F-8A/B/C/D	68	67	47	44	9		30	12	30	28	1
F-8E		20	18	32	37	30	5	18		2	12
F-4A/B/J	21	37	38	54	57	53	60	57	54	47	41
F-111B										4	14
Total	144	159	116	130	103	83	95	87	84	81	67

[redacted]

TABLE 8 - GENERAL PURPOSE FORCES - NAVY (Cont'd)
(End Fiscal Year)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
Replacement Carrier Wings (Cont'd)											
Attack											
A-1 (A-1H/J/AF-1E)	48	46	41	23	25	24	23	15	6		
A-3A/B	24	23	26	15	11	11	11	8	8	5	2
A-4A/B/C	127	126	88	85	65	65	47	4	4	4	
TA/A-4E			21	30	41	50	34	73	43	39	42
A-6A			3	8	23	15	21	24	26	26	26
A-7A							26	32	73	91	115
Total	199	195	179	161	165	165	162	156	160	165	185
Recon/ECM											
RA-3B/RF-9J		1	2	2							
A-5A	2	10	6	11	6	4	4	4	3	2	2
RA-5C			4	8	15	9	9	7	6	6	6
RF-8A/G						4	4	4	4	1	
EA-6B									6	9	9
Total	2	11	12	21	21	17	17	15	19	18	17
Fleet Early Warning											
E-2A						3	3	3	3	3	3
Trainer	154	125	132	126	119	123	109	107	103	97	97
Total	1632	1734	1666	1617	1510	1601	1618	1614	1619	1616	1573
ASW-Surveillance & Ocean Control											
Ships											
ASW Carriers	9	10	9	9	9	8	8	8	8	8	8
SSN	13	16	16	19	21	24	40	47	51	54	61
SS	92	88	86	83	83	81	65	58	54	51	44
Sub Direct Support	27	27	26	24	24	25	25	21	19	16	16
DEG						4	6	6	6	6	6
DE	20	47	21	22	22	27	29	31	43	60	73
DER	9	9	12	11	10	16	14	3	3	1	
Small Patrol	4	2	4	8	13	18	23	26	33	33	33
A/C Support Ships	7	8	7	7	7	4	4	4	4	4	4
Total	181	207	181	183	189	207	214	204	221	233	245
ASW Carrier Air Wings											
SH-34G/J	121	103	31	8							
S-2A/B/C/D/F	179	207	157	121	81	40	20				
US-2C					3						
SH-3A/D		49	93	120	131	128	128	146 a/	152 a/	161 a/	173 a/
S-2E			31	61	94	120	140	160	160	160	160
A-4B/C/E						24	28	32	32	32	32
EA-1E/E-1B	37	48	36	57	37	36	35	35	35	35	35
Replacement A/C	43	47	54	51	48	53	53	53	53	53	53
Total	380	454	402	418	394	401	404	426	432	441	453

a/ Includes SH-3A/D ASW helicopters used aboard CVA's: 18 in FY 1968, 24 in FY 1969, 33 in FY 1970, and 45 in FY 1971.

[redacted]

[redacted]

TABLE 8 - GENERAL PURPOSE FORCES - NAVY (Cont'd)
(End Fiscal Year)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
Patrol A/C Sqdns											
Land Planes											
P-2E/S-2A		158									
SP-2E/H	247	285	231	218	181	168	120	84	48	12	
P-3A			31	56	78	117	153	180	207	234	243
Seaplanes											
SP-5A/B	72	76	61	47	38	36	36	36	36	36	36
Replacement A/C	42	35	46	45	39	39	39	39	39	39	39
Total	361	554	369	366	336	360	348	339	330	321	318
Sound Surveillance Sys (SOSUS)											
Atl Caesar Arrays	18	18	18	19	20	22	23	24	24	24	24
Pac Caesar Arrays	6	6	7	7	7	7	8	8	8	8	8
COLOSSUS I							1	2	3	3	3
Multi-Purpose Ships											
SAM Ships											
CGN		1	1	1	1	1	1	1	1	1	1
CG/CLG/CAG	8	8	10	11	11	11	10	10	10	10	10
DLGN			1	1	1	2	2	2	1	2	2
DLG	8	10	13	19	21	27	26	22	22	21	24
DDG	7	13	17	21	23	23	26	29	29	29	31
Other Combat											
CA (gun)	4	4	3	2	2	2	2	2	2	2	2
DL (gun)	5	5	5	5	5	3	3	3	3	3	3
DD/DDR	203 a/	212	190	179	184	181	176	168	154	140	126
Direct Spt Tenders	15	15	15	15	15	15	15	15	15	15	15
Total	250	268	255	254	263	265	261	252	237	223	214
Amphib Assault Ships											
Ships	111	131	133	134	136	165	165	137	138	139	149
Gunfire Spt Ships						4	4	4	4	4	4
Total	111	131	133	134	136	169	169	141	142	143	153
Mine Warfare Ships											
Mine Warfare Ships	83	84	84	84	84	84	85	85	85	85	86
Direct Support	3	3	3	3	3	3	3	3	3	3	3
Total	86	87	87	87	87	87	88	88	88	88	89
Log & Oper Support Ships											
Underway Replenishmt	65	76	76	72	72	78	75	71	69	69	69
Fleet Support	73	71	87	88	88	91	87	81	79	78	79
Total	138	147	163	160	160	169	162	152	148	147	148
Fleet Tac Supt A/C	64	68	68	69	68	81	81	81	75	75	75
Fleet Supt A/C	279	318	321	303	302	346	330	320	315	303	294
Other Support A/C	113	102	119	83	110	110	110	110	109	106	106
Mission Supt A/C	277	281	279	259	242	240	236	218	196	167	164
Total: Ships	781	856	834	833	851	911	908	851	850	848	863
Aircraft	3,106	3,511	3,224	3,115	2,962	3,139	3,127	3,108	3,076	3,029	2,983

a/ Includes 33 DDEs.

[redacted]

TABLE 9 - GENERAL PURPOSE FORCES - NAVY SHIP CONSTRUCTION AUTHORIZATION PROGRAM
Authorized for Start of Construction in Fiscal Year

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
New Construction											
CVA Attack Carrier	1		1				1		1		1
SSN Attack Submarine	1	3	8	6	6	6	5	5	1		
Escorts	2	6	8	10	16	10	10	10	10	10	10
Small Patrol			2	10	3	12					
Frigates	3	7									
Destroyers (DDG)	2						2				
Mine Warfare						4	5	7	1	1	
Amphibious	1	4	5	3	10	15	12	17	9		
Logistics & Oper Sup.	2	1	1	1	7	7	8	15	13	13	12
Direct Support Ships				1	2	1	1	2	3		2
Total New Construction	12	21	25	31	44	55	44	56	38	24	25
Conversions											
CVA (Modernization)						1		1			
SS Attack Submarine		6						7			
DDG (DL & DD 931)				6							
CAG (BT to HT)								1		1	
DLG (BT to HT)						1	1	1	1		
CG (Modernization)						1	1				
DLG/DLGN (Modernization)						1	4	3	3	3	
DD (DD 931 ASW MOD)				1		5	5	3			
Destroyers (FRAM)	14	14	24	19							
Mine Warfare			1	1		1			1	1	
Amphibious					1						
Logistics & Oper Sup.			5	7	3						
Total Conversions	14	20	30	34	4	10	11	16	5	5	
Total New Construction and Conversion	26	41	55	65	48	65	55	72	43	29	25
Total Cost of Ships (in Millions)	$914	$1,295	$1,606	$1,484	$1,725	$1,817	$2,038				
Net Adv. Procurement	-5	+19	+28	-44	+11	+10	+ 3				
TOTAL	$909	$1,314	$1,634	$1,440	$1,736	$1,827	$2,041				

[redacted]

TABLE 10 - GENERAL PURPOSE FORCES - MARINE CORPS
(End Fiscal Year)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
Marine Divisions	3	3	3	3	3	4	4	3	3	3	3
Marine Air Wings	3	3	3	3	3	3	3	3	3	3	3
Tank Battalions	3	3	3	3	3	4	4	3	3	3	3
Light AA Missile Bns (HAWK)	2	3	4	4	4	3	4	3	3	3	3
Hvy Arty Rkt Bns (HONEST JOHN)	2	3									
Amphibian Tractor Bns	3	3	3	3	3	4	4	3	3	3	3
Hq Fleet Marine Forces	2	2	2	2	2	2	2	2	2	2	2
Res Div/Wg Teams	1	1	1	1	1	1	1	1	1	1	1
Marine Air Wings											
Fighter											
F-4B/J		2	44	77	100	140	180	210	225	225	225
F-8E		11	50	48	45	30	30				
F-8A/B/C/D	171	147	127	90	64	45	15	15			
F-6A	109	77	40								
Total	280	237	261	215	209	215	225	225	225	225	225
Attack											
A-6A					12	36	48	60	72	72	72
A-7A								40	60	80	100
A-4E			9	80	125	120	120	80	60	40	20
A-4B/C	212	258	241	156	89	60	40	20			
AF-1E	34										
Total	246	258	250	236	226	216	208	200	192	192	192
Recon/Countermeasures											
RF-4B					1	15	27	27	27	27	27
RF-8A	27	26	25	27	19	12					
EA-6A						9	9	9	9	9	9
EF-10B	23	24	24	24	23	18	18	15	4		
EA-6B								3	14	18	18
Total	50	50	49	51	43	54	54	54	54	54	54
Tactical Air Control											
T-A		24	23	24	27	25	14				
A-4E							11	34	36	36	36
TF-9J	29	16	13	12	12	11	11	2			
Total	29	40	36	36	39	36	36	36	36	36	36
Tanker/Transport											
KC-130F	10	26	34	36	34	36	36	36	36	36	36
C-119G	36	11									
C-117		2	2	1							
C-54R/Q	14										
Total	60	39	36	37	34	36	36	36	36	36	36
Helicopter Training											
UH-34D[a/]						48	48				
Helicopter Trans											
CH-53A						19	72	72	72	72	72
CH-37C	26	29	27	27	22	24					
CH-46A				2	48	96	240	312	336	360	360
UH-34D	175	223	297	291	267	264	168	48	24		
Total	201	252	324	320	337	403	480	432	432	432	432
Light Hel/Obs											
UH-1E			4	10	45	72	106	36	36	36	36
OH-43D	31	36	36	35							
O-1B/C	30	29	29	20	12		12				
OV-10							10	54	54	54	54
Total	61	65	69	65	57	72	128	90	90	90	90
Tot Mar-Air Wg	927	941	1025	960	945	1080	1215	1073	1065	1065	1065
Readiness Trng A/C	26	39	42	39	43	40	95	69	103	132	148
Support Aircraft											
Marine Air Wings	31	36	34	39	30	28	28	28	28	28	28
Mission Support	50	37	52	48	46	44	45	41	38	38	28
Marine Air Bases	12	10	9	7	10	10	10	10	10	10	10
Total Support A/C	93	83	95	94	86	82	83	79	76	76	66
Total	1046	1063	1162	1093	1074	1202	1393	1221	1244	1273	1279

a/ Temporarily diverted from the Reserves.

[redacted]

TABLE 11 - NAVY AND MARINE CORPS RESERVE FORCES
(End of Fiscal Year)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
Navy Res Trng Ships a/											
DD-Destroyer	13		13	13	17	17	19	23	28	28	32
DE-Escort	27		27	27	21	21	19	15	9	9	5
MSC Minesweeper		1	3	4	4	4	4	4	8	12	17
MSCO Minsper (old)	11	10	9	8	8	8	8	8	4		
Total	51	11	52	52	50	50	50	50	49	49	54
Navy & Mar Corps Res A/C											
Fighter Units											
F-8				16	67	90	81	81	81	81	81
Other	149	269	160	97	18						
Total	149	269	160	113	85	90	81	81	81	81	81
Attack Units											
A-1	67	60	25	17	17						
A-4	30	50	128	165	185	200	235	235	235	235	235
Total	97	110	153	182	202	200	235	235	235	235	235
Recon/Photo											
RF-8A/G						6	6	6	6	6	6
RF-9J			7	7	6						
Total	—	—	7	7	6	6	6	6	6	6	6
Search Units (VS)											
S-2	170	67	117	116	113	80	80	80	80	80	80
Search Units (HS)											
UH-34D/J			10	11	8						
SH-34G/J	26	54	63	65	70	68	68	68	68	68	68
UH-25	32	20									
Total	58	74	73	76	78	68	68	68	68	68	68
Patrol Units											
SP-2E/H	59	1	35	54	98	108	120	120	120	120	120
Other	11	48	89	56	11	12					
Total	70	49	124	110	109	120	120	120	120	120	120
Transport A/C	48	68	68	69	79	73	73	73	73	73	73
Recon & Obser Unit (VMO)											
O-1C						4	4				
UH-1E							16	12	12	12	12
OV-10								18	18	18	18
Total						4	20	30	30	30	30
Heavy Helo. Transpt Unit (HMH)											
CH-53							18	24	24	24	24
Medium Helo.Transpt Unit (HMM)											
UH-34D						10	10	120	120	120	120
Support Aircraft	92	113	103	91	86	92	75	75	75	75	75
Total	684	750	805	764	758	743	786	912	912	912	912
Ships Maintained by Navy:											
Navy Reserve Fleet (NRF)											
Category A b/											
Category B											
DD/DE/DER	104	103	100	102	86	51	51	51	51	51	51
Other	34	36	30	58	54	25	24	71	69	99	104
Category C											
DD/DE/DER	222	223	221	235	256	255	219	200	192	155	125
Other	376	272	252	208	195	187	196	203	207	218	227
Total B & C	736	634	603	603	591	518	490	525	529	523	507
National Defense Reserve Fleet (NDRF)											
Navy Retention List	891	928	974	376	382	353	353	353	353	353	353

a/ Includes only those ships which maintain operation readiness to perform wartime tasks.
b/ Shown as Naval Reserve training ships above.

[redacted]

TABLE 12- NAVY AND MARINE CORPS AIRCRAFT PROCUREMENT PROGRAM

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
Fighter											
F-8E	94	102	90								
F-4B/J	72	118	150 [a]	125	124	156		76			
F-111B						4		20	42	66	88
Total	166	220	240	125	124	160		96	42	66	88
Attack											
A-4C	160	20									
A-4E	20	180	180	118		46					
A-6A	12	23	43	48	64	112		36	30		
A-7A					35	157	230	240	156	170	170
Total	192	223	223	166	99	315	230	276	186	170	170
Observation											
OV-10							100				
Recon/ECM											
A-5A/C	42	20	23								
EA-6A/B		1				13		53	19		
RF-4B				9	27						
Total	42	21	23	9	27	13		53	19		
Fleet Early Warning											
E-2A	3	12	24	14		10					
Carrier ASW											
S-2E	48	51	48	48	48	24					
SH-3A/D	60	53	36	36	24	24	24	20			
Patrol											
SP-2H		5									
P-3A	12	42	48	48	48	45	32	40	40	29	
Helicopters											
UH-34D	85	99									
UH-2A	48	48	36	18							
UH-1E			30	48	24	59					
UH-46A			4	4	6	10					
CH-46A		14	32	56	84	184	74	90	60	36	
CH-53A				16	24	60	26	20			
RH-46A									3	3	
Total	133	161	102	142	138	313	100	110	63	39	
Fleet Tactical Support											
C/KC-130	30	7									
C-2A				[b]	12	5	12	9			
Trainer											
T-2B				10	36	18					
T-39D		10	32								
TA-4E					66	130	44				
TH-1E							20				
T-28C						72	58				
Mission Support											
C-130G				4							
Total	686	805	776	602	622	1129	620	604	350	304	330
Proc Cost (In Millions) [c]	$1,279	$1,478	$1,420	$1,195	$1,379	$2,231	$ 900.				

[a] Includes 27 aircraft procured from Air Force.
[b] Excludes 2 aircraft financed under RDT&E in FY 1964.
[c] Includes flyaway aircraft, advance buy, peculiar AGE, and training device costs. All spares and other support are not included.

[redacted]

[redacted]

TABLE 13 - GENERAL PURPOSE FORCES - AIR FORCE AND AIR NATIONAL GUARD
(End Fiscal Year)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
Active Forces a/											
Tactical Fighters											
F-84		300	222	162							
F-86		75									
F-100	910	860	728	657	657	576	450	360	240	24	
F-101	75	66	66	66	66						
F-104	72	129	54	54	54	36	36				
F-105	122	265	394	516	516	402	288	240	216	216	72
F-4				54	288	444	756	972	936	936	936
F-111							18	72	168	288	360
A-7								48	168	264	360
Total A/C	1179	1695	1464	1509	1581	1458	1548	1692	1728	1728	1728
No. of Wings	16	23	20	21	22	23	23	24	24	24	24
Interceptor Fighters											
F-89	12	12									
F-102	287	275	269	203	131	131	131	46			
Tactical Bombers											
B-57	48	48	48	48	48	48	48				
B-66	48										
Tactical Recon											
RF-84		72									
RF-101	144	128	128	128	128	96	80	72	72	72	72
RF-4					36	144	216	270	288	288	288
RB-66	108	108	108	108	72	54	54	18			
Total A/C	252	308	236	236	236	294	350	360	360	360	360
No. of Sqds.	14	18	14	14	14	17	20	20	20	20	20
Tactical Air Ctrl Sys											
O-1				22	120	120	120				
OV-10								96	96	96	96
KB-50 Tankers	120	120	100	40							
Special Air Warfare Forces											
B-26		16	33	33	33	31	31	31	31	31	31
T-28		16	29	33	14	24	24	12	12	12	12
A-1E				50	68	64	64	64	64	64	64
C-46		12	12	24	12	12	12	12	12	12	12
C-47/HC-47		12	12	24	31	33	33	33	33	33	33
UH-1						4	4				
U-10		8	20	20	20	46	46	34	34	34	34
C-123					92	97	97	91	91	91	91
FC-47						16	16	16	16	16	16
Total A/C		64	106	184	270	327	327	293	293	293	293
Adv Fly Trng											
Tactical	309	294	235	260	240	302	327	419	432	426	432
Recon.	39	39	38	17	32	41	41	32	24	23	22
TACS				4	11	11	11	24	24	24	24
SAWF						63	63	16	16	16	16
Total A/C	348	333	273	281	283	417	442	491	496	489	494
Total Act A/C	2294	2855 b/	2496	2523	2669	2795	2966	2978	2973	2966	2971
Adv Fly Trng MAP & ANG	70	75	74	98	116	115	114	132	133	119	121
Tactical Missiles											
MACE A (MGM-13A)		72	88	88	88						
MACE B (MGM-13B)		36	54	54	54	54	54	54	36	36	36
MATADOR	120										
Air National Guard c/											
Tactical Fighters											
F-84	300		67	150	250	250	250	150			
F-86	125	50	127	118	75	75	75				
F-100	100	50	132	200	223	225	225	324	468	475	300
F-104								25	25	25	25
F-105				19	17	24	24	66	69	69	240
Total	525	100	326	487	565	574	574	565	562	569	565
Tactical Recon											
RB-57	60	60	60	60	60	24	24	24	24	24	24
RF-84	144	54	137	126	126	126	125	120	115	111	107
RF-101						54	54	54	54	54	54
KC-97 Tankers		10	30	30	50	50	50	50	50	50	50
Total ANG A/C	729	224	553	703	801	828	827	813	805	808	800

a/ Numbers of aircraft are derived by multiplying authorized squadron unit equipment by the numbers of squadrons. They do not include command support aircraft.

b/ Includes seven Air National Guard tactical fighter wings (525 aircraft) and four tactical reconnaissance squadrons (72 aircraft) for a total of 597 aircraft on active duty.

c/ Possessed aircraft where less than U.E.

[redacted]

TABLE 14 - GENERAL PURPOSE FORCES/
AIR FORCE PROCUREMENT PROGRAM

[redacted]

TABLE 15 - AIRLIFT AND SEALIFT FORCES
(End Fiscal Year) a/

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69	FY 70	FY 71
Active Forces											
C-5A										24	64
C-141					16	92	188	224	224	224	224
C-130	208	240	312	436	504	488	472	480	480	460	396
C-133	44	44	44	44	44	38	38	38	28	8	
C-135		42	40	38	28	14	9				
C-124	260	316	300	300	308	260	178	114	80		
C-118	107	95	95	48							
C-123	96	80	80	80							
C-97		48									
C-121	56	56	28								
Total Active	771	921	899	946	900	892	885	856	812	716	684
Air Force Reserve											
C-119	592	592	592	592	592	480	336	208			
C-123	48	48	48	48	24						
C-124	40		20	20	48	88	152	152	152	152	104
C-130											40
Air National Guard											
C-130										8	40
C-121				56	56	56	32				
C-97	88	40	128	144	144	144	120	80	48	40	8
C-124							24	72	80	80	80
C-123	8	8	8	8	8	8	8	8	8		
Reserve & Guard-Total	776	688	796	868	872	776	672	520	288	280	272
Res & Gd L/R Airlift (C-97, C-121, C-124, C-130)	128	40	148	220	248	288	328	304	280	280	272
30-day lift to:											
S.E. Asia (tons-000) b/	14.7	20.0	23.6	25.4	29.0	44.3	64.7	74.9	72.2	95.4	137.0
Europe (tons-000) b/	32.0	42.4	50.3	54.4	61.1	79.9	119.4	139.2	133.8	178.5	264.0
Sealift c/											
Forward Mobile Depots:											
Fast Deployment Logistic Ships									2	6	10
Victory-Class Ships			3	3	3	3	19	19	19	19	10
Cargo:											
General Purpose	13	14	14	14	14	13	13	13	13	11	8
Roll-on/Roll-off	2	2	2	2	2	3	3	3	3	3	3
Special Purpose	45	43	43	41	49	60	59	41	41	41	40
Tankers	24	25	25	25	25	26	26	26	26	26	26
Troop Ships d/	17	16	16	16	16	16	16	16	16	16	-
Total	101	100	103	101	109	121	136	118	120	122	97

a/ Numbers of aircraft are derived by multiplying authorized squadron unit equipment by the number of squadrons.

b/ Based on active and reserve military capabilities; CRAF not included.

c/ Does not include amphibious or underway replenishment ships in Program III.

d/ Distribution between Active and Ready Reserve Ships, 1965 through 1971, will be determined by the Secretary of the Navy based on sea transportation requirements as they then exist.

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TABLE 16 - AIRLIFT AND SEALIFT PROCUREMENT PROGRAM

	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971
Airlift											
C-130B/E	57	93	144	78							
C-135A/B	20	15									
C-141			16	45	84	100	34				
C-5A							8	18	27	33	29
Total A/C	77	108	160	123	84	100	42	18	27	33	29
Cost ($ [a/] Millions)	202	298	493	463	521	488	574				
Sealift											
T-LSV, Roll-on Roll-off			1								
T-FDL, Fast Dplmt Logistics Ships						2		8	4	4	
T-AO Conversion					2	2	2	2	2	2	
Cost ($ Millions)			19		8	76	8				

a/ Includes flyaway aircraft, advance buy, peculiar AGE, and training device costs. All spares and other support are not included.

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TABLE 17 - SUMMARY OF STRENGTH, DRILL STATUS, ETC. FOR RESERVE AND GUARD FORCES

(In Thousands)

	End Fiscal Year						
	1961	1962[a]	1963	1964	1965[b]	1966	1967
Army Reserve							
Paid Drill Training	301.8	261.5	237.0	268.5	261.7	270.0	-
Other Paid Training	59.3	48.3	47.2	77.4	54.6	78.4	81.4
Total Paid Status	361.1	309.8	284.2	345.9	316.3	348.4	81.4
Army National Guard							
Paid Drill Training	393.8	361.0	360.7	381.5	379.0	418.5	580.0
Other Paid Training	-	-	-	-	-	-	-
Total Paid Status	393.8	361.0	360.7	381.5	379.0	418.5	580.0
Total Army Paid Status	754.9	670.8	644.9	727.4	695.3	766.9	661.4
Naval Reserve							
Paid Drill Training	129.9	111.3	119.6	123.3	123.0	126.0	126.0
Other Paid Training	8.0	7.9	9.8	8.4	9.1	9.1	9.1
Total Paid Status	137.9	119.2	129.4	131.7	132.2	135.1	135.1
Marine Corps Reserve							
Paid Drill Training	43.8	46.6	46.3	45.9	45.6	48.0	48.0
Other Paid Training	2.1	2.0	1.8	2.1	2.5	3.1	3.0
Total Paid Status	46.0	48.6	48.1	48.0	48.1	51.1	51.0
Air Force Reserve							
Paid Drill Training	64.5	58.4	58.6	60.8	46.3	47.8	50.8
Other Paid Training	11.5	10.7	9.1	6.4	3.7	5.6	7.5
Total Paid Status	75.9	69.1	67.7	67.2	50.0	53.4	58.3
Air National Guard							
Paid Drill Training	70.9	50.3	74.3	73.2	76.4	79.8	79.8
Other Paid Training	-	-	-	-	-	-	-
Total Paid Status	70.9	50.3	74.3	73.2	76.4	79.8	79.8
Total AF Paid Status	146.8	119.5	142.0	140.5	126.4	133.2	138.1
Total Reserve Forces							
Paid Drill Training	1004.8	889.1	896.5	953.2	932.1	990.1	884.6
Other Paid Training	80.9	68.9	67.9	94.3	69.9	96.2	101.0
Total Paid Status	1085.7	958.0	964.4	1047.5	1002.0	1086.3	985.6

a/ Excludes reservists called to active duty during the "Berlin Crisis."

b/ The programed strength for the Army Reserve Components is 700,000: Army Reserve 300,000 and National Guard 400,000. The figures shown above are estimates of strengths that will actually be attained.

NOTE: Detail may not add to totals due to rounding.

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TABLE 18 - DEPARTMENT OF DEFENSE PROGRAMS SUPPORTING THE FOUR SAFEGUARDS RELATED TO THE TEST BAN TREATY
(TOA, $ Millions)

	FY 1964	FY 1965	FY 1966	FY 1967
Conduct of Underground Testing				
RDT&E (DASA)	10.6	16.7	30.6	28.5
Maintenance of Lab Facilities & Programs				
RDT&E (DASA)	33.0	36.0	39.3	39.8
RDT&E, Army	7.6	8.4	8.4	6.9
RDT&E, Navy	5.3	5.2	5.0	3.5
RDT&E, Air Force	3.0	3.0	3.0	2.8
Sub-Total	48.9	52.6	55.7	53.0
Maintenance of a Stand-by Atmos. Test Capability				
RDT&E (DASA)	43.4	53.3	31.7	25.4
RDT&E, Air Force	23.6	12.0	6.0	8.0
Military Construction (DASA)	20.0	4.1	3.7	1.8
Sub-Total	87.0	69.4	41.4	35.2
Monitoring of Sino-Soviet Actions				
Aircraft Procurement, Air Force	.9	2.8	1.8	4.2
Other Procurement, Air Force	11.2	9.9	12.1	17.6
Military Construction, Air Force	.1	9.0	.3	5.0
O&M, Air Force	17.4	21.7	26.5	14.7
Military Personnel, Air Force	8.3	10.2	13.2	18.0
RDT&E, Air Force			1.3	14.0
RDT&E (ARPA)	58.8	58.3	58.3	48.7
Sub-Total	96.7	111.9	113.5	122.2
TOTAL	243.2	250.6	241.2	238.9

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TABLE 19 - RECAPITULATION OF DOD SPACE PROJECTS
(TOA, $ Millions)

	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967
SPACECRAFT MISSION PROJECTS							
Manned Orbital Laboratory (MOL)				10.0	36.5	150.0	158.7
GEMINI (Manned Space Flight)				15.6	10.5	2.0	
X-20 (DYNASOAR)	58.0	100.0	131.8	64.1			
[redacted]							
Geodesy		7.1	5.8	15.3	11.9	7.2	7.3
Other	9.1		10.5	12.3	19.1	8.6	12.4
Sub-Total	266.6	447.5	368.9	353.8	220.8	308.3	317.7
VEHICLE, ENGINE AND COMPONENT DEV.							
TITAN III A and III C		22.1	232.8	329.6	199.6	105.2	65.8
TITAN III X					34.0	36.0	
Re-entry and Recovery (START)			13.9	18.1	21.4	31.7	16.0
Advanced Space Guidance					0.6	5.4	2.0
Solid Rocket Engine Development		13.6	14.0	31.5	12.0	6.0	2.0
Liquid Rocket Engine Development					3.5	13.0	14.7
Other	3.7	32.6	25.4	10.6	3.3	1.8	2.5
Sub-Total	3.7	68.3	286.1	389.8	274.4	199.1	103.0
GROUND SUPPORT							
Eastern Test Range (Space Related)	35.5	60.7	85.0	84.9	116.4	128.0	134.0
Western Test Range (Space Related)					1.0	20.2	20.8
Pacific Msl Range (Space Related)	14.9	11.6	20.5	15.8	15.4	2.9	2.9
White Sands Msl Range (Space Related)		0.5	2.0	2.2	2.6	1.5	2.8
Test Instrumentation (Space Related)		0.5	12.0	11.3	10.5	9.4	10.3
SPACE TRACK (USAF)	3.3	24.9	39.9	35.0	53.2	35.6	33.0
SPASUR (Navy)	4.1	4.4	8.3	22.4	10.1	6.0	5.7
Satellite Control Facility				0.3	25.9	35.6	58.7
Operational Force Support					5.0		
Sub-Total	57.8	102.6	167.7	171.9	235.1	239.2	268.2
SUPPORTING RESEARCH & DEVELOPMENT (Includes Applied Research and Component Development)	65.1	148.6	158.0	130.3	136.1	139.7	137.4
GENERAL SUPPORT	420.7	531.2	569.2	553.5	713.0	807.2	794.4
TOTAL	813.9	1298.2	1549.9	1599.3	1579.4	1693.5	1620.7

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TABLE 20

SUMMARY OF THE RESEARCH PROGRAM

(TOA, $ Millions)*

	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967
Engineering Sciences						
Electronics			26	27	28	28
Materials			34	44	45	47
Mechanics			25	26	29	29
Energy Conversion			12	14	14	15
Sub-Total			97	111	116	119
Physical Sciences						
General Physics			28	30	33	30
Nuclear Physics			15	17	15	16
Chemistry			10	11	11	11
Mathematical Sciences			33	35	37	38
Sub-Total			86	93	96	95
Environmental Sciences						
Terrestrial			6	6	7	6
Atmospheric			19	20	19	21
Astronomy & Astrophysics			8	9	10	10
Oceanography			18	19	19	20
Sub-Total			51	54	55	57
Biological & Medical Sciences			34	33	33	34
Behavioral & Social Sciences			9	10	12	13
Nuclear Weapons Effects Res.			34	35	37	39
In-House Independent Lab. Res.			35	39	35	36
University Program						18
Other Support	—	—	—	—	7	7
TOTAL RESEARCH	339	350	345	374	390	417

* Amounts will not necessarily add to totals due to rounding.

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TABLE 21 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT
(TOA, $ Millions)

	Prior Years	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967
RESEARCH							
Army		73	73	74	80	83	91
Navy		119	126	118	122	124	132
Air Force		70	83	85	93	97	103
ARPA		33	31	34	44	49	52
DASA		44	37	34	35	37	39
Sub-Total		339	350	345	374	390	417
EXPLORATORY DEVELOPMENT							
Army							
Chemical Technology				60	60	47	46
Communications and Electronics				35	34	38	35
Ordnance				35	31	32	30
Life Sciences				22	29	33	25
Aeronautics				15	13	16	17
Materials				15	14	14	14
Other				61	61	63	65
Sub-Total		146	230	243	242	243	232
Navy							
Sea Warfare Systems				151	143	138	127
Chemical Technology				14	11	6	6
Communications and Electronics				41	37	34	30
Ordnance				48	47	50	44
Life Sciences				13	13	13	13
Aeronautics				38	35	34	32
Materials				12	10	11	11
Other				45	53	43	41
Sub-Total		324	357	362	349	329	304
Air Force							
Chemical Technology				27	29	29	27
Communications and Electronics				63	72	71	64
Ordnance				7	5	6	4
Life Sciences				14	13	12	13
Aeronautics				48	55	53	45
Materials				25	22	23	22
AF Exploratory Dev. Lab. Support				70	69	99	97
Other				48	52	49	44
Sub-Total		294	291	302	317	342	316
ARPA							
DEFENDER				134	130	120	119
VELA				59	61	58	49
AGILE				25	22	29	25
Other				35	21	16	18
Sub-Total		217	223	253	234	223	211
TOTAL EXPLORATORY DEVELOPMENT		981	1101	1160	1142	1137	1063
ADVANCED DEVELOPMENT							
Army							
Operation Evaluation V/STOL	1	7	12	17			1
New Surveillance Aircraft	2	7	11	9	14	7	3
Heavy Lift Helicopter			15	2	2	3	
Research Helicopter					1	2	4
Aircraft Suppressive Fire Systems			2	9	6	4	4
Auto Data Sys/Army in the Field		7	21	15	9		4
Surface to Air Missile (SAM-D)					14	15	40
DOD Satellite Comm Grnd	80	102	27	25	15	23	13
NIKE X Experiments	5	19	98				
Anti-Tank Weapons	34	26	28	18		1	1
Limited War Lab			4	4	4	12	7
Therapeutic Development							11
Other Advanced Developments		18	33	45	54	66	72
Sub-Total		186	251	144	119	133	160

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TABLE 21 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (Cont'd)
(TOA, $ Millions)

ADVANCED DEVELOPMENT (Cont'd)	Prior Years	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967
Navy							
V/STOL Development	1	6	12	22	8	5	4
P-1127 HAWKER			2	3			
Advanced SAM System				5	8	5	2
Landing Force Support Wpn (LFSW)							2
ARM I						8	13
Adv ARM Technology							4
Augmented Thrust Propulsion			15	12	7	1	3
Astronautics		1	1	12	11	10	3
Advanced Undersea Surveillance		8	26	23	13	5	6
Airborne ASW Detection System			4	11	20	21	23
Adv. Sub Sonar Development				3	2	9	10
Adv. Surface Sonar				5	11	1	2
Acoustic Countermeasures		1	1	1	5	5	7
ASW Torp C/M Resist					3	8	6
Sub-launched Anti-ship Torp.					2	4	3
Adv. Surface Craft			4	5	4	2	4
Deep Submergence Program				2	5	15	22
Reactor Prop. Plants		13	10	11	13	20	13
Comb Gas Turb Prop ASW Ship					5	10	5
Active PLANAR Array Sonar				1	7	10	10
ASW Ship Int. Combat System					7	9	9
Adv Mine Development						4	10
Adv Mine Countermeasures						3	3
Other Advanced Developments		24	14	27	26	47	62
Sub-Total		53	89	143	157	202	226
Air Force							
V/STOL Assault Transport							3
Tri Serv V/STOL	1	6	12	19	31	16	10
V/STOL Aircraft Technology				3	10	5	3
VTOL Eng Development						31	20
Lightweight Turbojet		2	5	8	11	10	6
Overland Radar						9	12
AWACS(Airborne Warning & Control Sys)					1	5	3
Adv. Filament Composites					5	6	10
TAC Fighter Avionics					13	5	4
Recon Strike Capability		6	14	10	6	6	6
X-15 Research Aircraft	150	10	10	9	8	7	6
Adv. ASM Technology						9	8
Stellar Inert Guid.		3	49	22	2	1	
TAC AGM Missiles (MAVERICK)					3	3	9
Advanced ICBM			9	8	3	5	10
SABRE (Self-Aligning Boost & Re-Entry)					12	15	13
Low Alt. Supersonic Vehicle	24	7	12	15	5	5	2
Advanced Manned Strategic Aircraft (AMSA)					28	46	11
Manned Orbital Laboratory (MOL)				10	37	150	159
GEMINI (Manned Space Flight)				16	11	2	
X-20 (DYNASOAR)	109	100	132	64			
Program 461 (MIDAS)	196	164	75	35	28	40	38
Program 706 (Satellite Insp.)	6	26	29	2			
Re-entry & Recovery (START)			14	18	21	32	16
Advanced Space Guidance					1	5	2
Solid Rocket Engine Dev.		14	14	31	12	6	2
Liquid Rocket Engine Dev.					4	13	15
DoD Satellite Comm. System & Terminal			5	49			21
Other Advanced Developments		43	77	64	60	63	60
Sub-Total		380	455	385	312	495	449
TOTAL ADVANCED DEVELOPMENT		619	792	672	588	830	835
ENGINEERING DEVELOPMENT							
Army							
NIKE-ZEUS Testing	836	271	175	64	40		
NIKE-X				270	340	407	447
Forward Area Air Def.	39	36	50	59	22	9	
Fire Power other than Missiles	3	32	48	49	42	46	46
Aircraft Suppressive Fire Systems		7	6	13	13	23	16
Adv. Aerial Fire Support System				1	5	29	25
TAC Transport Aircraft			3	5	2	2	
Combat Surv. and Target Acq.		35	35	23	15	12	14
Communications & Electronics		28	48	30	19	17	30
Heavy AT Assault Weapon (TOW)					22	24	9
Other Engineering Development		80	80	73	57	60	52
Sub-Total		489	445	587	577	629	639

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TABLE 21 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (Cont'd)
(TOA, $ Millions)

	Prior Years	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967
ENGINEERING DEVELOPMENT (Cont'd)							
Navy							
POSEIDON						35	301
Med.Range Air-to-Surface Missile(CONDOR)					2	10	19
Point Defense Surface Missile System						6	8
W/G MK-48 Torpedo			4	19	19	47	35
Directional Jezebel					2		8
ASW Rockets					2	3	9
Other ASW	6	3	4	6	13	9	18
Unguided/Conventional Air Launched Weapons						3	8
Marine Corps Developments		7	4	5	9	16	12
Aircraft Engines			9	13	20		
Special Warfare Navy A/C (LARA)					14	6	
Other Engineering Development		57	92	108	56	110	55
Sub-Total		67	113	151	137	245	473
Air Force							
J-58				94	85	64	23
XB-70	800	220	207	156	57	23	18
Close Support Fighter						41	4
Short Range Attack Missile (SRAM)					6	3	
ASG-18/AIMS-47A	10	16	23				
YF-12A			42	60	32	23	20
F-12						5	10
Adv. Bal. Missile Re-entry Sys (ABRES)			121	155	161	150	141
MARK II Avionics						25	35
NIKE/ZEUS Targets		4	6	4	7	9	8
TITAN IIIA and IIIC		35	233	330	200	105	66
Joint Advanced Tactical C&C System					7	1	11
Other Engineering Development		78	201	91	83	86	66
Sub-Total		353	833	890	638	535	392
TOTAL ENGINEERING DEVELOPMENT		909	1391	1628	1352	1409	1504
MANAGEMENT AND SUPPORT							
Army							
White Sands Missile Range		54	64	74	88	87	93
Kwajalein Test Site		1		1	34	38	33
General Support		160	167	186	184	221	195
Sub-Total		215	231	261	306	346	321
Navy							
Pacific Missile Range		117	134	141	122	71	73
AUTEC (Atlantic Undersea Test & Evaluation Center)		15	18	13	17	8	12
General Support		163	188	175	168	200	220
Sub-Total		295	340	329	307	279	305
Air Force							
Eastern Test Range		196	268	239	220	215	205
Western Test Range					5	67	70
General Support		645	645	664	638	622	612
Sub-Total		840	913	903	863	904	887
DSA				6	11	11	11
TOTAL MANAGEMENT SUPPORT		1350	1484	1499	1487	1540	1522
EMERGENCY FUND						19	125
SUB-TOTAL R&D		4148	5118	5304	4943	5325	5468

TABLE 21 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (Cont'd)
(TOA, $ Millions)

	Prior Years	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967
OPERATIONAL SYSTEMS DEVELOPMENT							
Army							
Division Support Missile (LANCE)	4	1	18	48	65	46	36
SERGEANT	170	8	5	1	1	5	8
REDEYE	13	9	12	16	11	4	1
PERSHING		104	29	12	9	25	32
MAIN BATTLE TANK			2	9	18	26	36
CHAPARRAL/GUNS				5	12	20	14
HAWK	128	5	2	16	17	21	13
Combat Veh Wpn Sys Long Range				2	3		
SHILLELAGH				32	19	6	
Multi-System Test Equipment			4	10	5	3	6
DUCC (Deep Underground Command Ctr)							5
Comm. Intel & Security		11	17	20	14	17	19
Other Operational Sys. Dev.		41	32	19	13	3	2
Sub-Total		179	121	190	187	176	172
Navy							
FBM Subs	1469	461	379	217	76	91	76
F-4B Equipment Improvement		3	9	9	5	4	
Helo Avionics System			7	5	7	7	5
Tactical Fighter F-111B			11	20	27	74	86
Tac Ftr F-111B FC & PHOENIX Msl Sys			22	64	85	68	70
Impr Follow-on Lt Atk A/C (A-7A)				34	38	4	6
Avionics Development/ILAAS			5	5	10	20	9
A/C Launch & Retrieve Flt. Sprt.			7		8	8	7
FMF Exp A/F Sprt	16	2	7	7	2	4	2
SQS-26 Sonar	16	3	3	14	6	21	14
SPS-48 Height Finding Radar	4	6	6	2	2	3	1
Undersea Surveillance		4	5		8	9	9
Sonar Flt Sprt Program					10	20	15
U/W Ordnance Flt. Sprt. Program				4	6	8	7
AL/SL Ordnance Flt. Sprt.					7	6	5
Torpedo MK-46	38	11	21	14	15	8	5
SHRIKE		7	14	10	7	12	7
SPARROW III	31	5	4	4	5	7	
SUBROC	84	34	37	18	5	2	1
Eye Weapons	1	1	1	15	16	8	3
Target Improvement				2	5	6	5
SAM Improvement					47	47	45
A/L G/M Flt. Sprt.				7	5	9	8
Command Control System		6	11	13	7	8	6
Naval Tactical Data System	68	10	7	6	4	3	4
Marine Corps Tac Data System	21	8	6	5	3	3	2
Comm. Intel & Security				13	15	7	10
Other Operational Systems		42	46	99	45	48	113
Sub-Total		603	608	591	476	515	451
Air Force							
SR-71			20	70	81	17	3
MINUTEMAN II			137	329	323	310	351
PACCS (Post Atk Cmd & Cont Sys)			7	2	4	5	8
OTH Radar System			7	10	10	3	3
SPACE TRACK	4	19	23	13	8	8	6
RF-111						13	13
TAC Ftr F-111A (TFX)	5	6	116	231	321	205	78
FB-111/SRAM						26	81
C-5A				10	42	157	258
TITAN III X/Agena					34	36	
Comm. Intel & Security					11	50	42
Special Support Activities	807	356	486	414	273	407	290
Other Operational Systems		1345	780	262	74	20	25
Sub-Total		1724	1573	1340	1181	1257	1158
Defense Agencies							
Defense Agencies - Sub-Total		143	141	128	171	179	158
TOTAL OPERATIONAL SYSTEMS DEV.		2649	2433	2249	2015	2127	1939
TOTAL R&D		6847	7561	7553	6958	7452	7407
Less Support from Other Approp.		502	514	447	431	506	493
TOTAL OBLIGATIONAL AUTHORITY							
RDT&E Appropriations		6345	7047	7106	6527	6946	6914
Financing Adjustments		-977	-54	-122	-44	-155	-9
NEW OBLIGATIONAL AUTHORITY, RDT&E Appropriations		5368	6993	6984	6483	6791	6905

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TABLE 22 - GENERAL SUPPORT
(TOA, $ Millions)

	FY 63	FY 64	FY 65	FY 66	FY 67
Individual Training and Education	$2,872	$3,128	$3,346	$3,955	$3,953
Intelligence and Security	1,310	1,355	1,370	1,533	1,557
Communications	844	914	922	1,130	981
Logistic Support	3,034	3,170	3,247	4,040	4,093
Military Family Housing	636	670	650	694	527
Medical Services	779	776	887	918	982
Headquarters and Support Services	3,084	3,438	3,791	4,145	4,213
National Military Command System	47	62	85	78	100
Defense Atomic Support Program	155	120	130	114	105
Misc. Dept-Wide Activities	114	117	124	142	140
GRAND TOTAL	$12,875	$13,750	$14,552	$16,750	$16,651

NOTE: Detail may not add due to rounding

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TABLE 23 - DEPARTMENT OF DEFENSE COST REDUCTION PROGRAM
(In Millions of Dollars)

	Estimated Savings to be Realized in: a/				
	FY 1963	FY 1964	FY 1965	FY 1966	FY 1969
A. BUYING ONLY WHAT WE NEED					
1. Refining Requirement Calculations					
a. Major items of equipment b/	90	487	1,060	747	
b. Initial provisioning	163	218	368	184	
c. Secondary items	481	643	626	799	
d. Technical manuals	-	10	9	8	
e. Technical data and reports	-	2	6	2	
f. Production base facilities	35	14	18	-	
2. Increased Use of Excess Inventory in lieu of new procurement					
a. Equipment and supplies	-	57	169	75	
b. Idle production equipment	1	-	4	-	
c. Excess contractor inventory	18	14	8	3	
3. Eliminating "Goldplating"(Value Engineering)	72	76	204	83	
4. Inventory Item Reduction	-	-	83	72	
Total Buying Only What we Need	860	1,521	2,555	1,973	2,591
B. BUYING AT THE LOWEST SOUND PRICE					
1. Shift from Non-Competitive to Competitive Procurement					
Total % competitive c/	37.1%	39.1%	43.4%	-	
Total amount of savings	237	448	641	414	
2. Shift from CPFF to Fixed or Incentive Price					
Total % CPFF d/	20.7%	12.0%	9.4%	-	
Total amount of savings	-	100	436	599	
3. Direct Purchase Breakout	-	5	6	2	
4. Multi-Year Procurement	-	-	67	-	
Total Buying at Lowest Sound Price	237	553	1,150	1,015	1,170
C. REDUCING OPERATING COSTS					
1. Terminating Unnecessary Operations	123	334	484	551	
2. Consolidation & Standardization					
a. DSA operating expense savings e/	31	42	59	57	
b. Consolidation of contract admin.	-	-	-	-	
c. Departmental operating expense savings	-	95	186	95	
3. Increasing Efficiency of Operations					
a. Improving telecommunications mgmt.	80	131	118	129	
b. Improving trans. & traffic management	24	7	35	35	
c. Improving equip. maint. management	-	65	117	108	
d. Improving non-combat vehicle mgmt.	2	18	24	21	
e. Reduced use of contract technicians	-	20	26	27	
f. Improving military housing management	6	13	16	14	
g. Improving real property management	23	25	46	27	
h. Packaging, preserving and packing	-	7	8	3	
Total Reducing Operating Costs	289	757	1,119	1,067	2,205
D. MILITARY ASSISTANCE PROGRAM (MAP)					
Total MAP	-	-	19	-	125
TOTAL PROGRAM	1,386	2,831	4,843	4,055 f/	6,091

a/ Includes certain one-time savings not expected to recur in the same amounts in future years.
b/ In addition FY 1962 "requirements" for major items of equipment were reduced by $24 billion. In FY 1963, the Army reduced 1964 pipeline requirements by $500 million.
c/ FY 1961 was 32.9%. FY 1965 actual was 43.4%. Savings are 25% per dollar converted.
d/ First nine months of FY 1961 was 38%. FY 1965 actual was 9.4%. Savings are 10% per dollar converted.
e/ Excludes DSA inventory drawdown without replacement of $38 million for FY 1962; $262 million in FY 1963; $161 million in FY 1964; $51 million in FY 1965.
f/ Amount reflected in the original FY 1966 budget.

TABLE 24 - AMOUNTS REQUESTED FOR AIRCRAFT, MISSILES, SHIPS, AND TRACKED COMBAT VEHICLE PROCUREMENT AUTHORIZATION IN FY 1967 REQUEST AS COMPARED WITH FY 1966 BUDGET
($ in Thousands)

	Authorized a/ FY 1966	Appropriated b/ FY 1966	Requested FY 1967
Aircraft			
Army	1,311,000	1,311,000	592,500
Navy & Marine Corps	2,838,700	2,842,800	1,422,170
Air Force	5,294,700	5,261,500	3,961,300
Missiles			
Army	317,700	341,000	356,500
Navy	395,800	384,400	367,730
Marine Corps	42,700	42,700	17,700
Air Force	863,800	863,800	1,189,500
Naval Vessels			
Navy	1,721,000	1,590,500	1,751,300
Tracked Combat Vehicles			
Army	75,800	75,800	359,200
Marine Corps	10,900	10,900	3,700
Totals	12,872,100	12,724,400	10,021,600

a/ Includes amounts totalling $496.1 million provided through "Emergency Fund, Southeast Asia" PL 89-213 and $3417.7 million requested in FY 1966 supplemental authorization request.

b/ Same as a, above, except use "budget" in lieu of "authorization."

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TABLE 25 - SOURCE OF FUNDS FOR AIRCRAFT, MISSILES, SHIPS AND TRACKED COMBAT VEHICLES FY 1967 PROCUREMENT PROGRAM
(In thousands)

	Total Amount of FY 1967 Program	Funding Available for Financing Program in Part	NOA Requested for Authorization
Aircraft			
Procurement of Equipment and Missiles, Army	592,500	-	592,500
Procurement of Aircraft and Missiles, Navy (and Marine Corps)	1,612,170	190,000	1,422,170
Aircraft Procurement, Air Force	4,355,300	394,000	3,961,300
Sub-total - Aircraft	6,559,970	584,000	5,975,970
Missiles			
Procurement of Equipment and Missiles, Army	356,500	-	356,500
Procurement of Aircraft and Missiles, Navy	367,730	-	367,730
Procurement, Marine Corps	17,700	-	17,700
Missile Procurement, Air Force	1,239,500	50,000	1,189,500
Sub-total - Missiles	1,981,430	50,000	1,931,430
Navy Vessels			
Shipbuilding and Conversion, Navy	2,041,200	289,900	1,751,300
Tracked Combat Vehicles			
Procurement of Equipment and Missiles, Army	359,200	-	359,200
Procurement, Marine Corps	3,700	-	3,700
Sub-total - Tracked Vehicles	362,900	-	362,900
GRAND TOTAL	10,945,500	923,900	10,021,600

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TABLE 26 - FY 1967 AIRCRAFT PROCUREMENT PROGRAM
($ in millions)

Army		Total FY 1967 Program Quantity	Amount
CH 47A	Helicopter	120	131.6
	Less Advance Procurement, Prior Year		-11.3
			120.3
CH 47A	Advance Procurement, Current Year		1.7
UH 1 B/D	Helicopter	900	204.9
	Less Advance Procurement, Prior Year		-29.9
			175.0
UH 1 B/D	Advance Procurement, Current Year		10.0
OH-6A		458	34.4
	Less Advance Procurement, Prior Year		-3.5
			30.9
OH-6A	Advance Procurement, Current Year		11.6
CH-54A	Helicopter	18	45.5
	Less Advance Procurement, Prior Year		-3.5
			42.0
CH-54A	Advance Procurement, Current Year		6.0
OV-1	Airplane	36	36.0
	Less Advance Procurement, Prior Year		9.0
			27.0
OV-1	Advance Procurement, Current Year		9.0
	Items Less Than $500,000		.3
	Modification of in-Service Aircraft		46.8
	Avionic/Armament Support Equipment		.4
	Common Ground Equipment		2.2
	Component Improvement		11.4
	Production Base Support		2.2
	First Destination Trans.		3.2
	Aircraft Spares and Repair Parts		92.5
	Total Army Program	1,532	592.5
Navy and Marine Corps			
A-6A	Advance Procurement, Current Year		4.0
EA-6B	Advance Procurement, Current Year		7.3
A-7A	(Attack) CORSAIR II	230	327.1
	Less Advance Procurement, Prior Year		-31.2
			295.9
A-7A	Advance Procurement, Current Year		33.2

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TABLE 26 - FY 1967 AIRCRAFT PROCUREMENT PROGRAM - Continued
($ in millions)

Navy and Marine Corps		Total FY 1967 Program Quantity	Amount
F-4J	Advance Procurement, Current Year		5.0
F-111B	(Fighter)	-	71.7
F-111B	Advance Procurement, Current Year		7.8
OV-10A	(Counter-Insurgency)	100	53.4
	Less Advance Procurement, Prior Year		-13.8
			39.6
CH-46D	(Helicopter) SEA KNIGHT	74	92.6
	Less Advance Procurement, Prior Year		-3.3
			89.3
CH-46D	Advance Procurement, Current Year		3.1
CH-53A	(Helicopter) SEA STALLION	26	66.7
	Less Advance Procurement, Prior Year		-8.0
			58.7
SH-3D	(Helicopter) SEA KING	24	27.8
	Less Advance Procurement, Prior Year		-1.8
			26.0
SH-3D	Advance Procurement, Current Year		1.5
P-3A	(Patrol) ORION	32	153.2
	Less Advance Procurement, Prior Year		-16.8
			136.4
P-3A	Advance Procurement, Current Year		17.1
TA-4E	(Trainer) SKYHAWK	44	43.3
	Less Advance Procurement, Prior Year		-3.2
			40.1
TH-1E	(Trainer) IROQUOIS	20	6.5
T-28C	(Trainer) TROJAN	58	18.3
C-2A	(Cargo)	12	39.0
	Less Advance Procurement, Prior Year		- .5
			38.5
	Modification of Aircraft		176.6
	Aircraft Spares and Repair Parts		465.0
	Aircraft Support Equipment and Facilities	-	70.6
	Total Navy and Marine Corps Program	620	1,612.2

Air Force

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FB-111	Fighter/Bomber	10	
FB-111	Advance Procurement		9.1
A-7A	Tactical Attack Fighter	99	174.8
	Less Advance Procurement, Prior Year		-32.8
			142.0

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TABLE 26 - FY 1967 AIRCRAFT PROCUREMENT PROGRAM - Continued
($ in millions)

Air Force (Continued)		Total FY 1967 Program Quantity	Amount
A-7A	Advance Procurement		45.8
F-4E	Tactical Fighter	102	273.1
	Less Advance Procurement, Prior Year		-25.0
			248.1
F-5	Tactical Fighter	2	1.7
F-111A	Tactical Fighter	117	813.0
	Less Advance Procurement, Prior Year		-34.4
			778.6
F-111A	Advance Procurement		13.6
RF-4C	Tactical Reconnaissance	42	113.7
	Less Advance Procurement, Prior Year		-13.3
			100.4
OV-10A	Light Armed Reconnaissance	123	36.4
OV-10A	Advance Procurement		2.1
C-5A	Jet Heavy Transport	8	395.6
C-5A	Advance Procurement		12.8
C-141A	Jet Transport	34	188.9
	Less Advance Procurement, Prior Year		-22.9
			166.0
HH-3E	Helicopter, Rescue	18	18.4
HH-3E	Advance Procurement		3.0
CH-3E	Helicopter, Cargo/Transport	6	5.6
UH-1D	Helicopter, Utility	9	2.8
U-17A	Utility Aircraft	6	.1
T-39A-type	Utility Aircraft	12	7.9
C-X	(King Air-type) Utility Aircraft	11	4.1
	Modification of Aircraft		565.6
	Aircraft Spares and Repair Parts		813.5
	Common AGE		67.8
	Component Improvement		77.2
	Industrial Facilities		36.0
	War Consumables		60.2
	Other Charges		41.0
	Classified Projects		474.2
	Total Air Force Program	599	4,355.3

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TABLE 27 - FY 1967 MISSILE PROCUREMENT PROGRAM
($ in Millions)

	Total FY 1967 Program Qty	Amt
Army		
CHAPARRAL Missiles	2,640	24.6
Ground Equipment		36.9
REDEYE (XMIM-43A) Missiles	5,556	31.6
HAWK (XMIM-23A) Ground Equipment		21.1
HAWK (Self-Propelled) Ground Equipment		11.0
IMPROVED HAWK (Formerly ATBM/HIP)		5.6
[redacted]		
SHILLELAGH (XMGM-51A)	28,803	90.9
LANCE (XMGM-52A) Missiles	206	22.2
Ground Equipment		15.0
Target Missiles		10.7
Modification of In-Service Missiles		35.7
Production Base Support		20.3
First Destination Transportation		1.8
Missile Spares and Repair Parts		22.5
TOTAL ARMY PROGRAM	37,205	356.5
Marine Corps		
REDEYE Missile (XMIM-43-A)	2,750	13.1
HAWK Missile (XMIM-23A)		3.8
Spares and Repair Parts		.8
TOTAL MARINE CORPS PROGRAM	2,750	17.7
Navy		
		3.0
UGM-27B	54	50.2
UGM-27C		31.1
Fleet Support	312	5.0
AIM-7C (SIDEWINDER 1C SAR)	940	9.0
AIM-7D (SIDEWINDER 1C IR)	1,800	27.5
AGM-45A (SHRIKE)		2.5
RIM-24B (TARTAR)		

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TABLE 27 - FY 1967 MISSILE PROCUREMENT PROGRAM - Continued
($ in Millions)

	Total FY 1967 Program Qty	Amt
Navy - Continued		
RIM-66A (STANDARD MR)	216	15.1
RIM-2E (TERRIER)		3.9
RIM-67A (STANDARD ER)	938	69.0
RIM-8E (TALOS)	188	19.1
UUM-44A (SUBROC)	60	21.8
QH-50D (DASH)	67	19.3
Aerial Targets		39.3
Modification of Missiles		10.7
Missile Spares and Repair Parts		20.8
Missile Support Equipment and Facilities		20.4
TOTAL NAVY PROGRAM	4,481	367.7
Air Force		
LGM-25C TITAN II	6	20.1
LGM-30F MINUTEMAN II	183	382.6
AGM-12C BULLPUP B	5,185	29.6
AGM-45A SHRIKE	1,253	24.1
AIM-7E SPARROW	845	22.0
AIM-4D FALCON TRAINER	225	5.4
BQM-34A FIREBEE DRONE	164	14.3
Modifications		240.9
Spares and Repair Parts		64.3
Other Support		436.2
TOTAL AIR FORCE PROGRAM	7,861	1,239.5

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TABLE 28 - FY 1967 TRACKED COMBAT VEHICLE PROCUREMENT PROGRAM
($ in Millions)

	Total FY 1967 Program Qty	Amt
Army		
Carrier, Cargo, M548	1,050	24.9
Carrier, Utility, XM571	55	2.5
Howitzer, Med., 155mm, M109	282	29.1
Mortar Carrier, 81mm, M125A1	450	13.4
Recovery Vehicle, M578	150	11.8
Armored Recon. Airborne Assault Vehicle, XM551	560	98.7
Less: Advance Procurement, Prior Year		-32.9
		65.8
ARAAV Advance Procurement, Current Year		34.1
Chassis, Transporter Bridge Launcher	30	3.3
Combat Engineer Vehicle, M728	30	6.0
Tank, Combat, 152mm Gun, M60A1E1	300	78.0
Tank, Combat, 105mm Gun, M48A4 Retrofit	243	19.1
Tank, Combat, 105mm Gun, M48A3 Retrofit	362	12.1
Trainer, Conduct of Fire, XM35	389	4.9
Trainer, Conduct of Fire, M60A1E1	115	2.3
Trainer, Weapons System, M60A1E1	32	6.4
Repair Parts and Support Materiel		25.9
First Destination Transportation		7.7
Production Base Support		11.9
TOTAL ARMY PROGRAM	4,048	359.2
Marine Corps		
Howitzer, SP, M109	10	1.3
LVTH-6 Modernization	65	1.7
Oil Mix Trans. Unit	41	.6
Spares and Repair Parts		.1
TOTAL MARINE CORPS PROGRAM	116	3.7

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TABLE 29 - FY 1967 NAVY SHIPBUILDING AND CONVERSION PROGRAM
($ in millions)

		Total FY 1967 Program Quantity	Total FY 1967 Program Amount
New Construction			
CVA(N)	Attack Aircraft Carrier (Nuclear)	1	427.5
SS(N)	Submarine (Nuclear)	5	341.0
	Less: Advance Procurement in Current Year	-	-28.4
			312.6
SS(N)	Submarine (Nuclear) Advance Procurement in Current Year	-	7.1
CAG	Guided Missile Heavy Cruiser Advance Procurement in Current Year	-	9.9
DDG	Guided Missile Destroyer	2	145.1
LSD	Dock Landing Ship	1	32.3
LST	Tank Landing Ship	11	273.6
DE	Escort Ship	10	284.1
MSO	Ocean Minesweeper	5	42.5
ATS	Salvage Tug	2	19.0
AOR	Replenishment Fleet Tanker	2	79.6
AFS	Combat Store Ship	1	27.5
AGOR	Oceanographic Research Ship	1	13.5
AGS	Surveying Ship	2	20.0
AE	Ammunition Ship	2	65.4
ATF	Fleet Ocean Tug	1	9.1
ASR	Submarine Rescue Vehicle	1	15.2
Service and Other Small Craft		-	29.2
	Subtotal New Construction	47	1,813.2
Conversion			
CVA	Attack Aircraft Carrier Advance Procurement Current Year	-	12.9
DLG	Guided Missile Frigate	5	121.5
	Less Advance Procurement Prior Year	-	-12.9
			108.6
DLG	Guided Missile Frigate Advance Procurement Current Year	-	11.6
CG	Guided Missile Cruiser	1	22.1
DD	Destroyer	5	62.5
DD	Destroyer Advance Procurement Current Year	-	2.5
T-AO	Oiler	2	7.8
	Subtotal Conversion	13	228.0
	TOTAL PROGRAM	60	2,041.2

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TABLE 30 - AMOUNTS REQUESTED FOR RDT&E AUTHORIZATION IN FY 1967 REQUEST AS COMPARED WITH FY 1966 BUDGET

(In thousands)

	Authorized a/ FY 1966	Appropriated b/ FY 1966	Requested FY 1967
RESEARCH, DEVELOPMENT, TEST, AND EVALUATION			
Army	$1,434,395	$1,434,395	$1,518,900
Navy (including the Marine Corps)	1,491,770	1,491,770	1,748,600
Air Force	3,174,985	3,174,985	3,053,800
Defense Agencies	495,000	495,000	459,059
Emergency Fund	n/a	125,000	125,000
Total	$6,596,150	$6,721,150	$6,905,359

a/ Includes $151,650,000 million in FY 1966 supplemental authorization request.

b/ Same as a, above, except use "budget" in lieu of "authorization."

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TABLE 31 • SOURCE OF FUNDS FOR THE FY 1967 RDT&E PROGRAM

(In thousands)

	Total Amount of FY 1967 Program	Funding Available for Financing Program in Part	NOA Requested for Authorization
RESEARCH, DEVELOPMENT, TEST, AND EVALUATION			
Army	$1,518,900	-	$1,518,900
Navy (including the Marine Corps)	1,748,600	-	1,748,600
Air Force	3,053,800	-	3,053,800
Defense Agencies	467,609	$-8,550	459,059
Emergency Fund	125,000	-	125,000
Total	$6,913,909	$-8,550	$6,905,359

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TABLE 32- FY 1967 RDT&E, ARMY PROGRAM
($ in millions)

	FY 1967 Program Amount
Budget Activity 1. MILITARY SCIENCES	
In-House Lab Independent Research	10.2
Defense Research Sciences	76.8
Intelligence-Electronic Warfare	2.5
Automatic Data Processing Systems	1.4
Surface Mobility Studies	1.9
Nuclear Investigations	10.2
Materials	14.3
Human Factors	6.8
Environment	6.7
Biomedical Investigations	18.5
Education and Training Development	1.0
Studies and Analyses	11.2
Subtotal, Military Sciences	161.5
Budget Activity 2. AIRCRAFT AND RELATED EQUIPMENT	
Light Observation Helicopter	.1
Aircraft Suppressive Fire	2.5
Avionics	4.0
Air Mobility	11.8
Aeronautical Research	5.5
Demonstrator Engines	1.2
Operational Evaluation, V/STOL	1.6
Research Helicopter	4.0
New Surveillance Aircraft	3.0
Aircraft Suppressive Fire	4.1
Avionics	3.0
Avionics Systems	2.6
Aircraft Suppressive Fire Systems	15.5
Advanced Aerial Fire Support System	24.9
Aircraft Engines	2.5
Supporting Development Air Mobility	6.3
Subtotal, Aircraft and Related Equipment	92.6

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	FY 1967 Program Amount
[illegible]	
[illegible]	36.0
[illegible]	6.0
[illegible]	31.5
[illegible]	1.0
[illegible]	1.0
[illegible]	8.1
[illegible]	13.1
[illegible]	.5
[illegible]	14.0
[illegible]	19.4
[illegible]	13.7
[illegible]	40.0
[illegible]	3.0
[illegible]	417.0
[illegible]	.5
[illegible]	30.8
[illegible]	83.1
[illegible] ipment	718.7
[illegible] D RELATED EQUIPMENT	
[illegible] Communications	13.2
[illegible] and Related	13.2
[illegible] D RELATED EQUIPMENT	
[illegible]	1.1
[illegible] Related Equipment	1.1
[illegible] ES, AND RELATED EQUIPMENT	
[illegible]	36.4
[illegible] iques	5.7
[illegible]	29.7
[illegible]	15.2
[illegible]	12.6

	FY 1967 Program Amount
Budget Activity 6. ORDNANCE, COMBAT VEHICLES, AND RELATED EQUIPMENT (Continued)	
Antitank Weapon System	1.2
CB Weapons Program	4.6
Field Artillery Direct Support Weapon	1.0
Howitzer, Lightweight 155mm	4.5
Nuclear Munitions Development	2.5
Infantry Individual and Supporting Weapons	22.0
Field Artillery Weapons, Munitions and Equipment	18.4
Heavy Antitank Assault Weapon System (TOW)	9.0
Nuclear Munitions	5.1
Wheeled Vehicles	3.8
Track and Special Vehicles	4.1
Fortifications, Mines and Obstacles	5.4
CB Weapons	6.2
Subtotal, Ordnance, Combat Vehicles, and Related Equipment	187.4
Budget Activity 7. OTHER EQUIPMENT	
Army Support of HQ EUCOM	.3
Communications-Electronics	6.2
Identification, Friend or Foe (IFF)	.4
Airborne Surveillance and Target Acquisition	6.0
Ground Surveillance and Target Acquisition	3.5
Electronics-Electronic Devices	15.5
CB Defense	16.3
Mapping-Geodesy	4.9
Combat Support	4.5
Night Vision	4.2
Limited War Laboratory	7.0
Command Control Information Sys (CCIS) for Field Army	4.2
Night Vision	4.1
CB Defense	2.5
Identification, Friend or Foe (IFF) (Advanced)	.4
Communications Developments	9.7
Image Interpretation Photo Processing	1.2
Ground Surveillance and Target Acquisition	2.8
Airborne Surveillance and Target Acquisition	4.0
Intelligence and Electronic Warfare Dev.	10.0

	FY 1967 Program Amount
Budget Activity 7. OTHER EQUIPMENT (Cont'd)	
Mapping-Geodesy	2.1
Therapeutic Development	11.4
Strategic Communications	1.3
Tactical Communications	11.8
Tactical ADPS Equipment	4.1
Aerial Combat Surveillance System	3.3
Unmanned Aerial Surveillance System	2.3
Ground Based Surveillance Systems	3.5
Nuclear Surveillance - Survey	1.0
Support of Intelligence Operations	1.0
Image Interpretation Photo Process	3.0
Identification, Friend or Foe Equipment (Engr.)	5.4
Supporting Development for Communications	3.0
Electronic Warfare	2.0
Combat Feeding, Clothing and Equipment	1.5
Night Vision Development	4.5
Training Devices	1.5
Mapping-Geodesy	1.0
General Combat Support	10.0
CB Defense	4.7
Army Electronic Proving Ground	7.0
Testing	48.6
Electromagnetic Compatibility Analysis Center	1.5
Intelligence Data Handling System	.6
Communications Security Equipment Techniques	3.5
Primary COMINT/ELINT	12.2
Specialized Collection Activities and Systems	2.5
DUCC	4.6
Subtotal, Other Equipment	266.6
Budget Activity 8. PROGRAMWIDE MANAGEMENT AND SUPPORT	
Facilities and Installation Support	76.8
International Cooperative R&D	.3
Civilian Training Pool	.7
Subtotal, Programwide Management and Support	77.8
TOTAL - RDT&E, Army	1,518.9

TABLE 33 - FY 1967 RDT&E, NAVY PROGRAM
($ in millions)

	FY 1967 Program Amount
Budget Activity 1. MILITARY SCIENCES	
Defense Research Sciences	115.8
In-House Lab Independent Research	15.6
General Surveillance & Navigation	18.5
Life Sciences Technology	3.0
Personnel & Training	2.3
Materials	10.5
Electronic Materials & Techniques	6.0
Education & Training	2.0
Center for Naval Analyses (Navy)	8.5
Center for Naval Analyses (Marine Corps)	.8
Studies and Analyses (Navy)	7.8
Studies and Analyses (Marine Corps)	1.0
Subtotal, Military Sciences	191.8
Budget Activity 2. AIRCRAFT AND RELATED EQUIPMENT	
AEW CV Based Aircraft E2A	4.0
Drone ASW Helicopter-DASH	1.2
F4B Equipment Improvements	.4
Tactical Fighter F111B-TFX A/C	88.2
ILAAS	8.5
A/C Systems Fleet Support	2.9
Target Fleet Support	5.0
A-7A VAL Aircraft Improved Follow-on Lt. Attack A/C	6.0
Helo Avionics System	4.5
Air ASW Fleet Support	2.0
Airborne Surveillance & Navigation	24.2
Aircraft Communications	2.2
A/C, Other Exploratory Development	31.5
Airborne ASW Detection	23.0
Advanced Avionics	1.3
V/STOL Development	4.0
Air/Surface Fire Control	4.7
Advanced Aircraft Engines	3.0
Airborne Electronic Warfare Equipment	13.0
Directional Jezebel Sono. Sys.	8.0

	FY 1967 Program Amount
Budget Activity 2. AIRCRAFT AND RELATED EQUIPMENT (Cont'd)	
Integrated VP ASW Avionics	1.5
Avionics Development	3.2
Drone Target Development	1.4
AIMS (ATCRBS/MARK XII)	2.3
Subtotal, Aircraft and Related Equipment	246.0
Budget Activity 3. MISSILES AND RELATED EQUIPMENT	
Fleet Ballistic Missile System	76.0
PHOENIX Missile System	70.0
Air-Launched Guided Missile Fleet Support	7.9
SPARROW III Weapons Sys.	.2
SUBROC	1.0
Anti-Radiation Weapon (SHRIKE)	7.1
SAM Improvement Program	44.9
Guided Missile Propulsion	12.8
Guided Missiles Exploratory Dev.	21.3
Landing Force Support Weapon	2.0
Augmented Thrust Propulsion	3.0
Advanced Anti-Radiation Missile Sys. (ARM-1)	12.9
Advanced ARM Technology	4.0
Advanced SAM	2.0
Advanced Sparrow	13.5
Medium Range Guided Missile	18.9
POSEIDON	294.1
Point Defense Surface Missile Sys.	8.0
Pacific Missile Range	59.8
Missile Wpn Sys Test Instrumentation	6.0
Subtotal, Missiles and Related Equipment	665.4
Budget Activity 4. MILITARY ASTRONAUTICS AND RELATED EQUIPMENT	
SPASUR	.5
Astronautics Exploratory Dev.	9.2
Satellite Communications	3.0
Subtotal, Military Astronautics and Related Equipment	12.7

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FY 1967
Program Amount

Budget Activity 5. SHIPS, SMALL CRAFT, AND RELATED EQUIPMENT

AN/SPS 48 Height Finder Radar	.5
Sonar SQS-26	14.4
LM 1500 Gas Turbine	.3
OMEGA Navigation System	5.7
Naval Tactical Data System	3.6
Operations Control Center	5.9
A/C Launching and Retrieving Fleet Spt	7.0
Sonar Fleet Support Program	14.6
All Weather Carrier Landing Sys.	.8
Submarine Safety	2.0
Non Nuclear Propulsion	2.1
Fleet Support Electronics	2.5
Fleet Support (Hull & Machinery)	1.5
Submarine Silencing	5.5
Shipboard Surveillance & Navigation	24.3
Command Support	12.3
Jamming and Deception	5.0
Shipboard Countermeasures	8.7
Ships, Submarines, Boats	39.5
Reactor Propulsion Plants	13.0
Advanced Mine Countermeasures	2.8
Active Planar Array Sonar	9.9
Adv. Submarine Sonar Dev.	10.0
Adv. Surface Sonar Dev.	2.0
Acoustic Countermeasures	7.0
ASW Ship Integrated Combat System	8.5
Propulsion Development - Sea Hawk (COGAG - ASW Ships)	5.0
New Ship Design	2.0
Advanced Surface Craft	4.0
Aircraft Launching & Retrieving	3.9
Ship Interior Communications	1.0
Adv. Navigation Development	.5
Advanced Command Data	.3
Advanced Communications	5.7
Shipboard Electronic Warfare	6.0
Mine Surveillance & Destruction Sys.	2.2
Sub Sonar Developments	5.1
Periscope Detection Radar	1.5
BW/CW Countermeasures	.9
Radar Surveillance Equipment	.3
Automated Electronic Test Equipment	.8
Adv. ASW Communications	5.0
Communications Systems	4.8
Intelligence Systems	4.5
Electronic Warfare System	6.0

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	FY 1967 Program Amount
Budget Activity 5. SHIPS, SMALL CRAFT, AND RELATED EQUIPMENT (Cont'd)	
Navigation System	2.0
Primary COMINT and ELINT	8.4
Secure Communications	1.6
Navy IDHS	.3
Subtotal, Ships, Small Craft, and Related Equipment	281.2
Budget Activity 6. ORDNANCE, COMBAT VEHICLES, AND RELATED EQUIPMENT	
Underwater Ordnance Fleet Program	7.3
A/L and S/L Ordnance Fleet Support	5.3
ASROC System	1.8
Torpedo MK 46	5.0
Anti-Tank Weapon ROCKEYE	1.4
WALLEYE	1.8
Hero Fleet Support	2.0
MC Operational Wpn. & Ord. Dev.	1.4
Weapons and Ordnance	41.1
Marine Corps Ordnance/Combat Vehicles Exploratory Dev.	3.2
Advanced Mine Developments	9.5
ASW Torpedo Countermeasures	6.0
Sub-Launched Anti-Ship Torpedo	3.0
Advanced BW/CW Weapon	1.0
Advanced Conventional Ordnance	6.3
Marine Corps Ordnance/Combat Vehicles Advanced Dev.	3.2
Mine Warfare Developments	2.0
ASW Rockets	9.4
MK-48 Torpedo EX-10	35.0
Unguided Conventional Air Launched Wpns	7.5
BW/CW Weapons	1.9
Conventional Ordnance Equipment	14.8
Marine Corps Ordnance/Combat Vehicle Sys	8.5
Subtotal, Ordnance, Combat Vehicles and Related Equipment	178.4
Budget Activity 7. OTHER EQUIPMENT	
ASW Environmental Prediction	2.0
FMF Expeditionary Air Field Support	2.0
US MC Tactical Data System	2.0
MC Operational Electronic Developments	1.1
MC Operational Logistics Dev.	.4
Undersea Surveillance	9.3
Shore Based Countermeasures	5.8
Logistics	5.5

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	FY 1967 Program Amount
Budget Activity 7. OTHER EQUIPMENT (Cont'd)	
Training Equipment	7.6
C/B Weapons Defense	5.5
Other MC Exploratory Dev.	4.0
Advanced Undersea Surveillance	6.4
Deep Submergence Program	21.5
Mobile ASW Target	3.5
Oceanographic Instrumentation Development	2.0
Advanced Logistics	4.5
Other Marine Corps Systems	3.8
Subtotal, Other Equipment	86.9
Budget Activity 8. PROGRAMWIDE MANAGEMENT AND SUPPORT	
Facilities & Installations Support	62.9
Atlantic Undersea Test & Evaluation Ctr	9.8
Electromagnetic Compatibility Analysis Ctr	2.4
Technical Information Centers	1.8
International Cooperative R&D	.2
Management & Technical Support (ASW)	8.0
Navy Support to LANTCOM	.7
Navy Support to PACOM	.4
Subtotal, Programwide Management and Support	86.2
TOTAL - RDT&E, Navy	1,748.6

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TABLE 34 - FY 1967 RDT&E, AIR FORCE PROGRAM
($ in millions)

	FY 1967 Program Amount
Budget Activity 1. MILITARY SCIENCES	
Defense Research Sciences	90.6
In-House Lab Independent Research	10.0
CLOUDGAP	1.4
Life Sciences	7.2
Environment	10.1
Materials	21.8
Studies and Analyses	6.0
Education and Training	1.0
RAND	15.0
ANSER	1.3
Subtotal, Military Sciences	164.4
Budget Activity 2. AIRCRAFT AND RELATED EQUIPMENT	
SR-71	2.6
FB-111/SRAM	80.6
F-111A	78.0
RF-111	12.5
C-5A	258.2
Aircraft Flight Dynamics	7.5
Flight Vehicle Subsystems	7.7
Tri-Service V/STOL Developments	10.0
Reconnaissance/Strike Capability	6.0
Low Altitude Guidance	1.0
Lightweight Turbojet	6.0
VTOL Engines Development	20.0
V/STOL Aircraft Technology	3.0
Mach 8 Ramjet	3.0
Supersonic Combustion	4.0
Advanced Structures	2.5
Advanced Avionics	3.9
X-15 Research Aircraft	6.0
Adv. Filaments and Composites	9.5
Advanced Manned Strategic Aircraft	11.0
Adv. Turbine Engine Gas Generator	3.0
V/STOL Assault Transport	3.0
F-111A/MK II Avionics	35.0
XB-70	18.3
YF-12A Aircraft	20.0
F-12 Aircraft	10.0

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	FY 1967 Program Amount
Budget Activity 2. AIRCRAFT AND RELATED EQUIPMENT (Cont'd)	
Close Support Fighter	4.0
J-58 Engine	22.8
Aircraft Operational Support	4.0
System Engineering Group	24.5
Subtotal, Aircraft and Related Equipment	677.6
Budget Activity 3. MISSILES AND RELATED EQUIPMENT	
MINUTEMAN	350.7
Air-to-Ground Missile - 28 (Hound Dog)	8.1
Adv. Weapons and Application	1.8
Rocket Propulsion - Missiles	27.2
Electromagnetics - Missiles	8.9
Low Altitude Supersonic Vehicle	2.1
Advanced Air-to-Surface Missile Technology	8.0
Stellar Inertial Guidance	.2
Advanced ICBM Technology	10.0
Self Aligning Boost and Re-entry Guidance Sys (SABRE)	13.0
Tactical Air-to-Ground Missiles	9.0
NIKE Targets	8.0
Adv. Ballistic Re-entry Systems (ABRES)	140.0
Eastern Test Range	185.6
Western Test Range	57.9
Subtotal, Missiles and Related Equipment	830.5
Budget Activity 4. MILITARY ASTRONAUTICS AND RELATED EQUIPMENT	
Spacetrack	5.8
Bioastronautics	5.4
Aerospace Propulsion	28.0
Electromagnetics - Space	11.7
Space Flight Dynamics	9.9
Aerospace Surveillance	22.0
Space Studies	2.0
Large Solid Propellant Motor	2.0
Program 461	38.0
Adv. Space Guidance	2.0
Adv. Liquid Rocket Technology	14.7
Laser Radiation Technology (LARIAT)	1.8
Program 922	.5
Manned Orbiting Laboratory (MOL)	150.0
Advanced Space Power Supply Technology	4.2
Satellite Communications	18.0

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	FY 1967 Program Amount
Budget Activity 4. MILITARY ASTRONAUTICS AND RELATED EQUIPMENT (Cont'd)	
Spacecraft Technology and Advanced Re-entry Test	16.0
Titan III Space Booster	65.8
Program 417	11.9
Arnold Engineering Dev. Ctr.	44.5
Aerospace Corporation	29.4
Environmental Research Support	14.4
Satellite Control Facilities	25.8
Special Support Activities	290.3
Subtotal, Military Astronautics and Related Equipment	814.1
Budget Activity 7. OTHER EQUIPMENT	
465L Strategic Air C&C Sys. (SACCS)	.4
481L Post Attack C&C Sys. (PACCS)	8.2
Special Purpose Communications System	.2
Over-The-Horizon Radar System	3.2
Air Force Support - Hq CONAD/NORAD	.4
Tactical Air Control Sys (Mobile)	3.5
Air Force Support to HQ USSTRICOM	.7
Chemical Biological and Conventional Wpns	4.2
Electromagnetics-Other	5.4
Surveillance	24.0
Electronic Devices-Other	14.0
Overland Radar Technology	12.0
Airborne Warning & Control (AWACS)	3.0
Advanced Devices	2.0
Survivable C&C Comm.	1.0
Airborne Terminal for Satellite Comm	3.1
Reconnaissance Exploitation	1.7
Tri-Service Lightweight Tactical Radar	3.5
Conventional Munitions	7.5
Biological Warfare/Chemical Warfare (BW/CW) Program	7.1
Penetration Aids for Tactical Fighters	5.0
Remote Detection of Missile Launching	1.8
Tactical Air Control and Landing Devices	1.5
Airborne Traffic Control Radar Beacon Systems/Mark XII (AIMS)	2.8
Life Support Systems	2.0
Other Operational Support	29.0
Chemical/Biological Operational Spt	6.5
Joint Advanced Tactical Command and Control System	11.0
Weapons Effectiveness Test	10.2
Test Instrumentation	20.5

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	FY 1967 Program Amount
Budget Activity 7. OTHER EQUIPMENT (Cont'd)	
Electromagnetic Compatibility Analysis Ctr (ECAC)	2.0
Lincoln Laboratory	24.8
MITRE	12.5
Cryptologic Activities	.3
Primary Communications Security	.7
Specialized Collection Activities and Systems	38.2
Electronic Data Processing, IDHS	1.6
AF Communications System	.6
Clear Sky	12.6
Mapping and Charting	.4
Subtotal, Other Equipment	289.1
Budget Activity 8. PROGRAMWIDE MANAGEMENT AND SUPPORT	
Development, Acquisition and Test Management	82.0
Command Management and Base Operations	123.9
Exploratory Dev Lab Support	71.9
International Cooperative R&D	.3
Subtotal, Programwide Management and Support	278.1
TOTAL - RDT&E, Air Force	3,053.8

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TABLE 35 - FY 1967 RDT&E, DEFENSE AGENCIES PROGRAM
($ in millions)

	FY 1967 Program Amount
Budget Activity 1. MILITARY SCIENCES	
ADVANCED RESEARCH PROJECTS AGENCY	
Defense Research Sciences	51.5
Technical Studies	9.1
DEFENSE ATOMIC SUPPORT AGENCY	
Nuclear Weapons Effects Research	36.6
OTHER OSD ACTIVITIES	
Studies and Analyses, Defense Agencies	10.2
Subtotal, Military Sciences	107.4
Budget Activity 2. AIRCRAFT AND RELATED EQUIPMENT	
OTHER OSD ACTIVITIES	
Joint Task Force Two	11.7
Subtotal, Aircraft and Related Equipment	11.7
Budget Activity 3. MISSILES AND RELATED EQUIPMENT	
ADVANCED RESEARCH PROJECTS AGENCY	
Ballistic Missile Defense (DEFENDER)	119.0
Subtotal, Missiles and Related Equipment	119.0
Budget Activity 4. MILITARY ASTRONAUTICS AND RELATED EQUIPMENT	
DEFENSE COMMUNICATIONS AGENCY	
Communications Satellite Project	3.5
Subtotal, Military Astronautics and Related Equipment	3.5

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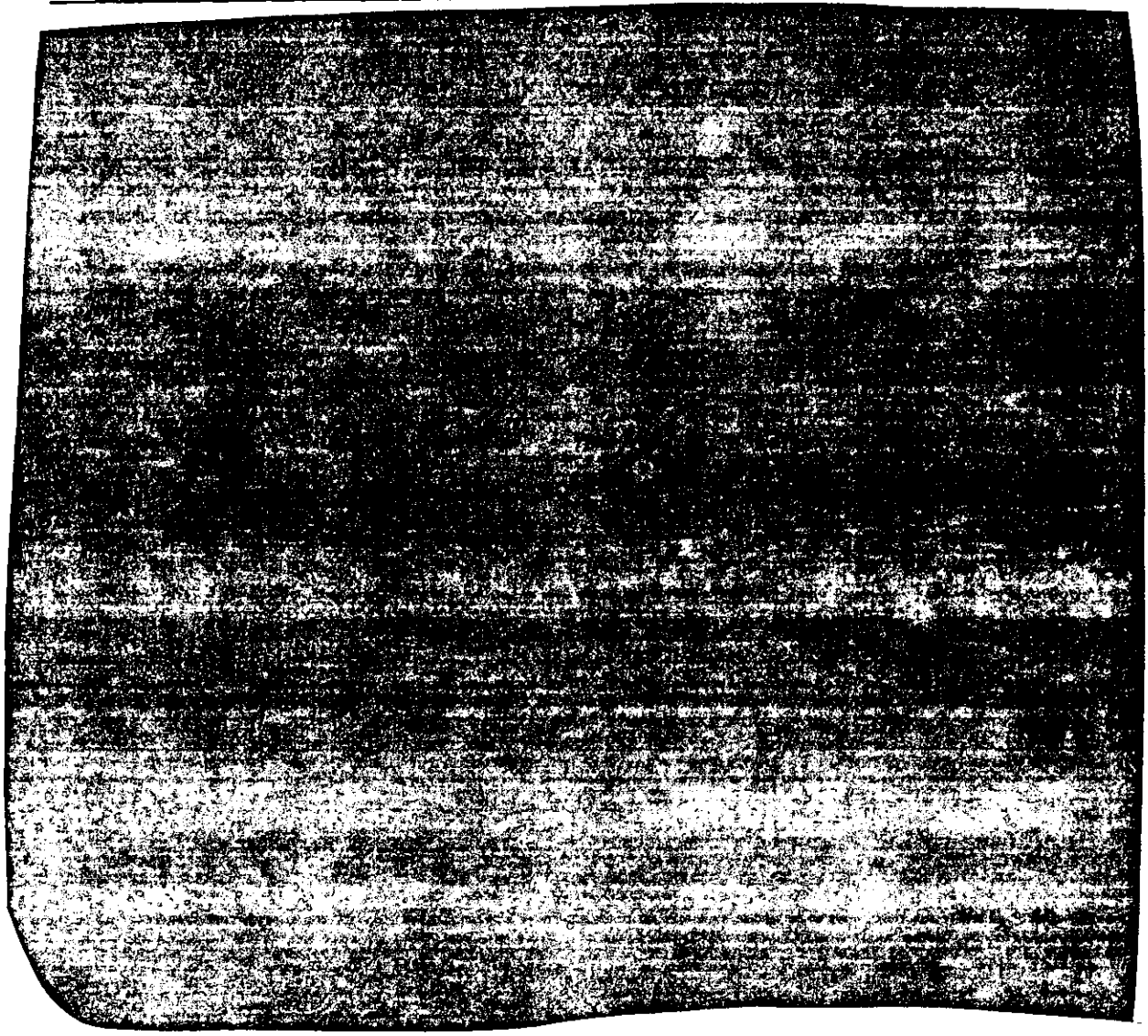
FY 1967
Program Amount

Budget Activity 6. ORDNANCE, COMBAT VEHICLES AND RELATED EQUIPMENT



Budget Activity 8. PROGRAMWIDE MANAGEMENT AND SUPPORT

DEFENSE SUPPLY AGENCY

Defense Documentation Center	10.5
Subtotal, Programwide Management and Support	10.5
TOTAL RDT&E, Defense Agencies	467.6

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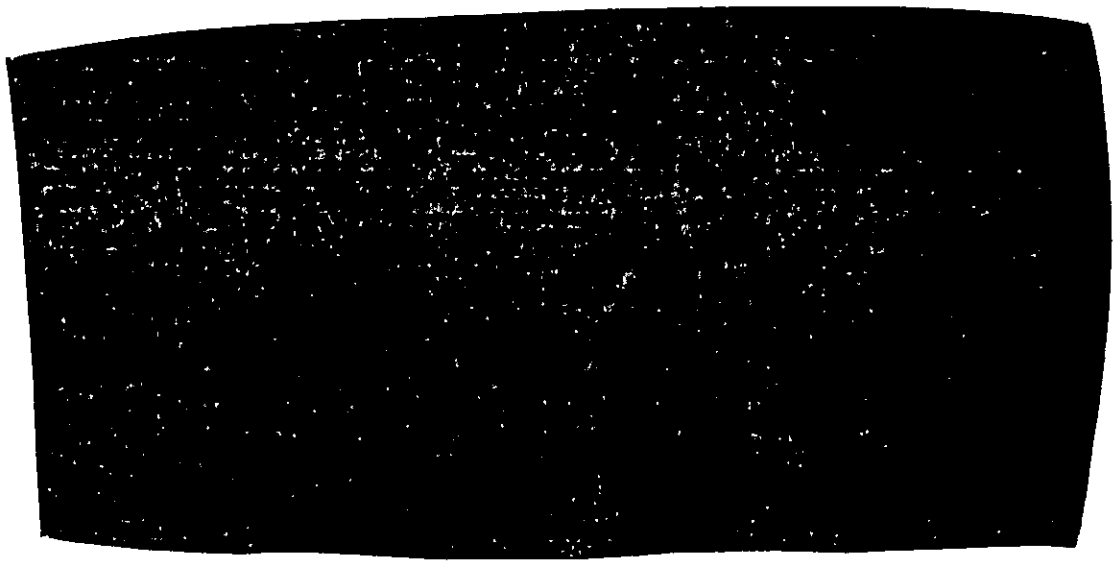

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TABLE 36 - FY 1967 RDT&E, EMERGENCY FUND
($ in millions)

	FY 1967 Amount
Emergency Fund, Defense	$125.0