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STATEMENT OF SECRETARY OF DEFENSE ROBERT S. McNAMARA

BEFORE THE HOUSE SUBCOMMITTEE ON DEPARTMENT OF DEFENSE APPROPRIATIONS

ON THE FISCAL YEAR 1969-73 DEFENSE PROGRAM AND 1969 DEFENSE BUDGET

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Mr. Chairman and Members of the Committee:

This is the seventh and final Five Year Defense Program and Financial Budget it will be my privilege to present to this Committee. Since there are a number of important basic policy issues which warrant a more extensive discussion, I have dropped from this year's statement some of the usual program detail. However, other Defense Department witnesses will be available to go into these matters in whatever depth you may desire.

As has been my practice in the past, I will attempt to call your attention to the more important changes in the Defense Program which have occurred since last year, particularly those relating to our effort in Southeast Asia.

A. APPROACH TO THE FY 1969-73 PROGRAM AND FY 1969 BUDGET

Last year when I appeared before this Committee in support of the FY 1968 Budget I said, "...barring a significant change in the character or scope of the Southeast Asia conflict, or unforeseen emergencies elsewhere in the world, the FY 1967 Supplemental and FY 1968 Budget should be sufficient to cover our requirements until FY 1969 funds become available...." A careful review of our financial requirements for the balance of FY 1968 has convinced me that we can still manage the program within the total obligational authority provided. However, to do so we will need authority to transfer a limited amount of funds among the various Defense Department appropriations. The amounts involved, both for authorization and appropriation, have been furnished separately to the appropriate Committees. a/

With regard to the FY 1969 Budget, I have again deleted all programs which can be safely deferred to a later time. In particular, our

a/ In addition, we will need the funds required to cover the costs of the military and civilian pay raises enacted by the Congress last year. This requirement was included in the President's original FY 1968 Budget in the category of Government-wide "Allowances for Contingencies" rather than the Defense program, since it involved proposed legislation.

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military construction request includes primarily those projects needed for support of our forces in Southeast Asia, for new weapons systems, and for the health and safety of our personnel. And, of course, we are continuing with undiminished vigor our cost reduction efforts.

By eliminating the unneeded and marginal activities and by deferring whatever can be safely deferred, I have been able to reduce the FY 1969 Budget requests of the Services and Defense Agencies by about $21.7 billion, while at the same time providing for all essential military requirements. As shown in Table 1, we are requesting for FY 1969 a total of $79.6 billion in new obligational authority. Expenditures are now estimated at $74.2 billion for FY 1968 (about $500 million more on a comparable basis, i.e., taking account of pay raises and the new budget concepts, than was estimated one year ago and several billion less than some have predicted in recent months) and $77.1 billion for FY 1969.

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

In the seven years since I first came before this Committee to testify on our defense programs, the military and economic strength of the United States and its allies has increased dramatically. But so have the difficulty and complexity of the problems we have had to face in framing our military policies. These years have seen the acceleration of a number of trends which will make the world of the 1970s very different from the world of the early 1960s. Today, as then, our military posture remains rooted in a commitment to collective defense. We and our allies are demonstrating this commitment every day in Vietnam. But today, and tomorrow, our country must be prepared to cope with a complex range of contingencies requiring forces and weapons systems with very diverse capabilities.

Since the early 1960s the divisions within the camp of our adversaries, already apparent then, have both deepened and widened. Indeed, there are now not simply two centers of Communism but several: Havana shows little inclination to follow the lead of Moscow or Peking, and is itself trying to exert a lead over the splintered Communist movements of the developing world. In Moscow, we still detect a desire to undermine the institutions of many nations and the influence of the United States. But we find this desire tempered by a prudence powerfully reinforced by a justly-held fear of nuclear war.

At the same time that we find ourselves engaged in a conflict with North Vietnam and its South Vietnamese supporters to preserve the principle

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that political change must not be brought about by externally directed violence and military force, we find ourselves engaged in many forms of peaceful competition with other Communist states. In the world of the late 1940s and early 1950s, when our adversary seemed monolithic, such a situation would have been unimaginable. Yet today it would be as short-sighted for us to fail to seek peaceful accommodation (in those activities in which this may be possible) with the Soviet Union and its Eastern European allies as it would be for us to fail to maintain the credibility of our deterrent against Moscow's improved strategic systems -- or to fail to resist aggression in Korea or Vietnam.

Thus, circumstances for which we must formulate our military policies have changed greatly from those of the early 1960s. But our goals remain the same. Fundamentally, what is at issue today -- as it was a decade ago and as it will be a decade from now -- is the kind of world in which we and others wish to live. When this Nation made the decision at the end of World War II to base its own security on the principle of collective defense, it was with the hope that there could be created, in accordance with the principles of the United Nations Charter, a world in which even the smallest state could look forward to an independent existence, free to develop in its own way, unmolested by its neighbors, and free of fear of armed attack or political domination by the more powerful nations.

Some years later, in a world already familiar with the gap between Communist promise and Communist reality -- and with Communist aggression as well -- we sought to achieve this same high purpose by aligning ourselves with other like-minded nations in a series of multilateral and bilateral mutual defense treaties. By the close of 1955, this system of interlocking alliances had grown to include the Rio Treaty in the Western Hemisphere, NATO in Europe, SEATO and ANZUS in the Far East and the bilateral mutual defense agreements with Korea, Japan, the Republic of China, and the Philippines -- a total of some 40-odd sovereign nations bound together in an effort to defend their freedom and prevent the further extension of Communist influence and hegemony.

Looking back over the history of the last two decades, I believe it is fair to say that this system of alliances has substantially achieved its purpose. Although the record is less than perfect, the outward thrust of Soviet and Red Chinese aggression has been generally contained and the independence of even the smallest member of the alliances has been preserved. Beyond the immediate objective of these alliances, our adherence to a policy of collective defense has helped us to pursue our ultimate goal -- the creation of a world order in which all states, small and large, aligned and unaligned, can preserve their independence and live in peace.

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Collective security, however, has had its price. The members of the alliances have had to support large and costly military forces for many years, with small prospect of an early reduction. Moreover, we, and some of our allies, have had to pay a particularly high price, both in lives and in wealth, for the alliances' achievements -- first in Korea during the early 1950s and now again in Southeast Asia. So, the American people have a right to ask: Were these achievements worth their cost, particularly in terms of their ultimate contribution to the peace and security of our own Nation?

I believe they were. But this is a question which can never be answered conclusively; there is no way by which we can determine with certainty what the world and this country would have looked like today had we not based our national security policy on the principle of collective defense during the last 20-odd years. However, we do know that the policies of unarmed isolationism and attempted neutrality, which we followed prior to World War II, were in the end far more costly in lives and property.

Moreover, it must be clearly recognized that while it is conceivable that we could return to a policy of isolationism, today this could no longer be the unarmed isolationism of the 1930s. In an age of nuclear weapons and intercontinental ballistic missiles, when other nations have the capability to strike our homeland a devastating blow with perhaps only a few minutes of warning, such an easy option is denied us.

Nevertheless, one could argue that we could still renounce all of our mutual defense treaties, pull back our military forces to our own soil, and build a "Fortress America" so powerful as to deter virtually any enemy or combination of enemies from deliberately attacking our territory. Then we could deal with the rest of the world on a strictly arms-length basis. But that would be an entirely different world than the one we now live in -- and an entirely different United States as well! Without dependable friends or allies, we would surely have to maintain a larger military establishment than at present. We would also have to reorient our industry and commerce to achieve a maximum degree of economic self-sufficiency with a lower standard of living for our people, and considerably less economic freedom for all. Most important, we would be living in a far more uncertain and dangerous world, one in which our influence over the course of events would be greatly diminished. It would also be a world in which the pressures for proliferation of nuclear weapons and the means of their delivery would be much stronger than they are today. In time, we could find ourselves literally isolated, a "Fortress America" still relatively prosperous, but surrounded by a sea of struggling, envious and unfriendly nations -- a situation hardly calculated to strengthen our own state of peace and security.

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Isolationism is clearly an undesirable alternative to our continued involvement in the responsibilities of world affairs and collective defense. This does not mean, however, that we must assume the role of "world policeman". But it does mean that we must be willing to continue to support those international arrangements which help to preserve world peace, alleviate conflicts among nations and create conditions for economic and social progress in the less developed areas of the world.

I would hope that our allies and friends will similarly recognize that the new international situation is too complicated and threatening for any sudden abandonment by them of the collective defense of freedom and independence. The principle that every nation should feel secure in its independence is still valid, and it cannot easily be ignored in one part of the world and sustained in another. The contribution of individual nations to this goal can take many forms, and there is admittedly no precise way to determine any nation's fair share of the burden. We, on our part, must recognize that some of our friends and allies simply do not have the economic strength or industrial capacity to equip and maintain the armed forces they legitimately need; in fact, a few cannot even meet their military payrolls from their own resources. It is in the common interest that these nations be furnished the necessary financial and material support, not only by the United States, but also by the other more prosperous members of the alliances. There have been some encouraging moves in that direction, but too great a share is still being furnished by the United States.

Having said that other nations should do more in the common cause does not mean that I think we should do less, at least at the present time. The severe cuts made by the Congress last year in the Administration's economic and military aid request constitute a very serious setback to the entire collective defense effort. Moreover, the numerous limitations which were incorporated in the military aid legislation will seriously hamper the administration of the program and greatly complicate our relations with many of our allies. In this connection, I think it is of the utmost importance for us to remember that the non-Communist world is made up of sovereign states which have widely differing histories, capabilities and political and economic orientations. Even where these states subscribe in principle to the policy of collective security, we should not expect that there will always be a unanimity of view as to how and by whom that policy should be implemented in any particular situation. Neither is it realistic for us to expect them all to share our scale of priorities. Each has its own particular set of local problems and national aspirations, and each will insist on judging for itself what is best for its people. We should, and do, try to guide them in areas where our joint interests are involved. And, we should,

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and do, try to ensure that what aid we give them is effectively used both from their point of view and ours. We do not, and should not, attempt to force our views upon them by unilateral coercion through trade and aid, for this is not the way to achieve the unity needed for the collective defense of the Free World.

However, I cannot help but feel that most of the restrictions and fund reductions imposed by the Congress on the national security program last year reflect a much more fundamental problem, and that is a growing unwillingness to face up to the fact that if the policy of collective defense is to work, we must be ready to pay our share of the price of supporting it. If this is so, I must tell you in all candor that our nation will be much better off if we confront the real issue directly, and that is whether we should continue to base our national security on the policy of collective defense. There is nothing to be gained and much to be lost by paying lip service to the policy and then failing to support the programs designed for its implementation.

That the American people have become somewhat disillusioned and weary with the problems of the rest of the world is readily understandable: for many years we have borne a large share of the burden of world peace and security, and of assistance to the developing nations. But we must never forget that of all nations we have the most at stake. The existence of an open, outward-looking, humane society in the United States depends upon the vitality of similar societies elsewhere. We must also never forget that our burden is large because our capacity is large -- so much larger in fact, than that of any other nation as to make comparisons misleading. For better or for worse -- hopefully, for better -- we are preeminent, with all of the obligations which accrue to leadership. So despite the rapidly increasing complexity of the world of the late 1960s and the 1970s, and the difficult choices it will pose for us, we must not in weariness or disillusionment abandon our international role, or neglect to face up to the real implications of new and old alternatives.

For my part, I am convinced that we will judge the alternatives to a continued dedication to collective defense to be unacceptable. I am also convinced that embracing the obligations of leadership will not force us to divert badly needed resources from the improvement of American domestic society. Our resources are sufficient, if wisely allocated, to meet the needs of the weak and the underprivileged both at home and abroad. For the sake of our security and our well-being, we can afford no less.

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1. The Communist Countries.

During the year since my last statement on this subject the fissures within the Communist world have shown no signs of healing. These divisions, of course, have existed for some time, and it may be that no influence short of a change of regime either in China or in the USSR can bring about the restoration of even a facade of unity across the Communist world. Peking's drive in opposition to Moscow has resulted in greater Chinese militancy, and at times in greater militancy in Soviet policies as well. On the whole, however, the strident behavior of the Peking regime has caused the Soviet leadership -- both Khrushchev and his successors -- to confront the fact that they, too, have an interest in stability that has to be balanced off against continued adherence to a revolutionary ideology. Both strands are present in Soviet policy. The task of creative statesmanship for the West will be to move Moscow further in directions that we can call constructive, while at the same time working to break down the Chinese wall which insulates Peking from all outside influence.

Our own interests have not fared badly as a result of the divisions in the Communist world. Both the Soviet Union and Red China have suffered serious setbacks in Latin America, in South Asia, in Indonesia, and in the developing world in general, and each is devoting a large share of its energies to its dispute with the other. Partly as a result of Moscow's increasing concentration on domestic affairs and partly due to Peking's defiance, the Communist governments of Eastern Europe have been able to assert increasing independence in many spheres, and we may hope for the establishment of better relations with the West. Over the long run these bonds may ease the defense problem for the entire NATO area; for the near future, however, although Europe is comparatively free from overt threats or pressures, current NATO force levels will still be required to keep it that way.

Aside from the purely nationalistic component of the Sino-Soviet dispute, a large number of ideological issues have emerged, some of which are matters of indifference to the United States. Of greater concern for us is the Sino-Soviet dispute on how the "world revolution" is to be achieved. The Soviets since 1962 have generally taken a less militant approach, although they continue to affirm their support for what they choose to call "wars of national liberation." The Soviet leadership has demonstrated some restraint in their support for North Vietnam and in support of insurgencies in some other areas of the world. In Latin America, for example, they apparently oppose Fidel Castro's policy of externally supported armed insurrection, choosing instead to compete for influence over the indigenous Communist parties and

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seeking to expand Soviet presence and relations with Latin American governments. The Red Chinese leaders, by contrast, enthusiastically endorse Castro's efforts to apply their highly touted doctrine of "peoples' wars".

There are, of course, many problems lying between us and the Soviets, some of them old, some of them new. Independently of their disagreement with the Chinese, or perhaps because of it, the Soviet leaders seem to feel impelled to support Hanoi in its attempt to expand its area of control, and therefore are less willing to cooperate with the United States in other areas of policy, such as the mutual reduction of forces in Europe or in arms control measures. It is likely that relations with the USSR could improve if Hanoi's aggressions in Southeast Asia were terminated. In the meantime we must simultaneously do our best to preserve the constructive aspects of our relationship with Moscow, and to guard against counting on improvements before they occur.

a. The Soviet Union

The past year has seen increased Soviet assistance to North Vietnam, but if it has bought Moscow any significant political leverage, it has not been used to move Hanoi towards a negotiated settlement of the Vietnam conflict. Instead, its support has done much to sustain Hanoi's aggression. Similarly, extensive Soviet military assistance to the Arab states was not only unaccompanied by any effort to steer them away from their reckless confrontation with Israel in May 1967, but, at least in its early stages, the crisis appears to have been purposefully stimulated by the USSR. Thus, the Soviet Government must carry a major share of the responsibility for triggering the short but explosive war which followed, and subsequently for making more difficult the achievement of a Middle Eastern settlement. At the same time, Moscow's record over the last half-dozen years includes its initiative to bring about peace between India and Pakistan in 1965, its generally constructive behavior during the Laotian crisis, and its stance on the Sino-Indian border dispute. The Soviet leaders have also been willing to incur the sustained invective of the Chinese in their negotiations with us for an agreement to halt the proliferation of nuclear weapons. These are only a few samples, but they serve to point up the mixture of conflict and cooperation in the USSR's relations with the non-Communist world.

Over the past year, the Soviets have projected an image of increased activity, determination and new strategic directions, especially towards developing a capability for flexible response. There are some signs that the Soviets are developing the forces required to give them a limited mobile military capability to meet some types of contingencies beyond

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tne land areas of the Communist group of countries. However, a fully flexible response remains outside the realm of immediately foreseeable Soviet capability.

Whereas Soviet developments in tne area of strategic systems -- notably ABMs and FOBS (Fractional Orbit Bombardment System) -- give evidence of a continuing search for security through more advanced arms, ostensibly military applications of power such as recently increased levels of Soviet naval activity in tne Mediterranean appear to be primarily diplomatic gestures aimed at recouping political losses suffered as a result of Moscow's inability to forestall Israel's victory over the Arabs in June 1967. Soviet naval craft in tne Mediterranean, including guided-missile cruisers, a number of submarines, lesser warships, and support units which could provide for year-round operations, have effectively shown the Soviet flag. Altnough modest in size and in puncn compared witn the U.S. Sixth Fleet, the Soviet fleet provides the type of visibility which Moscow has elected to seek. It has similarly signaled that tne future Soviet posture will include "Marine" amphibious forces and helicopter carriers. How all these activities will affect future Soviet behavior is a matter to which we will give close attention.

Tne politico-military developments were accompanied by a substantial increase in defense expenditures projected in the budget announced for 1968. This increase of 2.2 billion rubles, coming on top of two smaller increases in 1966 and 1967, will raise publicly announced defense expenditures from about 12.8 billion rubles in 1965 to about 16.7 billion rubles in 1968.

Bookkeeping changes, higher prices for military goods and perhaps a military pay raise in themselves account for more than one billion rubles of this increase, while the balance apparently reflects the continued expansion of the Soviet defense effort. Analysis of tne available data on botn the budget and the economic plan for 1968 indicates that this diversion of additional funds to military purposes may force a slowdown in the rate of investment in agriculture and industry, and possibly in housing. Apparently, the Soviet leaders are willing to risk a reduction in the growth rate of tneir industrial plant over the longer term, and to gamble on the continuation of reasonably good growing weather to meet their agricultural needs over the next several years, all to meet their estimate of current defense needs.

What is not entirely clear is now the additional resources for defense are to be distributed among the various military programs. No single program -- except under extraordinary crash conditions -- could

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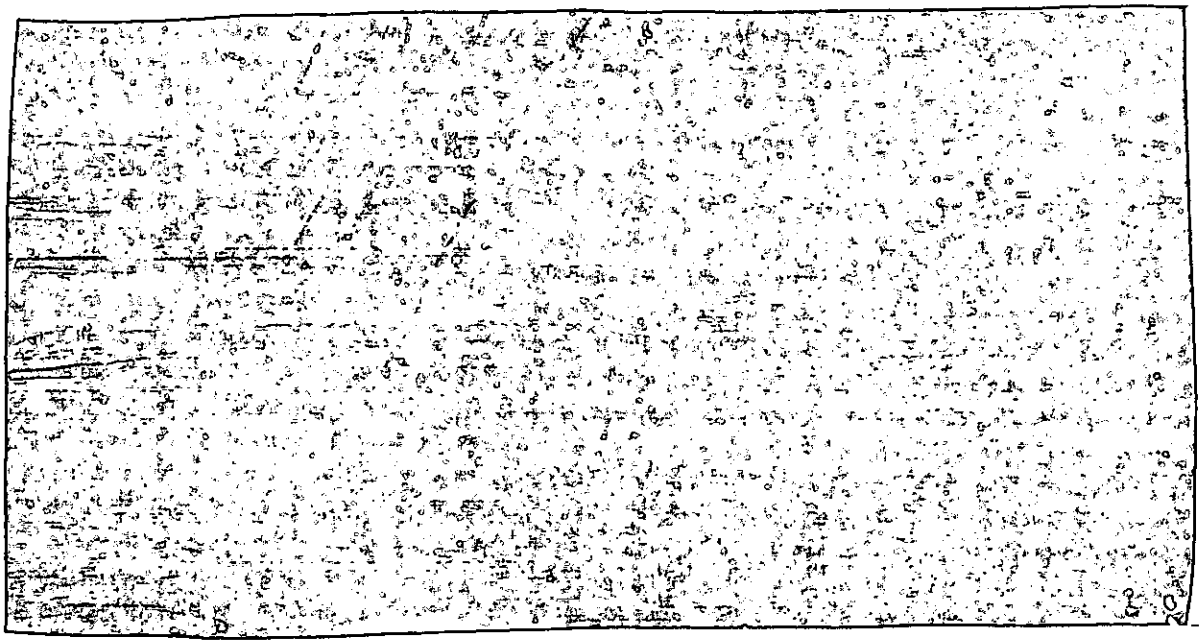
absorb any major portion of the 2.7 billion-ruble increase announced for 1968. One possible bookkeeping adjustment is that the military assistance program in 1967 and prior years was kept apart in the "Financing the National Economy" budget category; this program, or at least the North Vietnamese portion, has perhaps been shifted back to the "Defense" category in the 1968 budget. It is interesting to note that the original 1967 budget provided about 46.9 billion rubles for "Financing the National Economy", whereas the revised 1967 budget, announced late last year, provides 49.9 billion rubles. One may conjecture that at least part of this 3 billion-ruble increase within the same year reflects the unanticipated military assistance demands of North Vietnam and perhaps the need to replace some of the equipment and supplies lost by the Arab nations in the recent war with Israel. This conjecture is supported by the fact that the 1968 budget provides only 0.2 billion rubles more for "Financing the National Economy" than the revised 1967 budget, whereas in recent years the annual rate of increase in this category has rarely fallen short of 2 billion rubles.



Of one thing we can be sure, the cost of the Vietnam conflict to the Soviet Union will be considerably higher in 1968 than in 1967. North Vietnam is becoming ever more dependent on the Soviet Union for all kinds of support, military and economic, and as long as the conflict continues, the burden on the Soviet Union is likely to increase. It is uncertain, however, what effects the increased budgetary levels will have on Soviet military and foreign policy for the near future. The Soviet

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leaders clearly wish to achieve a military posture which will give them capabilities more closely in balance with our own, and the growth of our own capabilities over the last several years has no doubt been a factor in their budgetary decisions. Yet over the next few years their abilities to support substantial forces relatively distant from their own frontiers will continue to be quite limited.

b. Red China

Last year I noted our previous belief that the leadership of Red China was strong and united had proven to be erroneous. The course of events in mainland China during the past 12 months has borne out the assumption we made then that the political turmoil [redacted] would continue. Civil disturbances and armed clashes have occurred throughout the length and breadth of Red China, many involving the Army itself. Industrial production and transportation have been disrupted, the educational process has been almost completely halted and government administration at all levels has been severely weakened.

What had apparently transpired was an attempted revolution within a revolution. Concerned about flagging revolutionary spirit in the government and party structures, and concerned that future generations would lose sight of "true" Communist goals, Mao set out to conduct a massive house-cleaning. When existing mechanisms proved inadequate, he apparently decided to fashion a new instrument, the Red Guards, and set them loose against the Communist bureaucracy, the very people responsible for the administration of day-to-day affairs of the nation. These people tend to give priority to getting the job done rather than to politics and ideology. The failure of the Great Leap Forward, which had become clearly evident by 1960-61, apparently convinced the bureaucracy that a more pragmatic approach to China's economic problems was urgently needed. This approach necessarily involved the relaxation of some of the dogma favored by Mao and a return to what might be called "quasi-capitalistic" techniques such as the reestablishment of private agricultural plots in the rural areas and the provision of material incentives for the industrial workers in the cities.

It now seems clear that the issue has not been resolved. Mao has succeeded in damaging the Communist bureaucracy, but has neither destroyed it nor transformed it into an effective instrument of his own policy. Administrative control over the nation has been seriously weakened, but the Red Guards proved unable to displace the bureaucracy. The Army has been called upon to reestablish order in cities and to maintain production schedules in factories, in mines and even on

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the farms. Nevertheless, clashes between the contending factions continue. The economy and the educational system are still in disarray. Once again, Mao has demonstrated that it is easier to create chaos than to reestablish order. Even if the leadership is reunited, which scarcely seems possible, it will no doubt take many months, if not years, to repair the damage that Mao's cultural revolution has wrought within mainland China.

But the damage was by no means limited to the domestic scene; the cultural revolution has also dealt Red China's foreign policy a severe blow. Its prestige within the Communist camp has declined precipitously, in most instances to the advantage of the Soviet Union. Its relations with the rest of the world are at their lowest ebb. Indeed, Red China in the past year has managed to antagonize most nations with which it still maintains diplomatic relations. Most of its ambassadors have been recalled to Peking, as part of the Great Cultural Revolution, while the Chinese diplomatic missions abroad have ineffectively marked time.

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sooner or later the present leadership, whatever its complexion, will pass from the scene.
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It is by no means certain what such a development would mean to the present alignment of the world. A more moderate regime in China could result in a relaxation of relations with the outside world, including the United States, or it could mean a rapprochement with the Soviet Union, or possibly both. Even the second, however, might prove to be of advantage to the outside world -- if an increasingly moderate viewpoint prevails within the Soviet leadership. In that event the Soviet Union could serve as a moderating influence on Red China. If a more militant approach is adopted by the Soviet Union, however, a rapprochment with Red China could confront the Free World with a new and even more severe threat.

Meanwhile, we can assume that Red China will continue to support North Vietnam's aggression against South Vietnam and Laos as well as the present low keyed but continuing insurrections against Thailand

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and Burma. China may also keep up its pressure on India, using a potential military threat along the northern border combined with propaganda and subversion within the country. Elsewhere in the world the Red Chinese drive has slowed and is not likely to recover its former momentum until the internal leadership issue is settled and the foreign policy line is clarified.

In any event, a mainland China with a population approaching 800 million, a military establishment of some three million men and a growing stockpile of nuclear weapons will be a power to be reckoned with in the 1970s. In its dealings with the Peking regime, the United States will be concerned to stress the common interest we share in avoiding war, as with every other power, and will hope that a dialogue of mutual interest can be initiated and expanded, while we continue to try to deter direct or indirect Chinese aggressions against her neighbors.

2. Southeast Asia and Southwest Pacific Area

Southeast Asia remains for the United States a test of the viability of our collective defense policy. Here in close proximity to Red China lie a number of small, non-Communist states, each of which in its own way is striving to maintain its freedom and independence. The confusion and discord within the Communist camp is well illustrated in this region. The USSR is nominally joined with the Peking regime in supporting Hanoi's operations against South Vietnam, but each of the major Communist powers is seeking to prevent the other from gaining dominance in Hanoi, while North Vietnam itself probably wishes to fall under the dominance of neither. It is thus possible that Moscow, Peking, and Hanoi all disagree as to what the future shape of Southeast Asia should be, yet these disagreements have allowed Hanoi -- while pursuing its drive to conquer the South -- to play the Soviet Union off against China for material assistance. Thus, while polycentrism within the Communist world is generally a welcome development, there will be cases, as in Vietnam, where it may intensify our problems rather than easing them.

The Soviet leadership may now believe that North Vietnam will be an outpost for their more pragmatic form of Marxism, to serve as a buffer hemming in the doctrinaire zealots of Peking. If this is their calculation, they are playing a dangerous game. A Communist victory in South Vietnam would erode the position of all of the non-Communist states in Scutheast Asia, and the chief beneficiary would be China -- not the Soviet Union. Such a victory would be seen as a triumph for the Chinese militancy and as a vindication of her position in the ideological dispute with the Soviet Union. And, in contrast to North Korea,which borders both, Southeast Asia is separated from the Soviet Union by the

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great land mass of China. It is, therefore, unlikely that the Soviets could long maintain a special position in that area in defiance of China.

But our real concern is not over which of the two rivals emerges dominant. Our concern is that no great power dominate the area. As I have so often told this Committee, the United States has no desire to compete with either the Soviet Union or Red China for hegemony in Southeast Asia, or to achieve any special position there. This is not to say that we are indifferent to what transpires on the other side of the Pacific Ocean. Whether we like it or not, we are a Pacific Ocean state. Our west coast borders on the Pacific and our 50th state lies halfway across that ocean. Moreover, we have important historical ties and treaty commitments to many of the nations in the Western Pacific. So, we have a vital strategic interest in that area, an interest that we cannot ignore.

In this connection, I want to clear up one misunderstanding that has gained some currency in the press during the last few months. It has been alleged by some commentators that the Administration, last fall, changed its rationale for our military involvement in Southeast Asia -- that we are now emphasizing the importance of Southeast Asia to our own security, whereas earlier we had said that we entered the conflict to honor the commitments of four Presidents, to protect the freedom and independence of the people of South Vietnam, and to ensure their right to decide their own destiny.

The fact is that all of these reasons have been involved all along; no one is exclusively determining, as we have repeatedly tried to make clear. The important point is that all of the reasons we have given for our involvement in the Southeast Asian conflict are directly derived from a single basic policy, which is collective security. We are fighting there for the right of nations to live in freedom and independence, unmolested by their neighbors and free of fear of domination or attack by any of the great powers. It is from this right, as I have so often stated, that our own security derives, and it is precisely the objective of our collective defense policy in all parts of the world. Not to honor our commitments in South Vietnam would thus cast doubt on our determination to honor our commitments elsewhere in the world.

I believe that over the long run a truly independent Southeast Asia would best serve the interests of all the nations involved. It would remove one more source of strife between the outside world and the Communist camp, and within the latter as well. Moreover, it would create the kind of environment required for the rapid development of the region's basically rich natural resources, to the benefit of all.

This vision of a peaceful and more prosperous order in Southeast Asia is shared by our friends and allies in the Western Pacific. I am sure that you have noticed an increased appreciation among the leaders of Asian and Pacific nations for the contribution which our efforts in Southeast Asia are making to their own freedom and independence. Of the seven nations actively participating in the struggle with their own military forces (South Vietnam, Australia, New Zealand, Thailand, the Republic of Korea, the Philippines and the United States), all but the Philippines have agreed in the last twelve months to increase their force contributions in South Vietnam. And, all of these leaders -- and those of many other non-Communist nations -- are firm in their support for our goals and objectives in Southeast Asia. I think there can be no doubt but that this trend is directly related to our determination to fulfill our obligations in that area and to a rising confidence among Asian leaders that we will persist in that determination.

The Statement of Principles enunciated at the Manila Conference of October 1966 continues to guide our efforts in Southeast Asia. These principles include the following four points:

1. Aggression must not succeed in South Vietnam.

2. We must break the bonds of poverty, illiteracy and disease throughout Asia and the Pacific area.

3. We must strengthen economic, social and cultural cooperation within the region.

4. We must seek reconciliation and peace throughout Asia.

The seven participating nations agreed that the South Vietnamese people shall not be conquered by aggressive force and shall enjoy the inherent right to choose their own way of life and their own form of government and that this commitment shall be backed by military force and other efforts as necessary. But at the same time, the seven nations also proclaimed their readiness to pursue any and all avenues which might lead to a secure and just peace, either through discussion and negotiation or through reciprocal action on both sides to reduce the level of violence. They made it clear that their sole demand on the leaders of North Vietnam is that they abandon their aggression. More specifically, the Manila Declaration stated that:

> "Allied forces are in the Republic of Vietnam because that country is the object of aggression and its government

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requested support in the resistance of its people to aggression. They shall be withdrawn, after close consultation, as the other side withdraws its forces to the North, ceases infiltration, and the level of violence thus subsides. Those forces will be withdrawn as soon as possible and not later than six months after the above conditions have been fulfilled."

These are still our policies. As you well know, the U.S. Government has continued to explore every possible means of achieving a just settlement of the Vietnam conflict. These efforts have thus far yielded no positive results, but our search for peace continues.

The importance of our efforts in Vietnam to the ultimate achievement of economic development, area cooperation and political independence in Southeast Asia and the Southwest Pacific is accepted not only by the seven nations actively involved in the conflict, but by leaders of other Asian countries as well. Prime Ministers Sato of Japan and Lee of Singapore are among those who have recently spoken out in unequivocal fashion on the need for the allied shield in Vietnam to permit orderly Asian development. The Suharto regime in Indonesia, though remaining unaligned, is painfully aware of the sources of danger. Wholesale North Vietnamese violation of Laotian territory has been officially denounced by Prime Minister Souvanna Phouma. Burma and Cambodia recognize the threats of Chinese Communist pressures, having had a taste of them this past year. This is not to imply that these nations will revamp their present foreign policies, but it does suggest that even those least willing to appear aligned with the United States are increasingly disturbed about Red Chinese or North Vietnamese designs.

The turmoil in Vietnam has tended to obscure the substantial progress being achieved elsewhere in the area. The time being purchased in Vietnam at such heavy cost is being put to good use by the non-Communist Asian states and there is a growing appreciation of the need for collective action to meet common problems. Although the conflict slowed the Mekong Development Project, it and other regional efforts such as the Asian Development Bank and the Asia and Pacific Council are moving forward.

The most significant regional development during the past year was the formation in August of the Association of Southeast Asian Nations, comprising Singapore, Indonesia, Thailand, Malaysia, and the Philippines. The Association is starting modestly with annual Foreign Ministers meetings and proposed economic, social, and technical programs.

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Thus, there is a growing web of cooperation among the area's non-Communist nations, comprising both functional efforts focused on common practical problems and broader ties with more ambitious goals. We can hope that such evolving mechanisms will eventually provide the region the collective political, economic and military strength necessary to guarantee that its destiny will be determined by these nations themselves.

Our role in this process will be particularly important. First we must see the Vietnam conflict through to a conclusion that permits the growth and maturing of regional cooperation. We will, of course, maintain our SEATO, ANZUS and other commitments in the area. We should also continue our carefully structured assistance to countries in the area. Beyond this, American policy toward Southeast Asia and the Southwest Pacific area must blend concern and restraint as we help the East Asian nations to build among themselves the true security that flows from economic and social progress. We must lend support and assistance, where requested, yet remain constantly aware that these countries are both equipped and entitled to lead themselves, and that it is in our interest that they do so.

Clouding this picture are intra-regional political frictions that could frustrate Asian security cooperation. Nevertheless, some elements are relatively clear. We shall encourage a prominent Australian-New Zealand role and continuing Australian efforts to consult the countries of the region about arrangements that will compensate for the British withdrawal. We shall encourage Japan to increase its contributions to the area commensurate with its own economic and security interests. We intend to avoid unilateral action that forces the pace or the nature of the evolving regional economic organizations.

Outright overt aggression by large conventional forces is unlikely in the region. Internal conflicts, fostered by socio-economic stagnation, communal disputes or externally supported, Communist-nurtured subversion are the more plausible threats.

Let me now briefly touch on the special situations in Thailand and Laos in view of their relationship to the Vietnam conflict.

Both of these nations are themselves threatened by externally-supported insurgencies. They are also threatened by the debilitating economic, social and political conditions common to much of the area. During the past year the Thai Government assumed a leading role in regional cooperation. It was instrumental in the creation of the Association of Southeast Asian Nations and was a prime mover in

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fostering closer political consultation and action among neighboring nations. At the same time it stepped up its assistance to Free World Forces in Vietnam. An additional 10,000 Thai troops will be sent to South Vietnam, and as you know, we are using Thai bases for air operations against North Vietnam. The Thais' own counterinsurgency effort against some 1500 guerrillas in the northeastern provinces improved measurably during 1967. This effort, which consists of combined military/civilian/police operations, is designed not only to quell the externally supported insurgency but also to eradicate the factors which facilitate its growth -- such as poverty, illiteracy and long years of minimal contact with the area by the Central Government.

Internal conflict is greater in Laos than in Thailand primarily because external involvement there is greater. The North Vietnamese Army continues to infiltrate south through Laos and some 15,000 North Vietnamese troops reinforce the Pathet Lao against the Royal Lao Government. North Vietnam is also providing substantial military assistance to the insurgents. But, for a number of reasons including continued international support for the 1962 Geneva Accords, our economic and military assistance to the government and Laos' own growing political stability, Prime Minister Souvanna Phouma has been able to maintain a partially successful defense against North Vietnamese aggression. We intend to continue to support his efforts while at the same time respecting the neutrality of his government.

3. Northeast Asia

Japan, the Republic of Korea and the Republic of China on Taiwan exemplify the ability of nations to achieve political stability and economic progress when adequately protected from external threats to their national security. In the four-year period 1962-1966, the per capita gross national product in constant prices of all three countries increased by about one-third, a striking fact when one considers that only a decade and a half ago they seemed as vulnerable to Communist aggression as Southeast Asia does today.

Japan is well on the way to becoming the third leading industrial nation in the world and is already among the top three producers in such diverse fields as shipbuilding, crude steel, electronic computers, and paper. As her strength has grown, Japan has been increasingly active in international affairs, especially in Asia, as a leading member of the Asia and Pacific Council, an organizer of the Southeast Asia Ministerial conferences and the Special Fund for Agricultural Development, and, with the United States, the principal contributor to the Asian Development Bank.

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Japan's growing willingness to assume more responsibility in international affairs was reflected in the joint communique issued by Prime Minister Sato and President Johnson in Washington last November which noted Japan's intention to provide more effective assistance to Southeast Asia by increasing the amount and liberalizing the conditions of its aid. The Prime Minister, who had recently traveled throughout Southeast Asia, also reported that he had found widespread support for our efforts to cope with Communist intervention and infiltration and agreed on the importance of creating conditions in which Asian nations would not be susceptible to threats from Red China.

While Japan continues to devote only a very small portion of her budget to defense, the Third Defense Plan, approved in 1967, calls for modernizing her defense forces, broadening the domestic military production base, and improving her overall air defense and ASW capabilities. Although Japan's constitution is still interpreted as precluding the dispatch of armed forces abroad, security questions are being discussed today with increasing realism and candor, a trend encouraged by its present administration.

Apart from its remarkable economic growth, Korea has shown increasing political maturity. In May 1967, President Park Chung Hee was given a second four-year term in an election acknowledged by all observers to have been an expression of the will of the Korean people.

Korea has sent over 48,000 troops to fight in Vietnam, a force second in size only to that of our own. The North Koreans have not hesitated to remind South Korea, however, that it lives in the constant shadow of renewed aggression. During the past summer, there was a substantial increase in the North's harassment and intrusion along the Korean demilitarized zone with the dual objectives of discouraging the South's assistance to Vietnam and of undermining its political and economic stability. During the first eleven months of 1967, there were 500 U. S. and South Korean military and civilian casualties (81 U. S.) compared with 73 casualties (9 U. S.) in all of 1966. In addition, North Korea has intensified its efforts to establish agent teams further south, in the interior of the Republic of Korea, utilizing high-speed boats to land as many as 30 to 40 agents at a time. Thus far, these efforts to organize a guerrilla base in the interior have been frustrated. Nevertheless, we must anticipate that North Korea's aggressive activities, both along the demilitarized zone and further south, will persist and perhaps intensify in the months ahead. The North Koreans are fully aware that as the Republic of Korea grows stronger, their chances of achieving control over the entire peninsula diminish.

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The Republic of China continues to be confronted by Peking's long held objective of "liberating" Taiwan. Peking's developing nuclear capability, combined with its military modernization programs, have caused increasing concern on Taiwan. Our bilateral mutual defense treaty for the defense of Taiwan and the Pescadores, therefore, remains vital to the security of the Republic of China.

The Government of the Republic of China has skillfully developed the economy of Taiwan to the point where U. S. economic aid is no longer required. Moreover, the Government has undertaken its own modest program of economic assistance, principally in Africa but also in South Vietnam. International support for the Republic of China remains strong, with the UN General Assembly last November again rejecting a proposal to expel the Government of the Republic of China and to seat the Red Chinese.

During the past year the Red Chinese have attempted to demonstrate their ability to exercise control over Hong Kong and Macao, the two remaining enclaves of Western influence on the China mainland, by combining an external show of force with internal terrorism and intimidation by Communist-dominated local residents. In Hong Kong, however, the British have refused to yield their authority and the Chinese have been unable to win widespread support among the local community. While a campaign of sporadic terrorism punctuated by border incidents continues, the Chinese, who rely heavily on the colony as a source of foreign exchange, have thus far not been willing to threaten the use of their own armed forces to oust the British.

4. South Asia

In South Asia tensions continued to abate during the past year. While a number of contentious issues remain between India and Pakistan, we are hopeful that they will continue to seek to settle their differences through peaceful means. Last April, the United States announced a new military supply policy for the subcontinent, under which our previously suspended grant aid was formally terminated and our advisory and supply missions were formally withdrawn. (A much smaller group of U.S. military personnel in each country is performing the residual MAP function.) We are now accepting spare parts requests for all previously provided U.S. equipment, with the merits of each request being decided on a case-by-case basis. No lethal weapons are being sold by the United States to either India or Pakistan. We are urging both governments to avoid an arms race, to scale down the size of their armed

forces and to allocate the resultant savings to essential economic and social programs. This policy has proved more effective in restraining arms acquisition than the freeze policy of September 1965, which only led India and Pakistan to seek other sources of supply.

In the case of Pakistan, her search for arms resulted in relatively minor deliveries from the Middle East and Indonesia and extensive purchases from commercial sources in Western Europe. More important, Red China has provided large quantities of small arms, vehicles, tanks, artillery and fighter aircraft, although now she is providing only spare parts. In this respect, Red China's objectives in the sub-continent appear to remain the same; to establish itself as a major political influence in the area, to exploit Pakistan's and India's differences to its own advantage, to prevent or delay the development of a strong India, and to minimize United States and Soviet influence.

The Soviet Union, on the other hand, has tended to concentrate its efforts on India. In addition to its pledge of a net commitment of $300 million ($1 billion gross minus $700 million of repayments) to India's Fourth Plan, the Soviet Union has undertaken to meet a portion of India's existing defense requirements in an agreement involving the sale of a large number of SU-7 aircraft. On the whole, however, we have the impression that Moscow is aware of the dangers inherent in renewed warfare between India and Pakistan and is exercising some restraint in the provision of military assistance to India in order to avoid a heating up of political issues between the two.

India has gone through two years of serious economic difficulties. The problem of two successive droughts was compounded by industrial stagnation and inflation. Now, however, with an all-time record grain crop coming onto the market, food prices are dropping in the cities and the food ration is being increased. With more money in the hands of consumers, there should be some pickup in the consumer industries and services in the next few months. As soon as prices level out, the Indian Government is expected to resume its ambitious investment program, thus giving impetus to heavy industry. The good jute and tea crops give some promise of higher exports. Serious problems remain, however; India's population has crossed the 500 million mark and despite an increased emphasis on family planning programs, the growth rate has declined only slightly from 2.5 percent. Foreign exchange reserves are low and the budget deficit is rising. India's large and costly publicly-owned plants are still performing poorly.

India faces political problems as well. The once all-powerful Congress Party, which led India to independence, suffered setbacks in

the Fourth General Election. The Party has lost much of its cohesion and elan, and there is evidence of disenchantment with its leadership. Yet the government appears to be coping with these problems, and it is facing the future with greater confidence than it displayed in the immediate post-election period. The elections themselves, held at a time of considerable economic stress, were a heartening demonstration of the vitality of Indian democratic institutions.

5. Middle East

In June 1967, the Middle East once again became a major crisis area when the Arabs and Israelis collided for the third time in less than 20 years. While Israel managed to defeat the combined Arab forces, a host of urgent problems remain to be solved.

Apart from preventing a renewal of hostilities, among the more immediate problems is the plight of the many thousands of refugees who constitute a second generation of uprooted and homeless Arabs and who face a bleak and uncertain future. Most urgent, however, is the need to follow up the existing ceasefire with positive steps leading to a lasting settlement. At issue are a host of familiar problems: Arab recognition of Israel's right to exist; the territorial integrity of the Middle East countries; the status of occupied lands; the right of innocent passage in international waterways; and safeguards against the outbreak of future wars.

The position of the United States Government with respect to the Arab-Israeli dispute is summarized in the five principles enunciated by President Johnson last June:

"-first, the recognized right of national life;

-second, justice for the refugees;

-third, innocent maritime passage;

-fourth, limits on the wasteful and destructive arms race; and

-fifth, political independence and territorial integrity for all."

To assist in the establishment of such a permanent peace in the Middle East, the U. S. is supporting the efforts of the United Nations, including Ambassador Jarring's mission, and is using every other available channel to encourage fruitful negotiations. With regard to the Middle East arms race, we are continuing our efforts to limit arms deliveries to the area. At the outbreak of the June hostilities, the

U. S. suspended all arms shipments. Unfortunately, the Soviet Union has not acted in a similarly restrained fashion, and the rapid resupply of Communist arms to the UAR, Syria, Iraq and Algeria after the war has only served to increase tensions and fears (although military aid shipments now appear to have fallen off to pre-war levels). Moreover, the Soviet Union's partisan political position on Middle Eastern questions, its increased naval presence in the Mediterranean, its intervention in the conflict in Yemen and its efforts to reduce or supplant Western influence, generally, have further contributed to instability in the region.

In this situation, we decided to relax our arms freeze and resume selected and limited arms shipments to countries in the area with whom we have friendly relations. Virtually all of the items supplied were ordered prior to the war and, except for a limited number of aircraft provided to Israel, were support items.

The recent increase in Soviet resources, diplomacy and propaganda directed to the Middle East, underscores the importance that Moscow attaches to this strategically significant area at the crossroads of Asia, Africa and Europe. In recent years, the Soviet Union has sent 38 percent of its total economic aid and 48 percent of its military aid to the region, and the Middle East accounts for approximately 35 percent of all foreign technicians being trained in the Soviet Union. Clearly, the area stands high on the Soviet scale of politico-military priorities.

The Soviets probably do not plan formally to acquire permanent bases in the Mediterranean and the Arab world. Indeed, we believe that those countries which have potentially useful facilities -- primarily the UAR, Syria, Yemen and Algeria -- would probably resist granting full base rights on political grounds.

The year also witnessed the UK's withdrawal from Aden last November. The National Liberation Front has established its control over South Arabia, but the new state -- now officially designated the Peoples' Republic of Southern Yemen -- faces a considerable period of political and economic readjustment and consolidation.

To the north, Greece, Turkey, and Iran continue to fulfill important "forward defense" roles, standing between the Soviet Union and the warm water ports and oil resources of the Middle East.

[redacted] Our substantial military assistance to them over the past two decades has undoubtedly been a factor in discouraging Soviet military adventures in the area. Our grant military assistance to Iran is now being replaced by military sales, but Greece and Turkey will probably continue to need grant military assistance for some time. During 1967 our aid to Greece was partially curtailed as a demonstration of our disapproval of the military junta which overthrew the elected government in April. Although a date has been set for a plebiscite on the new constitution, the junta has not yet set a date for free elections. Nevertheless, there is some movement towards a more constitutional regime.

While the overall situation in the Middle East has deteriorated during the past year, there have also been some encouraging developments. These include: the agreement of Greece and Turkey and partially of Cyprus (helped along by Mr. Vance's mediation) to resolve their differences over the Cyprus issue by diplomatic means; impressive economic and social progress in Iran; the United Nations' efforts to resolve the Arab-Israeli dispute; and the withdrawal of Egyptian troops from Yemen.

6. Africa

Africa remains a changing and troubled continent. Progress is being made, even though most of its independent nations have yet to develop the institutions necessary to meet the realities of independence. All are faced with many serious and urgent problems. Independence for most was accompanied by expectations of early and substantial improvements in standards of living and education. Yet, despite its potentials, Africa's progress toward eradicating its widespread poverty and illiteracy has fallen far short of these expectations. Moreover, deep-rooted tribal and regional divisions continue to take their toll in political instability, delaying the process of nation-building.

Nigeria continued to suffer acutely from the pangs of nation-building. Long-standing tribal and ethnic differences erupted into civil war as the Eastern Region seceded from the Federation and proclaimed itself the independent nation of Biafra. The effects of this conflict will long outlast the conflict itself and may seriously limit Nigeria's future development. The United States has maintained its support for the central government of the Federation and does not recognize Biafra. However, since we consider the conflict to be an internal Nigerian problem we have encouraged efforts toward the restoration of peace and have not authorized the sale of U. S. arms to either

side. The Soviet Union, doubtless sensing an opportunity to extend its influence in this important area, has sold arms (including MIG aircraft) to the central government.

The Congo (Kinshasa), too, continues to be plagued with problems of internal instability. Last July's revolt of the white mercenaries and Katangan gendarmes brought on the latest in the series of crises which have threatened the Congo's integrity and independence. However, with the mercenaries having been forced to withdraw, the prospects for stability in the Congo now appear somewhat improved. A most pressing need is to raise the quality of the Congo's military forces so as to achieve the internal security necessary for the country to get on with the job of social and economic development.

The Soviet thrust into the Mediterranean-Middle East region also embraces the northern part of the African continent. The increasing Soviet activity in North and Northeast Africa represents a potentially serious threat to the equilibrium of the area and to U. S. interests not only in Africa but also in Western Europe. The Maghreb and the Horn are, therefore, the areas of Africa of most immediate strategic concern to the U. S. -- North Africa covers the southern flank of NATO, and the Horn stands at the approaches to the Red Sea and Indian Ocean.

[redacted] Soviet policies in these areas appear to be designed to reduce or eliminate Western influence generally, to disrupt NATO and Western security interests, and to increase Soviet political, military and economic influence.

In North Africa, the Arab-Israeli crisis and the continued Soviet-supported Algerian military build-up have added to the basic instability of the area. The delivery of over $200 million worth of Soviet equipment to Algeria since 1965 continues to alarm her moderate neighbors. [redacted] and while the present Algerian regime maintains friendly diplomatic relations with its North African neighbors, there is apprehension in the area about the dangers that Algeria might present once it realizes its full military potential. Our own limited military assistance is designed to help Algeria's neighbors (Morocco, Tunisia and Libya) to develop a minimum defensive capability. It should be noted that these moderate Arab states have not been directly involved in the military confrontation with Israel, [redacted] At the same time they feel strongly about the Arab-Israeli problem, are anxious to help find a solution, and want to play a constructive role in maintaining Arab solidarity.

[redacted]

Recent developments in the Horn of Africa have served to diminish some of the tensions that have characterized the area. It is our hope that the current discussions among the countries of the Horn will lead to lasting improvements.

7. Indian Ocean

In addition to the UK's withdrawal from Southern Arabia, I also mentioned earlier the planned withdrawal of her forces from Malaysia-Singapore. After these reductions, the British are expected to retain little if any capability to act in support of their commitments at the eastern end of the Indian Ocean. As a result, we face the very real danger of a developing power vacuum in the area.

8. Latin America

With respect to Latin America, we have, over the past seven years, thoroughly reoriented our military policy to bring it into line with the nature and scope of the real threat. Our policies now recognize explicitly the low probability of conventional attack on any American state from outside the hemisphere. As a result, we see no requirement for Latin American countries to support large conventional military forces, particularly those involving expensive sophisticated military equipment, ships and aircraft. We view expenditures for such forces as an unwarranted diversion of resources from the more urgent and important tasks of economic and social development. For this reason, we try to discourage the acquisition of unneeded weapons and refrain from providing any military assistance which would contribute to force build-ups in the area. Nevertheless, we recognize that the Latin American countries face a replacement problem when their aircraft and other military equipment wear out. Our policy is designed to limit their purchases to replacement items of a kind and a cost which will enhance their internal security capabilities and at the same time not hinder economic development. At the same time, we recognize that we are dealing with sovereign countries whose judgments regarding their defense needs will sometimes differ from our own.

In this regard, however, there has recently been encouraging progress toward adjustment of military forces to a more realistic appraisal of defense needs. A treaty establishing a nuclear free zone in Latin America, the first regional treaty of its kind, was signed in Mexico City in February 1967. At the Punta del Este Conference in April the Latin American presidents jointly declared their intention to eliminate unnecessary defense expenditures. Even though in recent years Latin America's military spending has been running lower than

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any other area of the world except for sub-Saharan Africa, pressures still exist which if unchecked could lead to wasteful arms competitions. We hope, therefore, that these initiatives for arms control will prosper and grow in number.

Increased recognition of the absence of a major external threat to this hemisphere has also helped us to focus the energies of the Rio Treaty nations towards the widely shared problem of armed insurgency. Indeed, another major change in our policy, and one to which both Presidents Kennedy and Johnson have been acutely sensitive, is the need to deal with the threat of externally inspired insurgencies. This threat has been a major challenge to some of our Latin American allies, and we have sought to help them by providing training, advisors and assistance in the equipment and techniques of counterinsurgency. Notwithstanding the encouragement and sponsorship of such insurgency by Castro's Cuba, our allies have, up until now, been able to deal with it effectively wherever it has surfaced -- in Venezuela, in Guatemala, in Colombia and most recently in Bolivia. The death of Ernesto Che Guevara in Bolivia this past fall has dealt a severe blow to the inflated hopes of the Castroite revolutionaries.

But counterinsurgency alone is an inadequate response. We all now recognize that alleviation of the root causes of human suffering and deprivation is essential if stable democracy is to flourish free of the threat of violent revolution. This recognition has been the inspiration of the Alliance for Progress, in which we have concerted our efforts, both human and material, with those of our Latin American neighbors toward the goal of achieving a peaceful economic and social revolution within a generation.

Cooperation in several important fields continues in the various inter-American diplomatic forums. In the Organization of American States (OAS), a Protocol of Amendment to the Charter was signed last February which when ratified will: (1) strengthen the Organization's overall efficiency, (2) broaden its cognizance of and competence in dealing with economic and social matters, and (3) incorporate the principles the Alliance for Progress. At Punta del Este, the American Chiefs of State agreed to give "vigorous impetus to the Alliance for Progress" and adopted a far-reaching program of action which calls for economic integration of the region by 1985, intensified efforts in agriculture and education during the coming decade, improvements in Latin America's terms of trade and a concerted effort to bring science and technology to bear on the developmental process.

Most Latin Americans aspire, as we know, to a peaceful revolution in their societies and their personal well-being. Since they want it

without violence, and soon, they need the relatively modest military and economic help we are providing. Without this help, the prospects for realizing their aspirations would be slim indeed. At the same time, we should not forget that it is the Latin Americans themselves who are making the major contribution to the achievement of Alliance for Progress goals -- a contribution which involves both hard work and a willingness to accept difficult social and political responsibilities. The Alliance is, in fact, a partnership and we are hopeful that our mutual efforts in this hemisphere will ultimately yield the freedom and prosperity which we seek for all the countries of the Alliance.

9. Europe and the NATO Area

Seven years ago, in the summer of 1961, the importance of Western Europe to the security of the United States was brought forcefully to the attention of the American people by Chairman Khrushchev's threat to end, by a stroke of his pen, the allied presence in Berlin. We and our allies responded to that danger promptly and effectively. Since that time access to West Berlin has remained relatively undisturbed. Tensions between East and West have subsided. Europe has been a relatively stable and peaceful continent. The Sino-Soviet split has widened the opportunity for the Eastern European states to assert their independence of Moscow, and their political and trade relations with the West have become less restrained. Indeed, some, both here and in Western Europe, seem to have found irresistible the belief that the military threat to Western Europe from the East has largely disappeared. Some may even suppose that the Soviet Union has sufficiently mellowed so that NATO's utility as a military alliance has all but vanished.

Clearly, the thawing process which I mentioned three years ago is now well advanced on both sides of the Elbe River. But as I noted then, this process will not only open up new opportunities for the alleviation of tension and hostility in Europe but will also confront us with new problems, particularly how best to maintain our unity during the period when old positions, attitudes and relationships are being reexamined.

For our part, we have made abundantly clear our own desire to build bridges between the East and the West, to make progress toward healing the division of the continent, including the unnatural and continuing division of Germany, and to grasp every real prospect and opportunity for better relations with all the countries of Eastern Europe and with the Soviet Union. Indeed, the United States is committed to the process of European reconciliation and has no exclusive or rigid preconceptions about how this process may best proceed. If

changes in the Alliance should become a necessary part of such a process, the United States' willingness to discuss such changes is a matter of record. Our basic objectives in Western Europe are simply to ensure the security of that area against aggression and to further its economic growth and political stability. And, here, there certainly can be no disagreement between us and our European NATO partners.

Even on the most optimistic assumptions about the future, however, the Soviet Union will remain a great military power. We must expect that it will continue to probe for power vacuums created by political or military weaknesses -- vacuums into which it can project its political influence with moderate risk to itself. And, as I noted earlier, the Soviet Union shows no sign of intending to reduce its own defense expenditures; on the contrary, it has tended to increase them.

But regardless of present intentions, a government with such great military power at its disposal can become hostile and dangerous overnight. Western Europe today represents, after the U.S., the greatest aggregation of economic, political, and ideological strength in the world. The six Common Market nations, plus the United Kingdom, by themselves have a total population, military manpower pool and GNP well in excess of that of the Soviet Union, and they have been able to provide their people with a much higher standard of living than that of the USSR or any of its allies. There can be no question but that the domination of this area would be a serious blow to our own security. If the Western Allies were ever to dismantle the effective military strength of the Alliance, or abandon its cohesiveness of spirit and the cooperation of its military forces, they would create temptations for probings and adventures for the Soviets which nothing in their history suggests they are prepared to withstand.

What is needed to counterbalance the military capabilities of the Soviet Union and the Warsaw Pact countries is a full range of military strength which we can only secure and maintain by collective effort. The military role of NATO will therefore remain as necessary in the future as it has been in the past. Indeed, such progress as has been made in the relationships between East and West is due in large part to the West's having maintained a strong defense posture. Certainly this is no time to give it up.

On this matter we are in full agreement with at least thirteen of our NATO partners. The position of France is less certain. As you know France has withdrawn her military forces from the unified NATO commands and has indicated a desire to go her own way. And at her

request we and our other NATO Allies have withdrawn our military forces from France. This move was made with remarkable efficiency and at a moderate cost. (It has resulted in a net reduction of 18,000 United States military and civilian personnel in Europe as well as 21,000 dependents and 11,000 foreign nationals employed by U.S. forces.) NATO Headquarters has now been relocated in Belgium and military units and supplies principally in the United Kingdom and the Federal Republic of Germany. Notwithstanding the impact of this French action, and I do not wish to minimize its importance, the unity of the 14 and the vitality of NATO as a military organization remain unimpaired.

Indeed, a most significant step forward, from our point of view, was taken at the last meeting of the NATO Council of Ministers. For the past six years the United States has repeatedly stressed two general themes: (1) the need for realism in assessing the enemy threat and in formulating NATO's strategic assumptions, plans, force structures and budgets; and (2) the need for a balance of capabilities between NATO and the Warsaw Pact, because the most effective deterrent to a possible aggressor is balanced forces across the whole spectrum of military capabilities.

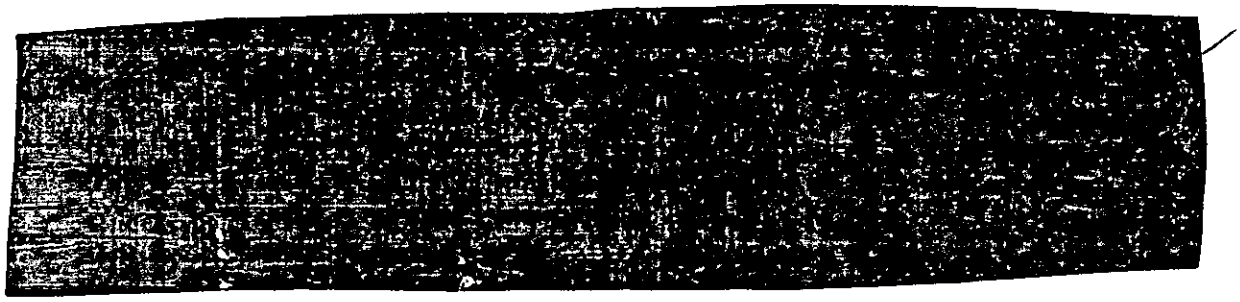
We have argued that only the existence of such balanced forces would convince an aggressor beyond doubt that whatever the effort he might mount or threaten to mount, he could be matched by the Alliance. We have also maintained that only under such conditions would it become obvious to the Soviet Union that military force of any kind or at any level was useless as a means to secure political ends, in crisis situations as well as in more tranquil times, because every means of military pressure could be answered by an appropriate measured response.

The main subject of this debate has concerned the proper response to levels of aggression below an all-out strategic nuclear attack on our homelands. For six years, the discussion has centered on the extent to which we should plan on the use of nuclear weapons as the main response to non-nuclear aggression. The United States has been firmly of the view that the threat of an incredible action is not an effective deterrent. The political leaders of the West are all well aware of the dangers involved in the use of tactical nuclear weapons -- and so are the leaders of the Warsaw Pact nations. The Soviet leaders would probably not believe that the nations of NATO would promptly agree to run these great risks to counter some abrupt and limited conventional aggression. And if the Soviets found the threat of immediate nuclear response to limited aggression incredible, they could well be tempted to probe or experiment with a limited aggression

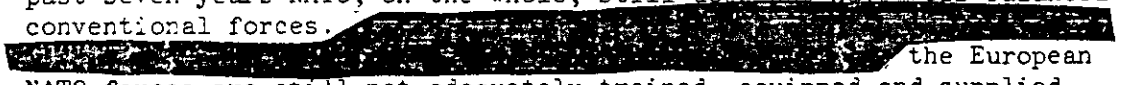
in some crisis situations, hoping to exploit the possible differences among the NATO leaders in their assessments of the nuclear risks, and thus to achieve piecemeal what they cannot accomplish by any sudden, massive, all-out attack on the NATO Alliance.

Our NATO partners have now acknowledged the need to plan for a much larger range of contingencies than a massive NATO-wide attack launched with very little warning. However, a great deal more remains to be done in this respect, both in the Nuclear Planning Group of Defense Ministers and in the regular planning agencies of the NATO military authorities. But, the essential first step has been taken, a new political directive on strategy and forces has been adopted, and a new force planning system has been set up to implement it. The main task for the future, it seems to me, involves not only the setting of realistic force goals for the Alliance, but also the creation of a force structure which can be rapidly adjusted to preserve a balance of military capabilities with the Warsaw Pact forces. The size and character of the force structure needed now and in the future to ensure such a balance are questions which will confront us in every aspect of our defense planning.

NATO, of course, will continue to need strong strategic nuclear forces, and I will discuss these forces later in my statement. In addition, NATO should have an effective theater nuclear capability. We have already deployed a large number of nuclear weapons to Europe. This great theater nuclear capability should serve to deter the Warsaw Pact from making any attempt to seize Western Europe by an all-out conventional attack or by using its own tactical nuclear weapons.



However, it is in the non-nuclear realm that NATO faces the most challenging military problems, both for the short run and for the longer term. Although there have been great improvements during the past seven years NATO, on the whole, still does not have well balanced conventional forces.



the European NATO forces are still not adequately trained, equipped and supplied.

A correction of these deficiencies would bring the very greatest returns in effective combat strength for relatively modest additional expenditures. Reduction in less essential areas, such as certain naval forces, would permit most of these improvements to be made within the budget levels already planned.

The greatest deficiency in the European NATO forces, however, is the lack of an adequate mobilization base. We, in the United States, have made great progress in raising the combat readiness of our own reserve forces and in providing the means for their movement, and I believe it is most urgent that our European Allies do likewise.

By adopting such an approach, the flexibility of NATO's force structure could be greatly enhanced.

The United States would expect to play a major role in supporting this approach. We would continue to: (1) maintain an adequate strategic nuclear deterrent for the Alliance as a whole; (2) make available sufficient nuclear capabilities within the European theater itself; (3) deploy U.S. air and ground forces in Europe for conventional and nuclear defense; and (4) keep available substantial reinforcements to supplement a European mobilization.

[redacted]

We recognize that our large military presence in Europe has acquired a particularly symbolic importance in the eyes of some of our allies. Accordingly, for nearly two decades, we have maintained substantial air and ground forces in Europe at a high state of readiness -- as well as large forces in the Continental United States -- in order to give concrete evidence to friend and foe alike of our commitment to NATO. In the course of 1968 we will, in agreement with our allies, redeploy close to 34,000 United States military personnel from Europe to the United States, at the same time reducing our dependents in Europe by about 28,000, and saving some $75 million annually in foreign exchange. The units being dual-based in the United States will remain fully committed to NATO and capable of extremely rapid return to Europe.

I, for one, believe that the willingness of the United States to fulfill its obligations should no longer be in question, quite apart from the presence or absence of a particular number of U.S. troops on the ground. The U.S. commitment to Europe is a fundamental expression of vital self-interest as well as a statement of obligations. I do not believe the Soviets are in any doubt on this score. Nevertheless, we agree on the importance of a visible presence. We will, therefore, continue to maintain forces in Europe for as long as they are desired. In saying this, however, I must also point out an anomaly in European attitudes which cannot persist -- an anomaly which I stressed in my recent statement to the NATO Ministerial Meeting:

> "This is that on the one hand there should be no diminution in U.S. forces, but that on the other hand the responsibility for meeting the balance of payments deficit caused by such large scale continuing U.S. deployments in Europe is none of Europe's affair. It is essential that deficits suffered by countries as a result of their stationing troops abroad in the common effort should be treated and solved by their allies on a cooperative basis. We would welcome suggestions from our allies on how to meet this pressing problem, since its solution cannot be further postponed."

We must also in our future planning take greater account of the growing U.S. capability for strategic mobility. If our NATO allies also had a significant capacity to mobilize and deploy quickly reinforcing reserve divisions to the Central Front, the Warsaw Pact would be denied any possibility whatever of using a military mobilization for political purposes.

In the economic arena, Western Europe's relations with the United States are marked by increasing self-confidence. The European

[redacted]

economic picture is one of continued growth and prosperity marred only by certain long-standing and difficult problems, particularly those facing the British Government. The successful completion of the Kennedy Round and the decisions reached in Rio last September to increase international liquidity foreshadow an expansion of trade within Europe itself, between Europe and North America, and between the North Atlantic area and the rest of the world. The creation in July last year of a single European Commission to replace the separate executive bodies of the Common Market, the Coal and Steel Community and EURATOM is only one important step forward toward realization of a true economic community of the six member countries.

10. United Nations

Over the longer range our ability to maintain peace in the world depends not only on strong alliances but also on more effective international peacekeeping, largely through the UN. In these ways we can share with other nations the responsibilities and costs of maintaining world security. To this end we have supported every UN peacekeeping operation since the United Nations was created in 1945 "to maintain international peace and security."

Our policy is to keep open possibilities for engaging the United Nations in collective action wherever feasible, to damp down small wars, contain internal disorders (as in Cyprus) that threaten to draw in big powers, and respond to appeals for security aid from small countries.

The United States will continue to provide logistic services, notably airlift and communications support, for United Nations operations, when appropriate.

C. MILITARY ASSISTANCE AND SALES

As I pointed out earlier in this section, there is no way to determine precisely what any nation's fair share of the burden of collective defense should be. However, for nearly three decades of war and uneasy peace, the U. S., because of its economic, industrial and technological preeminence, has carried a large share of that burden, not only through the support of its own defense establishment but also by providing large amounts of weapons, equipment, other materiel and training for the forces of our allies. Over this span, the character of our contribution has changed significantly, and I believe that it can be expected to change still further in the years ahead. Grant materiel assistance, though still required in a number

of situations, has for some time been declining in relative importance. The sale of U. S. military equipment and services, in contrast, has grown along with our allies' increasing ability to pay, a trend which I will have more to say about later. However, regardless of what form our contribution has taken -- grant aid, military sales or commitment of forces -- its basic objective has remained the same, i.e., to weld a system of individual and collective defense to which all Free World participants contribute according to their respective abilities.

In accord with the obvious sentiment of the Congress and the changed priorities imposed by the budgetary demands of the Vietnam conflict, our proposed FY 1969 grant military assistance request has been held to the lowest level since the inception of this program in FY 1950.

First priority has again been accorded to the "forward defense" countries on the Communists' periphery. Programs have been deferred to the maximum extent feasible, and in some cases the amounts we propose for FY 1969 assume that U. S. materiel support can be shifted to a sales basis sooner and to a greater extent than we had heretofore planned. Provision has also been made in the FY 1969 program to support relations which ensure our continued access to important military facilities in certain countries, but the aid provided specifically for this purpose is minimal. Small but vital internal security oriented programs and modest training assistance account for virtually all of the remainder.

Thus, for FY 1969, our grant aid request totals only $420 million (compared with the $380 million appropriated by the Congress last year for the same purposes) plus $120 million to help finance military export sales. Of the $420 million requested for grant aid, $387 million would be for the forward defense countries of Korea, the Republic of China, the Philippines, Iran, Greece and Turkey. Korea, because of its vulnerability to threats from the north and its commitment of some 50,000 troops to the Vietnam effort, would receive the largest share, [redacted] Greece and Turkey would receive [redacted], to keep them moving toward their force goals, although at a considerably slower rate than we had originally planned. Grant aid to the Republic of China would be reduced [redacted] this year, a sharp cut which assumes that a steadily improving economy will permit her to pay for an increasingly larger share of her legitimate defense needs. A [redacted] program for the Philippines will help the government maintain its defense forces and improve its internal security, as well as use its armed forces in civic action programs. U.S. grant materiel assistance to Iran is scheduled to terminate with the proposed [redacted] FY 1969

[redacted]

program, which will fulfill a prior commitment. In the future, Iran should be able to pay for her military materiel requirements.

[redacted] requested for Ethiopia [redacted] to help her maintain internal security and defense capabilities. Small programs for Spain [redacted] and Portugal [redacted] are also [redacted]

Grant aid for all of Latin America totals only $26 million, one half to continue essential training programs, and the other half to provide modest materiel aid to those smaller countries which have an internal security requirement. Programs of [redacted] for Tunisia and [redacted] for Morocco will provide a continued flow of assistance to these neighbors of Algeria, which has received large amounts of military aid from the Soviets. For the Congo, we propose [redacted] for transport and communications equipment to bolster its internal security capabilities. A [redacted] program for Indonesia will help its government to employ its armed forces in civic action and economic rehabilitation projects. All other country programs would be minimal, consisting almost wholly of training assistance.

With respect to military export sales for FY 1969, we expect orders to total about $1.5 billion, about $0.3 billion less than the level currently expected for FY 1968. Of this total, we estimate government-to-government cash orders will amount to about $520 million, and that orders placed directly with U.S. industry will be about $430 million. The balance of $550 million will be government-to-government orders against credit arranged for or provided by the Defense Department.

Military export sales, I would like to remind you, are not an end in themselves. They are an integral and essential part of our collective defense and overall foreign policies. We are not in the business of selling arms, per se. In fact, during the period 1952-61, we furnished as grant aid several times more arms than we sold. We provided this military grant aid in the interest of the collective defense of the Free World. Now the relative proportion of grant aid and military sales has been reversed. But we continue to sell arms, today, both on a cash and credit basis, for the very same reason. Every arms transaction -- whether it be grant aid, or a cash sale, or a credit sale -- must meet the same fundamental test: Is it in the interest of collective defense and our overall foreign policy? Only then do we consider how it should be financed.

If a friendly nation requiring the arms is in a position to pay cash, certainly there would be no reason why we should not make the

[redacted]

sale for cash. Where a nation has the economic capacity to pay for the arms over a longer period of time but cannot pay cash on delivery, it is only common sense to sell on credit. In those few cases where credit cannot be arranged through private banks without a government guaranty, it seems to me that it makes eminently good sense to facilitate the transaction by providing that guaranty. Finally, where a Free World nation needs military equipment or services but has no prospects of repaying the cost, or could do so only at unacceptable cost to its developmental programs, we should furnish the arms on a grant aid basis. But in every case the transaction must contribute to the collective defense of the Free World, or otherwise support our overall foreign policy.

Of course, the military export sales program helps our balance of payments position, but our difficulties in this area, in the first place, are attributable in very large measure to our efforts in behalf of collective defense. (I will discuss the balance of payments problem a little later.) However, this program helps to reduce the costs, both to our allies and ourselves, of equipping our forces, by minimizing costly duplicative development programs and by realizing the economics of larger scale production. And, it also helps to further cooperative logistics arrangements with our allies and standardization of our respective supply systems. Thus, there is a net gain for all.

As I pointed out last year, we have carefully circumscribed this program:

1. We will not sell military equipment to a foreign country which we believe it cannot afford.

2. We will never recommend that a potential foreign customer buy anything not truly needed by its own forces.

3. We will not seek to sell a foreign country anything it can buy cheaper or better elsewhere in the Free World.

Every proposed sale of U.S. military equipment, whether it originates in commercial or government-to-government channels, is carefully reviewed within the Executive Branch. Any significant proposal receives Cabinet level, and frequently Presidential, scrutiny before approval. Moreover, such approval is never forthcoming until a positive decision has been made that, all things considered, the sale is in the overall best interests of both the United States and the purchaser. We have, in fact, turned down, cut back or discouraged, scores of prospective sales. The value of those turned down from the less developed countries by far exceeds the value of those approved.

[redacted]

Indeed, in FY 1967 nine-tenths of all cash and credit orders were from countries which are economically able to shoulder the burden of defense, including most of our NATO Allies, other West European countries, Australia, New Zealand, Japan, and a few selected oil-rich countries (although credit assistance was required in some cases). As previously mentioned, in economically underdeveloped areas such as Latin America, Africa, most of the Middle East and South Asia, we are exercising the greatest possible restraint in order to minimize the diversion of resources from civilian to military programs. Moreover, contrary to widespread belief, there has been no steady growth in total U.S. arms export under the combined grant and sales programs over the FY 1962-67 period. Indeed, the total has averaged about $2.5 billion a year, ranging from $2.8 billion in FY 1962 and FY 1966 to $2.0 billion in FY 1964.

As indicated earlier in this statement, the tribulations suffered by both the grant and sales programs in the Congress last year should be of great concern to anyone who believes in the principle of collective defense. I hope that all members of this Committee will join in obtaining the public and Congressional understanding and support necessary for these vital adjuncts to our own direct military efforts.

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

In total, the United States' international balance of payments position considerably worsened during calendar year 1967, with the "liquidity" deficit for the year estimated at $3.5-4.0 billion compared with $1.4 billion for all of 1966. The chief factors in this development were increases in tourist expenditures, military outlays abroad, bank lending and U.K. liquidation of its securities portfolio.

For the past several years, the Defense Department has conducted a comprehensive program to limit the impact of its activities on our balance of payments. The result of this effort through the last completed fiscal year is reflected in the table on the following page.

[redacted]

[redacted]

U.S. MILITARY BALANCE OF PAYMENTS
($ Billions)

EXPENDITURES (on Def. Acct.) FY:	1961	1962	1963	1964	1965	1966	1967
U.S. Forces and their Support (Excl. Incr. in SEA Exp. over FY61)	2.5	2.4	2.4	2.5	2.3	2.4	2.5
Military Assistance	.3	.2	.3	.2	.2	.2	.1
Other (AEC, etc.)	.3	.3	.3	.1	.1	.1	*
TOTAL	3.1	3.0	3.0	2.8	2.6	2.7	2.6
RECEIPTS (on Def. Acct.)	-.3	-.9	-1.4	-1.2	-1.3	-1.2	-1.8
NET ADVERSE BALANCE (Excl. Incr. in SEA Exp. over FY61)	2.8	2.1	1.6	1.6	1.3	1.5	.8
Increase in SEA Exp. over FY61		*	.1	.1	.2	.7	1.5
NET ADVERSE BALANCE	2.8	2.1	1.7	1.7	1.5	2.2	2.3

As you can see, excluding the impact of the conflict in Southeast Asia, we have been able to hold Defense expenditures abroad to the 1961 level, notwithstanding substantial increases in wages and prices. (For example, between 1961 and 1966 wages in Germany rose 52 percent and in Japan by 61 percent; during the same period the cost of living in Germany rose 16 percent and in Japan by 34 percent.) After the net adverse balance on the "Defense" account (shown on the last line) had been reduced from $2.8 billion in FY 1961 to $1.5 billion in FY 1965, it rose again to $2.3 billion in FY 1967. This rise is almost completely attributable to the extraordinary foreign exchange costs of the Vietnam conflict, which amounted to $1.5 billion in FY 1967. Indeed, if not for the Vietnam conflict our net adverse balance in FY 1967 would have been only $0.8 billion, compared with $2.8 billion in FY 1961, due in large measure to the increase in receipts from foreign military sales.

In this connection, I should caution that the high level of receipts in FY 1967 was unusual and will almost certainly not be repeated this year or next. The amount realized last year benefited from a bunching of receipts from our recent offset arrangement with the

*Less than $50 million.

[redacted]

Federal Republic of Germany. That arrangement, under which Germany offset the bulk of foreign exchange costs of our deployments in that country by making equivalent purchases of U.S. military goods and services, has now run its course. To provide a partial offset during the current fiscal year, Germany has agreed to purchase a half billion dollars of U. S. Government medium-term securities. We are now working with the Treasury and other Government Agencies to develop similar arrangements for the future, not only with Germany, but with other countries as well.

In past years I have described in some detail the many specific actions we have taken to curtail overseas military spending. Every measure which offered some prospect of help in this regard has been thoroughly investigated. Wherever we found that they could be implemented without impairing required combat capabilities or imposing undue hardship on the individual serviceman or his dependents, this has been done.

However, in view of the continued deterioration in our payments position, which has resulted in the decision to impose strong controls on private investment abroad and to seek a major reduction in overseas tourist spending, we are again reviewing our current efforts to see where they may be intensified. In this regard, we have long since exhausted the "easy" opportunities for savings and any new savings will be most difficult. Clearly, the best hope of reducing our foreign exchange spending would be a substantial reduction in U.S. overseas deployments. For the immediate future, this does not appear to be a likely prospect. Southeast Asia deployments in FY 1968 and FY 1969 are scheduled to rise above the average for FY 1967. This fact, coupled with the likelihood of higher prices, civilian wages and military compensation, and the lower military sales receipts now projected, means that we must expect a further rise in the net adverse balance on the "Defense" account for this year and next. Nevertheless, considering the "belt tightening" now being undertaken by other elements of our economy, we must seek new ways to reduce the foreign exchange impact of spending by U.S. forces abroad. We also intend, consistent with the overall arms sale policies which I have just discussed, to urge our allies to procure U.S. weapons and other military equipment wherever feasible.

E. CONCLUDING REMARKS ON THE INTERNATIONAL SITUATION

In presenting to this Committee the Defense Department's Budget request for the last fiscal year of the 1960s, I believe it is not inappropriate to reflect for a moment on the very great changes which have occurred in the world during the past decade. These years have seen the acceleration of a number of trends which will make the international environment of the 1970s markedly different from that of the 1950s and early 1960s.

In the 1960s the simple bi-polar configuration which we knew in the earlier post-World War II period began to disintegrate. Solid friends and implacable foes are no longer so easy to label, and labels which did useful service in the past, such as "Free World" and "Iron Curtain", seem increasingly inadequate as descriptions of contending interests within and between blocs, and of the new bonds of common interest being slowly built across what were thought to be impenetrable lines of demarcation. Yet this tendency towards a more pluralistic world, which is in our interest and consistent with our national philosophy, is still only a tendency. Within many nations the factions who see advantage in constructively exploiting this tendency are weak. Part of our job is to make it evident to potential adversaries that this more pluralistic world would have rewards for them also. But to make our case we must still face them with the prospect of encountering a well-coordinated alliance of nations willing to do battle to preserve their rights to independence and self-determination. Despite the emerging multipolarity of power and the decline of simplistic Cold War ideologies, collective security arrangements are still a necessity. The strong must still make commitments to defend the weak from those who would force a political and economic order upon them.

Thus collective security remains the foundation of our defense policy. Ultimately, however, true international security will be found only in proper relations among states, not in hardware. This was my theme at Montreal two years ago, and I would emphasize it again now. If we look ahead towards the last quarter of the 20th Century, the world's overwhelming security problem will be the establishment of a proper relationship between the developed and well-fed societies and those which are hungry and neglected. This relationship will have to include a collective effort by the modern, technologically efficient, developed world to help the underdeveloped world to a decent existence. That task will require the devotion of political and economic efforts far surpassing any in which we now engage.

[redacted]

To provide the needed effort, the developed world will have to compose its internal differences by agreement, not by coercion, and to organize itself for the common job to be done. It seems the lesson of human history that nations will join together effectively for such great efforts only when a common danger to their security is perceived. We must do our best to prepare ourselves and our friends, and even those who think of themselves as our adversaries, for the day when they perceive the common potential danger to our security of a hungry, angry, dissatisfied, and impatient majority of mankind. We in the United States must stand ready to cooperate in all those areas in which progress towards a safe, more humane global order can be made. Our security, and the quality of life within the United States, demand it.

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II. STRATEGIC FORCES

The forces and programs included under this heading, i.e., the strategic offensive forces, the strategic defensive forces, and the civil defense program, constitute the foundation of our general nuclear war capabilities and are accordingly treated in this section of the Statement as an integrated whole.

A. THE GENERAL NUCLEAR WAR PROBLEM

Over the past seven years, in my annual appearances before this Committee, I have attempted to explore with you in a systematic way all of the major elements of the general nuclear war problem -- the nature of strategic nuclear war; the size and character of the forces likely to be involved; the technical feasibility, cost and probable outcomes of alternative strategies; and the principal policy and program choices opened to us and our allies. I have done so because I believe a common understanding of all of these factors is essential to an informed and reasoned discussion of the crucial decisions which we in the Executive Branch and you in the Congress must make each year in this most vital area of our defense program.

This is not to say that the need for consideration of the general nuclear war problem had been overlooked prior to 1961, or that I and my associates clearly understood, or even perceived, all of the multi-faceted aspects of this vastly complex problem from the very outset. Quite the contrary, many of the fundamental concepts and insights which underlie our nuclear policies and programs today were developed prior to 1961, and my own views have matured and become more precise since that time. Indeed, many of the issues which came to a head in 1961 had been debated for years. All needed to be resolved so that we could get on with the job of reshaping our strategy and our forces for the decade of the 1960s.

It seemed to us in 1961 that one of the first things we had to do was to separate the problem of strategic nuclear war from that of all other kinds of war. Although the matter had long been debated, the fact that strategic nuclear forces, no matter how versatile and powerful they may be, do not by themselves constitute a credible deterrent to all kinds of aggression had still to be squarely faced.

There was, of course, a deep and vivid awareness from the very beginning of the nuclear era that a war in which large numbers of

[redacted]

atomic bombs were employed would be far different, not only in degree but in kind, from any ever fought before. In such a war the potential battlefield would be the entire homelands of the participants.

Furthermore, because of the enormous destructive power of nuclear weapons and the great speed and diverse ways in which they can be delivered, nothing short of a virtually perfect defensive system would provide anything approaching complete protection for populations and cities against a determined, all-out attack by a major nuclear power. This is not simply a matter of technology, it is inherent in the offensive-defensive problem. A nuclear-armed offensive weapon which has a 50/50 chance of destroying its target would be highly effective. But a defensive weapon with the same probability of destroying incoming nuclear warheads would be of little value.

This point was well understood by many who had closely studied the problem, even at the beginning of the nuclear era. In late 1945, for example, General Arnold noted that "...measures intended for protection against an atom bomb attack must be highly efficient from the very start of a war if they are to be any good at all. Our experience in this war has shown that it is most difficult to attain this goal." I might add, all of our experience since that time has conclusively demonstrated that a defense of such a high order of perfection is still technically unobtainable.

But the point to note here is that throughout the 1950s, and indeed since the end of World War II, it has always been our capacity to retaliate with massive nuclear power which was considered to be the deterrent against Soviet attack. It was this tendency to rely on nuclear weapons as the "universal deterrent" that helped contribute to the decline in our non-nuclear limited war forces, first during the late 1940s, and then during the second half of the 1950s. And yet by 1961, it was becoming clear that large scale use of nuclear weapons by the West as a response to Soviet aggression, other than an all-out attack, was not desirable. Therefore, other types of forces would have to be provided both to deter and, in the event deterrence failed, to cope with conflicts at the middle and lower end of the spectrum.

Thus, the time was ripe for a major reassessment of our military forces in relation to our national security policies and objectives.

With regard to our strategic nuclear war capabilities as such, our initial analysis impressed us with the need for prompt action in three related areas. First, while our strategic offensive forces were then fully adequate for their mission, it was apparent that our soft missiles and bombers would become exceedingly vulnerable to a

nuclear surprise attack once our opponent had acquired a large number of operational ICBMs. Second, when that potential threat became a reality, reliable warning and timely response to warning of a missile attack would be of crucial importance to the survival of our bomber forces. Third, considerable improvements would have to be made in our command and communication systems if the strategic offensive forces were to be kept continuously under the control of the constituted authorities -- before, during, and after a nuclear attack.

Essentially, there appeared to be two approaches available to us at the time: (1) we could provide offensive forces which could be launched within the expected period of tactical warning from the Ballistic Missile Early Warning System which was then still under construction, or (2) we could provide forces which would be able to survive a massive ICBM attack and then be launched in retaliation. As a long-term solution for the protection of our missiles, the first approach was rejected because of its great dependence on timely and unambiguous warning. While the timeliness of warning was reasonably assured, we could not be completely certain that the warning would be unambiguous. In the case of the manned bombers, this uncertainty presented serious, but not necessarily critical, problems. The bombers could be launched upon warning and ordered to proceed to their targets only after the evidence of an attack was unmistakable. But once launched, a ballistic missile could not be recalled. Yet, unless it is deployed in a mode which gives it a good chance of surviving an attack, it, too, would have to be launched before the enemy's missiles strike home, or risk destruction on the ground.

Obviously, it would be extremely dangerous for everyone involved if we were to rely on a deterrent missile force whose survival depended on a hair-trigger response to the first indications of an attack. Accordingly, we decided to accelerate the shift from the first generation ICBMs, the liquid fuel ATLAS and TITAN, to the second generation solid fuel missiles, POLARIS and MINUTEMAN, the former types being very costly and difficult to deploy in hardened underground sites and maintain on a suitable alert status. We knew that the MINUTEMAN would not only be less expensive to produce and deploy in protected sites (and, thereby, provide more aim points per dollar expended), but would also be considerably easier and less costly to keep on alert. Because of its unique launching platform, the submarine-carried POLARIS missile inherently promised a high likelihood of surviving a surprise attack, due to its mobility and concealment.

As these more survivable and effective POLARIS and MINUTEMAN missiles entered the operational forces in large numbers during

FY 1964-65, the older REGULUS, ATLAS and TITAN I types were phased out. And over the years as advancing technology produced new models of the MINUTEMAN and POLARIS ("models" which represented as great an advance over their predecessors as the B-52 over the B-47), these too have been promptly introduced. Concurrently with the deployment of the strategic missile force, we conducted an unprecedented testing program in order to assure ourselves that they could be relied upon to perform their mission. Finally, a very large missile penetration aids effort was undertaken to make certain that we could overcome any enemy defensive measures designed to stop our missiles. Yet, notwithstanding the retirement of all of the ATLAS and TITAN Is, the number of land-based ICBMs increased from 28 at end FY 1961 to 1,054 by end FY 1967. And, all of the planned 41 POLARIS submarines have now become operational, most with advanced model POLARIS missiles.

With regard to the manned bombers, it was clearly evident in 1961 that the number that could be maintained on alert status was far more important than the total in the inventory, which was then very sizable. Accordingly, until the MINUTEMAN and POLARIS forces could be deployed, we increased by 50 percent the proportion of the force being maintained on 15-minute ground alert, the warning time we could expect from BMEWS.

The build-up of the strategic bomber force to 14 wings of B-52s and two wings of B-58s was completed in FY 1963. During this same period the medium bomber force of older B-47s was phased down, eventually being retired completely in 1966 on essentially the same schedule planned by the previous Administration. In addition, a large and very expensive B-52 modification program was placed underway in order to extend the useful life of the later models of these aircraft well into the 1970s and to enable them to employ low-altitude tactics in order to improve their penetration capabilities against enemy defenses.

As a result of these changes, and notwithstanding the retirement of the ATLAS, TITAN I and B-47s, the number of nuclear weapons in the alert force increased [redacted] at end FY 1961 to more than [redacted] at end FY 1967. Now that the MINUTEMAN and POLARIS forces have been deployed, we can reduce somewhat the proportion of the bomber force on alert.

Not much could be done in 1961 to improve the continental air defense system which had been designed against bomber attack. However, recognizing the vulnerability of the SAGE ground control system sites to missile attack, we did start deployment of a backup system

which has since been greatly expanded and made more effective. And because adequate warning of ballistic missile attack was so important to the survival and ultimate effectiveness of our strategic bomber force, we pressed forward the construction of BMEWS and somewhat later began the deployment of Over-the-Horizon radars. As the weight of the threat continued to shift from bombers to missiles, we began to modify the air defense system, phasing out those elements which became obsolete or excess to our needs.

We also closely considered in 1961 the advisability of deploying an active defense against ballistic missile attack. However, there were widespread doubts even then as to whether the NIKE-ZEUS system, which had been under development since 1956, should ever be deployed. Aside from outstanding questions as to its technical feasibility and our concern over operating problems which might be encountered, we were convinced that its effectiveness could be critically degraded by the use of more sophisticated warheads screened by multiple decoys or chaff. Weighing all the pros and cons, we concluded in 1962 that the best course was to shift the development of the system to a more advanced approach and to take no action to produce and deploy it at that time. We stepped up the pace and scope of our efforts to expand our knowledge of the entire problem of detecting, tracking, intercepting and destroying ballistic missiles. It was from these efforts that we have since drawn much of the technology incorporated in our present ballistic missile defense concepts.

Finally, we undertook an extensive program to improve and make more secure the command and control of our strategic offensive forces. Among the measures taken was the establishment of a number of alternate national command centers, including some which would be maintained continuously in the air so that the direction of all our forces would not have to depend upon the survival of a single center. Steps were also taken to enhance the survivability, reliability and effectiveness of the various command and communications systems, including, for example, provision for the airborne control of bomber, MINUTEMAN and POLARIS launchings. These were all forged into a new integrated National Military Command System. To guard against accidental or unauthorized firings, new procedures, equipment and command arrangements were introduced to ensure that all nuclear weapons could be released only on the positive command of the national authorities.

Many of the tasks we set out for ourselves seven years ago have been successfully accomplished. But, the situation which we foresaw then is now well upon us. The Soviets have, in fact, acquired a large force of ICBMs installed in hardened underground silos. To put it

bluntly, neither the Soviet Union nor the United States can now attack the other, even by complete surprise, without suffering massive damage in retaliation. This is so because each side has achieved, and will most likely maintain over the foreseeable future, an actual and credible second strike capability against the other. It is precisely this mutual capability to destroy one another, and, conversely, our respective inability to prevent such destruction, that provides us both with the strongest possible motive to avoid a strategic nuclear war.

That we would eventually reach such a stage had been clearly foreseen for many years. Five years ago I pointed out to this Committee that: "We are approaching an era when it will become increasingly improbable that either side could destroy a sufficiently large portion of the other's strategic nuclear force, either by surprise or otherwise, to preclude a devastating retaliatory blow."

In January 1956, Secretary of Defense Wilson noted that, "...independent of what year it might happen, within a reasonable number of years we are almost bound to get into a condition sometimes described as 'atomic plenty' or a condition where the two parties could, as a practical matter, destroy each other." In the following month, Secretary of the Air Force Quarles was even more explicit. He said, "I believe it will mean that each side will possess an offensive capability that is so great and so devastating that neither side will have a knockout capability, and, therefore, a situation in which neither side could profitably initiate a war of this kind.... This has been frequently referred to as a position of mutual deterrence, and I believe we are moving into that kind of a situation."

Indeed, as far back as February 1955, a distinguished group of scientists and engineers, frequently referred to as the Killian Committee, had concluded on the basis of a comprehensive study of our continental air defense that within probably less than a decade a nuclear attack by either the United States or the Soviet Union would result in mutual destruction. "This is the period," the Committee's report stated, "when both the U.S. and Russia will be in a position from which neither country can derive a winning advantage, because each country will possess enough multimegaton weapons and adequate means of delivering them, either by conventional or more sophisticated methods, through the defenses then existing. The ability to achieve surprise will not affect the outcome because each country will have the residual offensive power to break through the defenses of the other country and destroy it regardless of whether the other country strikes first."

Clearly, nothing short of a massive pre-emptive first strike on the Soviet Union in the 1950s could have precluded the development of the situation in which we now find ourselves. This point, too, was noted by Secretary McElroy in 1958. Indeed, the hearings of the Congressional Committees concerned with national defense during that period are replete with references to this crucial issue.

Be that as it may, the problem now confronting the Nation is how best to ensure our safety and survival in the years ahead, in an era when both we and the Soviet Union will continue to have large and effective second strike strategic offensive forces and when the Red Chinese may also acquire a strategic nuclear capability.

I believe we can all agree that the cornerstone of our strategic policy must continue to be the deterrence of a deliberate nuclear attack against either the United States or its allies. But this immediately raises the question, what kind and level of forces do we need to ensure that we have such a deterrent, now and in the foreseeable future?

Having wrestled with this problem for the last seven years, I am convinced that our forces must be sufficiently large to possess an "Assured Destruction" capability. By this I mean an ability to inflict at all times and under all foreseeable conditions an unacceptable degree of damage upon any single aggressor, or combination of aggressors -- even after absorbing a surprise attack. One can add many refinements to this basic concept, but the fundamental principle involved is simply this: it is the clear and present ability to destroy the attacker as a viable 20th Century nation and an unwavering will to use these forces in retaliation to a nuclear attack upon ourselves or our allies that provides the deterrent, and not the ability partially to limit damage to ourselves.

This is not to say that defense measures designed to significantly limit damage to ourselves (which is the other major objective of our strategic forces) might not also contribute to the deterrent. Obviously, they might -- if an increase in our "Damage Limiting" capability could actually undermine our opponents confidence in his offensive capability. But for a "Damage Limiting" posture to contribute significantly to the deterrent in this way, it would have to be extremely effective, i.e., capable of reducing damage to truly nominal levels -- and as I will explain later, we now have no way of accomplishing this.

As long as deterrence of a deliberate Soviet (or Red Chinese) nuclear attack upon the United States or its allies is the vital first objective of our strategic forces, the capability for "Assured Destruction"

must receive the first call on all of our resources and must be provided regardless of the costs and the difficulties involved. That imperative, it seems to me, is well understood and accepted by all informed Americans. What is not so well understood, apparently, is the basis upon which our force requirements must logically be determined -- in other words, how much "Assured Destruction" capability do we need and what is the proper way to measure that need?

The debate on how much is enough, I suspect, is as old as war itself, but it acquired a new and very special significance with the advent of the atomic bomb. As one observer, Bernard Brodie, noted in 1946, at the very beginning of the nuclear era:

> "Superiority in numbers of bombs is not in itself a guarantee of strategic superiority in atomic bomb warfare....it appears that for any conflict a specific number of bombs will be useful to the side using it, and anything beyond that will be luxury. What that specific number would be for any given situation it is now wholly impossible to determine. But we can say that if 2,000 bombs in the hands of either party is enough to destroy entirely the economy of the other, the fact that one side has 6,000 and the other 2,000 will be of relatively small significance....the actual critical level could never be precisely determined in advance and all sorts of contingencies would have to provided for. Moreover, nations will be eager to make whatever political capital (in the narrowest sense of the term) can be made out of superiority in numbers. But it nevertheless remains true that superiority in numbers of bombs does not endow its possessor with the kind of military security which formerly resulted from superiority in armies, navies, and air forces."

A decade later, in a speech appropriately entitled "How Much Is Enough," Secretary of the Air Force Quarles took up the same theme in a somewhat more elaborate and sophisticated manner. He presented the case as follows:

> "The advent of atomic weapons in great numbers and variety, and now in megaton yields, has brought us to the point where the airpower we now hold poised is truly powerful beyond the imagination of man. But there comes a time in the course of increasing our airpower when we must make a determination of sufficiency....Sufficiency of air power, to my mind, must be determined period by period on the basis of the force required to accomplish the mission assigned. Because technological

changes are constantly occurring, which alter the power of any force to execute its mission...we must constantly review our mission requirements and tailor our concept of sufficiency to the current and foreseeable needs.

...the build-up of atomic power in the hands of the two opposed alliances of nations makes total war an unthinkable catastrophe for both sides. Neither side can hope by a mere margin of superiority in airplanes or other means of delivery of atomic weapons to escape the catastrophe of such a war. Beyond a certain point, this prospect is not the result of relative strength of the two opposed forces. It is the absolute power in the hands of each, and in the substantial invulnerability of this power to interdiction.

Under such circumstances, each potential belligerent in total war could possess what might be called a 'mission capability' relative to the other. So great is the destructive power of even a single weapon that these capabilities can exist even if there is a wide disparity between the offensive or defensive strengths of the opposing forces....It is crucially important that we maintain the level of strength constituting a 'mission capability.' It is neither necessary nor desirable in my judgment to maintain strength above that level."

Although the technology of strategic nuclear war has undergone dramatic changes since 1956, the general principle laid down by Secretary Quarles is as valid today as it was then. The requirement for strategic forces must still be determined on the basis of the "mission capability" we are seeking to achieve. That, in turn, must be related to our overall policy objective, i.e., deterrence of a deliberate nuclear attack on ourselves or our allies. Thus, the first quantitative question which presents itself is: What kind and amount of destruction must we be able to inflict upon the attacker in retaliation to ensure that he would, indeed, be deterred from initiating such an attack?

As I have explained to the Committee in previous years, this question cannot be answered precisely. Some people have argued that the Soviet or Red Chinese tolerance of damage would be much higher than our own. Even if this were true (which is debatable), it would simply mean that we must maintain a greater "Assured Destruction" capability. For example, if we believe that a ten percent fatality level would not deter them, then we must maintain a capability to inflict 20 or 30 percent, or

whatever level is deemed necessary. In the case of the Soviet Union, I would judge that a capability on our part to destroy, say, one-fifth to one-fourth of her population and one-half of her industrial capacity would serve as an effective deterrent. Such a level of destruction would certainly represent intolerable punishment to any 20th Century industrial nation.a/

The next question which has to be answered is: What kind and how large a force do we need to ensure at all times and under all foreseeable conditions that we can inflict the desired level of damage on the attacker? Obviously, the number of strategic missiles and aircraft we need cannot be determined solely on the basis of some fixed ratio to the number our opponents might have, or for that matter, to the number of nuclear warheads or the gross megatonnage those weapons could carry. Certainly, these are very important factors, each in its own right, and they must be and are taken into account in our calculations. But these are not the only or even most important factors. The requirement for "Assured Destruction" forces can be determined logically only on the basis of the size and character of the target system they may be called upon to destroy, taking account of all of the other relevant factors involved. Among these are: the number of our weapons which at any given time are ready to be launched toward their targets; the number of these which could be expected to survive a Soviet surprise first attack; and the number of the "ready" "surviving" weapons which can reasonably be expected to reach the objective area, survive the enemy defenses and detonate over or on their intended targets.

Thus, a logical determination of strategic force requirements involves a rather complex set of calculations. You may recall that when I appeared here six years ago in support of our first Five Year Defense Program, I described the steps of this process in some detail.

a/ Red China represents a somewhat different problem. Today Red China is still far from being an industrial nation. What industry it has is heavily concentrated in relatively few cities. We estimate, for example, that [redacted] detonated over 50 Chinese cities would destroy half of the urban population (more than 50 million people) and more than one-half of the industrial capacity. And, as I noted last year, such an attack would also destroy most of the key governmental, technical, and managerial personnel, as well as a large proportion of the skilled workers. Since Red China's capacity to attack the U.S. with nuclear weapons will be very limited at least through the 1970s, the ability of even so small a portion of our strategic forces to inflict such heavy damage upon them should serve as a major deterrent to a deliberate attack on us by that country.

In view of the misunderstandings which have arisen over the issue, I believe it might be useful to restate them here.

The first step is to determine the number, types, and locations of the aiming points in the target system.

The second step is to determine the numbers and explosive yields of weapons which must be delivered on the aiming points to ensure the destruction or substantial destruction of the target system.

The third step involves a determination of the size and character of the forces best suited to deliver these weapons, taking into account such factors as: size of warhead, system reliability, delivery accuracy, ability to penetrate enemy defenses, and cost.

Since we must be prepared for a first strike by the enemy, allowances must also be made in our calculations for the losses which our own forces would suffer from the initial enemy attack. This, in turn, introduces additional factors:

1. The size, weight, and effectiveness of a possible enemy attack.

2. The degree of vulnerability of our own strategic weapon systems to such an attack.

Clearly, each of these factors involves various degrees of uncertainty. But these uncertainties are not unmanageable. By postulating various sets of assumptions, ranging from optimistic to pessimistic, it is possible to introduce into our calculations reasonable allowances for these uncertainties. For example, we can use in our analysis both the higher and lower limits of the range of estimates of the number of enemy ICBMs and long-range bombers. We can assign to these forces a range of capabilities as to warhead yield, accuracy, reliability, etc.

With respect to our own forces, we can establish, within reasonable limits, the degree of reliability, accuracy and vulnerability of each type of offensive weapon system and its ability to penetrate the enemy defenses under various modes of operation. The last factor also involves an estimate of the size and character of the enemy's defenses.

Obviously, a change in any major element of the problem necessitates changes in many other elements. For example, the Soviet's deployment of a very extensive air defense system during the 1950s forced us to make some very important changes in our strategic bomber forces. The

B-52s had to be provided with penetration aids -- i.e., standoff missiles, decoys, electronic countermeasure equipment, etc. In addition, the B-52's airframe had to be substantially strengthened to permit sustained low-altitude operations.

Now, in the late 1960s, because the Soviet Union might deploy extensive ABM defenses, we are making some very important changes in our strategic missile forces. Instead of a single large warhead, our missiles are now being designed to carry several small warheads and penetration aids, because it is the number of warheads, or objects which appear to be warheads to the defender's radars, that will determine the outcome in a contest with an ABM defense.

Gross megatonnage is not a reliable indicator of the destructive power of an offensive force. For example, one [redacted] missile carrying 10 [redacted] 50 kiloton warheads (a total yield of 1/2 megaton) would be just as effective against a large city (2,000,000 people) as a single 10-megaton warhead with 20 times the total yield. Against smaller cities (100,000 people) ten 50 kiloton warheads would be 3-1/2 times as effective as the single 10-megaton warhead, and against airfields 10 times as effective. Even against hard ICBM sites, the ten 50 kiloton warheads would (given the accuracy we anticipate) be twice as effective as a single 10-megaton warhead. And, of course, it would take 10 times as many ABM interceptors to defend a city against ten 50 kiloton warheads as it would against a single 10-megaton warhead.

It is clear, therefore, that gross megatonnage is an erroneous basis on which to compare the destruction capability of two forces. And as I pointed out to the Committee last year, the number of missiles on launchers alone is not a much better measure. Far more important is the surviving number of separately targetable, serviceable, accurate, reliable warheads. But the only true measure of relative effectiveness of two "Assured Destruction" forces is their ability to survive and to destroy the target systems they are designed to take under attack.

In terms of numbers of separately targetable, survivable, accurate, reliable warheads, our strategic forces are superior to those of the Soviet Union. But I must caution that in terms of national security, such "superiority" is of little significance. For even with that "superiority", or indeed with any "superiority" realistically attainable, the blunt, inescapable fact remains that the Soviet Union could still effectively destroy the United States, even after absorbing the full weight of an American first strike.

We should be under no illusion that "Damage Limiting" measures, regardless of how extensive they might be, could, by themselves, change that situation. This is so for the same reason that the deployment by the Soviets of a ballistic missile defense of their cities will not improve their situation. We have already taken the necessary steps to guarantee that our strategic offensive forces will be able to overcome such a defense. Should the Soviets persist in expanding what now appears to be a light and modest ABM deployment into a massive one, we will be forced to take additional steps. We have available the lead time and the technology to so increase both the quality and the quantity of our strategic offensive forces -- with particular attention to more sophisticated penetration aids -- so that this expensive "Damage Limiting" effort would give them no edge in the nuclear balance whatsoever. By the same token, however, we must realistically assume that the Soviet Union would take similar steps to offset any threat to their deterrent that might result from our deploying an ABM defense of our own cities.

Under these circumstances, surely it makes sense for us both to try to halt the momentum of the arms race which is causing vast expenditures on both sides and promises no increase in security. The logic of discussions to limit offensive and defensive strategic weapons is even more compelling than it was a year ago when the President proposed such discussions to the Soviet Union. We are continuing our attempt to persuade the Soviets to agree to our proposal for discussions.

It is important to distinguish between an ABM system designed to protect against a Soviet attack on our cities and an ABM system designed for other purposes. One such purpose would be to provide greater protection for our strategic offensive forces; another would be to protect our cities against an attack by Red China. The first is not a "Damage Limiting" measure, but rather an action designed to strengthen our "Assured Destruction" capability by ensuring the survival of a larger proportion of our retaliatory forces. The second is a "Damage Limiting" measure, but one against a small force -- because of the size and character of the attacks involved, a good defense becomes feasible.

As I noted last year, Red China may achieve an initial ICBM operational capability in the early 1970s and a modest force in the mid-1970s. Depending upon the rate of growth thereafter, a thin ABM deployment, with some additions and improvements, could be highly

effective through the mid-1980s. The ability of the thin ABM to limit damage to our Nation in the event our offensive force failed to deter an "irrational" aggressor was the basis for our decision to deploy such a force.

Before I discuss the analytical basis for these conclusions and our specific program proposals, I would first like to present the latest estimates of the strategic threat.

B. THE SIZE AND CHARACTER OF THE THREAT

Each year in presenting our projections of the strategic nuclear threat to the United States, I have cautioned that while we have reasonably high confidence in our estimates for the closer-in period, our estimates for the more distant years are subject to considerable uncertainty. This is still the case with regard to our current projections. The estimates through 1969 are reasonably firm. Beyond that point they become progressively less firm, especially where they deal with the period beyond the production and deployment leadtimes of the weapons systems involved.

1. The Soviet Strategic Offensive-Defensive Forces

Summarized in the table on the following page are the Soviet strategic offensive forces estimated for October 1, 1967, mid-1969 and mid-1972. The programmed U.S. forces for those same dates are shown for comparison.

U.S. vs SOVIET INTERCONTINENTAL STRATEGIC NUCLEAR FORCES

	1 Oct 1967 a/ U.S.	USSR
ICBM LAUNCHERS b/		
Total	1054	
	1054	
SLBM LNCHRS-Nuc Subs c/	656	
Total Intercont'l → Msl. Launchers	1710	
→ INTERCONT'L BOMBERS d/	697	155
TOTAL FORCE LOADINGS → Warheads		

a/ These are mid-1967 figures.

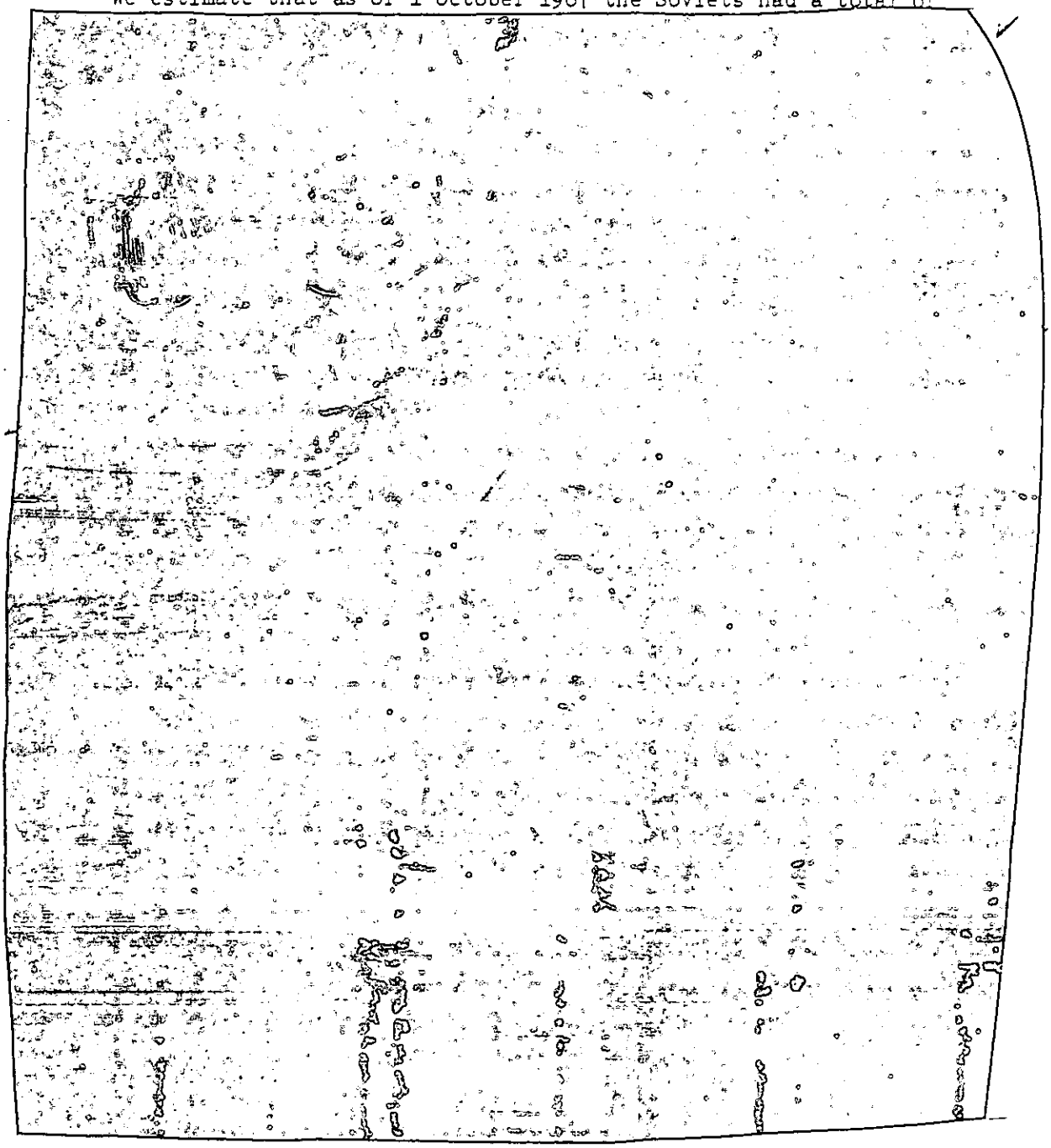
b/ Excludes ICBM test range launchers which could have some operational capability against the U.S.

c/ In addition to the SLBMs on nuclear-powered submarines the Soviets also have SLBMs on diesel-powered submarines whose primary targets the believes to be strategic land targets in Eurasia: The Soviets also have submarine-launched cruise missiles whose primary targets we believe to be naval and merchant vessels.

d/ In addition to the intercontinental bombers, the Soviets have a force of medium bombers/tankers capable of striking Eurasian targets.

a. Intercontinental Ballistic Missiles

We estimate that as of 1 October 1967 the Soviets had a total of



[redacted] As you may recall, I announced last November that the Soviets were intensively testing what we believe to be a Fractional Orbit Bombardment System (FOBS). Such a system -- which is really an ICBM of different trajectory -- could be launched on a very low trajectory across the northern approaches of the United States, thus reducing the possibility of timely detection by the Ballistic Missile Early Warning System (BMEWS); or, alternatively, around the southern approaches which are not covered by BMEWS. In either event, the weapon would not have a very high order of accuracy [redacted] and would have to pay a heavy penalty in payload. It would, therefore, be useful primarily against soft targets. Although years ago we considered and rejected such a system for our own use, the Soviets may believe it to be useful in a surprise nuclear strike against our bomber bases or as a penetration tactic against ABM systems. (I will touch on some of the measures we have taken in anticipation of that type of threat in my discussion of the defensive programs.) The Soviets might have as many as [redacted] launchers by mid-1969 and [redacted] by mid-1972.

b. Submarine-Launched Ballistic Missiles

[redacted] Only about eight or nine of these submarines with a total of 27-30 tubes are nuclear-powered, the others being diesel-powered.

However, we now have firm evidence that the new class of Soviet nuclear-powered ballistic missile submarines which I mentioned last year will have 16 tubes. [redacted] It is these new submarines that account for most of the increase in SLBMs shown in the foregoing table.

All of the older nuclear-powered ballistic missile submarines (and most of the diesel-powered) are apparently being retrofitted with the relatively new SS-N-5 [redacted] The remaining operational ballistic missile submarines will probably continue to carry the SS-N-4 [redacted]

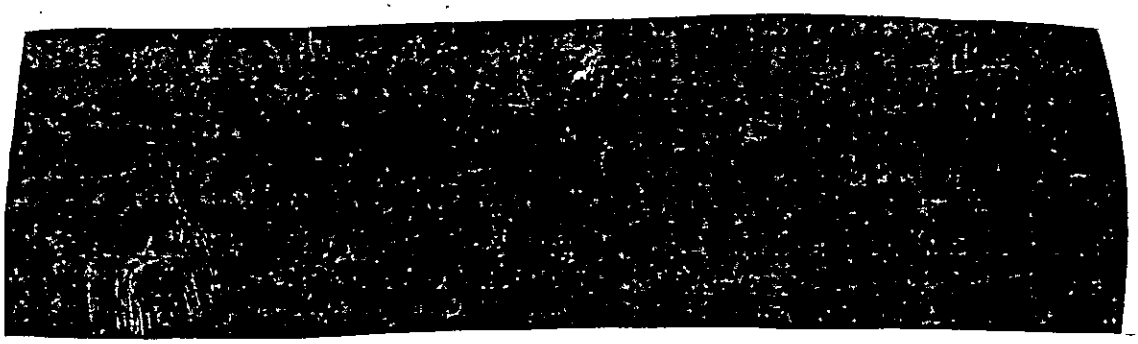
As I noted on previous occasions, the Soviets do not appear to consider their cruise missile submarines as primarily a strategic attack system. As of 1 October, they had 52-57 such boats (29-31 nuclear-powered) equipped with 301-329 SS-N-3s. This missile has a maximum range of 450 n.mi. but it appears to have a normal operating range of 250 n.mi. against ships. Construction of these cruise submarines is apparently coming to an end. The last of them is expected to be delivered to the fleet by the close of 1969.

c. Manned Bombers.

Again, I must report to you that there is no evidence that the Soviets intend to deploy a new heavy bomber in the late 1960s or early 1970s. In addition to the [redacted] heavy bombers shown on the foregoing table, the Soviets also have [redacted] medium bombers and [redacted] medium bombers converted to tankers. Although a small number of additional BLINDER medium bombers are expected to be delivered over the next few years, the overall manned bomber force will continue to decline as the old BADGER medium bombers are phased out and the heavy bomber force is attrited over time. We believe that the new BLINDER "B", which is now finally operational, will be equipped to carry a 300 n.mi. air-to-surface missile (ASM). Most of the old BEAR heavy bombers have already been modified to include an ASM capability, and it now appears that a significant portion of the BADGER force is also being provided with that capability.

Nevertheless, the Soviet Union's capability for intercontinental bomber attack remains limited. Considering the requirements for Arctic staging and refueling, as well as non-combat attrition factors, we estimate that the Soviets could place approximately 100 heavy bombers over targets in the United States on two-way missions. While we believe that medium bombers do not figure prominently in Soviet plans for an initial attack on the North American Continent, a limited force of these bombers could attack targets in Greenland, Alaska, Iceland and Canada on two-way missions.

d. MRBMs/IRBMs



e. Manned Interceptors

The Soviet interceptor force now consists of some 3300-3500 aircraft, about 200 fewer than last year. Although new generation fighters with both all-weather and air-to-air missile capabilities are being gradually introduced, about two-thirds of the force is still made up of older types of aircraft, mostly MIG-17s and 19s and SU-9s. The first few Mach 2.5, all-weather interceptors are now operational and will continue to be introduced in relatively small numbers over the next few years. Since the older models are being replaced on a less than one-for-one basis, however, a further gradual decline in overall strength is indicated, perhaps to 2,300-2,800 by 1972. Whether the Soviets will deploy a Mach 3, all-weather follow-on interceptor is still highly problematical, although such an aircraft is in an early stage of development.

f. Surface-to-Air Missiles

No significant changes have occurred in the deployment of the SA-1, SA-2, and SA-3 surface-to-air missiles in the Soviet Union. The first is deployed in two rings around Moscow only, the second at about [redacted] primary sites throughout the rest of the country, and the last at about [redacted] sites in selected areas. Nothing has occurred during the past year to cause us to change our estimate that the SA-3, which was deployed to defend against the low altitude threat, is not much better than the SA-2 for that purpose. The latter system, through continued modification of its missiles and radars, has acquired an improved low altitude capability [redacted]

Last year I informed you that there was considerable disagreement within our intelligence community with regard to the purpose of the so-called "Tallinn" (SA-5) system being deployed across the northwestern approaches to the Soviet Union and in several other places. Now I can tell you that there is almost complete agreement that this system is

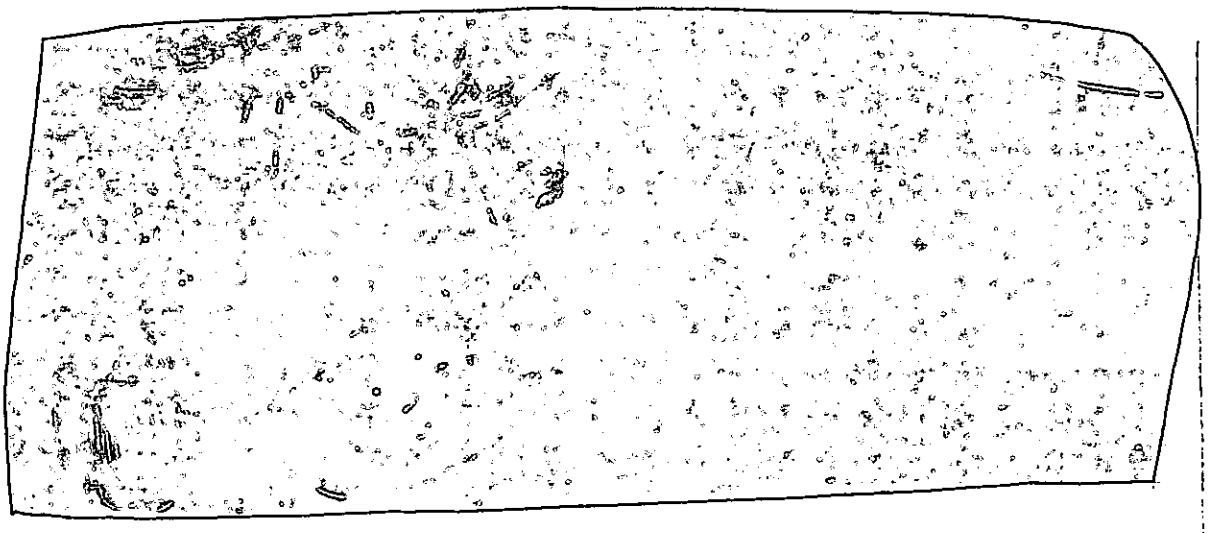
designed primarily for defense against high speed aerodynamic vehicles flying at high and medium altitudes.

Even last year the pattern in which the system was being deployed the configuration of the sites and their equipment, and the apparent characteristics of the radars, all pointed to an advanced surface-to-air missile system. The doubt as to its mission arose principally because it appeared to be designed against the high rather than the low altitude penetration threat, even though it has long been publicly known that the latter is the tactic our bomber force is trained and equipped to use. [redacted] clearly a missile designed for use within the atmosphere, most likely against an aerodynamic rather than a ballistic missile threat. [redacted]

More [redacted] Tallinn complexes have thus far been definitely identified (double last year's estimate) extending in a barrier line across the northwestern part of European Russia, around Leningrad and Moscow, and across some parts of the southern approaches. Most of these complexes consist of three launch sites, each with six launch positions and one radar. A few of these may now be operational and more may be under construction. [redacted], we still believe the Soviets will eventually deploy an improved low altitude SAM system.

2. Anti-Ballistic Missile Defense

Although construction of the GALOSH ABM system around Moscow is proceeding at a moderate pace, no effort has been made during the last year to expand that system or extend it to other cities. It still consists of six complexes deployed at some of the outer ring SA-1 sites, about 45 n.mi. from the center of the city. Each complex still has two "triads" (one large and two small radars operating together) and 16 launch positions. Work on a seventh complex south of the city, which was stopped two years ago, has not been resumed. (Eight complexes would be required, in the present pattern of deployment, to complete the ring around Moscow.) In addition to the triads, there is a large phased-array radar (called Dog House) located southwest of Moscow and oriented towards our ICBM threat corridor. There are also two large phased-array radars (called Hen House) sited at separate locations to the northwest. These three radars may be intended as forward acquisition radars for the Moscow system, while the triad radars handle the target and interceptor missile tracking functions.

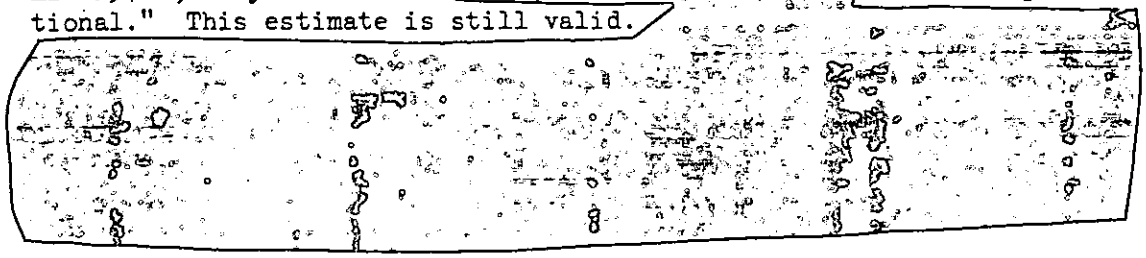


It is the consensus of the intelligence community that the GALOSH system could provide a limited defense of the Moscow area but that it could be seriously degraded by sophisticated penetration aids, precursor bursts and the vulnerability of the radars to nuclear detonations.

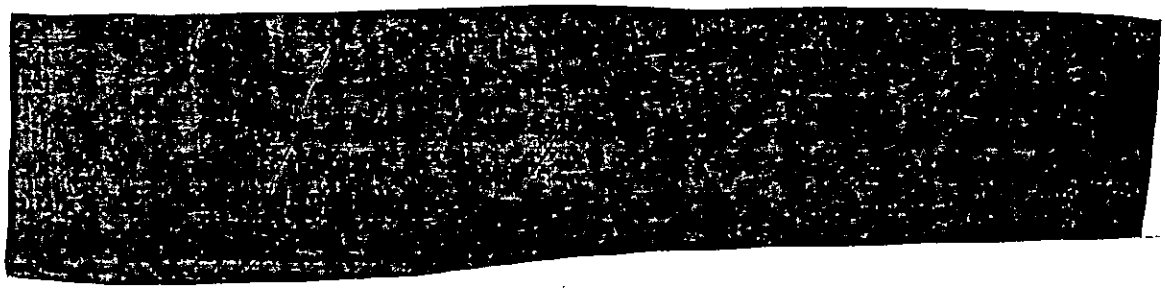
Nevertheless, knowing what we do about past Soviet predilections for defensive systems, we must, for the time being, plan our forces on the assumption that they will have deployed some sort of an ABM system around their major cities by the early 1970s.

3. Red Chinese Nuclear Threat

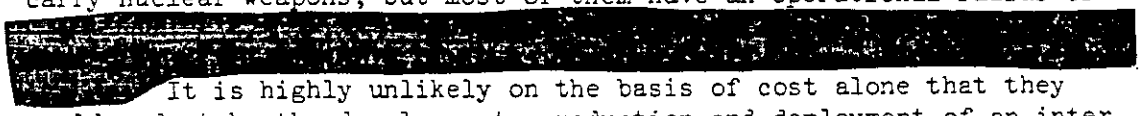
Our current estimates of the Red Chinese nuclear threat are essentially the same as those I presented here in past years. "...the Chinese Communists have the technical and industrial capabilities required for the deployment of ballistic missiles and we believe that they are making an intensive effort to develop a missile We estimate that the first of these missiles could be deployed as early as 1967-68 and that by the mid-1970s, they could have missiles operational." This estimate is still valid.



With regard to ICBMs, we continue to believe that the Chinese nuclear weapons and ballistic missile development programs are being pursued with a high priority. However, it is now clear that they failed to conduct either a space or a long-range ballistic missile launching before the end of 1967, as we thought possible last year. We still believe such a launching could be made on relatively short notice. In any event, our estimate last year that it appeared unlikely the Chinese could achieve an IOC with an ICBM before the early 1970s, or deploy a significant number of operational ICBMs before the mid-1970s, still holds. And, of course, those ICBMs would not have a very high degree of reliability, speed of response or protection against attack.



The Red Chinese also have several types of aircraft which could carry nuclear weapons, but most of them have an operational radius of



It is highly unlikely on the basis of cost alone that they would undertake the development, production and deployment of an intercontinental bomber force. If they chose to do so, it would take them a decade or more before they could deploy such a force.

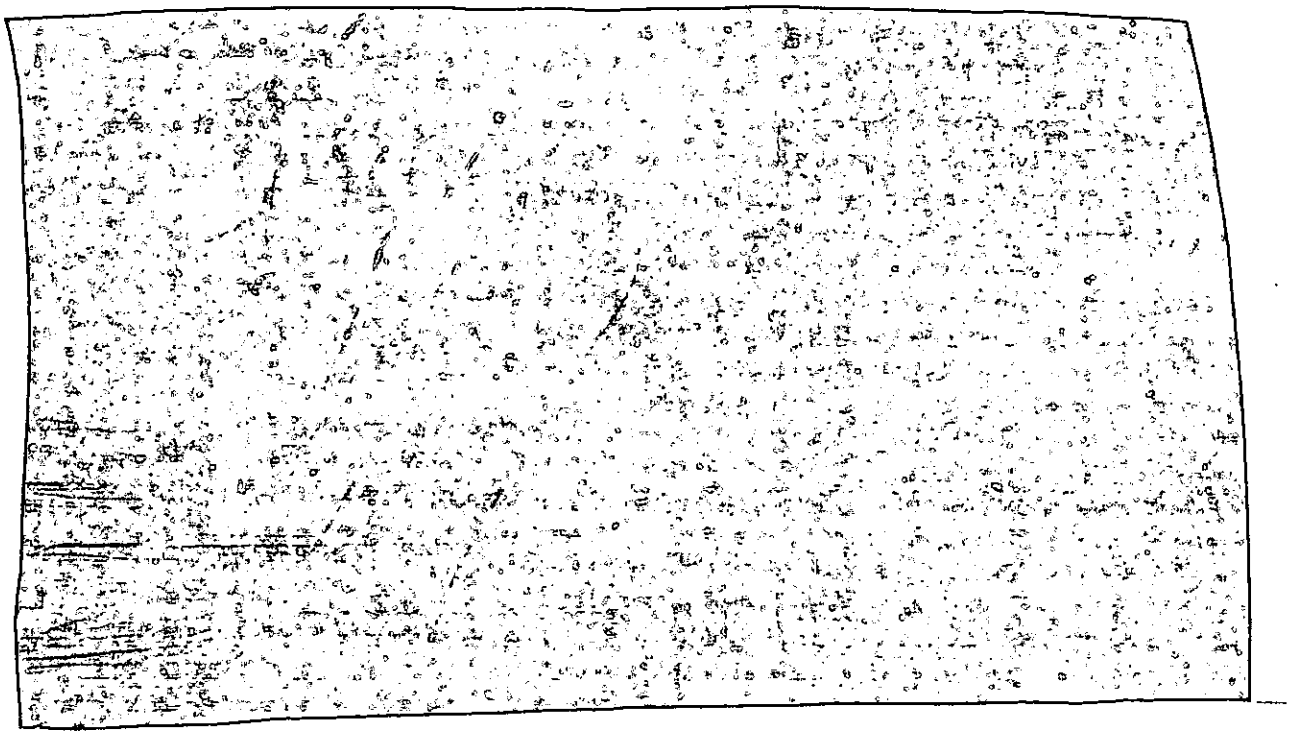
C. CAPABILITIES OF THE PROPOSED U.S. FORCES FOR "ASSURED DESTRUCTION"

As I noted earlier, the only true measure of the effectiveness of our "Assured Destruction" forces is their ability, even after absorbing a well-coordinated surprise first strike, to inflict unacceptable damage on the attacker. In this next portion of my Statement, I would like to examine with you our latest analyses of how well our strategic forces can be expected to accomplish that mission: first, against the "highest expected threat" projected in the latest National Intelligence Estimates and, second, against a Greater-Than-Expected Threat. 1/

1/ The "highest expected threat" is actually composed of the upper range of NIE projections for each element of the Soviets' strategic forces. In many cases, these represent alternatives and it is highly unlikely that all elements would ever reach the top end of the quantitative range simultaneously. Therefore, the "highest expected threat" is really a greater threat than that projected in the NIE.

1. Capability Against the "Highest Expected Threat" in the NIE

Shown in the first column of the table below are the numbers of weapons, gross megatons, and one-megaton equivalents now programmed for our strategic offensive forces in 1972.



Even if the Soviet strategic forces by 1972 reach the higher end of the range of estimates projected in the latest NIEs and even if they were to assign their entire available missile force to attacks on our strategic forces (reserving only refire missiles and bomber-delivered weapons for urban targets), about one-half of our forces would survive and remain effective (second column). If the Soviets expand the Moscow ABM defense and deploy the same or a similar system around other cities [redacted] about three-quarters of our surviving weapons, representing about [redacted] one-megaton equivalents, would detonate over their targets. The destructive potential of such a U.S. retaliatory attack is illustrated in the table on the following page.

[redacted]

SOVIET POPULATION AND INDUSTRY DESTROYED
(Assumed 1972 Total Population of 247 Million; Urban Population of 116 Million)

1 MT Equiv. Delivered Warheads	Population Fatalities		Percent Ind. Cap. Destroyed
	Total		
	Millions	Percent	
100	37	15	59
200	52	21	72
→ 400	74	30	76
800	96	39	77
1,200	109	44	77
1,600	116	47	77

Even if the Soviets deploy as many as [redacted] ABM interceptors by 1972, our strategic missile forces alone could still detonate on tar-[redacted] and over three-quarters of their industrial capacity. As the foregoing table demonstrates, beyond 400 one-megaton equivalents optimally delivered, further increments would not meaningfully change the amount of damage inflicted because we would be bringing smaller and smaller cities under attack.

These results, of course, reflect the decisions we have taken in recent years to enhance the future capabilities of our "Assured Destruction" forces, including:

1. The production and deployment of the POSEIDON missile with MIRVs.

2. The production and deployment of improved missile penetration aids.

3. The increase in the proportion of MINUTEMAN IIIs (with MIRVs and a new improved third stage) in the planned force.

4. The initiation of development of new small reentry vehicles in order to increase substantially the number of warheads (or penetration aids) which can be carried by a single missile.

5. The development and production of SRAMs for our strategic bombers.

[redacted]

These and other measures will not only enhance the survivability of our strategic missile forces but will also greatly increase the number of weapons which we could place over the Soviet Union in 1972. As I stated earlier, numbers of weapons will be much more important in the future than gross megatonnage.

[redacted]

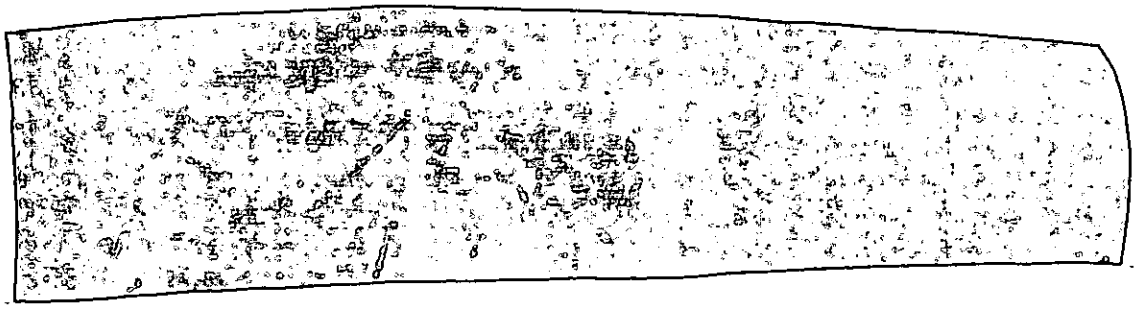
Even so, our calculations show that our offensive forces, after absorbing a surprise attack, would be able to inflict about the same percent fatalities on the Soviet population in a second strike in 1972 as they could have in 1966.

If the Soviet offensive-defensive threat does not increase beyond the highest level now projected through 1972 in the latest National Intelligence Estimates, we will have more "Assured Destruction" capability than we will probably need. However, I have repeatedly cautioned that our "Assured Destruction" capability is of such crucial importance to our security that we must be prepared to cope with Soviet strategic threats which are greater than those projected in the latest intelligence estimates. Accordingly, we must continually reexamine the various actions, beyond those which now seem probable, by which the Soviets might seek to strengthen their strategic forces and take appropriate steps in a timely manner to hedge against them.

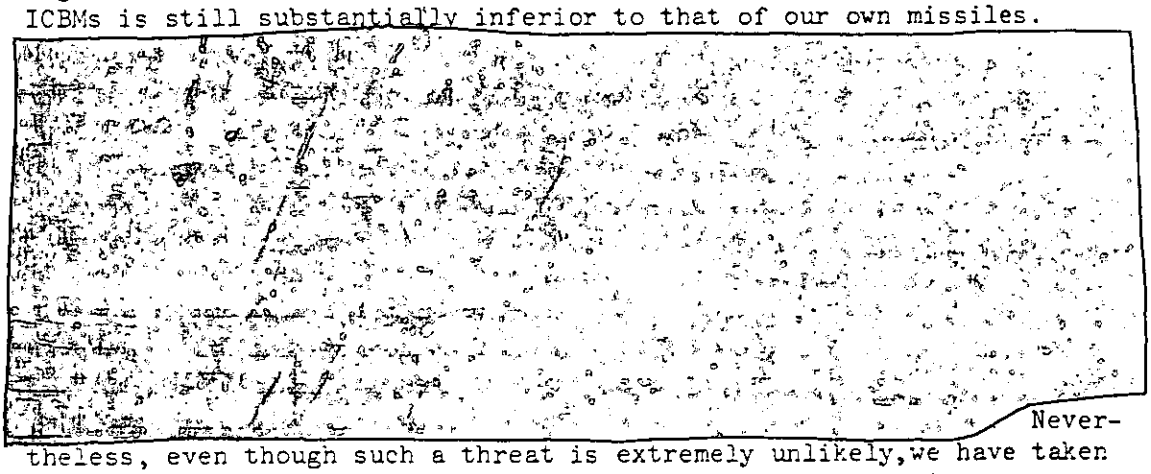
2. Capability Against "Greater-Than-Expected Threats"

As was the case last year, the most severe threat we must consider in planning our "Assured Destruction" forces is a Soviet deployment of a substantial hard target kill capability in the form of highly accurate small ICBMs or MIRVed large ICBMs, together with an extensive, effective ABM defense. A large Soviet ICBM force with a substantial hard target kill capability might be able to destroy a large number of our MINUTEMAN missiles in their silos. An extensive, effective Soviet ABM defense might then be able to intercept and destroy a large part of our residual missile warheads, including those carried by submarine-launched missiles. In combination, therefore, these two actions could conceivably seriously degrade our "Assured Destruction" capability.

[redacted]

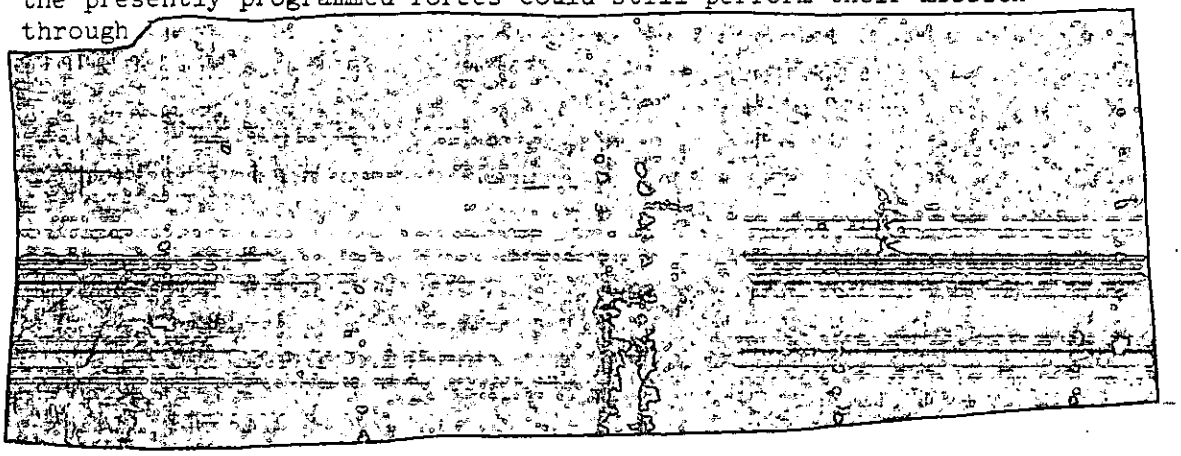


Again, I want to remind you that both of these threats are quantitatively far greater than those projected in the latest intelligence estimates. Moreover, we believe that the accuracy of Soviet ICBMs is still substantially inferior to that of our own missiles.



Nevertheless, even though such a threat is extremely unlikely, we have taken account of the possibility in our longer range force planning.

Our calculations show that against either <u>one</u> of the Soviet Greater-Than-Expected Threats, the offensive or the defensive threat, the presently programmed forces could still perform their mission through



Even against the massive and highly unlikely combined Greater-Than-Expected Offensive and Defensive Threat, these same forces [redacted] POSEIDON and bomber penetration aids) could still inflict about [redacted] almost three-quarters of the industrial capacity of the Soviet Union. [redacted]

The prospect of having to absorb [redacted] fatalities from a U.S. retaliatory strike should, in itself, pose a very substantial deterrent to the Soviet Union. Nevertheless, for the purpose of planning our forces so far ahead, this level of fatalities may become too low for complete confidence in our deterrent. Accordingly, prudence dictates that we act now to place ourselves in a position to strengthen our "Assured Destruction" capabilities in the unlikely event that both of the Greater-Than-Expected Threats actually begin to emerge.

Fortunately, we have a large number of additional options from which we can draw to strengthen those capabilities by [redacted] We can convert the entire force to MINUTEMAN III, [redacted] In addition, we could emplace the entire MINUTEMAN III force in superhard [redacted] silos [redacted] and/or protect the MINUTEMAN force with an ABM defense. [redacted]

There are, of course, other options available, such as the construction and deployment of more POSEIDON submarines, and the development and production of a new land-based missile. Although a new land-based ICBM does not appear to offer any particular advantage over the MINUTEMAN III in [redacted], I believe we should keep that option open by starting development now of a silo which could be used for either the MINUTEMAN III or a new ICBM. The options of defending MINUTEMAN with the ABM and of constructing more POSEIDON submarines will continue to be available for some time into the future and neither requires a commitment at this time.

As I noted in previous years, under certain circumstances there may be some advantage in maintaining a mixed offensive force of missiles and a limited number of bombers. By having a capability to attack some cities with missiles only, and others with bombers only, we can force the Soviet Union to maintain defenses against both. But to do this, we do not need either a very large bomber force or a new bomber. The present program provides for a mixed force of missiles and bombers into the later part of the 1970s, and the options open to us will permit extending the life of the bomber force and increasing its capability, and/or the addition of a new bomber, should threats greater than that projected by the NIE develop.

Against the Greater-Than-Expected Threat, any bomber force ought to be equipped with new air-to-air missiles, as well as SRAMs to penetrate against the kind of new interceptor and low altitude SAM systems postulated in this threat. As I noted earlier, we have no evidence the Soviets are actually deploying such systems, although they are developing new high performance fighter aircraft. Nevertheless, we should keep the options open to upgrade our presently programmed bomber force and to deploy a new bomber if one should eventually be required. But the pacing items at the present time are the penetration aids, particularly a new air launched missile to counter the improved interceptors the Soviets may deploy in the future, and these are the programs which should receive our first attention regardless of which option we may ultimately choose to exercise.

Again, may I remind you that all of these missile and bomber options are directly related to the combined Greater-Than-Expected Threat, and until we have some evidence that this threat is actually beginning to emerge, we need not and should not decide to deploy any of these systems. Instead, we should carefully time our actions on all of them in step with the development of the threat, keeping in mind the various development, production and deployment leadtimes involved.

D. CAPABILITIES OF THE PROPOSED FORCES FOR DAMAGE LIMITATION

There are two major issues this year in the Damage Limitation portion of the Strategic Forces Program. The first concerns the deployment of an anti-ballistic missile defense and, the second, the future size and composition of the anti-bomber defense forces.

1. Anti-Ballistic Missile Defense

Last year I presented to you in considerable detail our analysis of the anti-ballistic missile defense issue. I described the three

major purposes for which we might want to deploy an ABM system, the kinds of radars and missiles which would be involved, the technical uncertainties which still remained to be resolved, and the costs and benefits of some of the alternative deployments. With regard to the three purposes, I concluded that:

1. The deployment of an ABM defense for MINUTEMAN might offer a partial substitute for the further expansion of our offensive forces in the event the Greater-Than-Expected Soviet threat began to emerge.

2. The deployment of an austere ABM defense against a Red Chinese ICBM threat might offer a high degree of protection to the entire Nation, at least through the 1970s.

3. The deployment of an ABM defense for the protection of our cities against the kind of heavy, sophisticated missile attack the Soviets could launch in the 1970s would almost surely force them to react by increasing the capabilities of their offensive forces, thus leaving us in essentially the same position we were before.

Further study of this issue during the last year has served to confirm these conclusions. Since I have already touched on the first purpose in connection with the analysis of our "Assured Destruction" capabilities against the Greater-Than-Expected Soviet threat, I will limit my discussion at this point to the other two purposes.

a. Defense Against the Red Chinese Nuclear Threat

As I noted earlier, there is mounting evidence that the Red Chinese are devoting very substantial resources to the development of both nuclear warheads and missile delivery systems. Within a period of 39 months, they detonated seven nuclear devices. The first, in October 1964, [redacted] the second, in May 1965, was a similar device [redacted] In May 1966 they detonated their first thermonuclear device [redacted] Then, in October 1966, they tested their first missile-delivered device [redacted] thus demonstrating sufficient engineering skill to conduct a missile-warhead systems test. In December 1966, they detonated their second thermonuclear device [redacted] In June 1967, they detonated a [redacted] device dropped from an airplane.

[redacted]

Finally, last December, they detonated another device, but this test was apparently a partial failure.

These seven nuclear tests, taken together with their continuing work on surface-to-surface missiles, lead us to believe that they are moving ahead with the development of an ICBM. Indeed, if their programs proceed at the present pace, they could have a modest force of ICBMs by the mid-1970s.

In the light of this progress in nuclear weapons and missile delivery systems, it seemed both prudent and feasible to us last September to initiate the deployment of an austere Chinese-oriented ABM defense. We knew from our continuing study of this system that it could be deployed at an investment cost of about $5 billion, and could be highly effective against the kind of threat a Chinese force might pose in the 1970s.

As presently defined, the SENTINEL ABM system (i.e., the system specifically designed against the Chinese threat) would consist of [redacted] Perimeter Acquisition Radars (PARs), [redacted] Missile Site Radars (MSRs), [redacted] long range SPARTAN area defense missiles and, later, [redacted] SPRINT local defense missiles [redacted] The effectiveness of this deployment in reducing U.S. fatalities from a Red Chinese attack in the 1970s is shown in the following table.

U.S. FATALITIES FROM A CHINESE FIRST STRIKE, 1970s

No. of Chinese ICBMs [redacted]			
U.S. Fatalities (Mil)			
Without SENTINEL	7	11	15
With SENTINEL	b/	b/	1

[redacted]

b/ Fewer than one million U.S. dead, with some probability of no deaths.

It is apparent from the foregoing table that the SENTINEL system, facing a "primitive" attack, could probably hold U.S. fatalities below one million. Obviously, if and when the Chinese ICBM force continues to grow, quantitatively and qualitatively, beyond the levels shown in the foregoing table, additions and improvements would probably have to be made in the SENTINEL system. We believe, however, that for

[redacted]

relatively modest additional outlays the system could be improved so as to limit the Chinese damage potential to low levels into the mid-1980s. The SENTINEL system would also have a number of other advantages. It would provide an additional indication to the people of Asia that we intend to support them against nuclear blackmail from China, and thus help to convince the non-nuclear countries that acquisition of their own nuclear weapons is not required for their security. Furthermore, this initial deployment would serve as a foundation to which we could add a defense for our MINUTEMAN force if that later becomes desirable. Finally, it could protect our population against the improbable, but possible, accidental launch of a few ICBMs by any one of the nuclear powers.

b. Deployment of NIKE-X for Defense of Our Cities Against Soviet Attack

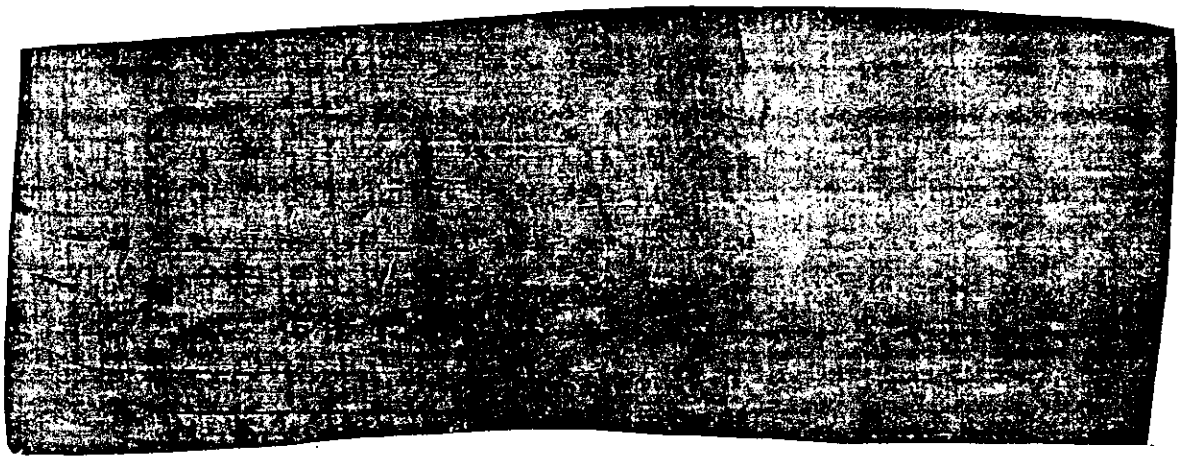
Nothing has occurred during the last year to change my conviction that the deployment of the NIKE-X system for the defense of our cities against a Soviet attack would, under present circumstances, be a futile waste of our resources. I believe it is clear from my earlier discussion of the trends in the nature of the threat, as evaluated by our intelligence community, that the Soviets are determined to maintain a nuclear deterrent against the United States. If this is true, as I believe it is, any attempt on our part to reduce their "Assured Destruction" capability below what they might consider necessary to deter us would simply cause them to respond with an offsetting increase in their offensive forces. It is precisely this process of action and reaction upon which the arms race feeds, at great cost to both sides and benefit to neither. This point is illustrated in the table on the following page.

NUMBERS OF FATALITIES IN AN ALL-OUT STRATEGIC EXCHANGE, 1976 a/
(In Millions)

U.S. Program	Soviet Response	Soviets Strike First Against Military and City Targets, U.S. Retaliates Against Cities		U.S. Strikes First at Military Targets, Soviets Retaliate Against U.S. Cities, U.S. Retaliates Against Soviet Cities	
		U.S.Fat.	Sov.Fat.	U.S.Fat.	Sov.Fat.
No ABM	None	120	120	120	80
SENTINEL	None	100	120	90	80
	Pen-Aids	120	120	110	80
Posture A	None	40	120	10	80
	MIRV, Pen-Aids	110	120	60	80
	+100 Mobile ICBMs	110	120	90	80
Posture B	None	20	120	10	80
	MIRV, Pen-Aids	70	120	40	80
	+550 Mobile ICBMs	100	120	90	80

a/ At fatality levels approximating 100 million or more, differences of 10 to 20 million in the calculated results are less than the margin of error in the estimates.

"Posture A" is a light defense against a Soviet missile attack on our cities. It consists of an area defense of the entire continental United States, providing redundant (overlapping) coverage of key target areas, and, in addition, a relatively low-density SPRINT defense of 25 cities to provide some protection against those warheads which get through the area defense. "Posture B" is a heavier defense with the same area coverage, but with much greater sophistication in its electronics and a higher-density SPRINT defense for 52 cities.



Postures A and B would also require some improvement in our defense against manned bomber attack in order to preclude the Soviets from undercutting the ABM defense; we would also want to expand and accelerate the fallout shelter program. In addition, we would need to improve our anti-submarine warfare forces to help defend against Soviet missile-launching submarines. The "current" estimates of the investment cost of the total "Damage Limiting" package are at least $13 billion for Posture A and at least $22 billion for Posture B. On the basis of past experience, however, actual costs would more likely be $40 billion by the time the system had been completed.

Cost, however, is not the problem. If we could actually build and deploy a genuinely impenetrable shield over the United States, we would be willing to spend $40 billion. But, if after spending these tens of billions of dollars, we could still expect to find ourselves in a position where a Soviet attack could inflict unacceptable damage on our population because of their response to our defensive efforts, I do not see how we would have really improved our security or freedom of action. And neither can I see how the Soviets will have improved their security and freedom of action if after all their additional expenditures for offensive and defensive systems, we can still inflict unacceptable damage on them, even after absorbing their first strike. For this reason we have come to the conclusion that both sides would be far better off if we can reach an agreement on the limitation of all strategic nuclear forces, including ABMs.

In any event, there is no point whatever in our responding to a massive ABM deployment on their part with a massive ABM deployment of our own. Instead, we should act realistically and further strengthen our offensive forces, if and when necessary, to preserve our "Assured Destruction" capability.

2. Anti-Bomber Defense

Three years ago, when I appeared before this Committee in support of the FY 1966 Defense Budget, I said:

> "One of the major issues we face in the Strategic Defensive Forces is to determine the proper overall level of the anti-bomber defense program. Our present system for defense against manned bomber attack was designed a decade ago when it was estimated that the Soviets would build a force capable of attacking the United States with many hundreds of long range aircraft. This threat did not develop as estimated. Instead, the major threat confronting the United States consists of the Soviet ICBM and submarine launched ballistic missile forces. With no defense against the ICBM and only very limited defenses against the submarine launched ballistic missiles, our anti-bomber defenses could operate on only a small fraction of the Soviet offensive forces in a determined attack. Moreover, the anti-bomber defense system itself is vulnerable to missile attack. It is clear, therefore, as it has been for some years, that a balanced strategic defense posture requires a major reorientation of our efforts --both within anti-bomber defenses and between anti-bomber and anti-missile defenses."

Now that the anti-ballistic missile defense issue has been resolved, we are in a position to move forward intelligently on the solution of the anti-bomber defense problem. As you know, we have had this matter under study for quite some time, and in all of the various alternative force structures examined we have found that the indispensable element is a new Airborne Warning and Control System (AWACS). The reasons AWACS is so important are: (a) its ability to track aircraft at low altitudes; (b) its ability to provide detection at great distances from the U.S.; and (c) its low vulnerability to missile attack compared with the existing ground-based surveillance, warning and control network.

The feasibility of AWACS, however, depends upon the successful development of a "downward-looking" airborne radar which can provide detection coverage of aircraft over land at any altitude. Last year I told you that we had a test program underway to examine three proposed solutions to the problem of developing such a radar which would be able to overcome the problem of ground clutter, and that we hoped to have sufficient data available by the end of the year to demonstrate

the feasibility of the concept. Only then, I pointed out, would we be in a position to decide on the future composition of the anti-bomber defense forces. This work has, in fact, been progressing very well, and we now believe the required technology is within our reach. In fact, at least two of the possible solutions I mentioned last year look extremely promising, and we will eventually have to choose between them. Accordingly, the time is ripe for a comprehensive examination of the entire air defense problem.

There are six possible purposes that our air defense system might serve in the 1970s:

1. Peacetime identification to prohibit free access over North America from the air. This purpose requires only a thin area-type defense plus a high quality surveillance capability.

2. Nth country defense to prevent damage from an attack by such countries as Cuba, Red China, etc. This purpose would require a relatively thin but leak-proof area-type defense and a good surveillance capability.

3. Discourage the Soviet Union from developing and introducing new bomber threats which would be costly to neutralize. This purpose would require that we have the capability to deploy within a reasonable period of time an upgraded air defense capable of countering both quantitative and qualitative improvements in the Soviet strategic bomber force, and that the Soviets be aware of our capability. Thus, this purpose places requirements on our research and development program but does not, in itself, demand the actual deployment of modernized air defenses at the present time.

4. Limit damage to our urban/industrial complex from a Soviet manned bomber attack in the event deterrence fails. The contribution which air defense can make to achieving this objective is highly dependent on the overall effectiveness of our ABM capability. Air defense can make a major contribution in saving lives only if the U.S. deploys a strong missile defense and the Soviets do not respond effectively.

5. Preclude an attack on our withheld strategic missile forces. This purpose requires a capability to

prevent bombers from making serial attacks on a large number of missile targets with multiple gravity bombs. The current air defense system has already forced the Soviets to replace their aircraft payloads of several gravity bombs each with a single air-to-surface missile. The resulting loss of 50 percent of the potential payload has reduced the Soviet bomber threat to our MINUTEMAN force to minor proportions.

6. Provide a complete mobile "air defense package", portions of which could be deployed to any part of the world for use in periods of local crisis. This purpose requires a transportable control system and a refuelable or long-range interceptor, preferably one which is capable of close combat under visual identification rules.

As I noted earlier, the Soviet heavy bomber force is expected to decrease gradually as their ICBM force continues to grow. Medium bombers are not expected to play an important part in an attack on the continental U.S. The number of heavy bombers is expected to decline by 1976 to about [redacted] and the number of medium bombers/tankers to about [redacted] Moreover, as previously noted, we have no evidence that the Soviets are developing a new advanced intercontinental bomber. Nevertheless, as in the case of the missiles, we cannot preclude the possibility of greater Soviet manned bomber threats by the mid-1970s. And, no matter how unlikely, we must also guard against a fighter/bomber attack from Cuba and possibly other nations.

For purposes of analysis, we examined a number of alternative forces, three of which I would like to discuss with you now. These three pretty well cover the range of choices available to us. The first alternative would be to continue the current air defense forces at least through the mid-1970s. The second would be to modernize the forces with AWACS for warning and control and the F-12 for interception. The third alternative lies midway between the other two, and would provide for AWACS and the upgrading of the F-106 with an enhanced fire control system (including a "look-down" capability to engage low-altitude targets) and a new air-to-air missile. These forces and their costs are summarized in the table on the following page.

ALTERNATIVE AREA AIR DEFENSE FORCES, 1976

	Alternative 1	Alternative 2	Alternative 3
Interceptors	900 F-101,2,4,6	59 F-12*	238 F-106X
Airborne Cmd & Cntrl	80 EC-121	46 AWACS	46 AWACS
Ground-based C&C	SAGE/BUIC	FAA Radars	FAA Radars
10 year Prog.Costs**	$11.70 bil.	$13.70 bil.	$12.30 bil.
Annual Level-off Cost	$ 1.12 bil.	$ 0.75 bil.	$ 0.69 bil.

*Plus 90 F-106s for training and peacetime identification.
**Total FY 68-77 costs, including elements of the current force until phased out.

Under Alternatives 2 and 3 the entire SAGE/BUIC ground environment would be phased out, leaving only the FAA operated radars for peacetime air surveillance. However, two Over-the-Horizon (OTH) "backscatter" radars would be added to provide an aircraft early warning capability.

Shown in the table below is the qualitative effectiveness of each of the three alternative forces in relation to the six purposes I enumerated earlier:

	Current Force	AWACS/ F-12	AWACS/ F-106X
Peacetime Identification	Fair	Very Good	Good
Damage Denial Against Nth Countries	Fair	Very Good	Very Good
Discourage Soviet Bomber Aspirations	Poor	Good	Good
Damage Limiting (w/o Heavy ABM Defense)	Poor	Poor	Poor
Preclude Bomber Attack on Strategic Forces	Fair	Good	Good
World-Wide Air Defense	Poor	Fair	Good

Alternatives 2 and 3 provide a good capability against Nth countries. No air defense system can provide significant "Damage

[redacted]

Limiting" capabilities against the U.S.S.R. unless accompanied by a strong, effective ABM. As we have noted, even our current air defenses are good enough to force the Soviets to use air-to-surface missiles (ASM) rather than gravity bombs, thus diminishing the counterforce threat posed by their bomber force. The F-12 would be superior in discouraging such future threats as very long range ASMs and supersonic bombers, whereas the F-106X would be superior in discouraging SRAMs, decoys and self-defense missiles. The F-106X would be best in the world-wide air defense role.

The effectiveness of the alternative forces against the expected (NIE) threat and several greater-than-expected bomber threats in the 1976 time period is shown in the following table:

Soviet Bombers Over the U. S.

Soviet Bombers Surviving Various U. S. Anti-Bomber Defenses		
Current Force	AWACS/ F-12	AWACS/ F-106X
30	8	5
84	37	26
150	127	74
100	53	62
90	60	70

These figures clearly demonstrate the basic conclusion we have drawn from all the air defense studies conducted to date, namely, that AWACS is of the first order of importance, the fire control/missile system is second, and the interceptor aircraft's performance is third. Against the stated NIE threat and the first two greater-than-expected threats, the AWACS/F-106X force is best; against the last two greater-than-expected bomber threats, the AWACS/F-12 force is somewhat superior. Since we have no evidence that the Soviets are developing either a [redacted] the AWACS/F-106X force seems to be the proper choice at this time.

I would now like to turn to our specific proposals for the Strategic Forces in the FY 1969-73 period.

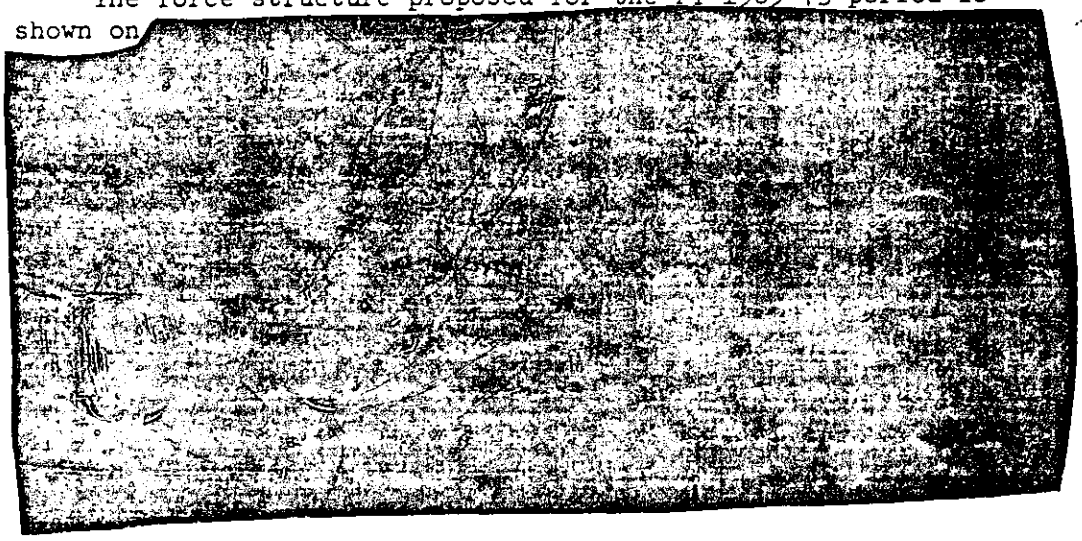
*With 350 n.mi. ASM

1/ The NIE estimates a total Soviet heavy bomber inventory of [redacted] aircraft in the 1976 time period. In this calculation, an allowance has been made to reflect aircraft used as tankers, attrition, etc.

[redacted]

E. STRATEGIC OFFENSIVE FORCES

The force structure proposed for the FY 1969-73 period is shown on



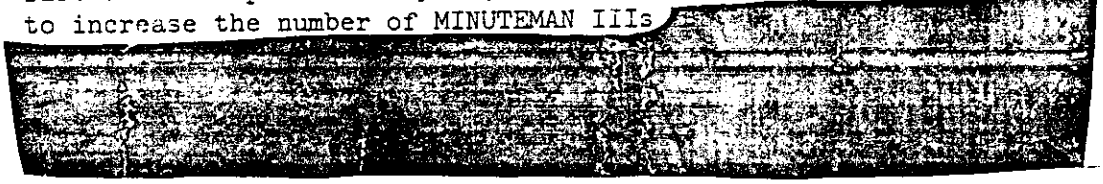
1. Missile Forces

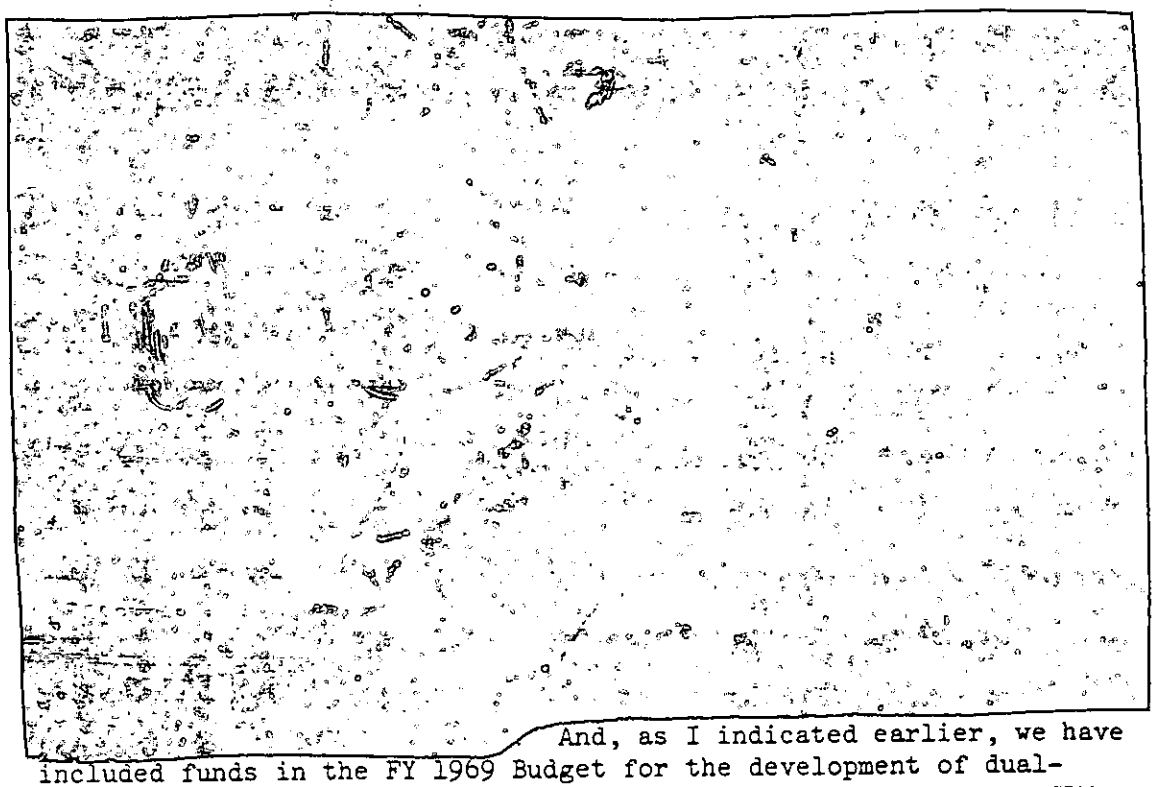
In overall terms the missile forces we are proposing for the FY 1969-73 period are essentially the same as those I discussed last year -- 1,000 MINUTEMAN, 496 POSEIDON and 160 POLARIS, plus 54 TITAN IIs. Within these overall numbers, however, we are proposing some changes in mix and payload.

a. MINUTEMAN

Last year I told you that in order to increase the capability of our offensive forces against a possible strong Soviet ABM defense, we proposed to increase the number of MINUTEMAN IIIs in the force [redacted] I also pointed out that by FY 1973-74 it would probably become necessary to replace the earliest MINUTEMAN II missiles, and that we could then add more MINUTEMAN IIIs if that should appear desirable.

Although the Soviet ABM deployment is not moving forward as fast as anticipated last year, we now believe it would be desirable to increase the number of MINUTEMAN IIIs





And, as I indicated earlier, we have included funds in the FY 1969 Budget for the development of dual-purpose super-hard silos for the MINUTEMAN or a new land-based ICBM.

Because the development program for the MINUTEMAN III is taking longer than we had planned, and because we want to pursue a more efficient overall MINUTEMAN modernization schedule, initial deployment of the MINUTEMAN III will slip months behind the schedule envisioned last year; The phase out of MINUTEMAN I will be slowed down to compensate for the slip in the MINUTEMAN III program.

b. TITAN II

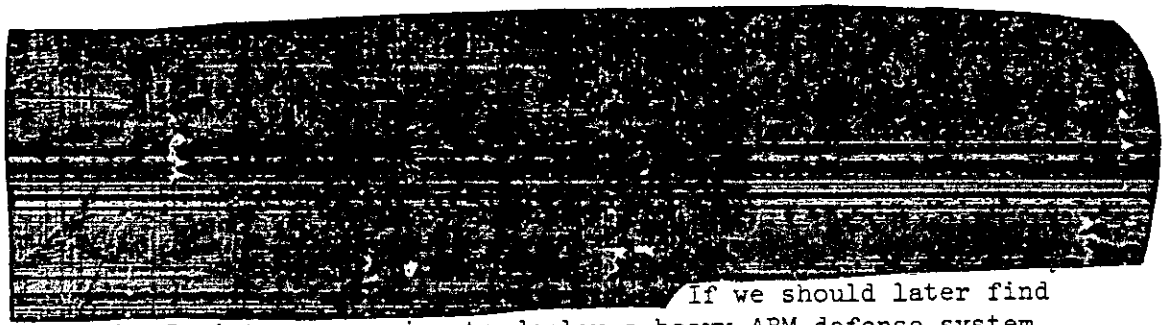
Although the TITAN II will decline in importance as the MINUTEMAN III and the POSEIDON are deployed, it may be advisable to retain the present force of 54 missiles on launchers Its heavy payload would be useful against large targets which are not defended by ABMs. On the basis of a recent review of the TITAN II follow-on test program, we now believe that four tests per

year, instead of six, will be enough to ensure that the missiles in the force are operationally reliable. Thus, with the procurement of another nine missiles in FY 1969-70 ($28 million), we can maintain the present force of 54 TITAN missiles on launchers throughout the FY 1969-73 period, instead of allowing it to decline after FY 1970 as we planned last year.

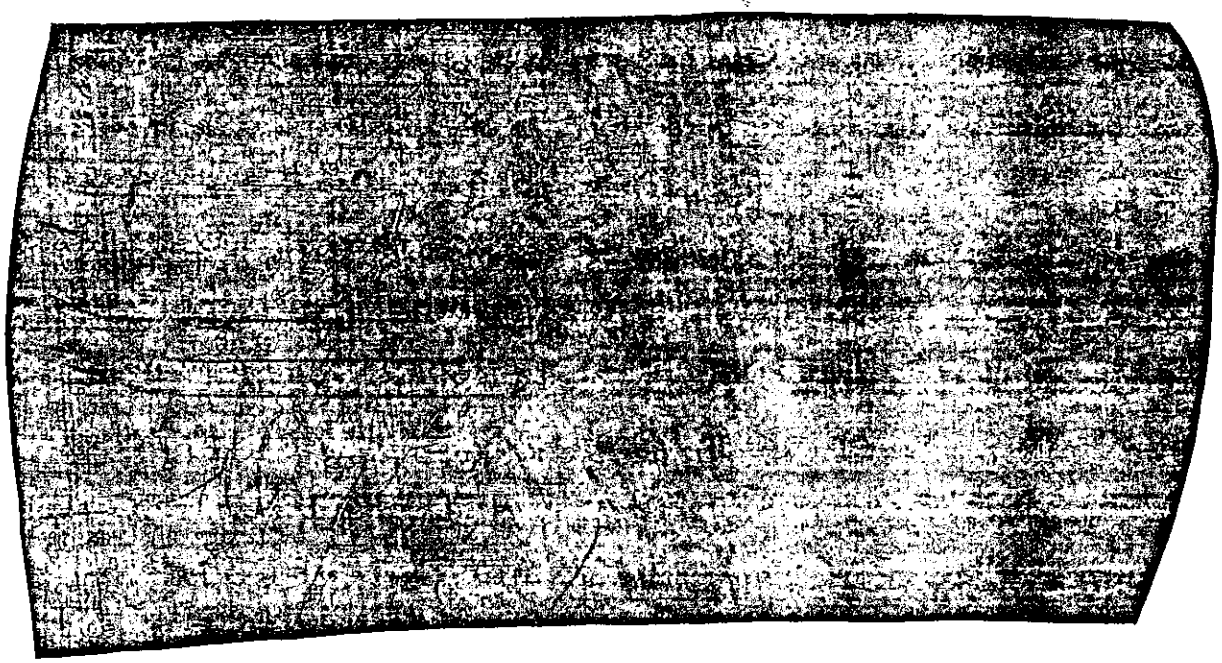
c. POLARIS-POSEIDON

The POLARIS-POSEIDON program reflected in Table 2 is essentially the same as the one I presented here last year. Thirty-one of the 41 POLARIS submarines, all of which have now become operational, will be retrofitted with the POSEIDON missile. The other ten (five 598-Class and five 608-Class) cannot be retrofitted without replacing the center section of their hulls. The cost would be about equal to that of a new submarine, and even then they would not be as good as the other 31. Accordingly, these submarines will continue to carry the POLARIS missile. The five 598-Class ships, which originally carried the A-1, have already been retrofitted with the A-3. The five 608-Class ships, which now carry the A-2, will be retrofitted with the A-3 during their second overhaul. All ten could be used in the Pacific to cover targets which are not likely to be defended with ABMs.

The POSEIDON refit program will be spread over a period of seven years on a schedule tied to the regular overhaul cycle. The first ship will commence refitting in FY 1969, and the last ship in FY 1975. The first seven POSEIDON submarines should be operational by end FY 1971, and all 31 by FY 1976. The proposed FY 1969 shipbuilding and conversion program (shown on Table 10) includes funds for six POSEIDON conversions and advance procurement for nine more.



if we should later find that the Soviets are moving to deploy a heavy ABM defense system, and initiate the development of a penetration aid package. The required technology for the latter is being developed in the ABRES program, for which $118 million is requested in the FY 1969 Budget.



d. New Strategic Missile Systems

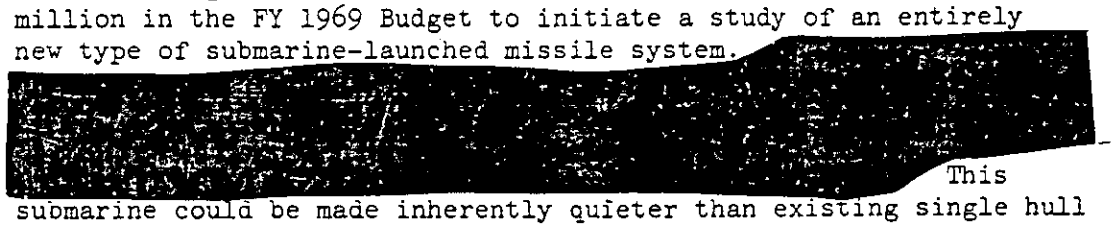
Last year I told you that we were making a comprehensive study of new strategic missile systems. This study was completed last summer, and on the basis of its findings we have reached two main conclusions:

1. That any new land-based system should be deployed in super-hard silos and defended by some sort of ABM system.

2. That any new sea-based system should be designed around a longer range missile in order to avoid having to station the launch platform within the effective operating range of an improved Soviet ASW system. Also, the submarine design should make it possible to increase time on-station substantially.

With regard to the land-based system, the principal technical problem involves the design and construction of super-hard silos; the particular missile to be deployed in these silos is of secondary importance. In fact, as I noted earlier, the MINUTEMAN III may turn out to be a more cost/effective system than an entirely new missile. Nevertheless, we do not wish to preclude the development of a follow-on missile to the MINUTEMAN III. Accordingly, we have included about $10 million in the FY 1969 Budget for advanced ICBM technology and SABRE advanced guidance and $38 million for the development of dual-purpose super-hard silos which could house the MINUTEMAN III or a new, much larger missile.

With regard to the sea-based system, we have included about $8 million in the FY 1969 Budget to initiate a study of an entirely new type of submarine-launched missile system.



This submarine could be made inherently quieter than existing single hull types, and because of the long range of the missile, the submarines could be deployed well outside the range of a future Soviet ASW patrol aircraft or even off the coasts of the United States.

2. Strategic Bomber Forces

The manned bomber forces which we propose to maintain through FY 1973 are the same as those I presented here last year for the FY 1968-72 period. 1/ The B-52C-Fs and the B-58s will be phased out as planned, leaving an authorized active inventory of 281 B-52G/Hs and 253 FB-111s. (The comparable UE figures are 255 and 210, respectively.) The phase-in of FB-111s will slip about four months, so the phase-down of B-52s will be slowed to keep the same total force as previously planned.

As I indicated earlier, the principal problem in this area of the program is the ability of the manned bomber forces to penetrate a much more advanced Soviet air defense system in the mid-1970s. Repeated examination of this problem has convinced us that what is important here is not a new aircraft but rather new weapons and penetration devices. Since the new FB-111s will be entering the bomber force during FY 1969-72, and the B-52G/Hs can be maintained in a suitable operational condition well into the 1970s, there is no urgency for a decision on the production and deployment of a new bomber. Much more important at this time is the development of the new subsystems which old or new aircraft may require to penetrate the Soviet air defenses in the 1970s, and we have included funds in the FY 1969 Budget for this purpose.

1/ Aircraft inventory data used in this statement reflect the Authorized Active Inventory (AAI), i.e. unit equipment, pipeline, training and other support aircraft but not advance attrition aircraft.

First, we plan to modify two squadrons of B-52s so that they, too, can carry the SRAM missile. Second, we will continue work on a wide range of electromagnetic warfare devices, drawing on our most recent experience in Southeast Asia. Third, we will continue advanced development work on the engine and avionics systems integration for possible AMSA application. Last, we will continue studies of SRAM decoys and a dual-purpose bomber defense/air-to-surface missile, with a range sufficient to counter AWACS-type defenses.

These subsystems will be designed so that they could be used both on our existing heavy bombers (B-52s) or on a new AMSA-type bomber as well as on the FB-111 where feasible.

* * * * *

No significant changes have been made in the other forces shown on Table 2.

F. STRATEGIC DEFENSIVE FORCES

The strategic defensive forces proposed for the FY 1969-73 period are shown in Table 3. The Civil Defense program for FY 1969 is shown separately in Table 4.

1. Bomber Defense

The principal elements of the proposed anti-bomber defense program for the 1970s were discussed earlier and are shown in Table 3. The precise phasing and details of the force levels beyond FY 1969 are still subject to change.

a. Surveillance, Warning and Control

As I noted earlier in my analysis of the anti-bomber defense problem in the 1970s, much of the existing U.S. surveillance, warning and control network can be phased out when the new AWACS and Over-the-Horizon radars become available in FY 1974-75. At that time, I believe we could phase out all but one of the SAGE Combat Centers, all the SAGE Direction Centers, about half of the search radars, all of the Gap Filler and DEW Line radars, and all of the AEW/ALRI aircraft, while retaining the NORAD Combat Operations Center, the manually operated Combat Center in Alaska, ten BUIC III Control Centers, about 83 search radars and the 22 SAM Fire Coordination Centers required for the NIKE-HERCULES batteries. The elements eliminated from the program would be replaced by 46 AWACS and two new Over-the-Horizon (back-

scatter) radars, one facing east and one facing west. (We have consulted with the Canadian government which has already indicated that it intends to continue its cooperation in the air defense of the continent.)

Of the remaining USAF-operated search radars, about 15 in Alaska, together with the Combat Center there, would continue to provide a relatively independent surveillance, warning and control system in that remote state. Another three in Labrador and Newfoundland and two in Iceland would also remain in operation. Of the three Air National Guard search radars which would remain in the program, two would continue to operate in Hawaii and one in Puerto Rico. The ten BUIC III Control Centers would be deployed in the eight Air Defense Sectors along the western, northern and eastern borders of the United States. The USAF and the FAA "digitizer" equipped radars in each of these sectors would feed into the BUIC IIIs which, in turn, would feed into the NORAD Combat Operation Center. (The "digitizer" is a special piece of equipment that makes the input from the FAA radars compatible with the SAGE/BUIC III systems.)

b. Manned Interceptors

The ultimate U.S. manned interceptor force will consist of 238 modified F-106Xs (supported by about 70 C-130s which would be used to move ground crews and equipment to the dispersal recycle bases) plus an Air National Guard squadron of 28 F-102s in Hawaii. This squadron, together with the two search radars, will provide a local air defense capability for that remote state. The first F-106X squadron is expected to become operational in FY 1973 and the other ten in FY 1974.

As shown on Table 3, we plan to start the phase-down of the interceptor forces in FY 1969, reducing to an interim level of about 400 aircraft in the active Air Force and 285 in the Air National Guard.

c. Surface-to-Air Missiles

Two changes are being made in these forces, one in form and one in content. Last year we showed on Table 3 the number of NIKE-HERCULES and HAWK missiles actually deployed on site (excluding those being held in storage). Now, in order to make these figures more comparable to the intelligence estimates for the Soviet SAM forces, we are showing only the number of HERCULES and HAWK launchers. Thus, instead of the 1,071 HERCULES we showed last year for the regular Army forces in FY 1967, we now show 656; and for the Army

National Guard, 473 instead of 792. For HAWK, we now show 48 instead of 288; however, each HAWK launcher has three missiles ready to fire, making a total of 144.

The decrease in the number of HERCULES missiles in FY 1970 reflects the tentative phaseout of about 15 batteries whose present locations significantly limit their potential effectiveness against the anticipated bomber threat. The decline in the number of BOMARCs reflects the consumption of these missiles for training. According to our present plans, all of the BOMARC force would be phased out in FY 1974 when the full F-106X force becomes operational.

2. Missile and Space Defense

The decision to deploy a Chinese-oriented ABM defense system will undoubtedly have an important impact on other strategic defensive programs. For example, we already know that the Perimeter Acquisition Radar (PAR) planned for the SENTINEL system could also be made to handle some of the long-range acquisition and tracking functions presently performed by the three BMEWS sites. Conversely, the two Over-the-Horizon (back-scatter) radars planned for the anti-bomber defense could also be used to provide limited detection and tracking of ballistic missiles launched from submarines [redacted] Moreover, in order to provide a backup for BMEWS, we have already deployed overseas several Over-the-Horizon (forward-scatter) radar transmitters and receivers, and we have had under active development for a number of years a satellite-borne missile warning system which now appears to be capable of providing earlier warning than BMEWS. Clearly, the time has come when we must systematically examine all of these warning systems in relation to one another, with a view to eliminating unnecessary redundancy and ensuring that the remaining systems are truly integrated into a workable whole. Accordingly, I have recently asked the Joint Chiefs of Staff to establish a Joint Continental Defense System Integration Planning Staff to study this entire problem in depth, including the functioning of all defensive systems in a wartime environment.

a. Missile Warning

Pending the completion of the aforementioned study, we are not proposing any changes in the BMEWS program. However, we are making certain changes in the Over-the-Horizon (forward-scatter) radar program. These radars have demonstrated a very high order of capability. [redacted]

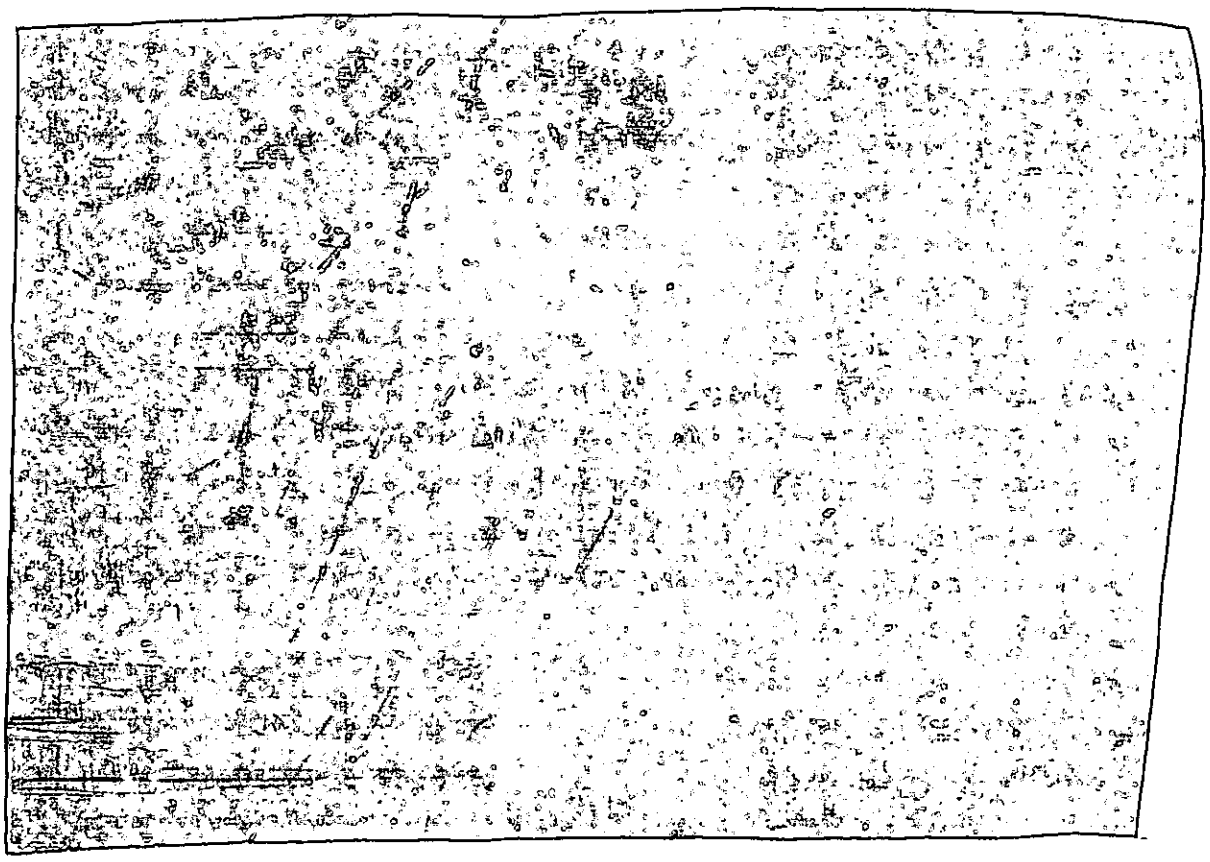
[redacted]

[redacted] Finally, although originally designed to detect ICBM launches, these radars have demonstrated a good capability to detect smaller intermediate range ballistic missiles.

[redacted]

As I indicated earlier, we are developing a back-scatter OTH radar for use in the anti-bomber defense. In this system, echo signals from the target are returned directly to the transmitter, thereby eliminating the need for separate receiver stations. It is also more effective than the forward-scatter system in locating and tracking vehicles moving through and below the ionosphere, for example, aircraft or SLBMs. We presently plan to begin installing the first back-scatter OTH radar [redacted] While the chief function of this radar will be research and development, we hope that it will also provide some useful operational data [redacted] It will also give us an opportunity to test the back-scatter system in the ICBM warning role.

[redacted]



b. Anti-Ballistic Missile Defense (SENTINEL)

The PAR is a low frequency phased-array radar used for long-range surveillance, acquisition and tracking. The presently planned characteristics of this radar place its design well within the "state-of-the-art", and for this reason the first PAR can be installed directly at its tactical site rather than at a field test site. Its performance can be simulated by an ARPA Altair radar already at Kwajalein, for purposes of the full systems tests.

The MSR is a phased-array radar used to control the SPRINT and SPARTAN interceptors. It can perform much the same functions as the larger MAR, which is not required in a limited deployment, but on a

smaller scale. The MSR was tested at the contractor's plant before being sent to Kwajalein,where it is currently being installed for the full systems tests. The MAR, which is the most sophisticated component of the NIKE-X system, will remain in an R&D status. A TACMAR (a smaller version of the MAR) will be installed at Kwajalein for final design and testing. It will also enable us to test our offensive payloads against the most sophisticated radar within the present state-of-the-art.

The SPARTAN missile, as presently designed, will have three stages and utilize [redacted] warhead, and should be able to intercept objects at ranges in excess of [redacted] n.mi. and at altitudes [redacted] However, we now plan to make some further improvements in the SPARTAN to enhance its capability against a FOBS. [redacted] The SPARTAN will also be included in the full systems tests planned at Kwajalein.

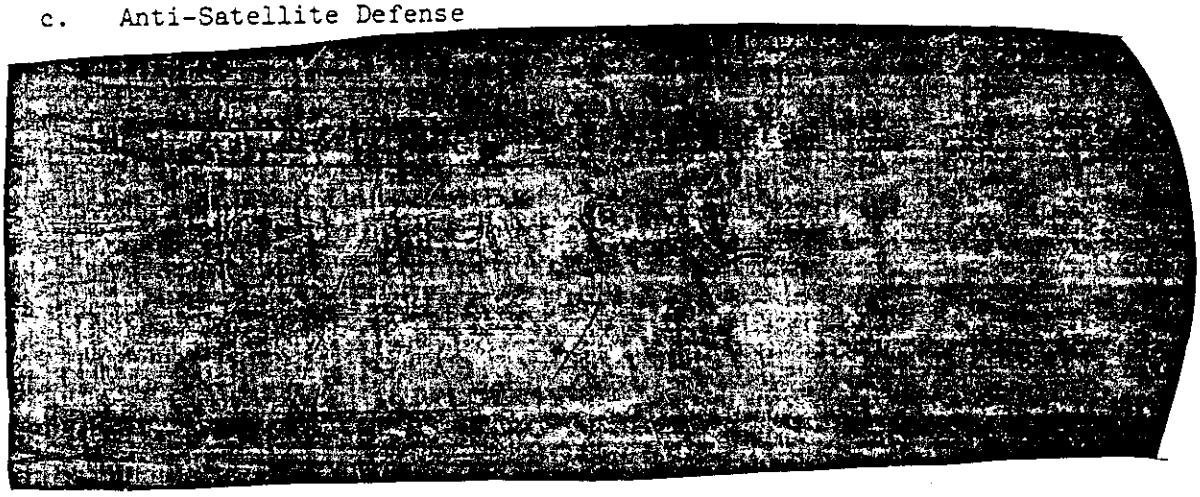
The SPRINT missile is designed to attack incoming warheads after the atmosphere has helped to separate out the accompanying decoys, chaff, etc. The missile is capable of climbing [redacted] feet in about [redacted] seconds to make intercepts between 5,000 and 100,000 feet at ranges out to 25 miles. It uses a "pop-up" launch technique in which the missile is ejected from its tube by the generation of gas pressure on the piston upon which it rests. Actual ignition does not take place until after the missile has left the tube. This technique conserves propellant, allows the missile to "get away" sooner and reduces the missile size. Initial flight tests are currently being conducted at the White Sands Missile Range, and beginning in early 1969 the missile will be tested at Kwajalein, where the overall systems tests against actual ICBMs fired from Vandenberg Air Base will be conducted.

Although, as stated earlier, ABM systems to protect population centers against large sophisticated attacks do not appear practical, we will continue to explore new technical approaches to this objective. The NIKE-X development program will be used for this purpose. In addition, we will continue to support a number of other ABM related programs, particularly ARPA's Project DEFENDER.

In total, the FY 1969 Budget request includes about $1,232 million for ABM defense: $651 million for the deployment of SENTINEL

(in addition to $229 million in FY 1968); $313 million for SENTINEL development; $165 million for ABM advanced development (NIKE-X); and $103 million for DEFENDER. In addition, the AEC's FY 1969 budget includes $324 million for ABM warhead development and production.

c. Anti-Satellite Defense



SPASUR and SPACETRACK are our satellite tracking and identification systems in the NORAD SPADAT system. The SPASUR system is designed to give a warning when a new space object passes through its field, and the SPACETRACK system detects, tracks and computes the orbits of objects in space. Both systems are tied to the North American Air Defense Command.

One of the projects that the Joint Continental Defense Systems Integration Planning Staff will undertake is the development of a master plan for the evolution of these two systems. The ever-growing population of space objects and "junk" that must be identified and tracked means that we will have to make major improvements in these systems in the near future. In the case of the SPACETRACK system, we have included funds in the FY 1969 Budget for the modification of the data processing and communications equipment at existing sites and for some new construction at these sites. Any further improvements or expansion will be delayed pending a full study of the requirements for electro-optical sites in addition to the camera and radar sites, the links with the SENTINEL system, the need for a separate data processing center, etc.

G. CIVIL DEFENSE

The Civil Defense program proposed for FY 1969 contemplates no important change in basic objectives from those which I discussed

last year. However, we have held the FY 1969 program to the lowest possible sustaining rate, pending the end of the Vietnam conflict.

The major objective of the Civil Defense program since 1961 has been the establishment of a comprehensive nation-wide shelter system to help protect our population from radiological fallout in the event of a nuclear attack. Most of this shelter is inherent in existing buildings but needs to be identified, marked and stocked with survival supplies before it can be considered truly useful. By the end of the current fiscal year we expect to have identified about 170 million spaces with a standard protection factor of 40 or more, of which about 101 million will have been marked and 55 million stocked with an average 14 days of supplies. Total shelter capacity should continue to grow in the future as a result of the continuing survey and design assistance efforts being conducted as part of the Civil Defense program. In total, we can probably expect an additional 55 million spaces from these sources over the next five years.

A financial summary of the Civil Defense program, for which $77.3 million is requested for FY 1969, is provided on Table 4.

[redacted]

III. GENERAL PURPOSE FORCES

A. REQUIREMENTS FOR GENERAL PURPOSE FORCES

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

As I noted in the preceding section of this Statement, one of the first things we had to do in 1961 was to face up to the fact that strategic nuclear forces in themselves no longer constituted a credible deterrent to all kinds of aggression, if, indeed, they ever had in the past. And, we also had to face up to the fact that tactical nuclear weapons could not be substituted for conventional forces in the kinds of conflicts in which we were most likely to become involved during the 1960s. We agreed, of course, that an effective tactical nuclear capability was essential to our overall strategy. But we also felt very strongly that the decision to employ such nuclear weapons should not be forced upon us simply because we had no other means to cope with such conflicts. We recognized then what has become so obvious now, that there would inevitably be many situations where it would be neither feasible nor advisable to use tactical nuclear weapons. What we sought to achieve was a greater degree of versatility in our General Purpose Forces.

A preliminary analysis of the limited war problem was undertaken soon after President Kennedy took office. It convinced us that we, in cooperation with our friends and allies abroad, would have to make a much greater effort to develop the kinds of forces which could cope with the entire spectrum of limited aggressions, ranging from small scale guerrilla and subversive activities to overt attacks involving sizable regular military forces. With regard to our own forces, we felt that major improvements would have to be made in their organization, manning, equipping, train ing and mobility and, particularly, in the balance among the elements of the forces.

As a start towards our longer range objective of a larger and better balanced force, in 1961 we increased the procurement of conventional weapons and ammunition and equipment; expanded the Navy's

[redacted]

[redacted]

ship maintenance program to improve the materiel readiness of the fleet; provided funds for the construction of additional amphibious transports; and undertook the modification of Air Force tactical fighters to give them a greatly enhanced non-nuclear ordnance delivery capability. We also increased the number of large unit training and readiness exercises; began a major revamping of the Army's reserve components; added several thousand personnel to the Army; made a major increase in the size of the Special Forces; increased the strength of the Marine Corps and expanded the Marine Corps Reserve to a full fourth division/wing team; undertook a major expansion of airlift capabilities; and increased substantially the R&D effort on non-nuclear weapons and equipment.

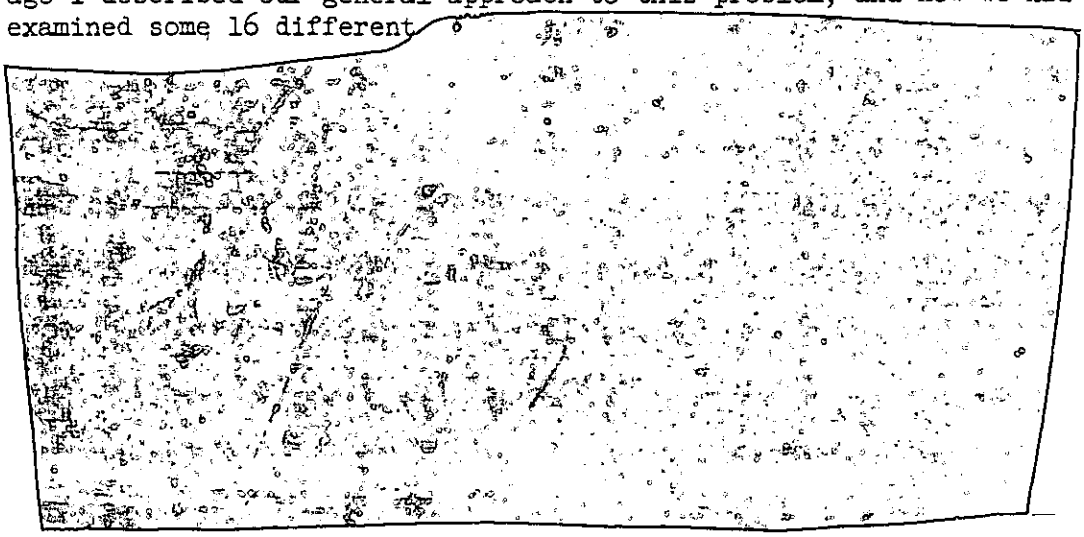
These initial efforts to increase the non-nuclear capabilities of our General Purpose Forces were overtaken by the Berlin Crisis. The need to call up elements of the reserve forces during that period confirmed our belief that much more fundamental changes would have to be made in our General Purpose Forces if they were to meet our longer range objectives.

A great deal of thought and effort has been devoted to this problem in the intervening years. As I have noted on previous occasions, the task of determining how best to strengthen our limited war capabilities is greatly complicated by the wide variety of war contingencies for which we must be prepared; the great diversity of units and capabilities which our General Purpose Forces must have in order to cope with those contingencies; the sheer numbers and kinds of weapons, equipment and supplies involved; the important role that our reserve components play in these forces; and, finally, the derivative relationship between our own General Purpose Force requirements and those of our allies.

I need hardly remind you that the overall requirement for General Purpose Forces is related not so much to the defense of our own territory as it is to the support of our commitments to other nations, a matter which I discussed in the first section of this statement. As I pointed out last year, the fact that each of these commitments gives rise to contingencies for which we must plan does not mean that we will ever be confronted by "40-odd South Vietnams simultaneously." These commitments do not require us to execute automatically any specific contingency plan in response to a given situation, without regard to the circumstances existing at the time. And, while we cannot expect to meet all of the contingencies simultaneously, neither can our opponents.

[redacted]

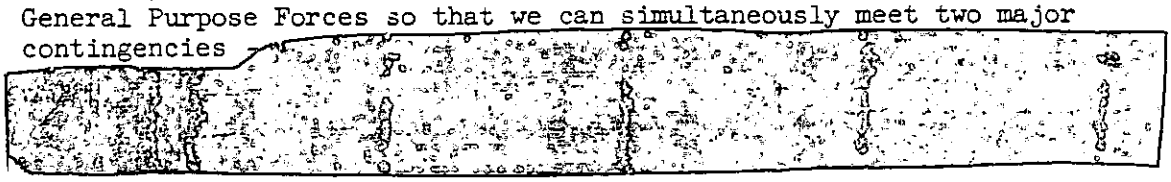
What we have done over the years is to study a wide variety of possible contingencies involving the potential need for U.S. forces. You may recall that when I appeared before this Committee five years ago I described our general approach to this problem, and how we had examined some 16 different



I noted that because of their special character, the requirements for naval forces were examined on a world-wide basis. And, I pointed out that in an effort to keep these studies manageable:

> "...a certain degree of over-simplification was inevitable. We are under no illusion that any of these situations would actually develop exactly as postulated for purposes of the studies. They never do, and we know it. Furthermore, each situation, of necessity, had to be examined solely within its own context and no attempt was made to evaluate its effect on the world situation as a whole. Conversely, the interaction of other likely world events on the particular situation under study was also omitted from consideration."

Since completion of those early studies in 1962, we have greatly refined our techniques in computing General Purpose Force requirements. As I stated earlier, we do not plan to meet all theoretically possible emergencies simultaneously, since the risk of this is very low and the cost very high. Rather, our policy now is to set the size of the General Purpose Forces so that we can simultaneously meet two major contingencies -



[redacted]

[redacted]

The largest contingency outside NATO, in terms of potential U.S. force requirements, is a Red Chinese attack on Southeast Asia. Therefore, we must provide, in addition to our NATO requirements, the forces required to meet such an attack in Asia as well as a minor contingency in the Western Hemisphere. Because of the basic uncertainty inherent in estimates of such requirements, we add to these forces a Strategic Reserve.

I should emphasize that, although we determine the size of our forces in this manner, we have considerable flexibility in meeting other possible contingencies which require smaller forces, or those not requiring as rapid a build-up of forces. For example, in the case of the Vietnam conflict, we used the forces earmarked for a major Asian contingency to meet the immediate needs in the summer of 1965 and then activated temporary forces to meet the longer range needs.

I would now like to review with you each of these major contingencies and the forces required to meet them.

1. NATO

As I mentioned last year, we have set three major objectives for our NATO non-nuclear forces:

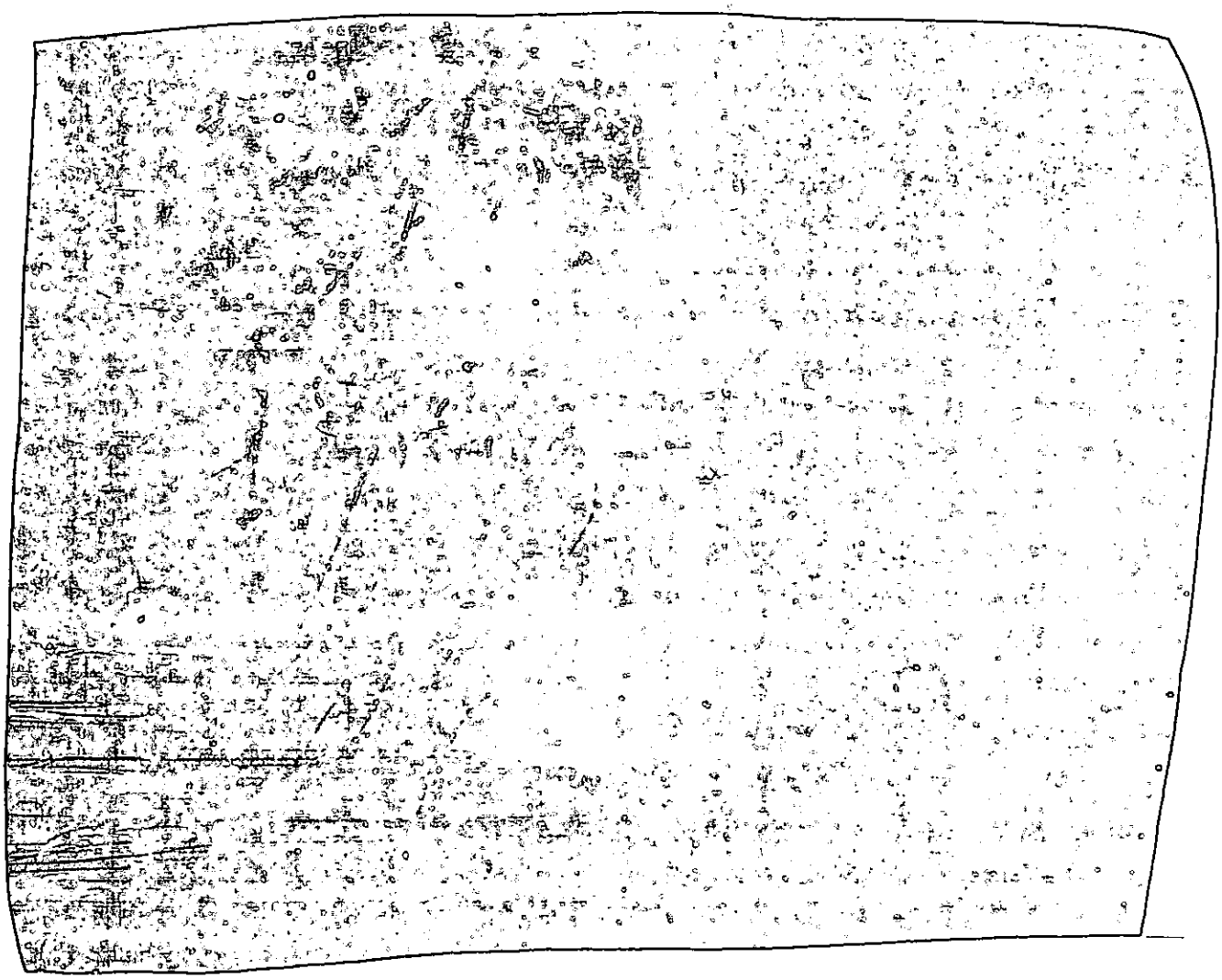
1. To deal successfully with a conflict arising through miscalculation.

2. To show determination by reinforcing in time of crisis in parallel with a Warsaw Pact mobilization.

3. To help deter a deliberate non-nuclear attack by denying the Soviets any confidence of success unless they use a very large force that would clearly threaten NATO's most vital interests, thereby running the attendant risks of rapid escalation to nuclear war.

[redacted]

[redacted]



In all regions except Norway, the NATO-Pact forces are about equal in manpower. While manpower comparisons, alone, are not conclusive measures of military strength, I believe they are reasonable first approximations of relative ground force capabilities. In the case of air forces, our relative capability is far greater than indicated by the number of aircraft because of differences in quality. By almost every measure -- range, payload, ordnance effectiveness, loiter time, crew training -- NATO (especially U.S.) air forces are better than the Pact's for non-nuclear war, as shown in the table on the following page.

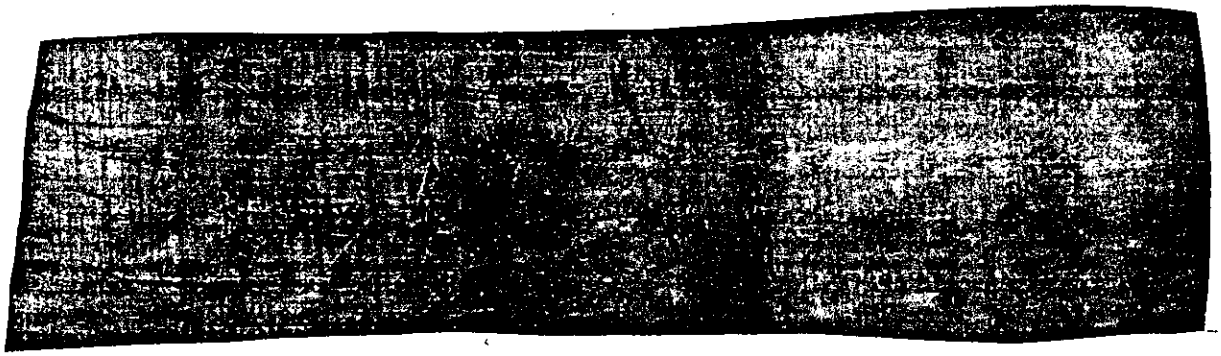
SELECTED CHARACTERISTICS OF AIR FORCES -- ALL REGIONS

Primary Mission Capability	NATO Total	Warsaw Pact Total
Interceptors(high speed/low payload)	9%	34%
Multi-Purpose(high speed/high payload)	31	8
Attack(low speed/high payload)	24	20
Reconnaissance	7	2
Low Performance(low speed/low payload)	29	36
TOTAL	100%	100%

As a result of these advantages, which continue to move in our favor every day, we estimate that the NATO M-Day forces deployed in Central Europe would have significantly more offensive capability than the Pact forces.

If either side chose, the ready forces could be greatly reinforced before any fighting began (as in the 1961 Berlin Crisis). Assuming a simultaneous mobilization, within 30 days the Pact could probably gain a manpower advantage on the Central Front [redacted] and a somewhat greater advantage in overall ground combat capability [redacted] this gap would then begin to narrow with the arrival of more U.S. forces.

[redacted]



NATO tactical aircraft reinforcements would about equal the Pact's [redacted] after which we could add considerably more aircraft than the Pact. Our main advantage in this area, however, stems from the great superiority of our aircraft, pilots and weapons discussed above.

In my judgment, the forces displayed in the foregoing tables are adequate to meet our objectives.

The most likely kind of conflict in NATO Europe is one arising from miscalculation during a period of tension, rather than a deliberately pre-planned Soviet attack. In this kind of crisis, the Soviets would not necessarily have the initiative in mobilizing and deploying troops [redacted] Even though the Pact forces could mobilize somewhat faster than NATO, they would not achieve a decisive advantage. Furthermore, NATO has an air advantage. It would thus appear that the balance of forces would, over time, be sufficient to cope with the situation and hopefully lead to a de-escalation of the crisis. Nevertheless, we are urging our allies to improve their reserves and thus our confidence of being able to match a Pact build-up.

We cannot entirely discount a deliberate Soviet attack. If the Soviets were to attack following a successful concealed mobilization they could have, temporarily, up to a 2:1 advantage in land forces. Our own forces are large enough, however, to require the Soviets to build up and attack with a huge force. Such a build-up would be, at best, difficult to hide. In any event, the Soviet Union, and especially her East European Allies, would have to assume that the West might react against such attack with nuclear weapons. Considering the destructive potential of both our theater and strategic nuclear forces and the fact that such a deliberate attack would constitute a clear threat to our vital interests, the Soviets should be strongly deterred from attempting this strategy.

[redacted]

A surprise Soviet attack in the Central Region without a prior build-up might achieve some initial territorial gains [redacted] but it would sacrifice the potential advantage of a faster initial mobilization capability and the simultaneous use of East European forces. And, unless reinforced with troops from the Soviet Union or with East European forces, the Soviet forces alone would be inadequate to sustain this kind of attack.

2. Asia

While China would probably prefer to expand her influence through insurgencies, she might turn to a direct attack on Korea, Taiwan, India or Southeast Asia if an insurgency were failing and she was willing to risk overt aggression.

At first glance the size of the Asian Communist forces -- 3 million men [redacted] -- suggests that it would be nearly impossible to stop such an invasion.

ASIAN COMMUNIST FORCES

	China	North Vietnam	North Korea	Total
Active Land Forces	2,351,000	442,000	345,000	3,138,000

[redacted]

In fact, however, the Red Chinese have only a limited ability to attack beyond their borders.

First, there are great barriers between China and her neighbors: the Himalayas, the jungles of Southeast Asia, and the Formosa Straits.

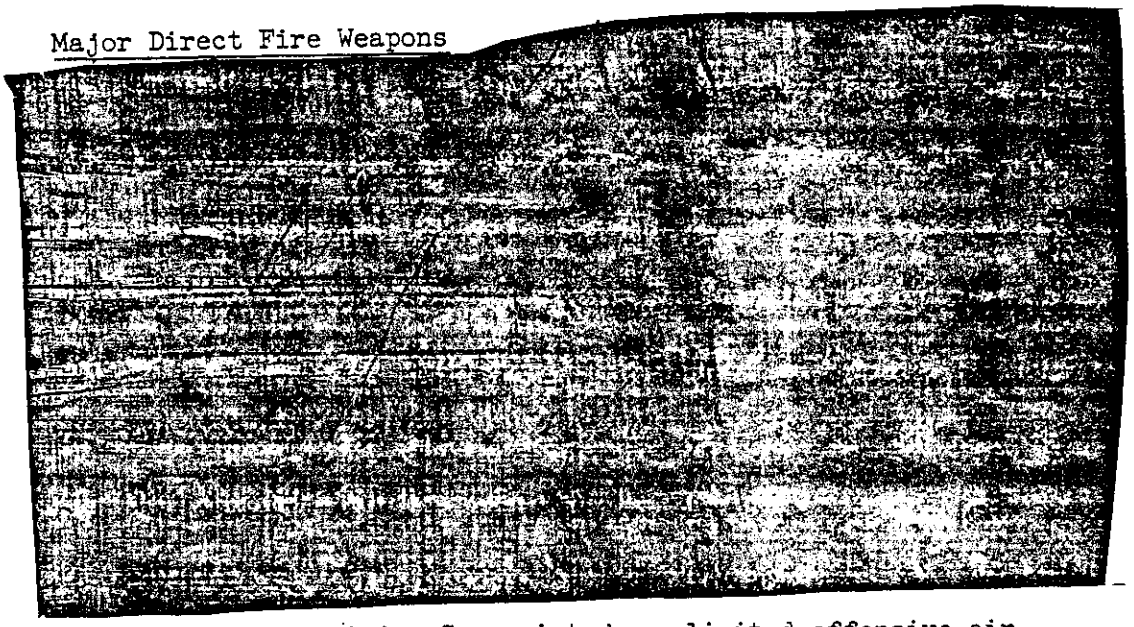
[redacted]

Second, because the Chinese soldier is not nearly as well-equipped and supplied as his American counterpart, he is far less effective in conventional combat. Some [redacted] indicators of the

relative combat effectiveness of Chinese and U.S. soldiers are shown in the next table. The average U.S. soldier has three times the firepower, five times the motor transport and twenty times the equipment of a Chinese soldier.

INDICATORS OF RELATIVE U.S./CHINESE FIREPOWER AND MOBILITY IN CONVENTIONAL WARS

	U.S.	CHINESE	
		Southeast Asia Task Force	Korean Task Force
Major Direct Fire Weapons			



Finally, the Asian Communists have limited offensive air ability. The MIG-15s, 17s and 19s, comprising 85 percent of the Chinese Air Force, cannot attack targets much beyond the borders of China because of their limited range and the location of Chinese airfields.

When one examines the invasion threat on a theater-by-theater basis it is clear that despite the huge Chinese Army, existing U.S. and local forces provide both a strong deterrent and the ability to defend important areas.

a. India

Indian forces should be able to defend their country against Chinese aggression. India has a 1.1 million man army [redacted] The Indian forces have more firepower per man than the Chinese and, with vastly improved communications and transportation, can move quickly to reinforce critical areas. The Indian forces deployed forward are now more [redacted] what they were in 1962 when the Chinese attacked.

b. Taiwan

Nationalist Chinese land forces (372,000) far exceed those needed to defeat a Chinese amphibious assault. Even if the Red Chinese used their entire amphibious assault force and a sizable portion of their air and naval forces [redacted]

c. Korea

Republic of Korea (ROK) land forces [redacted] provide a strong deterrent against even a maximum Chinese/North Korean attack.

[redacted]

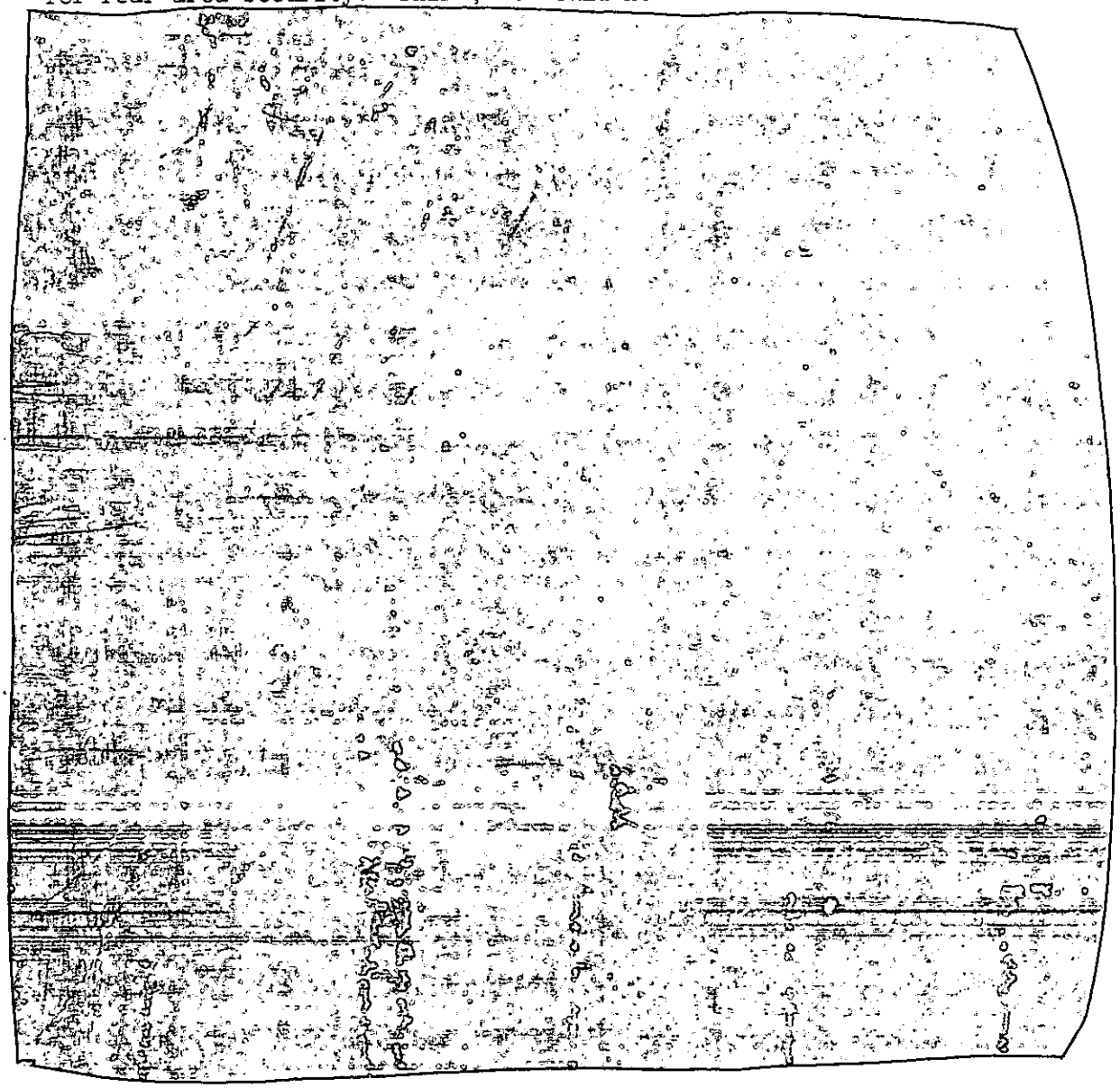
The Chinese/North Koreans would have a manpower advantage [redacted] This is offset, however, by the ROK's firepower (15 percent more per man), large U.S. air and naval support, the advantages of a prepared defense, and [redacted] fortifications.

Analysis of the Korean war throws light on the defensive forces required. In 1951, the last major Chinese offensive (825,000 men) was stopped by a force of some 535,000. The ROK alone would have [redacted]

more men [redacted] the differences in effectiveness that were present in 1951 between ROK and U.S./U.N. troops are now mostly gone.

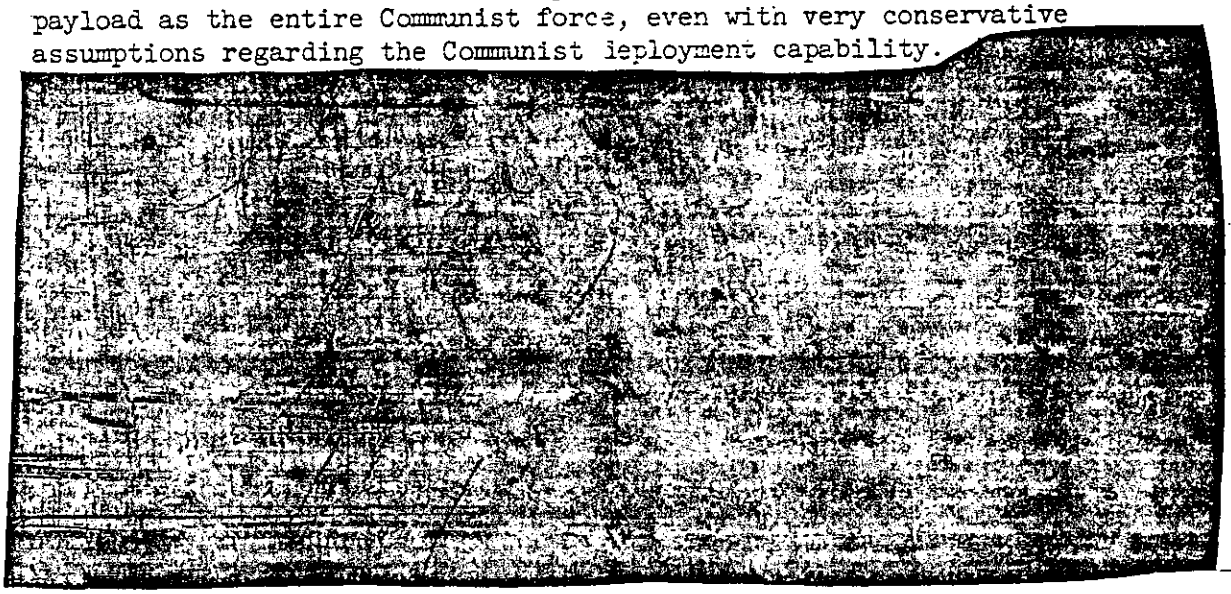
d. Southeast Asia

Three main tasks determine the need for U.S. and allied forces to meet the Chinese invasion threat to Southeast Asia. First, we would need defensive forces to stop the attack. Second, we would need forces for rear area security. Third, we would need forces if we wanted to



[redacted]

The U.S. and its allies would have an overwhelming tactical air advantage in any Asian war. Although the Asian Communists have about 3,400 tactical aircraft, 85 percent of these are short range interceptors with limited payload/range capability. The more than 1,000 fighter-attack aircraft now in SEA are capable of delivering 5-10 times as much payload as the entire Communist force, even with very conservative assumptions regarding the Communist deployment capability.



I will discuss our current Southeast Asia operations and future force requirements for these operations later in this section of the statement.

3. Control of the Seas

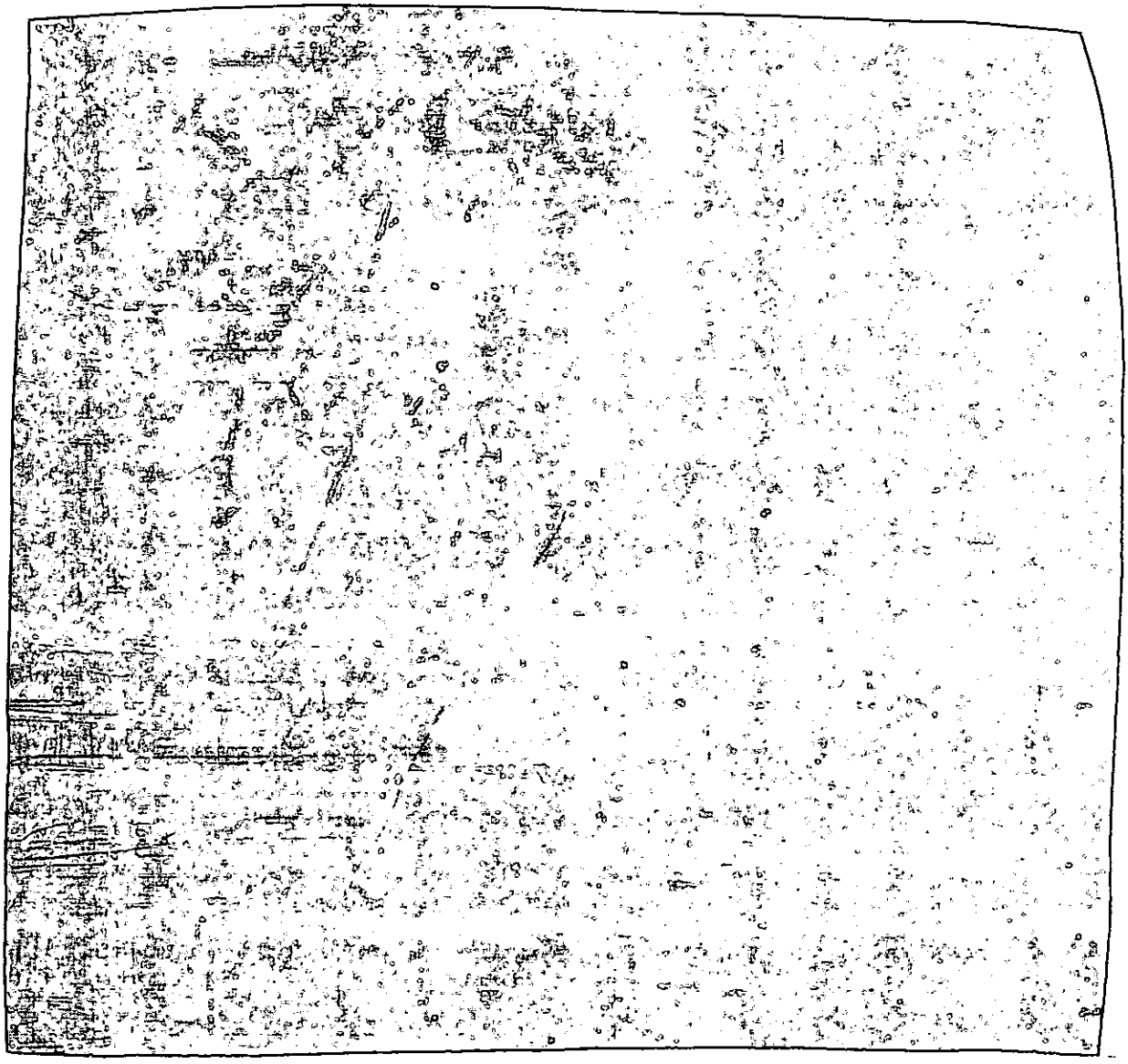
The regional contingencies discussed above require substantial numbers of ships, ranging from attack carriers and amphibious assault ships to oilers and cargo ships for resupply. All these must be protected against enemy attack by air and submarine.

For this purpose our escort ship requirements total 231 including about a 16 percent overhaul allowance. (I will discuss this program in detail in connection with Navy General Purpose Forces.) Analysis of our escort ship forces shows that anything in excess of some 230 escorts would be over-defending the forces for which they are required. If we needed more overall capability, we would be better off putting our resources into additional carriers, amphibious ships, etc. rather than the escorts.

In addition to providing naval support for the regional contingencies, we also want to have the

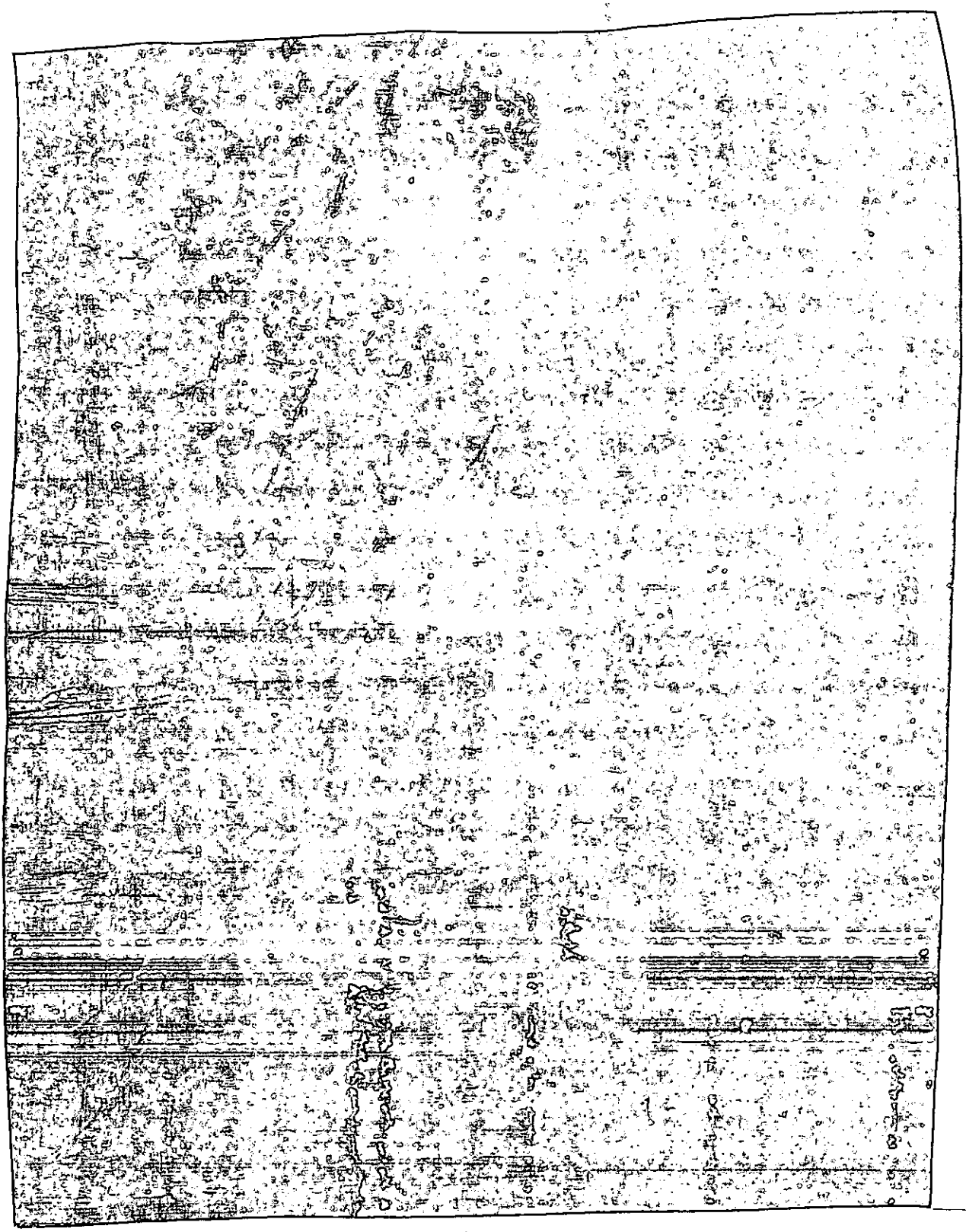
Soviet (and to a lesser degree, Red Chinese) attack and cruise missile submarine forces are the main threat to our ability to win a War at Sea.

As I have stated in past years, our War at Sea strategy is based essentially upon the rapid establishment of [redacted] ASW [redacted] comprised of submarines and land- and sea-based ASW aircraft, between the enemy submarines and their potential targets.



Recent studies have reaffirmed the potential effectiveness of the [redacted] concept and the probability that in an all-out War at Sea we would be able to destroy a very large proportion of the Soviet submarine force in a matter of [redacted] months, while losing only a relatively small part of the Free World merchant fleet [redacted] (We would, of course, lose some of our naval vessels as well during the same period.) [redacted]

[redacted]

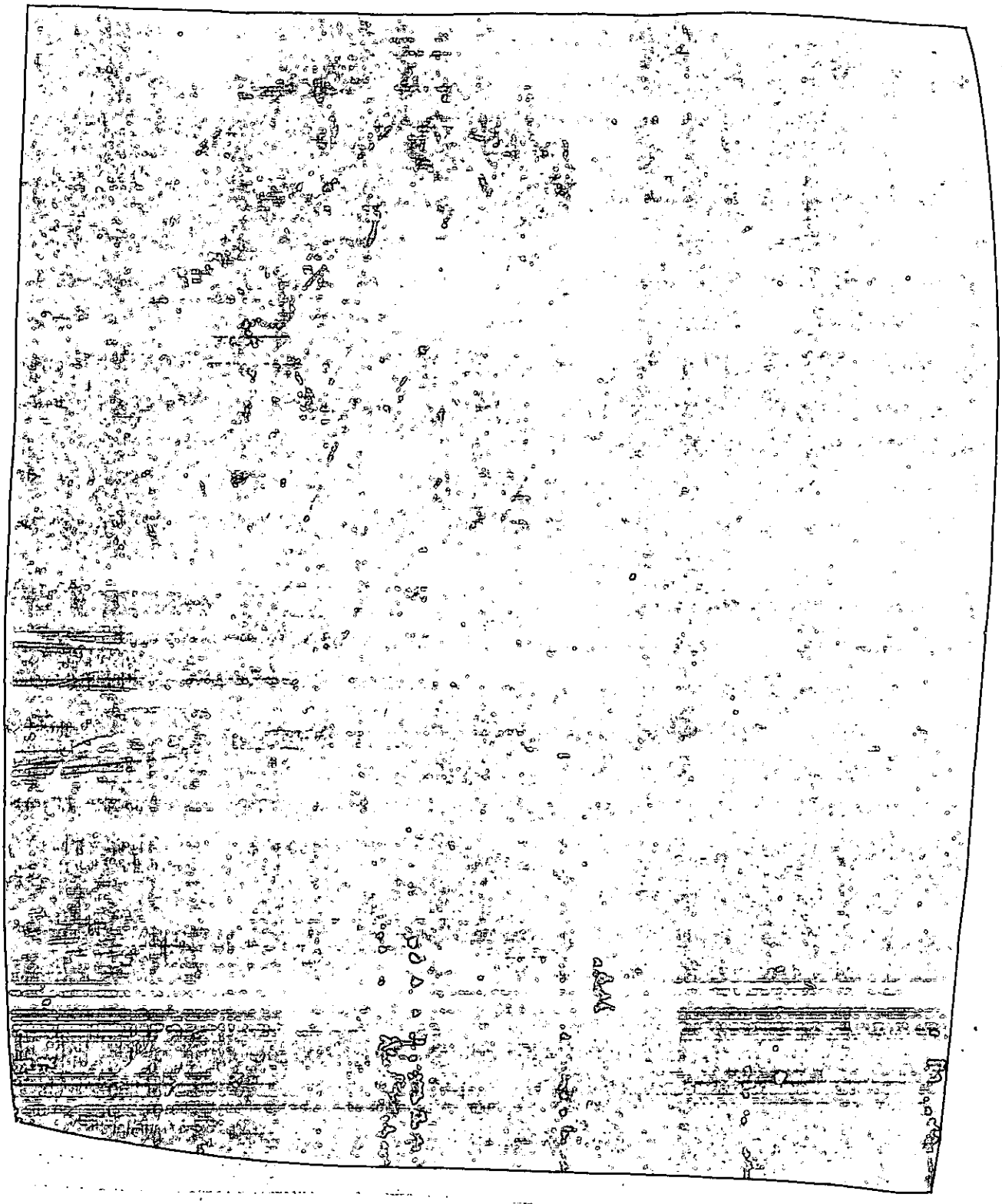


B. LOGISTICS REQUIREMENTS

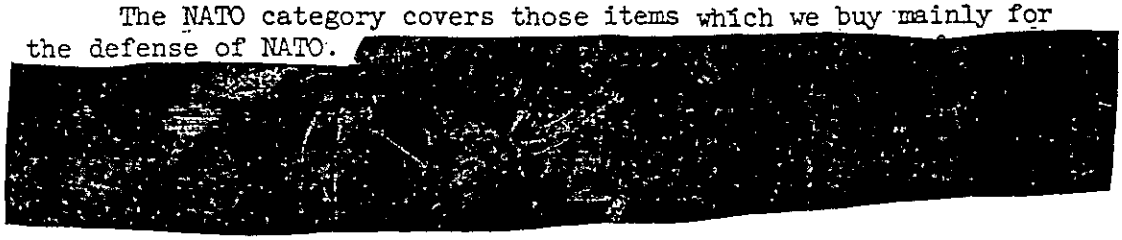
One of the most urgent problems we encountered in the General Purpose Forces program in 1961 involved the balance between the forces themselves and the stocks of consumables, weapons and equipment needed to sustain them in combat until new supplies can be produced. This is an old and frequently overlooked problem. Its full dimensions were exposed by the Berlin Crisis of that year.

Several factors had contributed to this unsatisfactory materiel situation in the General Purpose Forces in the early 1960s. One of the most important stemmed from the divergent views held by the Army and the Air Force as to the nature of future conflicts. The Air Force envisioned a relatively short war in which nuclear weapons would be employed from the very beginning and, hopefully, decisively. As a result, the development of modern conventional air ordnance and the task of building up the war reserve stocks to enable the tactical air forces to support the ground forces for a sustained period was accorded a very low priority. The Army, by contrast, was planning for a long, large-scale conventional conflict on the order of World War II (a conflict for which our allies were totally unprepared politically, psychologically, and militarily), for which the materiel requirements were so large that they proved virtually useless as a basis for developing peacetime procurement programs. The Army's stated materiel requirement exceeded the budgeted inventory and procurement level by $24 billion or 150 percent. Such an inflated requirement led to serious imbalances within Army inventories with huge excesses in some types of supplies and severe shortages in others.

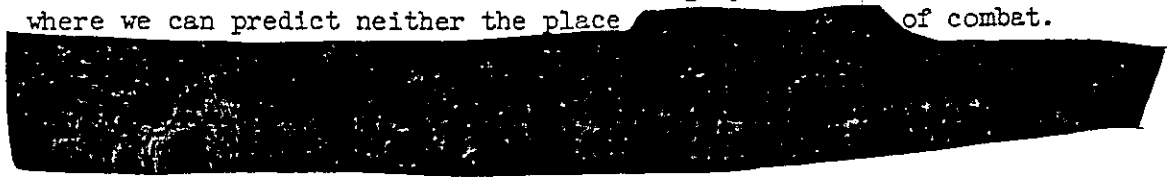
To help remedy this situation, it was decided to establish a single standard of logistics readiness for the General Purpose Forces of all Services (ground, sea, and air) and to achieve that objective as a matter of the highest priority. This objective called for a properly balanced inventory sufficient to provide a non-nuclear combat capability for approximately six calendar months, with an average of two-thirds of the forces actually engaged in combat at any one time. It was assumed that such combat consumption needs as existed after six months could be met from new production, thereby in effect providing support for an indefinite period. Those elements of the force structure which were not needed to support our contingency war plans, e.g., the 30-odd low-manned non-priority reserve component divisions, were proposed for elimination. But all the forces that were needed, reserve as well as active, would be fully supported. Thus for the first time equipment and supplies would be procured specifically for reserve units, a principle previously observed in theory but not in practice.



The NATO category covers those items which we buy mainly for the defense of NATO.



Forces in the Indefinite Combat category are maintained for use where we can predict neither the place of combat.



Forces in combat in Southeast Asia are provided with sufficient materiel to replace whatever they consume. This materiel is provided from an active production base.

Forces in the "Other" forces category are those which for various reasons do not fit into any of the above categories for purposes of logistics guidance. These forces provide the training, rotation, attrition reserves, and overhaul base for forces deployed in Southeast Asia or are maintained in anticipation of such a need.

C. CAPABILITIES OF THE GENERAL PURPOSE FORCES

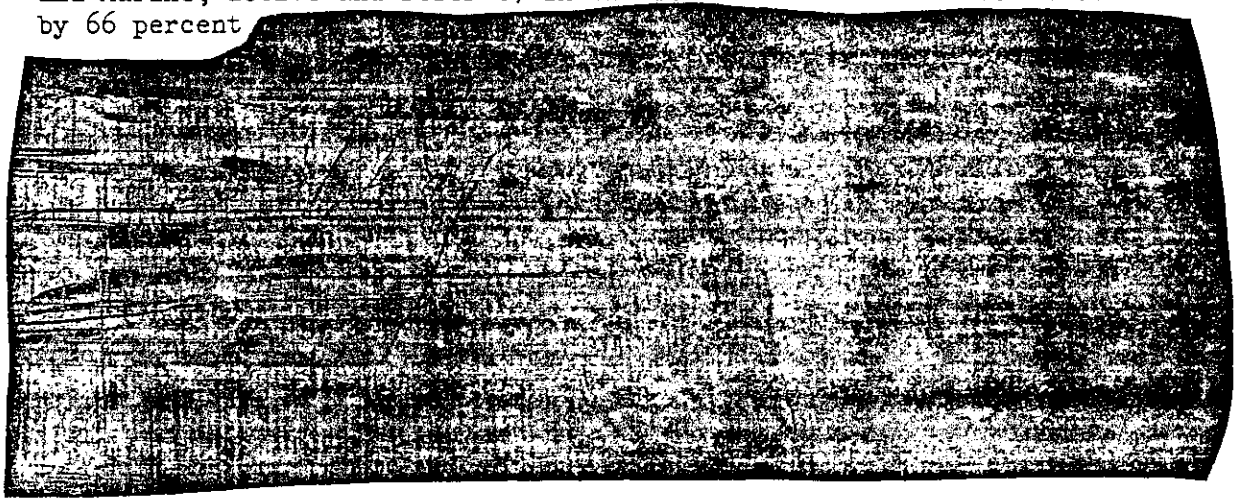
In the years since 1961, our non-nuclear war capabilities have been greatly increased and made more flexible. Indeed, by the time the decision to come to the assistance of South Vietnam with our own combat units was forced upon us in the summer of 1965, the General Purpose Forces had been brought to an unparallelled level of peacetime readiness. This fact was clearly reflected in the relative speed and effectiveness with which the initial deployment was carried out. Moreover, in most cases we plan further increases in capability by the early 1970s.

In the following pages, I will be discussing at times the capabilities of our forces in terms of quantitative indices of effectiveness. These indices are still quite primitive, and they do not in all cases measure our capabilities in relation to those of possible enemies. The needed improvements in the indices have yet to be made, but even in their present state they provide useful indications of the changes in the combat power of our forces over the years.

1. Land Forces

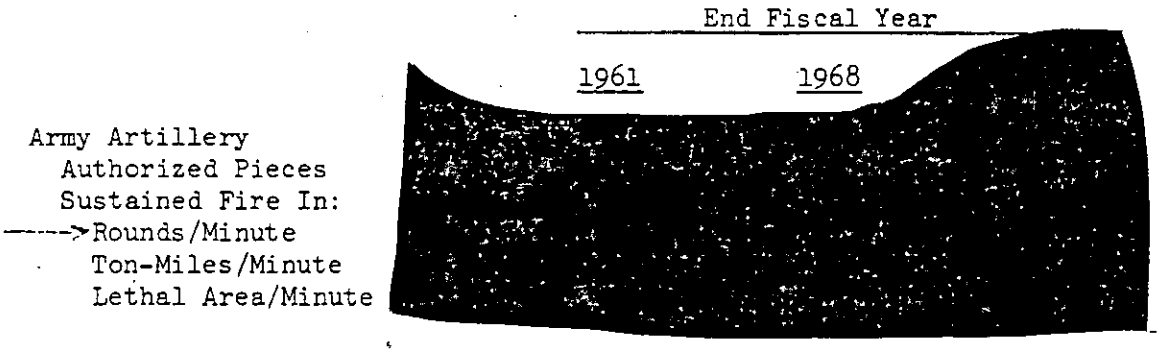
In 1961 it was clear that our active and reserve land forces would have to be significantly improved if they were to meet our revised strategic objectives. More specifically, we needed to: (a) add force structure in the form of new divisions and support units; (b) increase the readiness of existing forces through increased manpower and procurement; (c) reorganize and augment the active and reserve divisions to increase their non-nuclear capability for maneuver and firepower; and (d) reorganize the Army and Marine Corps reserve forces to get the right balance between combat and support forces and to ensure that the reserve forces "fit" properly with the active forces.

We increased the number of active combat assigned Army divisions from 11 to 16, added enough men to man them, and expanded the training base to sustain the force. Total combat assigned divisions (Army and Marine, active and reserve) in the permanent force were increased by 66 percent

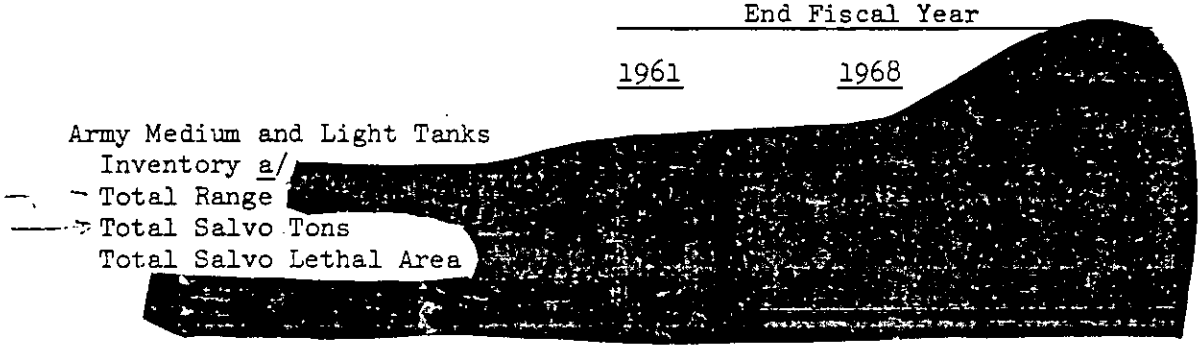


The procurement of conventional weapons and support systems was greatly expanded. For example, during FY 1962-65 direct obligations for Army procurement were about 60 percent greater than during the previous four years. In addition, the Army reorganized its divisions, dropping the nuclear-oriented Pentomic configuration and introducing the ROAD concept. This increased the Army's ability to tailor its forces quickly to meet a variety of combat situations, and also laid the organizational groundwork for the needed increases in firepower and mobility.

The Army's field artillery structure was revised and self-propelled artillery pieces with larger calibers and greater range were introduced. In fact, the total number of artillery pieces authorized in the permanent Army forces increased by [redacted] percent, and the sustained fire capability by [redacted] percent, as shown in the table on the following page.



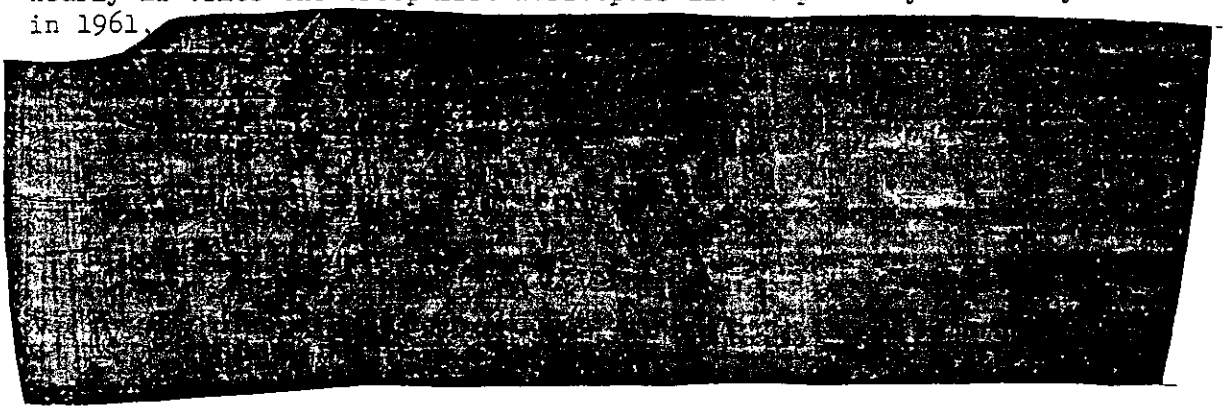
The number of Army active and reserve mechanized infantry and tank units was increased by 110 percent, and their tanks and tactical vehicles were modernized. In 1961 about 7600 of the 8400 medium tanks required for the force structure were M-48s equipped with a 90mm main gun, primitive sighting and aiming devices, and a gasoline engine. The gun and sight were inadequate to meet the Soviet armor threat in Europe, and the gasoline engine would have required refueling the tank two or three times a day in combat. By the end FY 1968, we will have [redacted] M-60s equipped with a 105mm gun, a modern fire-control system, and a diesel engine that gives it [redacted] the range of the M-48. In addition, we will have [redacted] M-60s and [redacted] SHERIDAN light tanks equipped with the new 152mm SHILLELAGH missile system, which gives us for the first time a long-range fire capability with a high first-shot kill probability. (The SHERIDAN replaces the M-41 light tank equipped with a 76mm gun and a gasoline engine.)



a/ Includes authorized unit equipment plus maintenance float plus combat consumption reserves.

Much improved mobility, especially for our forces oriented toward underdeveloped areas, was obtained through greater emphasis on helicopters. In 1961 the Army and Marine Corps had about 3,100 helicopters,

all but 200 of which had piston engines. By the end of FY 1970 (when FY 1968 orders are delivered), we will have about 7,500 modern turbine helicopters with much greater capacity and speed, and higher possible utilization rates than the ones they replaced. For example, by end FY 1968, the Army will have over eight times and the Marine Corps nearly 12 times the troop-mile helicopter lift capability that they had in 1961.



New air mobility concepts were introduced into land force operations. The creation of a provisional air assault division permitted us to test airmobility concepts in 1964-65, and allowed us to form the first Airmobile Division in time to deploy it to Southeast Asia in the summer of 1965.

The division force concept was developed to assure that all of the combat and other support units needed to support an engaged division in a distant theater were fully recognized in determining force structure, manpower, and procurement requirements as well as in establishing airlift/sealift requirements. For example, each Army division of about 16,000 men needs twice that number in non-divisional support units in a properly balanced force structure. (This was a principal reason why it was so important to redistribute the reserve force structure, creating the right kind and proper number of support units while reducing the number of divisions.)

We found that support forces had to be increased substantially. By end FY 1968, for example, the Army will have 1.6 times the number of tactical cargo trucks, trailers, and semi-trailers it had in 1961, increasing its capability to carry dry cargo by 82 percent and liquid cargo by 125 percent, as shown in the table on the following page.

	End Fiscal Year	
	1961	1968
Army Cargo Truck Lift		
Inventory (Trucks + Trailers, 000)	271.5	444.6
Dry Lift (Tons, 000)	437.3	797.0
Liquid Lift (Gals, (000,000)	15.45	34.71

[redacted]

We took a number of actions to improve the readiness of reserve forces and, as previously mentioned, their "fit" with the active forces. In 1961 the Army Reserve and National Guard had 37 divisions and the Marine Corps Reserve none. The Army reserve forces were poorly manned and equipped, and did not contain a balanced structure of divisions and non-divisional support. We have now established a balanced reserve force for the Army comprising eight complete division forces plus the division force units needed to round out the Active Army. The new plan calls for 192 hours of training annually for each reservist (plus additional training time for selected personnel), twice that required in 1961. At least half of the 192 hours will be spent in realistic weekend drills and the remainder in drills lasting at least four hours. By contrast, in 1961 training drills consisted mostly of once a week two-hour evening sessions that contributed little to effective combat training.

In 1961 the Marine Corps Reserve consisted entirely of individual augmentation personnel. We have now formed a complete division force which upon mobilization would have the same capability as an active division force, except for helicopter lift, which would be less than that of an active division force.

2. Tactical Air Forces

The U.S. has about 7,000 tactical aircraft and its allies have another 6,000 -- a total of 13,000. This is about the same number available in 1961, and about the same as the current world-wide Communist total.

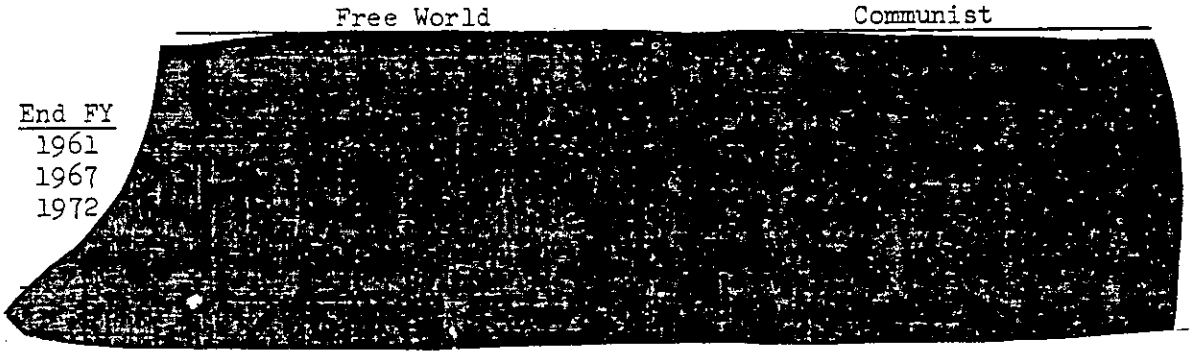
At the same time, our tactical air capability has increased dramatically, relative both to 1961 and to the threat. Under our presently planned program this trend will continue through the early 1970s. This increase in overall capability results from the modernization of the forces together with major improvements in conventional ordnance. For instance, we have doubled the payload capability of our tactical aircraft since 1961, and we will

double it again by 1972. In 1961, only 15 percent of our fighters had all-weather air-to-air capability, today about 50 percent do, and by 1972 80 percent of them will. With respect to conventional munitions, modern air-delivered anti-tank weapons reduce the number of sorties required to destroy a given number of enemy tanks [redacted] when compared with the general purpose bombs used in 1961. Similarly, we have developed guided air-to-surface weapons, such as WALLEYE, which reduce the number of sorties required to destroy a target such as a bridge [redacted]

In contrast, the present Communist tactical air forces are designed primarily for defense over home territory. Although their aircraft are well suited to the short range interceptor role, they have low payload when used offensively and limited loiter time when used defensively. Today, only about 25 percent of the Communist force, as opposed to 53 percent of the Free World force, are modern aircraft with a significant attack capability. By 1972, more than 75 percent of the Free World inventory will be modern attack aircraft, while the Communists will still have only 25 percent in this category. As a result, the Free World aircraft can carry, on the average, 1.8 times as much payload as the Communist aircraft today and this will increase to 3.7 times as much by 1972, as shown in the table below.

PAYLOAD CAPABILITY OF TACTICAL AIRCRAFT

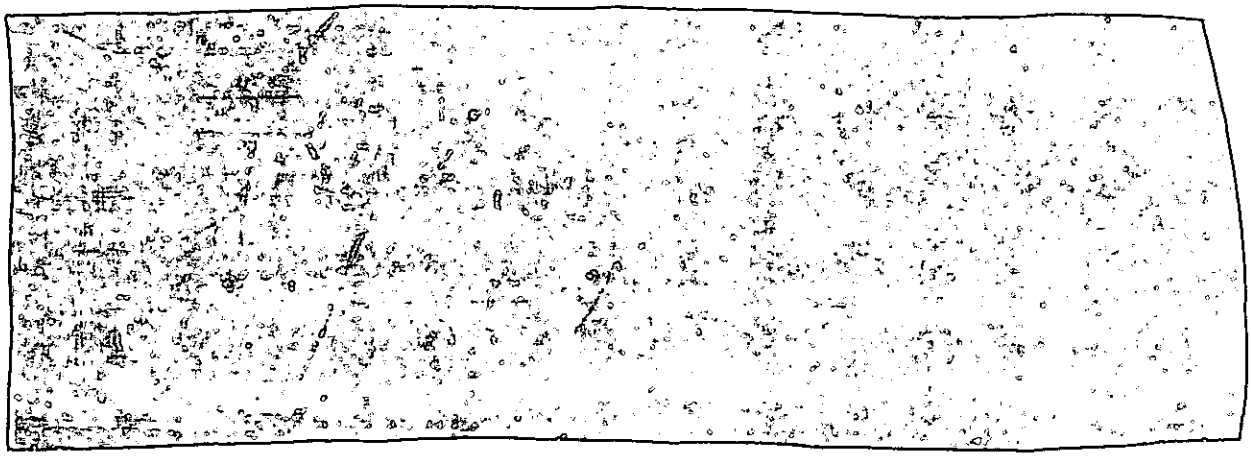
[redacted]



Indeed, our relative advantage is substantially greater than the foregoing payload comparison indicates, since we also have better munitions and pilots. The result is that in any major contingency there is little doubt that we and our allies could provide more offensive airpower than the opposing forces. Perhaps the greatest uncertainty in the tactical air force posture is our own vulnerability to attack while our aircraft are on the ground. We need shelters and other defensive measures to protect against such attacks. I shall return to this point later.

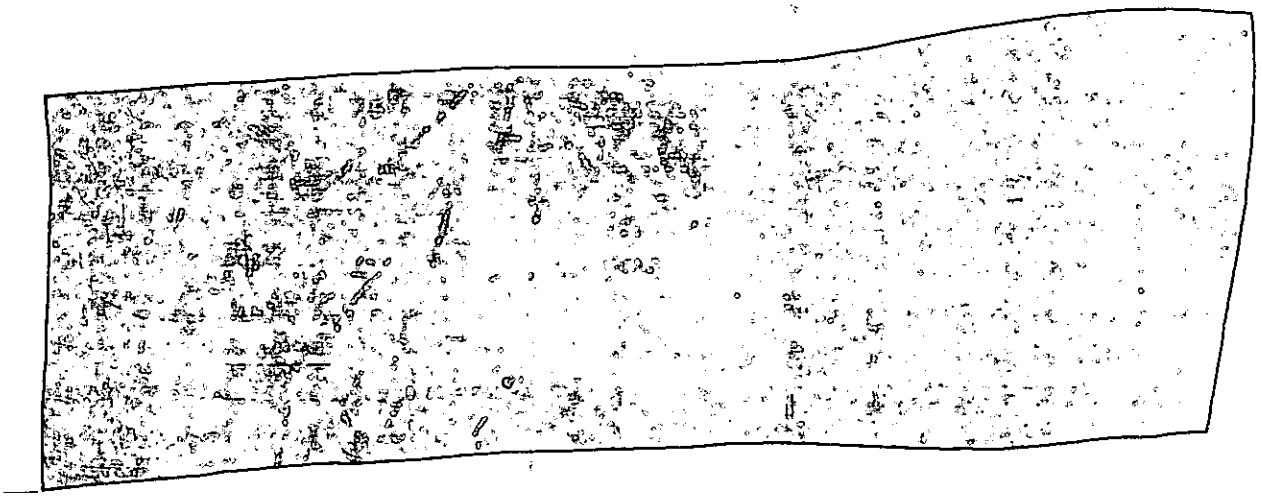
3. Anti-Submarine Warfare Forces

Since 1961, we have substantially increased our ability to detect and destroy enemy submarines and to protect our forces and shipping from them. Under our presently planned program, the increase between now and the early 1970s will be even bigger.



b. Submarines

Since 1961 we have increased the number of nuclear-powered attack submarines (SSNs) in our fleet from 13 to 33, and the number of "first line" SSNs of SKIPJACK and later classes from 4 to 24. We expect to [redacted] have a total of 60 "first line" SSNs.



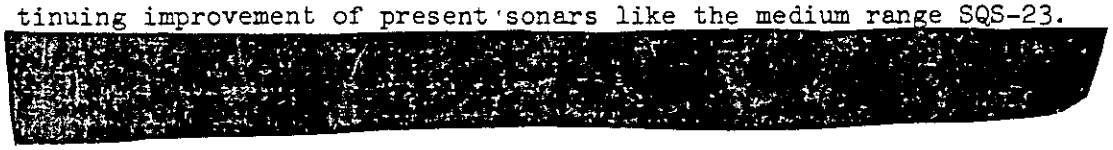
c. Air ASW Forces

In 1961 our ASW aircraft were P-5 seaplanes, P-2 land-based patrol aircraft and S-2 carrier-based aircraft. We have been replacing the P-2 and P-5 with the P-3, the last having far greater range and endurance as well as room for our new electronics devices, and more torpedoes, sonobuoys, and crew space. The VSX, whose development was approved this year, will replace the S-2 and improve our sea-based air ASW capability in the same way.

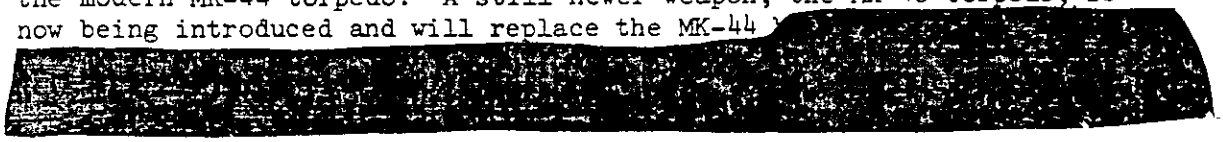
In 1961, we were installing a new system to be used by ASW aircraft, consisting of LOFAR sonobuoys and processors for detecting enemy submarines and CODAR for localizing contacts to permit weapon drop. We have therefore developed a new sonobuoy called DIFAR which will improve our kill capability. The overall trend in air ASW capability is shown in the table on the following page.

d. ASW Escort

Since 1961 we have increased the number of our ASW escorts by 14 percent, and their screening capability by 100 percent. The main reason for the larger than proportionate increase in capability is the introduction of the powerful long range SQS-26 sonar, and continuing improvement of present sonars like the medium range SQS-23.



We have also improved the ability of our escort forces to convert detections to kills. Fifty-Five percent of our ASW escort ships now have ASROC (a torpedo delivery rocket [redacted]. All our escort ships are now equipped with the modern MK-44 torpedo. A still newer weapon, the MK-46 torpedo, is now being introduced and will replace the MK-44 [redacted]



4. Fleet Anti-Air Warfare

The air threat to the fleet, in recent years, has come to include anti-ship homing missiles launched from aircraft, submarines, surface ships, and coastal sites. Thus our fleet air defense systems must now be able to handle smaller, faster targets that appear with little warning and may be accompanied by electronic jamming.

To keep pace with the threat, we have considerably improved and expanded our fleet anti-air warfare forces. Twenty of our 30 fighter

squadrons have been converted to F-4s since 1961. Similarly, we have been replacing older E-1 warning and control aircraft with more capable E-2s; these latter provide an instantaneous control link with other anti-air warfare forces through the Naval Tactical Data System (NTDS).

The number of surface-to-air missile ships has increased threefold since 1961 and their overall capability has increased even more, since today's missile systems are many times more effective. Over the next few years we plan to spend about $700 million to modernize [redacted] more missile ships, giving them [redacted] times their present capability, and build [redacted] new high performance missile ships (DXGN/DXG) [redacted]

The following table shows the improvement achieved and planned in our missile ship forces:

	End Fiscal Year		
	1961	1968	[redacted]
Total Missile Ships	23	75	
Missile Ships with NTDS*	2	15	

*Naval Tactical Data System

5. Amphibious Assault

Another major Navy and Marine Corps mission that has received greatly increased emphasis in recent years is amphibious assault. Our strategic analysis shows:

1. That we should have enough assault ships to lift and land the assault echelons of one Marine Expeditionary Force (division/wing team) in the Atlantic and one in the Pacific.

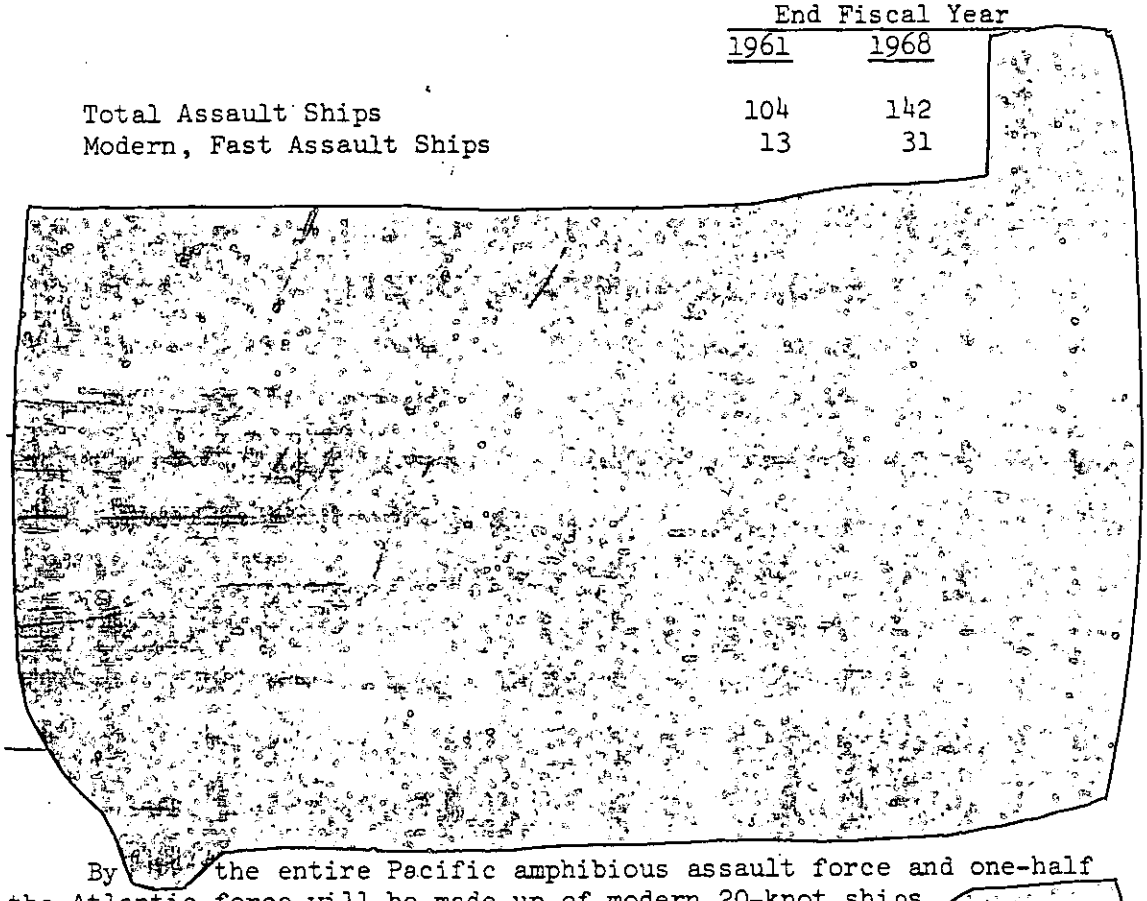
2. That the speed of these ships is quite important for Pacific forces and less so for the Atlantic.

[redacted]

In 1961 we only had 104 assault ships -- enough to lift and land about 70 percent of a Marine Expeditionary Force in each ocean. Most

of these were built in World War II and had speeds of about 13 knots. Only three of them had the helicopter capability needed to support the Marines' new vertical envelopment assault tactic. Between 1962 and 1967 we allocated $1.7 billion for the construction of 49 new assault ships. The following table shows the past and planned growth in assault lift.

	End Fiscal Year	
	1961	1968
Total Assault Ships	104	142
Modern, Fast Assault Ships	13	31

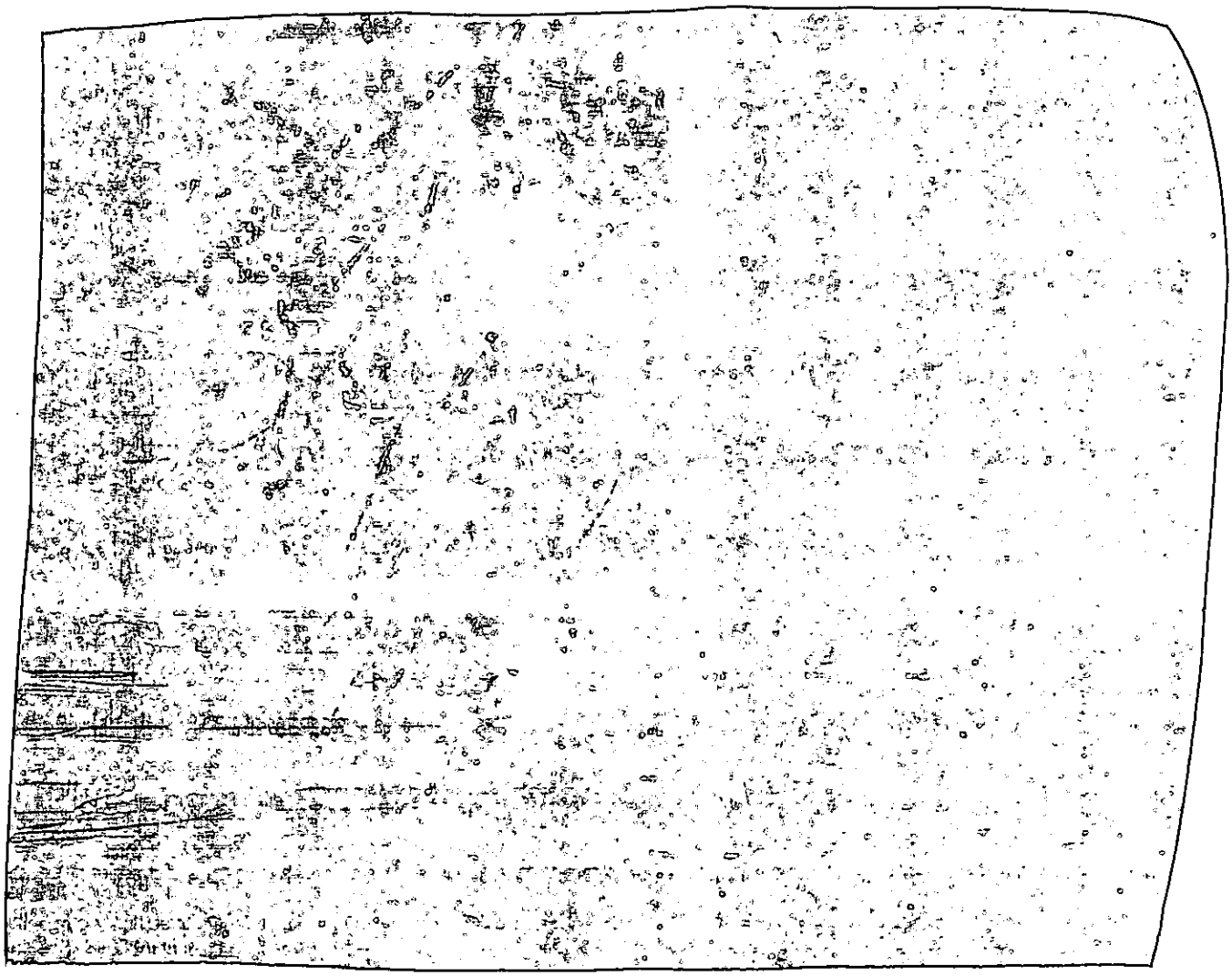


By [redacted] the entire Pacific amphibious assault force and one-half the Atlantic force will be made up of modern 20-knot ships. [redacted]

The introduction of the new-design amphibious assault ship, the LHA (now in contract definition), will provide wider assault flexibility -- accomplishing in a single ship what it now takes several to do.

6. Theater Nuclear Forces

In addition to increasing our non-nuclear capabilities since 1961, we have also increased our theater nuclear capability, [redacted]

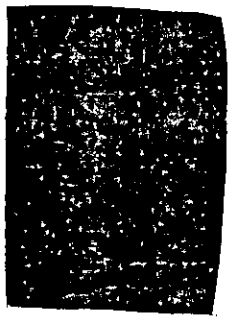


Even more important, we have improved the survivability of our tactical nuclear delivery systems by replacing the MACE missile with the mobile PERSHING missile, and we are buying an improved PERSHING to replace aircraft for nuclear alert, thus freeing more aircraft for the conventional role. Both the MACE missile and tactical aircraft are vulnerable to nuclear attack due to their fixed locations.

NATO's tactical nuclear capability has been substantially enhanced. In FY 1961 we provided virtually no nuclear support to our allies; in FY 1968 we support [redacted] launchers in allied forces shown in the table on the following page.

[redacted]

Tactical Aircraft
PERSHING
SERGEANT
HONEST JOHN
8" Howitzer
NIKE HERCULES



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Before I turn to the specific FY 1969 programs proposed for the General Purpose Forces of the Army, Navy, and Air Force, I would like to summarize the present situation in Southeast Asia and outline our current plans for that area.

[redacted]

D. SOUTHEAST ASIA OPERATIONS

Last year and the year before, I discussed in considerable detail our military objectives in Southeast Asia and the concept of operations developed to achieve them. However, it might be worth pointing out once again that we are dealing here with an immensely complicated problem, involving not only our immediate and longer range military and foreign policy objectives, but also local political, economic and social considerations as well. While the military task in Vietnam is beginning to assume some aspects of a conventional limited war against overt external aggression, our over-all Vietnam task remains that of making it possible for the South Vietnamese to cope with and suppress an insurgency which is externally directed and supported; to rectify the social ills on which that insurgency battens; to reestablish law and order; to revive and sustain the economy; and to create a viable, independent political structure. This total effort is thus one in which the people of South Vietnam must play the primary role. We and the other Free World nations who have come to South Vietnam's assistance can only help. No matter how great be the resources we commit to the struggle, we cannot provide the South Vietnamese with the will to survive as an independent nation; with a sense of national purpose transcending the claims of family, friendship or regional origin; or with the ability and self-discipline a people must have to govern themselves. These qualities and attributes are essential contributions to the struggle only the people of South Vietnam themselves can supply.

Our objectives in Vietnam are quite different and far more limited than they were, for example, in World War II. We do not seek North Vietnam's capitulation or even the surrender of her regular Army units engaged in the conflict in the South; we would be content to have them return home. Neither do we seek the surrender of the Viet Cong forces; we would be content to see them lay down their arms and take their place as peaceful citizens of South Vietnam, or move to the North if they so desire. But we do insist that North Vietnam cease its effort to dictate the shape of South Vietnam's future by terrorism, subversion and force of arms.

In pursuing these goals, we have tried to adapt our military response to the limited character of our objectives, using limited means in a limited geographic area to achieve them. We have no desire to widen the conflict. We are convinced that the issue must ultimately be resolved in the South, and we have no wish to incur the risk that the fighting might escalate, perhaps directly involving other nuclear powers. The danger of such a development to the entire world is readily apparent.

While we have been making general progress towards our objectives over the last two and one-half years, progress has been uneven. With regard to large scale military actions, I can tell you again what I said last year. Our forces have won every major battle in which they have been engaged since their commitment in South Vietnam. I believe it has been conclusively demonstrated that the Communist main force units are simply no match for our forces in such engagements. Moreover, because of our great firepower and mobility, we are able to come to the aid of the South Vietnamese and other friendly forces whenever they encounter sizable enemy concentrations.

Indeed, during the last year the Free World forces have severely mauled most of the Communist main force units in the coastal areas (excluding the IV Corps where no regular North Vietnam units and few U.S. units are engaged). Many strategic lines of communication have been recovered from enemy control and allied forces now conduct military operations in sectors of the country which previously had been inviolate Communist sanctuaries for two decades. Total Communist battle losses are running much higher than in 1966, the enemy's "in-country" recruitment appears to be markedly declining, and the population base from which he can draw support is shrinking.

These successes, however, have created new problems. As you no doubt know, the Communists have now concentrated a large portion of their main force units in the highlands along the northern and western borders of South Vietnam where their lines of communication are shorter and, to the extent that they lie outside the borders of South Vietnam, more secure from ground attack. (Later, I will discuss some of the new tactics and techniques which have been developed to help cope with these new problems.)

While many of the Communist main force units in the highlands continue to absorb heavy casualties, they are still effective in the field. By continuing heavy inputs of manpower from the North and shifting strategy and tactics, the Communists apparently hope to offset the advantages gained by the allies through the introduction of U.S. combat troops. Operating close to their sanctuaries in North Vietnam and Laos, the Communists hope to regain the initiative in deciding when and where to fight, thus conserving their forces, prolonging the conflict and forcing us to deploy our troops in response to their thrusts.

Although the combat efficiency of the Communist main force units in the coastal areas appears to have been reduced, they still constitute a formidable threat, particularly in the crucial pacification

effort. Through defensive maneuver operations, unit dispersal and other tactics, these units have managed to survive and continue offensive operations in and on the fringes of the populated areas. In some areas, these attacks have slowed our efforts to consolidate our gains; in other parts of the coastal provinces the increasingly aggressive behavior of surviving main force units has reversed previously favorable trends and caused some deterioration in local security situations.

In the Delta, the combat effectiveness of many of the Viet Cong main force battalions has also been reduced as a result of continuing combat attrition, difficulty in recruiting local manpower, and the transfer of key cadre to units outside the Delta. However, none of these Delta units has been completely destroyed, and there is little prospect that any will be in the foreseeable future. Furthermore, partly to conserve their forces, the Communists are increasingly resorting to hit-and-run attacks with mortars and recoilless rifles not followed up by sustained ground action.

Country-wide, the evidence appears overwhelming that beginning in 1966 Communist local and guerrilla forces have sustained substantial attrition. As a result there has been a drop in combat efficiency and morale among many such units, though the guerrilla situation varies radically from area to area. In the northern I Corps, for example, where guerrillas are backed up by strong main force units, the guerrilla elements remain an important threat. They also seem to have maintained their effectiveness in the Delta where allied pressure has been the lightest. Elsewhere in the country these forces appear considerably less effective than in 1965. I should caution, however, that the Communists are well aware of the deterioration of their guerrilla forces and they are making great efforts to increase their effectiveness through consolidation and new tactics, and the augmentation of guerrilla efforts with main force specialists, such as sapper units.

In the second major area -- pacification -- progress continues to be slow and uneven, with gains in some areas and setbacks in others. Although the pacification program registered definite net progress in 1967, achievements fell short of the goals.

As I pointed out last year, the military problem in pacification operations is to eliminate the Viet Cong guerrilla forces district by district, and village by village. For the most part, guerrilla forces are local groups whose mission is harassment, sabotage, control and intimidation of the local population as well as the provision

of intelligence, terrain guidance, supplies and recruits for main force units. Only when these local guerrilla forces are permanently dispersed or harried into the ground can the full range of revolutionary development measures be undertaken on a permanent basis.

Pacification is a very slow and painstaking process. Even after an area has been essentially "cleared" of main force elements, a Free World military presence must be maintained to cope with residual guerrilla units. In fact, we have found that it is very difficult to clear, completely and permanently, any area in which the guerrillas were once well established. Even where we have been conducting clear and secure operations for several years, guerrilla hit-and-run attacks still occur. It was for this reason that we decided last year to increase substantially the amount of military resources devoted to the pacification effort. To this end, about one-half of the regular South Vietnam Army has been assigned to this mission (one obviously best performed by Vietnamese), and we are now engaged in building up and retraining the Regional and Popular Forces who are most directly involved in providing the local security that permits pacification efforts to proceed. We also intend to continue to build-up the National Police whose task is to ferret out the hidden Viet Cong infrastructure, and the Revolutionary Development Cadres whose task is to help the villages and hamlets restore local government, construct community facilities and improve agricultural practices.

In the final analysis, the ultimate success of our entire effort in South Vietnam will turn on the ability of the government to re-establish its authority over its territory so that peaceful reconstruction can be undertaken.

Perhaps the best single measure of pacification is the extent to which the population has been brought under government control and protection. To provide a more valid standard of measurement, we have developed a device called the Hamlet Evaluation System. This new reporting system, which went into effect early in 1967, indicates that about 67 percent of the people of South Vietnam live under allied military protection and some form of continuing GVN administration.

For a number of reasons, the pace of the pacification program in 1967 was relatively slow. The security problem has already been touched on. Village and hamlet elections last spring and national elections in September and October preoccupied the GVN authorities and diverted security forces from purely pacification objectives. Although this diversion of effort contributed importantly to long-term nation-building objectives, it has slowed the momentum of the

pacification program. Furthermore, even under optimum conditions, pacification progress is not going to be rapid since pacification involves nothing less than the restructuring of Vietnamese society.

Moreover, Viet Cong counteraction to the pacification program intensified appreciably during 1967 in a manner that constitutes an indirect tribute to the program's concepts but inhibited its rate of progress. In addition to continuing their direct attacks on pacification teams in the secure hamlets, the Viet Cong stepped up their attacks against district towns and provincial capitols. While the Viet Cong have been unable to hold any of these urban centers, the attacks have heightened the feeling of insecurity in those areas. The overall impact of the Viet Cong attack on the pacification effort is reflected in the Hamlet Evaluation System reports for 1967, which indicate that there was improvement in 35 districts but some deterioration in 29. By and large, the gains occurred in areas near large cities where allied forces were concentrated, and the losses occurred in the more remote areas where allied forces operate in a more dispersed pattern.

In a related effort, we believe progress is beginning to be made in ferreting out the hidden Viet Cong infrastructure. Despite some overall management problems, the Vietnamese military and security services, including the National Police, are now mounting an increased number of attacks on this infrastructure at the local level with encouraging results. The tempo of this activity can be expected to increase significantly in 1968.

Similarly, the Revolutionary Development Cadres program is moving forward despite a number of difficulties. Almost all teams have now completed work in their initial hamlet assignments and have moved on to their second assignments. Losses from Viet Cong attacks and other causes were high in 1967, but they have been more than offset by the output of new cadres from the training center (which is now meeting its monthly quota), and steps have been taken to improve the discipline, morale, leadership and overall quality of recruits.

With regard to the economy, the principal problems have been to keep the inevitable rise in prices under control and to revive agricultural production. Although the general price level continued to rise during 1967 as the result of the continued influx of U.S. troops and our large construction program, the rise has been kept to manageable proportions. We, ourselves, have taken drastic action to limit our expenditures in South Vietnam. To reduce the personal spending of our troops in South Vietnam we have made full use of the

new authorization to pay ten percent interest on the savings deposits of military personnel serving in Southeast Asia. We are also sending our military personnel to other countries for rest and relaxation. Finally, to offset the inflationary impact of our presence in South Vietnam, we are providing a substantial amount of economic assisance, particularly in the form of imports. As a result of these efforts, the increase in the overall price level was held to under 35 percent during 1967, far less, for example, than the Korean price level rose in the second year of that war.

Because most of the combat operations are conducted in rural areas, and because of the diversion of indigenous manpower to wartime tasks, agricultural production and distribution have suffered greatly. Deliveries of domestic rice to Saigon (which is the main distribution point for the rice deficit region to the north) have declined sharply since 1963. But we hope the decline has bottomed out, and we are attempting to increase production and deliveries in 1968. The rice producers are now using increasing amounts of fertilizer and some simple farm machinery, as well as some new more productive varieties of rice, all of which should help to increase yields both per hectare and per hour of labor. In addition, vegetable and poultry production have been rising steadily, and we are meeting some of our own needs from local sources. All in all, I believe we have seen the worst of the agricultural decline and the future looks much more promising.

However, much more needs to be done by the Government of South Vietnam. Incomes of government employees, both military and civilian, have not kept up with the rising price level and will have to be raised if corruption is to be reduced and efficiency increased. Rural income will also have to be raised to promote pacification and reduce migration to urban areas. In contrast, incomes in other private sectors of the economy have been increasing faster than the price level and should be restrained. This will require new tax legislation and a restraint on non-essential government spending. Finally, restrictions on the movement of goods throughout the country must be eliminated.

In the political arena as well, there has been encouraging progress. Step by step, and nowithstanding the Viet Cong attacks and the great scepticism expressed both within and without South Vietnam, the people of that country have moved to constitutional government. A Constituent Assembly has been elected, a new constitution written and a new national government elected and installed. Although the political structure is still very fragile, the first essential steps in the evolution of a viable South Vietnamese state have been taken. Further-

more, over half of the entire adult population of South Vietnam (including those adults working or serving with the Viet Cong) participated in the electoral process through which these new institutions were brought into being. Political evolution, moreover, has not been confined to the national arena. Some of the hamlet and village councils recently established by popular election represent a structure that over the long run could outweigh in importance the more widely publicized advances in the national government. But at all levels of government, continued progress toward stability and responsiveness requires a determined attack on basic social ills, including the problem of corruption. Higher salaries for government representatives, both civilian and military, is only one of the necessary steps. Leaders in the new government not only must set the example by their own conduct but also must act promptly to remove and punish those who abuse their positions for personal gain. I believe there are responsible leaders within the government of South Vietnam who have the requisite attitude and ability to combat corruption effectively. The fate of their government rests on their success in surmounting this and other obstacles to the prompt development and introduction of the economic and political programs that will gain and retain wide popular support.

The air campaign against North Vietnam has included attacks on industrial facilities, fixed military targets, and the transportation system.

Attacks against major industrial facilities through 1967 have destroyed or put out of operation a large portion of the rather limited modern industrial base. About 70 percent of the North's electric generating capacity is currently out of operation, and the bulk of its fixed petroleum storage capacity has been destroyed. However, imported diesel generators are probably producing sufficient electricity for essential services and, by dispersing their petroleum supplies, the North Vietnamese have been able to meet their minimum petroleum needs. Most, if not all, of the industrial output lost has been replaced by imports from the Soviet Union and China.

Military and economic assistance from other Communist countries, chiefly the Soviet Union, has been steadily increasing. In 1965, North Vietnam received in aid a total of $420 million ($270 million military and $150 million economic); in 1966, $730 million ($455 million military and $275 million economic); and preliminary estimates indicate that total aid for 1967 may have reached $1 billion ($660 million military and $340 million economic). Soviet military aid since 1965 has been concentrated on air defense materiel -- SAMs,

AAA guns and ammo, radars, and fighter aircraft. We estimate that through June 1967 the Soviets provided 30 battalion sets of SAM equipment, more than 3,000 replacement missiles, about 150 aircraft, more than 6,000 AAA guns and 250 radars. China's aid has been concentrated on the ground forces. Ammunition (AAA and ground) from both sources totaled 25,000 tons in 1965, 50,000 tons in 1966 and 40,000 tons in the first half of 1967.

Soviet economic assistance has included trucks, railroad equipment, barges, machinery, petroleum, fertilizer and food. China has provided help in the construction of light industry, maintenance of the transportation system and improvements in the communications and irrigation systems, plus some 30,000 to 50,000 support troops for use in North Vietnam for repair and AAA defense.

Damage inflicted by our air attacks on fixed military targets has led to the abandonment of barracks and supply and ammunition depots and has caused a dispersal of supplies and equipment. However, North Vietnam's air defense system continues to function effectively despite increased attacks on airfields, SAM sites, and AAA positions. The supply of SAM missiles and anti-aircraft ammunition appears adequate, notwithstanding our heavy attacks, and we see no indication of any permanent drop in their expenditure rates.

Our intensified air campaign against the transportation system seriously disrupted normal operations and has increased the cost and difficulties of maintaining traffic flows. Losses of transportation equipment have increased, but inventories have been maintained by imports from Communist countries. The heavy damage inflicted on key railroad and highway bridges in the Hanoi-Haiphong areas during 1967 has been largely offset by the construction of numerous bypasses and the more extensive use of inland waterways.

While our overall loss rate over North Vietnam has been decreasing steadily, from 3.4 aircraft per thousand sorties in 1965 to 2.1 in 1966 and to 1.9 in 1967, losses over the Hanoi-Haiphong areas have been relatively high. For example, combat losses have been 17.9 aircraft per thousand attack sorties in April-December 1967 against targets in the Hanoi-Haiphong areas, compared with one per thousand attack sorties against the primary infiltration routes and related truck parks and supply areas.

The systematic air campaign against fixed economic and military target systems leaves few strategically important targets unstruck. Other than manpower, North Vietnam provides few direct resources to

the war effort, which is sustained primarily by the large imports from the Communist countries. The agrarian nature of the economy precludes an economic collapse as a result of the bombing. Moreover, while we can make it more costly in time and manpower, it is difficult to conceive of any interdiction campaign that would pinch off the flow of military supplies to the South as long as combat requirements remain at anything like the current low levels.

1. The Communist Forces in South Vietnam

Last year I described in some detail the complexities involved in estimating the Communist "Order of Battle" in South Vietnam. Since that time, MACV has been restudying the entire problem and has now evolved a new format which we believe more clearly depicts the significant trends in the strength and character of the Communist fighting forces. We have never been satisfied with the estimates of the Communist Political Cadres (i.e., the Viet Cong infrastructure) or the so-called Self-Defense and Secret Self-Defense forces. These are very vague categories which do not lend themselves to any kind of reasonably precise measurement. Even more important, they are not fighting forces and, therefore, didn't really belong in the Order of Battle estimates. Accordingly, the new Order of Battle estimates now include only three categories of fighting forces: Combat, Administrative Services and Guerrillas. The first category includes the combat and combat support units; the second, the rear area technical services; and the third, the full-time irregular but organized units.

The estimates of enemy strength are subject to frequent change and it is difficult to spell out at any one time the detailed changes in enemy force structures; however, it seems quite certain that total enemy strength did decline during 1967. Most of the decline took place among the irregular forces. The strength of enemy regular combat forces has been maintained at a relatively constant level of about 110,000-115,000 during the past year. The participation of the NVA increased from about 9,000 men in June 1965 to between 50-55,000 at the end of 1967. In addition, some 10,000 NVA troops have been placed in Viet Cong combat units to help them maintain their strength at about 60-65,000 troops. The number of administrative support troops who back up the combat regulars is at least 35,000-40,000. The number of guerrillas has been declining during the past year and is estimated at between 70,000-90,000.

It is estimated that during all of 1967, the Communists lost about 165,000 effectives: about 88,000 killed in action, 30,000 dead or disabled from wounds, 6,000 prisoners of war, almost 18,000 defectors

to the Government of South Vietnam, and about 25,000 disabled by disease, deserted (other than to GVN), etc. These estimates, however, must be used with a great deal of caution. We know the number of Communist prisoners of war and defectors. But the estimates of the number killed in action are based on a body count which includes many judgment factors, and the number dead or disabled from wounds is a computed figure representing 35 percent of the body count. The number disabled by disease, etc., is simply a guess since we have no solid basis for calculating this figure. In any event, Communist losses in 1967 were extremely heavy and were at least 50 percent higher than in 1966.

These losses are replaced by recruitment within South Vietnam and infiltration from the north. The Viet Cong have had considerable difficulty in meeting recruitment goals. Although we can make only rough estimates of actual recruitment we believe that it has declined from a level of about 7,000-8,000 men a month during 1966 to something on the order of 3,000 to 5,000 men a month by the end of 1967. The balance of the manpower drain must be filled by infiltration. Infiltration from the north averaged about 7,000 men a month during the first half of 1967. It will be several months before we have final estimates for the second half of 1967 but preliminary indications are that it has been continuing at about the same rate.

A recent appraisal of the manpower situation in North Vietnam shows that North Vietnamese manpower reserves are adequate to meet current demands and that Hanoi could support a military mobilization effort higher than present levels. North Vietnam's present force level of 480,000 represents only about 3 percent of the population. More than half its male population of 2.8 million between the ages of 17 and 35 are believed to be fit for military service. But Hanoi apparently satisfies its military force level requirements at the present time simply by drafting all or almost all of the estimated 120,000 physically fit men who reach the draft age every year.

As to the future, our estimates are, of course, very uncertain. We believe that any net increase in Communist strength during 1968 will have to come from North Vietnam; the local supply of Viet Cong manpower is growing more limited with each succeeding year. We have reason to believe that two new North Vietnamese divisions have moved south through the Laos panhandle. (As I pointed out last year, North Vietnam has not infiltrated into the South any very large part of its active Army. The limiting factor is not the total size of the North Vietnamese Army but rather the number of men that they are capable of training and infiltrating into South Vietnam, particularly the number

of essential cadre available.) These divisions have not yet been reflected in the Order of Battle and will not be counted until they actually cross into South Vietnam. Thus, the combat strength of the NVA in the South may increase sharply in the next few months, and we have provided for this development in our own plans.

2. The South Vietnamese Armed Forces

At the end of 1967, the Government of South Vietnam had a total of about three quarters of a million men under arms -- about 341,000 in the regular forces (Army, Navy, Marine Corps, Air Force), 150,000 each in the Regional and Popular Forces, 42,000 Civilian Irregular Defense Group (CIDG) forces and 70,000 National Police.

The regular Army now stands at about 301,000 compared with 284,000 in December 1966 and will be continued at least at that strength through the end of FY 1969. Last year I noted that a major effort would be made in 1967 to bring the "present-for-duty" strength of the Army maneuver battalions up to an acceptable level. This has been substantially accomplished with the increase of about 17,000 men in Army strength, and we now believe that the number of battalions can be increased slightly, from 167 in December 1966 to 171 in 1968 (including in each case five Marine Corps battalions). The other three Services will be kept at about their present strength over the next 18 months, with small increases in the Marine Corps and Air Force and a small decrease in the Navy.

The strength of the Regional and Popular Forces, however, will be substantially increased -- from 150,000 to 184,000 in the case of the former, and from 150,000 to 161,000 in the case of the latter. In addition, as I noted earlier, these forces will be retrained and provided better equipment since they play a major role in the pacification effort. Similarly, the government will continue its effort to increase the size of the National Police force, the expansion of which has consistently fallen behind schedule. Although recruitment for this force has lagged and certain units are still not properly assigned, the government hopes to increase the strength to about 98,000 by June 1969, compared with about 58,000 at end 1966. A further small increase will also be made in the CIDG to about 50,000, and many of these units will be moved from the coastal provinces into the highlands where they are now most needed.

To meet these increased manpower goals and to replace losses (i.e., casualties and desertions), the South Vietnamese armed forces will need an input of about 200,000 men in 1968. This number is

considerably more than the present draft system can furnish. Accordingly, a partial mobilization has been decreed by the Government and the details of the new measure are now being debated in the legislature. It is our hope that the draft will be expanded and intensified since we feel very strongly that the recently announced increase in our deployments should be matched by an increase in the South Vietnamese forces.

In this connection, I should point out that the performance of the South Vietnamese forces improved in 1967. Many of their units have achieved major victories, particularly those operating with our own forces. Desertions are down sharply from an average in the regular forces of about 22 per thousand per month in the first half of 1966 to about 10 per thousand per month in all of 1967. In the Popular Forces the monthly rate declined from about 27 per thousand in the first half to about 13 per thousand in all of 1967. The rate in the Regional Forces in 1967 has averaged about 10 per thousand, about the same as in 1966.

3. Other Free World Forces in South Vietnam

Excluding U.S. forces, there are now a total of about 60,000 other Free World military personnel in-country. South Korea, with a strength of 48,800 has furnished two divisions and one brigade -- a total of 22 infantry type battalions -- and has agreed to furnish six more battalions. Australia, with a present strength of 6,600 (which will grow to 8,000 by next June), has furnished three infantry battalions, a squadron of eight attack bombers and a guided missile destroyer. New Zealand has increased its strength to about 500 and the Philippines have furnished a reinforced construction battalion of about 2,000 men. Thailand now has one maneuver battalion in South Vietnam with about 2,400 men. This force will grow to six maneuver battalions and 12,000 men by June 1969. All of these nations, except the Philippines, have increased their force commitments since last year.

4. U.S. Forces in Southeast Asia

Last year we budgeted for a total of about 470,000 men in South Vietnam by June 1968, but last summer General Westmoreland requested and the President agreed to provide additional forces. Thus, by December 31, 1967 we had about 485,000 men there, and this number will grow to about 518,000 by June 1968 and later to a total of 525,000. (Total allied forces in South Vietnam increased from 690,000 in June 1965 to 1,298,000 in December 1967 and are scheduled

to grow to about 1,400,000 by June 1968.) The U.S. ground forces in December 1967 included 102 maneuver battalions (79 Army, 23 Marine Corps). By April 1968 there will be 106 battalions (four additional Army), the total approved force. The ground forces are now supported by about 3,100 helicopters, and this number will grow to about 3,600.

In June 1965, before the major build-up of U.S. forces in Vietnam began, both the consumption and production of ground ammunition were running at relatively low levels, as is normal in peacetime. Since then, both consumption and production have increased many fold. During the early months of the force build-up, when consumption outpaced production, ammunition requirements were met by drawing down war reserve stocks which, of course, is just what our planning envisioned. Actually, the amount drawn down was small in relation to our total stocks -- about 350,000 tons out of a total inventory of almost 1.9 million tons. (All ground ammunition figures relate to the 40 major items accounting for about 85 percent of the tonnage used in Vietnam.)

During the past year, ammunition production has nearly tripled -- from 39,000 tons in December 1966 to 113,000 tons in December 1967 -- and since June, has equalled or exceeded consumption. Actual consumption of the 40 major items in 1967 was a little over one million tons (compared with last year's estimate of 900,000 tons). Production will continue to increase during the next few months and should level off at about 130,000 tons per month by December 1968, well above the projected consumption rate of about 110,000 tons per month. The excess of production over consumption will be used to replace the reserve stocks drawn down earlier and will also serve as a safety factor in case consumption exceeds the planned levels. Our reserve production capacity, which will still be large, serves as a second safety factor to meet an even larger consumption requirement. The FY 1969 Budget includes about $2.8 billion for ground ammunition, enough to raise our total inventory to 1,700,000 tons compared with a low point of 1,530,000.

We now have a total of about 1,000 fighter/attack aircraft based in South Vietnam, Thailand and aboard carriers offshore, and plan to increase this force slightly to about 1,070 aircraft by December of this year. We are now flying a total of about 28,000 to 30,000 attack sorties per month, which is about the range we are projecting over the next 36 months, the period representing the leadtime for which aircraft procurement is provided in the FY 1969 Budget. In addition, the B-52 force in 1967 flew a total of more than 800 sorties per month, and we plan to increase the number of these sorties to 1,200 per month by February or March of this year.

Total air ordnance consumption was running about 83,000 tons per month in the last few months of 1967. (Air ordnance data refer to the 53 major items which account for about 95 percent of the tonnage used in Southeast Asia.) In view of the increased number of B-52 sorties and higher average loading of the tactical aircraft, we are projecting a consumption rate in excess of 100,000 tons per month by February or March 1968. Production at the close of 1967 was running at about 100,000 tons per month.

In June 1965, prior to the Vietnam build-up, we had about 500,000 tons of air deliverable ordnance in the inventory. By June 1966 these stocks had been drawn down to about 360,000 tons, but by that time production had almost caught up with consumption. As of December 1967, we had about 680,000 tons in the world-wide inventory. This is more than we believe is needed with a "hot" production base. Accordingly, we now plan to reduce these inventories to about 640,000 tons, resuming the build-up to our "cold base" objective after hostilities are terminated. This will allow us to shut down the lines gradually, thereby avoiding unwanted surplus and cushioning the impact on the economy.

Large quantities of air-delivered munitions will continue to be needed, and a total of about $3.5 billion is included in our FY 1969 request for these items for all the Services.

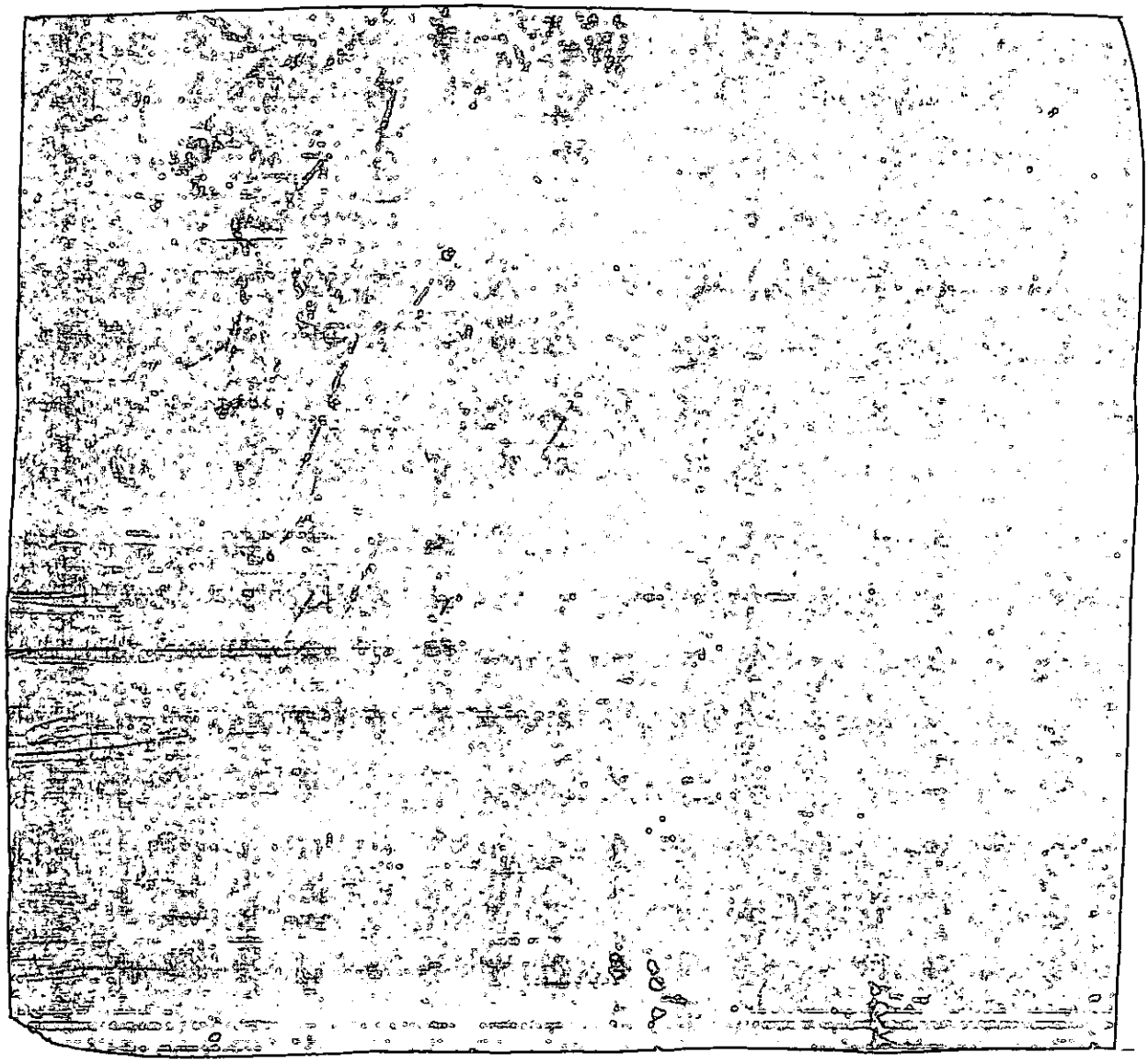
No major change is planned in the "offshore" naval forces, except for the battleship NEW JERSEY which will deploy to the South China Sea in September. The river patrol force will be further increased from about 159 vessels in December 1967 to about 250 by December of this year.

During the past year, we have battle tested the first mobile "Riverine" force in the Mekong Delta. This force of three battalions has been stationed on two naval barracks ships (plus a barracks barge) and at a nearby land base (two battalions afloat and one ashore).

Results have been encouraging and we now intend to increase the force. Three more barracks ships and two more River Assault Squadrons will be added. This will allow us to "water base" three battalions plus an artillery battalion and a brigade headquarters. The afloat forces will operate together with land based units, both U.S. and South Vietnamese.

Other additional deployments to Southeast Asia will require only a very small increase in the number of U.S. military personnel in Thailand, to a total of about 48,000. No significant increase will

be needed at our bases in the Western Pacific (Ryukyus, the Philippines, Taiwan, Japan and Guam), where we have about 120,000 military personnel.



I noted earlier that our success in pushing the Communist main force units back into the highlands along the borders of South Vietnam has created new problems. Operating in such close proximity to the borders, our forces do not have much room for maneuver in attempting to cut off Communist units from their lines of communications. Consequently, we have had to develop new means for interdicting the flow of men and supplies to these units.

The principal routes of infiltration now run through Laos and across the DMZ. (Our MARKET TIME operations have substantially denied the sea routes to the Communists.) Until very recently, our principal method of interdicting this flow has been by air attack. However, we have been unable to destroy or damage enough vehicles to seriously reduce the flow of supplies, and the detection of and attack on personnel has been even less successful. Poor weather and enemy night operations degrade our air reconnaissance and attack capabilities. Furthermore, it is extremely difficult to detect infiltrating personnel and vehicles along the many alternate routes, trails, rivers, and streams which run under the deep jungle canopy.

Accordingly, we have developed a new anti-infiltration system, DYE MARKER/MUSCLE SHOALS, to help cope with this problem. This system has three parts.

The first subsystem will consist of a continuous strong point/obstacle line running across the coastal plain 27 kilometers inland from the sea, about five miles south of the Ben Hai River, plus a series of five battalion-size combat operating bases extending westward from Cam Lo at the inland end of the continuous line through the mountainous area to Khesanh near the border of Laos. The strong point/obstacle line will have built into it five strong points (including Conthien and Goi Linh), with four supporting bases to the rear. The four eastern-most strong points will be manned by South Vietnamese troops and the fifth by U.S. Marines -- about one battalion in each. The supporting bases, with the artillery, will be manned by South Vietnamese and U.S. Marines. The five combat operating bases will be manned by U.S. Marines.

The obstacle system itself will consist of a continuous barrier of barbed tape concertina, barbed wire, minefields and special sensors employing infrared, seismic and pressure detection devices. Night vision devices, search lights and radars will also be used to aid in the detection of infiltrating personnel.

The second subsystem consists of air-seeded and air-monitored sensor/mine fields. This subsystem, stretching perhaps 20 kilometers west into Laos, is concentrated on the main foot trails and is optimized for the detection of personnel. By and large, the sensors are air-dropped, but in certain areas where we can use ground reconnaissance teams, hand emplaced sensors will also be used.

The third subsystem runs inland from the western end of the second subsystem and will cover the main truck routes in Laos. The sensor fields used in this system are optimized for the detection of trucks.

Reaction to infiltration activities detected along the strong point/obstacle system will be at the discretion of the local commanders, with artillery, air support or air mobile forces being called in as required. Information generated by the two air-emplaced, air-monitored subsystems are fed into an infiltration surveillance center located in Thailand with air reaction being at the discretion of the 7th Air Force Commander.

Operational tests of various elements of DYE MARKER/MUSCLE SHOALS indicate a very substantial increase in vehicle and personnel detection. If such an increase in detection can be realized across the board, the number of vehicles destroyed and damaged should be greatly increased and the flow of men and supplies into South Vietnam reduced or increased in cost.

The third subsystem, over the truck routes in Laos, is already in place. The second subsystem has just gone into operation. The strong point/obstacle system is well along in construction and should be completed in the spring or early summer.

DYE MARKER/MUSCLE SHOALS is a continuing program, and improvements will be added as they are developed and proved feasible. About $322 million was allocated to this program in FY 1967, including about $175 million for munitions, $21 million for sensors, $41 million for aircraft modifications, $20 million for construction, and $53 million for research and development. In FY 1968 we have programmed a total of about $545 million, including about $348 million for munitions, $25 million for sensors, $35 million for aircraft modifications, and $75 million for research and development. For FY 1969 we are requesting about $695 million, including $355 million for munitions, $50 million for sensors, $25 million for aircraft modifications and $65 million for research and development. A total of 91 aircraft (12 P-2Es, 30 EC-121s, 12 CH-3s and 31 F-4Ds) are being specially modified for this program. The principal new types of munitions involved are the DRAGON TOOTH, GRAVEL and TRIP-WIRE anti-personnel mines to harass and slow personnel and vehicle movement and to protect the sensors. BUTTON bomblets have been developed to enhance sensor coverage.

The research and development funds requested in FY 1969 will be used principally for second and third generation sensor systems and monitoring equipment, and devices designed to discourage enemy countermeasures.

E. ARMY GENERAL PURPOSE FORCES

Last year I described how the "division force" concept had helped us to achieve a better balance among all of the essential elements of our land forces, both active and reserve. Now we have reached the point where we can present these forces on a truly integrated basis.

1. Division/Brigade Forces

As previously mentioned, we have found it useful in developing readiness requirements for specific units and in determining the peacetime distribution of units between the active and the reserve components to divide the division force into three increments, each with about 16,000 men:

1. The Division itself or its approximate equivalent in separate brigades.

2. The Initial Support Increment (ISI) -- the non-divisional combat and combat support units which are required for the support of the division from the inception of combat operations.

3. The Sustaining Support Increment (SSI) -- the additional non-divisional combat, and combat support and service units required to sustain the division in combat indefinitely.

Generally the composition of the ISI is comparable to the non-divisional support provided at the corps and field army levels, including such combat units as the armored cavalry regiments. The composition of the SSI is comparable to the theater level line of communication support furnished to field armies, including, for example, separate brigades for rear area security.

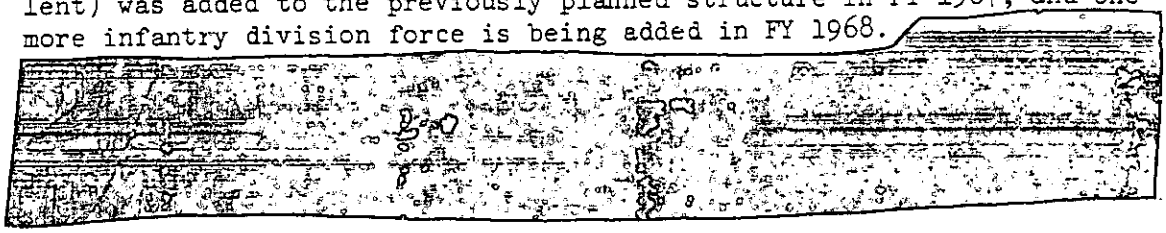
Normally, ISI units would deploy with the division itself and, therefore, would have the same readiness requirement. SSI units, however, may be required before, at the same time, or subsequent to the deployment of the division, depending on the particular situation. For example, in a new theater of operations, some SSI units may have to be deployed in advance of the division in order to develop the required base structure and, therefore, some must be available in the active forces. Similarly, where divisions are already deployed in forward theaters during peacetime, some of the required SSI units should also be provided in the active structure, with some of them actually in the theater. However, where a division is planned for a reinforcing role, the SSI units would not usually be required immediately and could, therefore, be held in the reserve components.

In peacetime, most of the SSIs of the STRAF divisions planned for use in areas other than NATO are maintained in the active structure so that the majority of these divisions could be deployed and sustained in combat without a reserve mobilization. The SSIs (and even some of the ISIs) for the STRAF divisions earmarked for NATO, however, can be provided by the reserve components, since we would definitely have to call up the reserves in the event of a war in Europe. Accordingly, these units could be mobilized to coincide with the deployment schedules planned for the divisions they are intended to support.

Shown below are the Army division forces planned for the end of FY 1969 (including the temporary augmentation for Southeast Asia)

	End FY 1969		
	Div.	ISI	SSI
Active			
Overseas	14-2/3	14-2/3	10-2/3
U.S.	5	5	1-1/3
Total	19-2/3	19-2/3	12
Res.Components	8	8	15-2/3
Grand Total	27-2/3	27-2/3	27-2/3

As shown in the table above, we are now planning an Army force structure of 19-2/3 active and 8 reserve division force equivalents for end FY 1969, 1-1/3 more active division forces than planned last year for end FY 1968. One brigade force (i.e., 1/3 division force equivalent) was added to the previously planned structure in FY 1967, and one more infantry division force is being added in FY 1968.



2. Supporting Forces

The number of separate support brigades in the active force remain unchanged from that presented last year. However, we were planning then to bring the number of reserve brigades up to 16. Under the new reorganization plan, which I will discuss later, the number of separate brigades would be increased to 21, three of which would be in the Army Reserve and 18 in the Army National Guard.

The number of armored cavalry squadrons in the active force will remain at 34 through FY 1969 [redacted]. Five squadrons will be added to the reserve forces in FY 1968 as planned last year. We also have five air cavalry squadrons in the active force, [redacted]

The number of artillery battalions in the active force in FY 1968-69 has been increased from [redacted] planned last year [redacted] as a result of the recent augmentations of our forces in Southeast Asia.

We have reviewed again the requirement for artillery battalions in the permanent force, especially the composition and balance between the reserve and active structures. As a result of this review and our experience in Vietnam, we propose to add [redacted] battalions to the active structure. [redacted] With regard to the reserves, we have decided to increase the proportion of heavier artillery and hold the total [redacted] battalions [redacted]

The engineer construction battalion program is the same as last year, as is the active combat engineer program. The number of reserve combat engineer battalions has been reduced [redacted] because an additional company was added to each battalion.

With regard to the surface-to-surface missile forces, we are still studying the requirement for these units and the proper mix of extended range LANCE, HONEST JOHN, and SERGEANT. Technical problems encountered

in the development of the LANCE propulsion system, however, have not yet been solved, and procurement has thus been limited to test missiles. The additional procurement funds requested for FY 1969 will be used for advanced production engineering, production facilities and test missiles. Moreover, the entire program will be reoriented to the extended range version of the LANCE. This version will have an improved engine, increasing maximum range with a nuclear warhead [redacted]. Accordingly, we now propose to retain the [redacted] HONEST JOHN battalions in the active force until a new plan for the surface-to-surface missile force is developed and approved.

The SAM-D, a new air defense missile system, has made substantial progress during the past year. Contract definition has been completed and the system is now in development. SAM-D, as now planned, would employ only one type of radar, which can be rotated in any direction of attack, as well as an improved missile guidance system. We are presently studying the question of replacing HERCULES and HAWK with SAM-D.

The shoulder-fired REDEYE missile, after much tribulation, has turned out to be an effective weapon against low flying aircraft and is now being procured for [redacted] combat units.

During the last seven years (FY 1962-68, inclusive), a total of $4.8 billion has been programmed for the procurement of fixed-wing aircraft, helicopters and spare parts. Between the end of FY 1961 and the end of the current fiscal year, the Army's active aircraft inventory and the pilot inventory will have nearly doubled. The presently planned inventory build-up should be essentially completed with the FY 1969 buy. The chief task for the future is to find some way to improve, significantly, the overall utilization of this huge inventory [redacted] rather than the procurement of more helicopters.

The importance of fixed-wing aircraft in the Army inventory will continue to decline, and by FY 1971 they will constitute less than twenty percent of the authorized inventory. When the conflict in Vietnam ends, we plan to use the assets of the temporary, active Army aviation units to accelerate the build-up and modernization of the reserve component helicopter inventory.

[redacted]

unable to train and deploy these units as fast as we had hoped. However, by the end of the current year the force build-up should reach 218 units, just one short of the level planned last year for FY 1968. The increase of 16 units in FY 1969 reflects, for the most part, last summer's decision to deploy additional forces to Southeast Asia while continuing to maintain the required aviation support for a five-division force in the STRAF.

With respect to the post-Vietnam permanent force, the planned number of units has been increased by two, to a total of 169.

3. Army Procurement

Shown on Table 7 is a summary of the Army's proposed procurement program for FY 1969 compared with those of the past eight years. Inasmuch as some of the categories have been discussed earlier, and other witnesses will be discussing this program in detail later, I will touch on only a few of the highlights at this point.

With respect to aircraft, the FY 1969 program is designed to replace attrition and equip the recently authorized temporary units without exceeding, except where absolutely necessary, the quantity required to support the permanent active and reserve units. On this basis, the Army would procure 1,304 aircraft in FY 1969, of which all but 30 OV-1s and 9 RU-21s will be helicopters.

Funds are also requested for the procurement of the first 15 operational AH-56A CHEYENNEs, a fire support "compound" helicopter that utilizes a "pusher" propeller to give it greater speed and stability, carries a heavy load of a variety of armaments and has extremely accurate fire control and navigation systems. The first prototype models are now undergoing flight testing. Army full systems tests are scheduled to begin in the early spring of 1968. The decision to begin production of the AH-56A in FY 1969, before the flight tests are completed, involves a relatively small risk and allows us to take advantage of the favorable price and contractor warranties which were included as an option in the original "total package" contract. This option covers the procurement of 375 aircraft over a four-year period.

With respect to tracked combat vehicles and associated equipment, our present program is designed to provide each U.S. tank platoon in Europe with three M-60s equipped with the 105mm gun and two M-60s equipped with the SHILLELAGH/152mm gun system. U.S. based tank units which might be employed in Europe would have the 105mm gun M-60s only. All other tank units would be equipped with the 90mm gun M-48s. The M-551

[redacted]

Difficulties with the SHILLELAGH missile/gun system [redacted] have caused us to limit FY 1968 production of the M-60 [redacted] equipped with the 105mm gun [redacted], and to cut FY 1968 procurement of the SHERIDAN [redacted]. For FY 1969, we now propose to procure [redacted] SHERIDAN and [redacted] M-60 tanks, all with the SHILLELAGH missile/gun system, thereby maintaining the minimum sustaining production rate for both vehicles. An additional [redacted] M-60 chassis will be procured in both FY 1968 and FY 1969 for the armored vehicle launched bridge and the combat engineer vehicle.

Last year we planned to mount new SHILLELAGH turrets on [redacted] existing M-60 chassis and use the gun turrets thereby freed to upgrade an equal number of M-48 tanks. However, the cost of this retrofit program has risen to the point where we could buy new tanks for the same outlay. We, therefore, cancelled the retrofit program, and the [redacted] SHILLELAGH turrets will be applied to the FY 1969 M-60 tank production program. We still intend to complete the retrofit of [redacted] M-48s programmed in FY 1968 with new diesel engines and fire control equipment. These tanks, plus [redacted] already on hand, and [redacted] programmed in FY 1967 will meet all presently foreseeable needs for M-48s.

The first three pilot models of the new Main Battle Tank have been delivered and are now undergoing testing. Although the cost of the program has risen substantially above the original estimates, it is believed that the tank will meet or surpass nearly all of its performance objectives. [redacted]

The MBT's main armament will be an automatically loaded SHILLELAGH missile/152mm gun system. This armament together with a fire control system which has [redacted] range finder capabilities, will enable the MBT to achieve [redacted] probability of a first-round kill against maneuvering armor [redacted] Funds are requested to continue development of the MBT in FY 1969 and for production engineering to support a first procurement of operational tanks in FY 1970, pending an agreement between the U.S. and FRG governments to go ahead with the program.

With respect to anti-tank missiles, production difficulties with the TOW, a heavy, wire-guided anti-tank weapon, which we had planned to procure this year, have caused us to delay procurement until FY 1969. Advance production engineering funds have been included in the FY 1969 Budget for the new medium anti-tank missile, DRAGON, which employs a command controlled, line-of-sight guidance system giving it a very high first round hit probability against either stationary or moving targets. Although costly, it is estimated that these two weapons systems alone will increase our ability to destroy Soviet armor [redacted] as compared with the 106mm and 90mm recoilless rifle which they are replacing.

Because of the relatively poor performance of the M-114 reconnaissance vehicle on the kind of terrain found in Vietnam and the limited armored threat to our forces in places other than Europe, we have decided to cancel the final (FY 1968) purchase of the 20mm Hispano-Suiza gun. The [redacted] cannons already ordered will equip the M-114 vehicles [redacted]

4. Reorganization of the Army Reserve Components

In May 1961, when I appeared before the Congressional Committees in support of President Kennedy's second set of amendments to the FY 1962 Budget, I noted that:

> "The role, mission, organization and strength of the Army Reserve and Army National Guard have been a matter of concern to the Defense Department for a number of years. Repeated studies of this problem have been made by the Joint Chiefs of Staff and other groups in and out of the Defense Department; however, except for the introduction of the pentomic organization in 1958 and 1959, little in the way of positive action has been taken.
>
> In the light of the present world situation it is essential that these 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."

Since that time we have made considerable progress in realigning the Army's reserve components to prepare them better for that essential role. A priority reserve force has been established with significantly higher levels of manning, equipping, training, and overall combat readiness. The reserve units for which no military requirement exists in contingency war plans have been or are being eliminated, and other units which are needed have been or are being added. (In total, a net reduction of 2,327 company and detachment size units will have been made between FY 1961 and FY 1969.) And, for the first time, the materiel and personnel requirements of the Army reserve components, which are required to support the contingency war plans, have been fully included in our programs. Now, the goal we set almost seven years ago is finally within our grasp. The Department of Defense has already started the implementation of the new plan, and the transition to the new force structure should be completed by the end of this coming May, in time for summer field training.

Shown on Table 6 is a comparison of the old (1961) and the new (1968) Army reserve component force structures. The old structure provided a total force of 37 divisions, 3 separate brigades, units to round out the active forces, etc., manned for the most part at about 55 percent of TO&E. The new structure will provide eight full division forces plus 21 separate brigades, together with the units needed to round out the active Army, provide for air defense, etc. -- all manned at approximately 93 percent or more of TO&E.

Associated with the new structure is a total average paid drill strength of 660,000 -- 400,000 in the Army National Guard and 260,000 in the Army Reserve -- more than justified by military requirements but the number prescribed by the Congress in the FY 1968 Defense Appropriation Act. To ensure that these average strengths are maintained, each component has been authorized an additonal manpower allowance of three percent to compensate for the fact that in recruiting and processing reserve component personnel, a lag usually occurs between the time a unit loses an individual and the time he is replaced. In the case of the Army Reserve, the three percent additional authorization will be distributed among the units presently programmed for the new structure. In the case of the Army National Guard, the three percent additional authorization will be used primarily to permit the creation of about 137 company- and detachment-size units over and above the units presently programmed for the new structure. This action was taken in response to requests from the governors for units to be used for strictly state purposes. No new procurement will be undertaken for these units; instead they will be furnished the necessary materiel from mobilization reserve stocks.

[redacted]

With the completion of these latest changes, I believe that we will have come close to achieving the basic goal set back in early 1961, i.e., a reserve force tailored to the requirements of our contingency war plans and "so organized, trained and equipped as to permit their rapid integration into the active Army."

[redacted]

F. NAVY GENERAL PURPOSE FORCES

The Navy General Purpose Forces planned for the FY 1969-73 period are shown on Tables 8 and 9. Except for the extension of the Vietnam-related force augmentations for another year and the addition of a battleship for this purpose, the major changes from the program planned last year concern the antisubmarine warfare carriers, a new ASW aircraft, the expansion of the SOSUS system and the escort program.

Before turning to the detailed force proposals, however, I would like to comment on one general problem which permeates the entire shipbuilding and conversion program.

As you will see when we discuss the details of this program, disturbingly large cost increases and delays in committment of funds have been encountered in recent years. For example, new construction ships in the FY 1969 Budget will cost, in most cases, 25 to 30 percent more than the most recently constructed similar type ship. Major conversion costs have also skyrocketed -- in some cases nearly doubling. Apparently, most of the cost increases are related to the current market conditions. All shipyards are now carrying heavy workloads and large backlogs and as a result, private yards are charging higher prices to take on additional work. In part, this is because they, themselves, are paying more for labor and material. Subcontractors, too, are able to charge higher prices since the heavy workload virtually guarantees them a satisfactory level of business. Another factor undoubtedly contributing to the rise in costs is the additional quality assurance controls which we are now insisting upon in order to increase the reliability and maintainability of the equipment we buy.

In view of this situation, although we are planning within the Defense Department essentially the same size General Purpose Force ship construction and conversion program as previously scheduled, we are requesting funds only to the extent that they can be committed in FY 1969 -- a total of about $1.1 billion. There is no sense in adding large new amounts to the already large balances of uncommitted ship construction funds before they are needed.

As to the future, we are taking several measures to deal with the more fundamental, long term problem of ship construction and conversion. You will recall that I discussed in some detail last year the problem of technological obsolescence in our shipbuilding industry, both public and private, as compared with those of Northern Europe and Japan. With regard to the public sector, the Navy is now developing a plan to modernize its yards during the FY 1969-75 period at an estimated cost of

$600 million. The primary objective of this program is to improve the yards' repair capabilities, since we will continue to concentrate new construction in private yards as we have in the past. Most of the specialized repair work, such as the repair and overhaul of aircraft carriers and nuclear ships (both submarine and surface) and complex shipboard electronic and missile systems is performed by the Naval shipyards. Therefore, we will concentrate the modernization effort in these areas, with particular emphasis on the reduction of manpower requirements. At the same time, we must assure sufficient plant facilities to provide the necessary "surge" capability for either a limited war without mobilization, or a general war with mobilization. Inasmuch as the details of this modernization program have yet to be fully worked out, only $53.7 million will be required in the FY 1969 Budget to initiate the effort.

With respect to the private yards, the Defense Department is attempting to offer American shipbuilders greater incentives to modernize their facilities and to increase their overall efficiency. The two most important techniques being used are multi-year contracts and "total package" procurements. In the first case, we try to award to a single builder a large number of ships of the same type for delivery over several years, thereby assuring him of a steady workload and a large dollar volume of business, both of which are prerequisities for the large investments needed to modernize a shipyard. The expectation that this approach would reduce shipbuilding costs has been borne out by two large multi-year contracts awarded in FY 1966; each resulted in a savings of about 6-8 percent on the ship construction portion of the contract. Because each of the contractors involved made major new capital investments and yard improvements, the Navy's shipbuilding program should continue to benefit as future ships are constructed in these yards. We now intend to broaden the use of multi-year contract awards to include all new ship construction susceptible to this approach. We also plan to use this technique in the modernization and conversion programs wherever feasible.

Of perhaps even greater significance over the long run is the "total package" procurement approach, under which the contractor is asked to bid on the whole "package", i.e., the design, development, and construction of an entire group of ships for delivery over a period of years. Our experience in the recent competition for the Fast Deployment Logistic ship (FDL) indicated that a multi-year "package" procurement can make a major yard modernization or the construction of an entirely new facility financially attractive to prospective bidders. Two of the three competing bidders included the construction of a new shipyard in their bid proposals, while the third would have undertaken major improvements to an existing yard. Estimates of total cost and delivery

time for the 30-ship FDL program also show that a single multi-year "package" procurement would be about 15-20 percent cheaper and up to 10-15 percent faster than a multi-year buy divided among two or three shipyards (i.e., 10-15 ships each).

Moreover, the "package" procurement approach resulted not only in a design better suited to mass production, but also in a better ship. The emphasis on life-cycle costing and the utilization of labor saving techniques reduced the manning requirements for operating FDLs by 23 percent over preliminary designs. At the same time, the designers' concern with the efficiency of the production process served to ensure a ship which could be constructed relatively cheaply and quickly (e.g., by permitting modular construction of major subsections, including outfittings prior to assembly, etc.). We have already reaped at least one major benefit from the FDL program, inasmuch as one of the bidders is proceeding on his own with the construction of a brand new modern yard.

We presently have two other "total package" multi-year procurements planned for major ship types, i.e., the amphibious assault ship (LHA) and new escort (DX/DXG) programs described last year. While the details of these programs will be discussed later, I do wish to restate my conviction that this or a similar approach to ship procurement is the only way we will be able to obtain large numbers of standardized and highly capable ships at reasonable prices in the future.

I also wish to reaffirm my view, expressed here last year, that there is no reason why the American shipbuilding industry should not be, in a technological sense, as good as the best any other country has to offer. We have the necessary technology and management knowhow -- indeed, the series production and assembly line techniques being applied today in foreign yards were borrowed from us in the first place. While we may never overcome the foreign wage rate differential, intensive application of labor saving techniques and automation could reduce considerably the importance of this factor. I am convinced that a considerable improvement in efficiency and a reduction in shipbuilding costs are possible, if our disgracefully wasteful subsidy program is reorganized to reward efficiency and penalize inefficiency in ship construction and ship operation as well.

I urge the Congress to support the multi-year contract and total package procurement policies which are designed to reduce costs to the government and to stimulate the modernization of a technologically obsolete industry.

1. Attack Carrier Forces

Our concept of the optimum size and configuration of the attack carrier forces has continued to evolve over the years in the light of new analyses and additional experience. In FY 1963, for example, our plan called for a force of 15 CVAs and 15 air wings. In FY 1967, while retaining the 15 CVAs in the fleet, we decided to reduce the number of aircraft to 12 equivalent wings, believing it was not necessary to procure aircraft wings for the number of carriers which would normally be in overhaul.

a. Ships

As shown on Table 8, the attack carrier force at the end of the current fiscal year will comprise the nuclear-powered ENTERPRISE, seven FORRESTAL, two MIDWAY- and five HANCOCK/ESSEX-class carriers plus one carrier (MIDWAY) in conversion. The newest of the conventionally-powered CVAs, the JOHN F. KENNEDY, was launched this past year and is scheduled to enter the fleet in early FY 1969. A second nuclear-powered carrier, the CHESTER W. NIMITZ, is currently under construction and scheduled to join the fleet in FY 1972. The NIMITZ will be powered by a highly efficient two-reactor propulsion plant and as a result of extensive automation will require a considerably smaller crew than its predecessor, the ENTERPRISE.

As I have stated in past years, we plan to replace all the old ESSEX-class CVAs, building to a force of four nuclear-powered ships, eight FORRESTAL and three MIDWAY-class carriers by FY 1976. Two additional CVANs, therefore, still remain to be built. The estimated cost of the NIMITZ has risen 28 percent over last year's estimate ($428 to $544 million) and will amount to 96 percent more than the $277 million cost of the KENNEDY. The price for the next CVAN promises to be at least as high as the NIMITZ. In order to keep the cost of the two additional CVANs as low as possible, we are considering designing all three as identical ships, permitting a savings of about $35 million on each of the last two ships. We are also studying whether the first two can be procured under a multi-year contract, with options for a third in FY 1971 -- in order to take advantage of the cost saving potential inherent in this type of procurement. Due to the exceptionally long leadtimes required for nuclear components, we have been able to defer the major portion of the funding for the next CVAN to FY 1970, including in this budget request additional advance procurement funds primarily to continue work on the nuclear power plant.

b. Carrier Aircraft

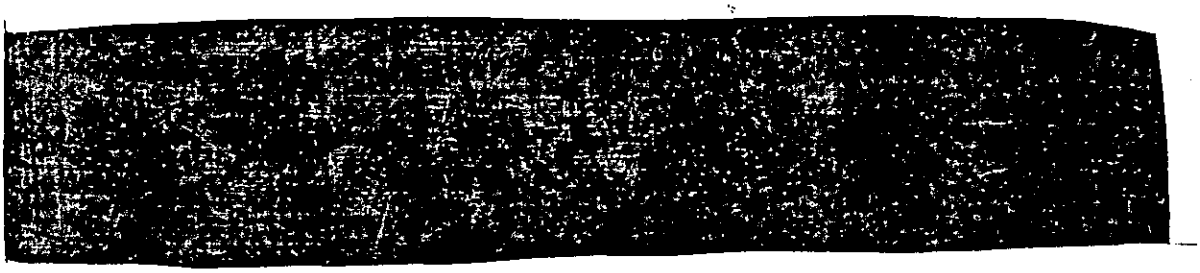
As shown in [redacted] the fighter inventory at end FY 1968 will total 652 aircraft, organized into [redacted] F-4 and [redacted] F-8 [redacted] (The F-8s are being retained for the ESSEX-class carriers which cannot effectively operate the larger F-4s or F-111Bs.) As a result of our experience in Southeast Asia, we now plan to retain the F-4 squadrons in the force throughout the program period in place of an equivalent number of attack squadrons. Thus, we will have two fighter squadrons per air wing, instead of just the one squadron as planned last year, [redacted] When the F-111B is introduced into the fleet, it will be used for long-range fleet air defense and the F-4 for escort of attack aircraft.

Because of the continuation of the Vietnam conflict and the retention of the F-4s in the force, we now plan to keep the production lines open beyond the FY 1968 leadtime, [redacted], the procurement schedule has been adjusted accordingly. The F-111B production schedule has been adjusted as a result of cuts in our appropriation request last year. This will delay fleet introduction somewhat but will give more time for extensive testing before the aircraft is assigned to carriers for operational use.

We expect to achieve our presently planned fighter force objective [redacted] the last of the ESSEX carriers will phase out and the F-8s will be replaced with F-4s and F-111Bs, [redacted]

The Navy is presently studying the next generation of fighter aircraft (VFAX) for the air superiority and escort missions. The Air Force has a project (FX) for an advanced fighter. While these requirements are somewhat different, it is already clear that both aircraft could use similar engines and similar avionics. Whether both aircraft could use substantially the same airframe is still in question. The major design configurations of the FX and VFAX (e.g., size of crew, amount and type of avionics and ordnance) are now being jointly studied by the Air Force and the Navy. Completion of concept formulation requirements is expected sometime in FY 1969 and is the prerequisite to a decision to proceed with contract definition. Funds have been included in the FY 1969 Budget to proceed with aircraft design and preliminary work on the avionics and engine.

The attack aircraft inventory will total 1,076 at the end of the current fiscal year, organized into [redacted] A-4, [redacted] A-6, and [redacted] A-7 [redacted]



We have now extended the A-6 procurement -- previously planned to end with the FY 1969 program -- through FY 1970 in order to procure the aircraft needed to offset peacetime losses and hold the force level through [redacted]. The increased quantities now scheduled for FY 1969-70 also reflect another year of projected combat attrition.

We also propose to reduce the A-7 production program, reflecting the smaller number of attack squadrons in the present plan (the A-7 force level was reduced [redacted] to compensate for the increase of [redacted] F-4 squadrons) and the decision to buy a much improved version of this aircraft. The new A-7E -- and its Air Force counterpart, the A-7D -- will have a more capable nose gun (the Air Force's M-61) and improved avionics. The latter promises a significant increase in bombing accuracy and will enable the pilot to choose from a number of attack approaches not formerly available. The new model will also have more armor, an improved radar, and a self-defense ECM capability. Although more expensive than the earlier A-7B, the A-7E's greater capabilities will allow us to reduce the squadron size from 14 aircraft to 12 while still increasing overall effectiveness. A-7E procurement was begun in FY 1967 with seven aircraft and continued in FY 1968 with 150 more. Funds for an additional increment [redacted] have been included in the FY 1969 Budget.

In the reconnaissance category, current attrition projections indicate that the problem of maintaining an adequate force level will not be as serious as it appeared last year. We now believe that no additional measures will be required beyond the presently scheduled procurement of [redacted] RA-5Cs in FY 1969 [redacted] FY 1970.

The major concern in the electronic countermeasures (ECM) category is again the EA-6B, an aircraft which promises significant improvements [redacted] Last year, [redacted] the sharply rising cost of this aircraft led us to restrict procurement to only five test vehicles, pending redesign and the award of a new contract. Unfortunately, the cost of the EA-6B has continued to mount, while the urgency of the requirement has declined as more of our present attack aircraft are

given a self-contained ECM capability. Virtually all attack aircraft now deployed in Southeast Asia have such equipment, and by the early 1970s all attack-capable aircraft will have this equipment. In addition, we are modifying 30 KA-3 tankers with the currently available ECM equipment. In view of the EA-6B's high cost, that the test aircraft bought in FY 1968 perform satisfactorily. With all the difficulties, delays and cost increases already experienced with the EA-6B, it would clearly be imprudent to rush into production before at least the preliminary results of the tests are in hand.

2. ASW Forces

I have already discussed the manner in which we compute our overall requirements for ASW forces. Now, I would like to present the programs we propose for the FY 1969-73 period.

a. ASW Carriers

Last year I pointed out that the present CVS force is a relatively high-cost ASW system of limited effectiveness. While the present fixed-wing S-2 is able to detect the presence of enemy submarines, it lacks a significant kill capability; and, the SH-3 helicopter, while efficient in locating and destroying enemy submarines, has only a limited operating range. Yet, the CVS force accounts for about 40 percent of all air ASW costs. As the newer ASW systems -- the SSNs, DEs, P-3s, etc. -- enter the ASW forces in larger numbers, the relative contribution of the CVSs will continue to decline. It is clear, therefore, that if we are to continue to operate our CVS force at all, it must be modernized.

The question of whether to retain a sea-based airborne ASW capability received intensive study during the past year, and it now appears that the advantages and flexibility inherent in such a force would marginally warrant its continuation in the 1970s -- provided that its effectiveness could be greatly improved. Since the effectiveness of the present CVS force is limited by the inadequacy of its fixed-wing aircraft, and their sensors, it is clear that a new and much more capable aircraft must be provided. The development and production of such an aircraft will be a very expensive undertaking, but it is the only solution available if we are determined to have an effective sea-based ASW capability in the 1970s. Accordingly, we have decided to proceed with the development of the VSX, using the funds appropriated in FY 1968. Additional funds have been included in the FY 1969 Budget to continue the development of the engine, airframe and avionics.

The VSX, as presently conceived, would be a four-man, fixed-wing aircraft powered by two high by-pass ratio, turbo-fan engines. It would have [redacted] speed and [redacted] range of the present S-2, carry twice the number of torpedoes, and be able to monitor [redacted] sonobuoys.

However, if we buy new ASW aircraft, the question of what to do about the carriers themselves immediately arises. All of the present CVSs were constructed during World War II and will be 30 years old by the time the VSX becomes available. The Secretary of the Navy has considered this matter and has concluded that the best solution would be to modernize existing carriers at an average cost of about $50 million each. Thus, our plan to continue a CVS force into the 1970s and proceed with the development, production and deployment of the VSX is based on the assumption that no new ASW carriers will be required. Indeed, if new ASW carriers were needed, increasing the number of land-based ASW patrol squadrons would be a much more attractive alternative than the VSX.

The future CVS air group, as seen by the Secretary of the Navy, will consist of [redacted] VSXs, [redacted] helicopters, and [redacted] fighter aircraft. E-1 aircraft may not be required, nor is development of a new type of large ASW helicopter currently foreseen.

In light of the decision to go ahead with the VSX and in view of the vast improvement in its performance vs. current ASW carrier-based aircraft, we now plan to reduce the CVS force to five carriers and four air groups when the Vietnam conflict is concluded. [redacted]

[redacted]

As additional P-3s enter the force and as the VSX replaces the S-2 [redacted] the number of land-based patrol squadrons will be reduced accordingly [redacted] This force of sea-based and land-based aircraft will provide a considerable increase in ASW effectiveness and flexibility, as I noted earlier.

b. Attack Submarine Forces

At end FY 1968 the attack submarine force will number 105 submarines, 36 of which will be nuclear-powered. We have continued to encounter delays in this program, principally because of the Submarine Safety Program, and the late delivery of materials and components. As a result, we will have [redacted] fewer SSNs in the force at end FY 1968 than planned last year, but [redacted] more are expected to be delivered in FY 1969. To offset these slippages we will retain an equal number of conventionally-powered submarines.

As I noted earlier, we have now concluded that 60 "first [redacted] SSNs will be sufficient [redacted] rather than the 64 previously planned. A total of 66 SSNs have been funded through FY 1968, of which one was lost (THRESHER), and nine are [redacted], leaving a total of 56 SSNs available for the "first [redacted] mission. Thus only four more new SSNs are needed. We now propose to start two in FY 1969 and two in FY 1970. This schedule will maintain the option of continuing the SSN construction program if new conditions should warrant. The Navy is also investigating the characteristics of new submarines which may be required to meet the potential threats of the late 1970s.

In addition to the [redacted] SSNs, [redacted], we currently plan to retain a sufficient number of conventional submarines to maintain the force at 105 ships.

c. Patrol Aircraft

At end FY 1968 our authorized ASW patrol aircraft inventory will total 411 aircraft [redacted] as the newer P-3Cs become available and the older P-2s are phased out. The P-3Cs with A-NEW will be able to process data from [redacted] sonobuoy channels simultaneously, twice as many as our older aircraft. [redacted]

[redacted]

[redacted]. By end FY [redacted] seven of the [redacted] planned squadrons will have P-3C aircraft, the rest being equipped with earlier P-3 models. The P-3C carrying the more capable MK-46 air-launched torpedo and the more effective sonobuoys now under development will provide the land-based ASW aircraft force with a significantly increased capability by the early 1970s. Funds are included in the FY 1969 Budget to continue procurement of these aircraft.

[redacted]

d. Sonobuoys

The effectiveness of ASW aircraft is heavily dependent upon the availability of sensitive and accurate sonobuoys. You may recall that in the summer of 1961 we tripled the number of sonobuoys in the original FY 1962 program and six months later provided for another large quantity in the FY 1963 Budget. Since that time we have not only continued to buy substantial numbers of sonobuoys, but have also undertaken an extensive program to develop improved types.

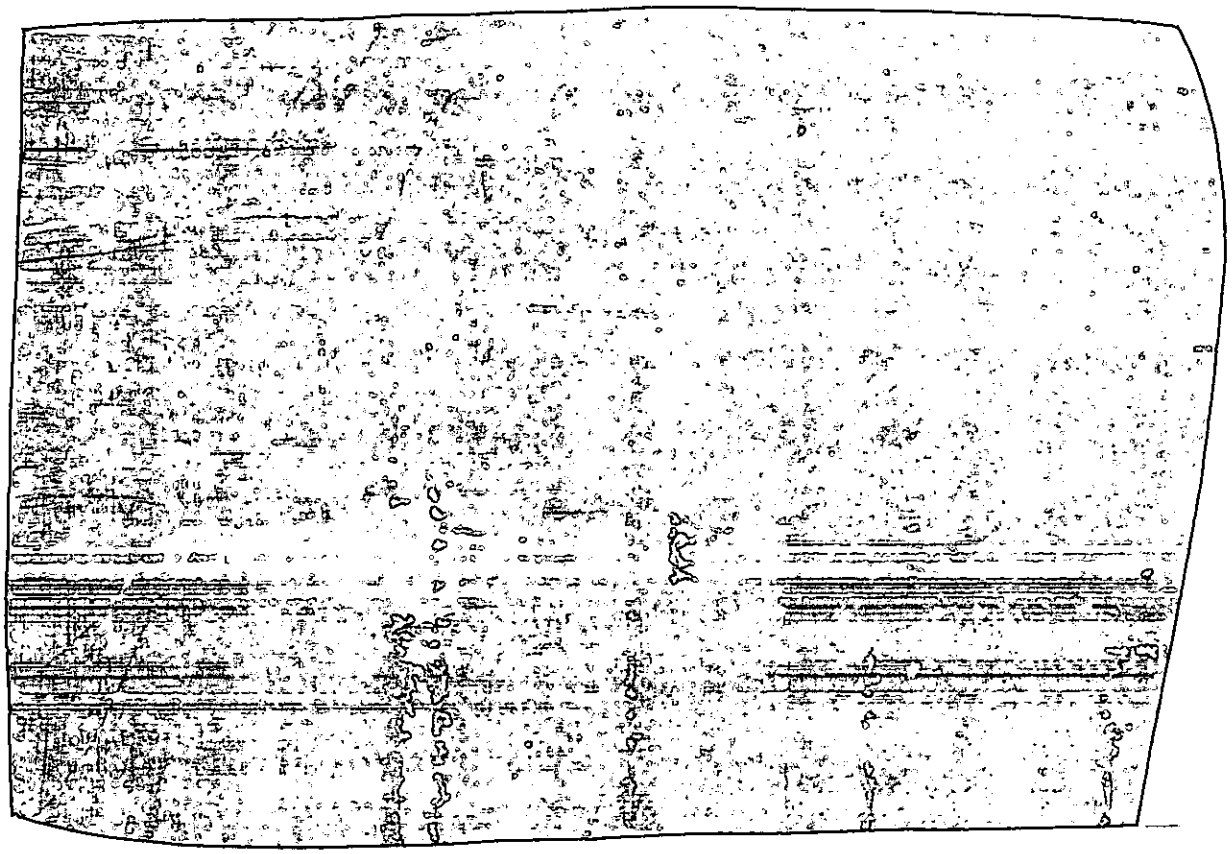
[redacted] One of these new devices, (DIFAR) [redacted] is now completing development and has demonstrated a major improvement in our localization capability. Funds to initiate production are included in the FY 1969 Budget. We also plan to continue procurement of the JULIE/JEZEBEL and SSQ-47 sonobuoys and proceed with the development of an improved version of the [redacted] SSQ-47.

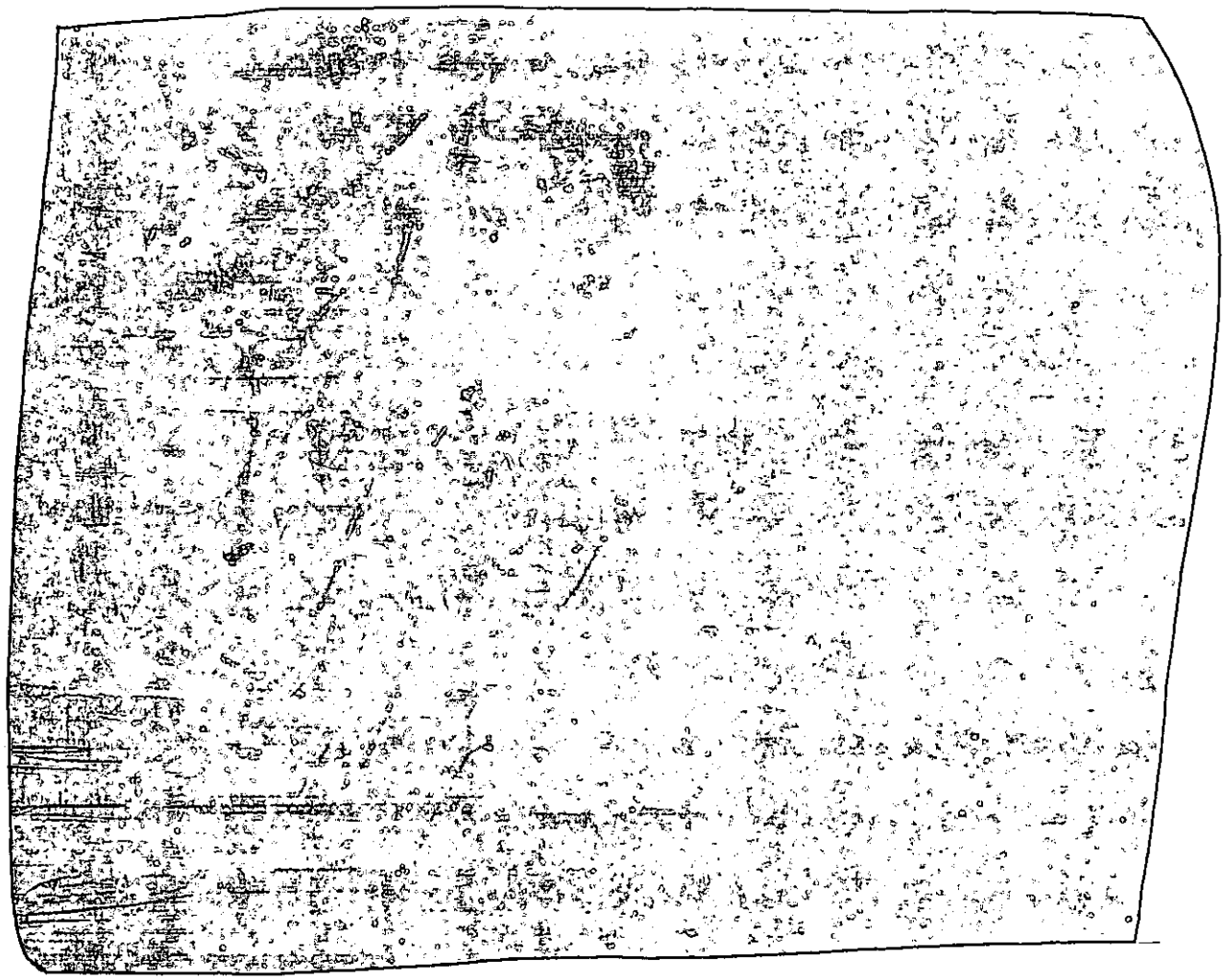
e. Torpedoes

The critical and chronic shortage of modern ASW torpeodes which existed during the 1950s and early 1960s has long been a matter of concern to us. Although we increased torpedo procurement in the summer of 1961, the real expansion was initiated in 1962 when we more than

doubled the procurement of the light-weight MK-44, increased by about 25 percent the procurement of the MK-37 and initiated production of the new and far more effective light-weight MK-46 for use against fast, deep-diving nuclear submarines.

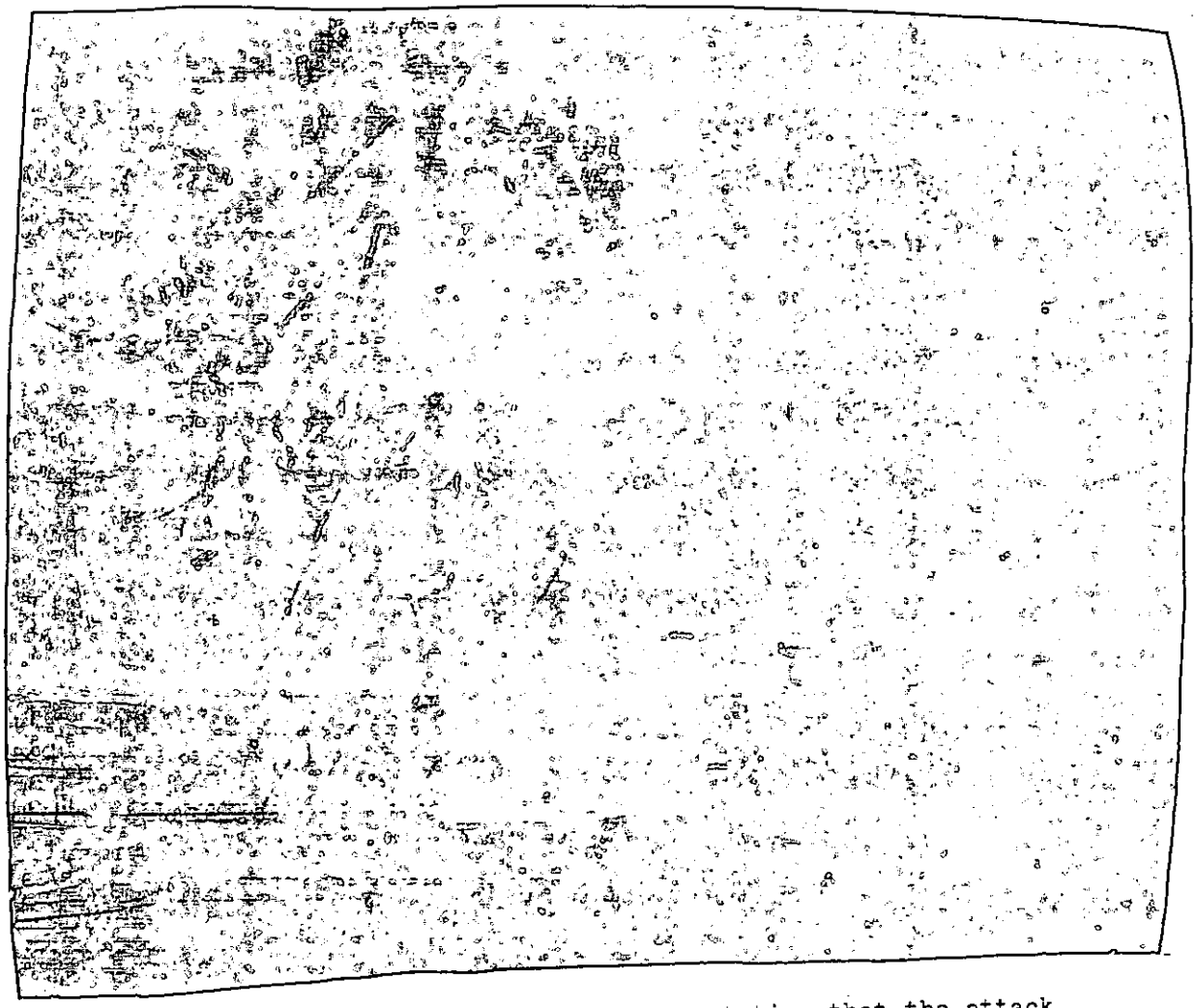
In total, we bought about 14,400 ASW torpedoes in the four fiscal years 1962-65 compared with about 3,900 in the preceding four fiscal years. From December 1960 to June 1967, our modern light-weight torpedo inventory increased [redacted] (excluding some 2,400 obsolescent types which by 1965 had all been eliminated from the inventory). During the same period, the heavy ASW torpedo inventory was increased [redacted] We are still experiencing some production difficulties with the MK-46, the new surface ship/air-launched ASW torpedo. Even so, by the end of this fiscal year the MK-46 will constitute about half of our light-weight ASW torpedo capability. More of these torpedoes will be bought in FY 1969.





3. Fleet Escorts

During the last year we have intensively restudied the entire fleet escort force requirement. As a result of this study we now have a much better understanding of the numbers and types of escorts the fleet will need in the mid-1970s for antisubmarine warfare (ASW) and anti-air warfare (AAW). One of the major conclusions we have drawn from this study is that the ASW requirement should be the determining factor in computing the size of the escort force.



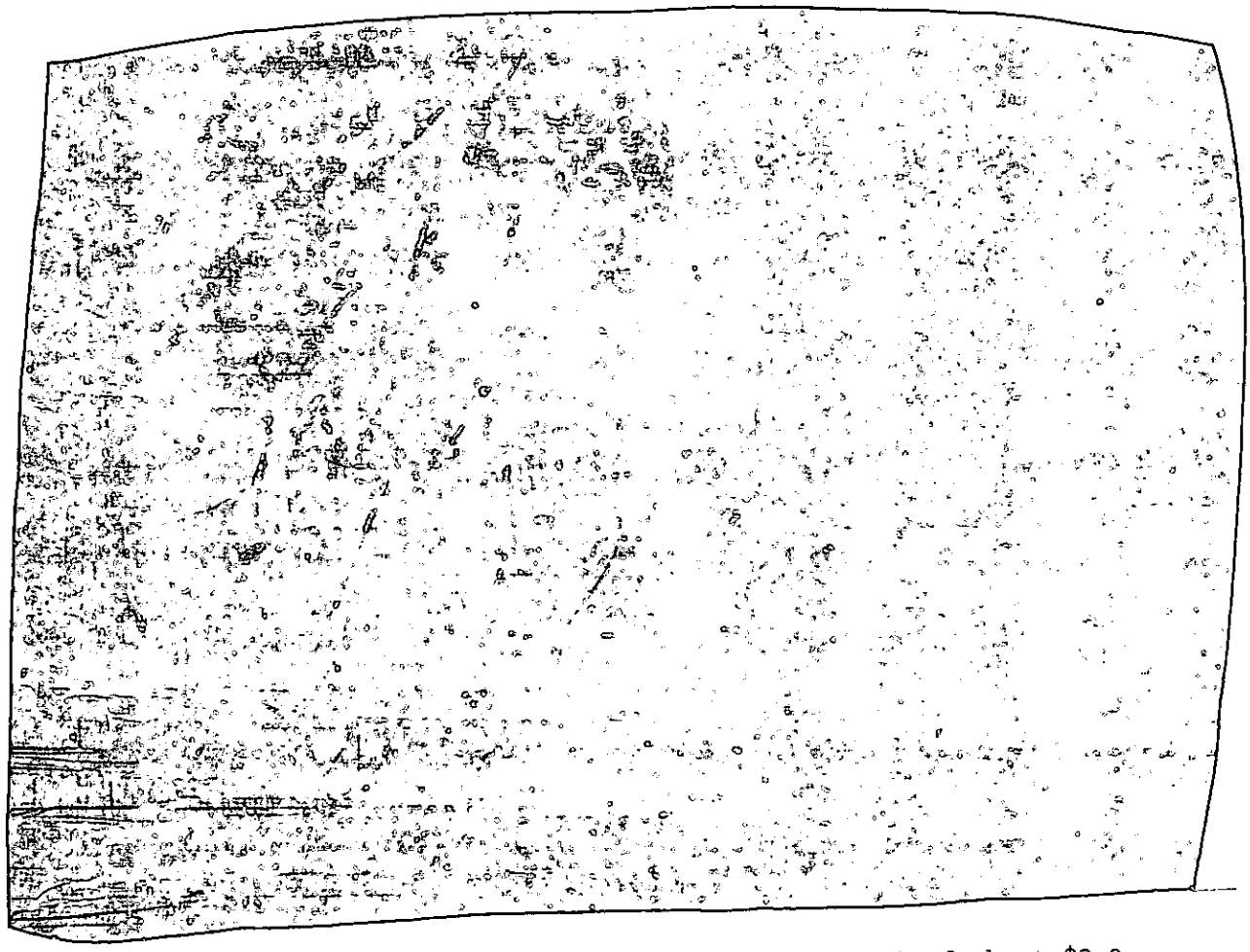
You will notice in the foregoing computation that the attack carrier forces are provided the more capable ASW/AAW and ASW escorts, since they represent the highest value target in the fleet. In the case of the "Advance" and "Assault Amphibious Groups", the destroyer-type ASW escorts are assigned since this mission requires fire support as well as protection against enemy submarines. And, in view of the enemy's mid-ocean submarine-launched cruise missile threat to underway replenishment and amphibious groups, we now believe that two missile-capable escorts should be included in each of these groups. Since amphibious groups will not be employed continuously, escorts allocated to this role can also be used for military convoys.

To meet the merchant ship convoy requirement, we plan to rely on the large number of escort ships in our reserve fleet and in the naval forces of our allies. (A very large proportion of the merchant fleet

which would be available to the Free World is owned by our allies.) For example, 37 Naval Reserve Training escorts which are kept in a high state of readiness could be available almost immediately, [redacted] Category BRAVO Naval Reserve ASW destroyer types could be activated [redacted] and there will be [redacted] destroyer types in the Category CHARLIE Reserves throughout the program period. Moreover, our allies have about 400 destroyer-type ships in their active fleets.

[redacted] However, the new study indicates that because of their capability for sustained high speed, four nuclear-powered ASW/AAW ships can take the place of six conventionally-powered ships (3 ASW/AAW and 3 ASW) in escorting a nuclear-powered attack carrier task force. The fact that the all-nuclear group can achieve the same degree of protection with fewer escorts helps to offset the substantially higher cost of nuclear ships. In spite of these savings, the all-nuclear force is still more expensive than the conventional force. However, we have already paid for four nuclear escorts. With these in hand, we need to build only five more to have two all-nuclear task groups. We believe we can build and operate those five nuclear ships for about the same cost as building the ten new conventional escorts it would take to give the two carrier task groups the same degree of protection. This factor, taken together with the logistic economies inherent in all nuclear-powered forces, makes the nuclear-powered escort more competitive with the conventionally-powered escort for certain purposes. Accordingly, we now propose to provide two of the CVANs with nuclear-powered escorts.

[redacted] the overall requirements, the available assets and the number of new escort ships that should be funded over the next five years are shown [redacted].



This escort ship program, entailing an investment of about $3.0 billion, presents us with a unique and most important opportunity to effect a major advance in the management of the Navy's shipbuilding and operating programs, ranging over the entire life cycle of the ships -- from design and development to construction, supply, maintenance, and operation. All three classes of ships involved will have essentially the same operating profile and many of the same characteristics. By planning their procurement with the specific aim of achieving maximum efficiency and economy through commonality (except where the classes have to be different), we can not only save money, but also produce a more effective escort force through standardized capability, standardized training, better availability of spare parts, ease of modernization, etc.

Certainly, within each of the three classes, we can build identical ships. While each class of ship will differ somewhat in overall length and displacement, we expect them to have essentially the

same internal and external arrangement and outfitting, the same navigation and communications systems, and virtually the same ASW and gun systems. Propulsion and machinery systems could also be common to the conventionally-powered destroyers and guided missile ships, and the missile systems could be common to both the conventionally and nuclear-powered missile ships. By achieving this standardization, we would not only be able to reduce the development and construction costs through multi-year, total package procurements, but the lifetime operating costs of these ships as well, and we would also provide an additional strong incentive for our private shipbuilders to modernize their yards.

Last year I described to you a new DX/DXG shipbuilding program intended to achieve the following objectives:

1. Minimum total procurement cost through standardized design and serial production of large quantities of identical ships.

2. Lower operating costs through design emphasis on automation and reduced manning levels.

3. Increased reliability and reduced cost of repair, maintenance and logistic support through standardization.

4. Maximization of the advantages of standardization and serial production through commonality between the DX and DXG wherever possible and economically feasible.

5. Faster and cheaper construction and modernization or maintenance through the use of modular design of major component systems (e.g., weapons systems).

Now, in the light of the new requirements study, we have refined our concept of the desired characteristics of these ships. Whereas the DX had originally been envisioned as merely a more economical replacement for our present DE construction program, it now appears that this ship should be a larger, faster destroyer type. The DX now envisaged would be about 5,000-6,000 tons (versus 4,000 tons for our present DEs) and be capable of 30-knot speeds (versus 27 knots) so it could escort our fast attack carriers. It would have two guns for gunfire support missions, and a Basic Point Defense (SEA SPARROW) missile system for close-in air defense, as well as the latest ASW equipment.

[redacted]

The DXG would be [redacted] ship with the same speed and endurance, and for air defense it would have the new, more capable TARTAR D system, which employs new fire control and search radars and the STANDARD missile. However, because it is the ASW rather than the AAW requirement which is controlling, we plan to install only one TARTAR D system on each DXG. We believe it is more advisable to have a greater number of ships with an AAW capability, thus permitting wider area coverage while reducing susceptibility to electronic countermeasures or loss, than to concentrate the same missile capability on fewer ships. In addition, the DXG will have the latest ASW equipment and will mount one 5" [redacted] gun.

The DXGN would simply be a nuclear-powered version of the DXG and would be [redacted] heavier.

It is worth noting that one of the FY 1968 DEs will be powered by a gas turbine engine which promises great improvements in economy and efficiency. We will consider the use of a similar power plant in the DX and DXG.

[redacted] As I stated last year, we are going ahead with the construction of the FY 1967 DLGN. However, we now propose to include the FY 1968 nuclear-powered escort in the new DXGN program so that we can build five ships of the same class. The DLGN is a larger ship than the DXGN, and has two SAM systems instead of one but there is little difference in effectiveness between the two. The estimated cost of five DXGNs (including contract definition) is $625 million; four DXGNs and one DLGN would cost about $677 million, $52 million more. In my judgment, the addition of one SAM system to the 109 already planned in the FY 1976 escort force is not worth $52 million. Accordingly, it is proposed that the FY 1968 DLGN be reprogrammed as the first DXGN and started when contract definition is completed. The remaining four DXGNs are programmed two in FY 1970 and two in FY 1971.

[redacted]

Funds are included in the FY 1969 Budget for five DXs, for advance procurement of long leadtime items for the two DXGNs to be started in FY 1970, and for contract definition of the DXGN and the DXG. (Contract definition of the DX was funded in FY 1968.)

[redacted]

[redacted]

The missile ship modernization/conversion program is the same as I presented last year, except that we have rephased the program somewhat. Inasmuch as all of the conventionally-powered cruisers will be retired by [redacted], we have dropped the cruiser modernization previously planned for FY 1969. Funds are included in our FY 1969 request for one frigate conversion [redacted] and for advance procurement for three more DLG conversions scheduled for FY 1970. The last five DD-931 Class ASW modernizations are now scheduled for FY 1970-71.

Last year we began procurement of the [redacted] Basic Point Defense Surface Missile Systems (BPDSMS). This system will provide ships operating independently with their own "close-in" air defense capability against the Soviet cruise missiles and the less sophisticated types of aircraft attack, or when operating in a task force, a supplementary defense to that provided by AAW ships. BPDSMS utilizes off-the-shelf hardware and the SPARROW air-to-air missile and can be readily installed in place of existing gun mounts. An Advanced PDSMS is currently in concept formulation, with contract definition tentatively scheduled for FY 1971. Additional funds are included in the FY 1969 Budget to continue procurement of the Basic PDSMS.

4. Amphibious Assault Ships

Last year we proposed to construct a new large amphibious assault ship, the LHA, which together with one or two LSTs could put ashore (by helicopters or boats) an entire Marine Corps battalion landing team, a job which now requires five amphibious ships. However, the Congress felt our request was premature in view of the uncertain state of the LHA's design, and the procurement funds were stricken from the budget. We have, in the meanwhile, proceeded with the contract definition phase for this ship, letting contracts to three firms. We expect to receive the proposals in January, and we should be ready to award a multi-year, total package procurement contract for the six ships in the program early in FY 1969. Accordingly, funds for the first LHA and advance procurement of long leadtime items for the next [redacted] are included in the FY 1969 Budget.

The only other new construction remaining to complete our goal of a 20-knot lift capability for 1-1/2 Marine Corps division/wing teams is seven LSTs. The funding of these ships is scheduled for [redacted]

[redacted]

[redacted]

The Amphibious Force Flagship (AGC), which was tentatively scheduled last year for FY 1969, has been deferred to FY 1970, to permit the Navy to complete an extensive study of amphibious command and control requirements and to allow us to explore the possibility of modifying the AGC's design so that it could be used as a fleet commander's flagship as well as an amphibious force flagship. (The present fleet flagships are cruisers scheduled for retirement in the 1970s.)

5. Fire Support Ships

The fire support force presently comprises four 8-inch gun cruisers and [redacted] rocket ships (to which will be added, temporarily, a reactivated battleship). In addition, we have in the escort category [redacted] AAW cruisers with 6-inch guns and a large number of 5-inch gun destroyers which can also be used effectively for gunfire support, as they have amply demonstrated in Southeast Asia.

As I mentioned last year, the Navy is designing a new fire support ship (LFS) which would combine in one hull the accuracy and destructiveness of large caliber guns and the saturation fire of rockets. This ship could replace the gun cruisers, which are old and extremely expensive to operate, and the slow, old rocket ships. Funds are included in the FY 1969 Budget to initiate contract definition of the LFS.

6. Mine Countermeasure Force

As you know, last year we began a major rehabilitation program for all the existing ocean minesweepers (MSOs) designed to increase their effectiveness and add 10 years to their useful life at about half the cost of new construction. The first 9 MSOs were funded this year, and we have tentatively scheduled 10 more each year [redacted] The FY 1969 request, therefore, includes funds for ten MSOs and advance procurement for ten more.

The last of the planned [redacted] new-contruction MSOs were funded in FY 1968, and the first one will enter the force by end FY 1970. [redacted]

To complete the modernization of our mine countermeasure forces, we plan to build two more mine countermeasure support ships (MCSs). We presently have three, one of which has only a limited capability

[redacted]

and is scheduled for retirement. While concept formulation is currently underway on these ships, we have decided to defer the program until FY 1970-71, when their characteristics will be better defined.

7. Logistic, Operational Support, and Direct Support Ships

[redacted] we plan a force of 210 ships in this category (Underway Replenishment, Fleet Support, Special Combat and Small Patrol) at the end of the current fiscal year and 222 at end FY 1969. The programmed level of [redacted] ships thereafter reflects: the delivery of the new, more effective underway replenishment ships which replace older ships on a less than one-for-one basis; and the reduced support requirements resulting from the decline in the size of the CVS force and the introduction of additional nuclear-powered surface ships.

We propose to build ten all-weather patrol boats (PBs) of a new type for use with the River Assault Squadrons in the Mekong Delta; nine will be procured with reprogrammed FY 1968 funds and the tenth is included in the FY 1969 budget request.

In order to take advantage of modern re-supply methods and match the higher speeds of our latest ships, we plan to continue our long-range construction program to modernize the underway replenishment fleet.

In the Fleet Support category, funds are requested for one destroyer tender (AD) in FY 1969.

8. Marine Corps Forces

The Marine Corps land forces [redacted] are essentially the same as those projected last year, except that the temporary Vietnam related deployments are extended through FY 1969.

With regard to the Marine Corps air wings [redacted] we plan to maintain throughout the program period the [redacted] (The last few squadrons of F-8s will phase out by the end of this fiscal year.) Because of the significant improvements in payload, accuracy and effectiveness already achieved and currently programmed, we no longer plan to replace A-4s with A-7s. The later model A-4E/Fs have the same bomb computer as the early A-7s, and with their large (nearly three-ton) payloads they can meet Marine close support needs.

The A-4Fs bought in FY 1967 to replace attrition, plus A-4E/Fs which will be transferred from the Navy, should be sufficient to maintain six Marine Corps light attack squadrons (173 AAI) through the program period. The planned force level of six squadrons of A-6 aircraft will be achieved in FY 1969.

In the Reconnaissance/ECM area, the major change is the decision to procure EA-6A electronic warfare aircraft instead of EA-6Bs. Since the Congress has already provided funds in the FY 1968 Budget for this purpose, we are now proceeding with the procurement of 15 EA-6As which will permit the Marine Corps to build up to a force of 22 EA-6As by end FY 1970.

The Marines' tactical air control forces will remain at approximately the same level throughout the FY 1969-73 period, although we plan to change their internal composition after FY 1970 in order to make the best use of the aircraft available at that time. Assuming the Southeast Asia conflict has terminated by then, the Air Force will have about 40 surplus O-2s available for transfer to the Marine Corps to replace their present TA-4s. These TA-4s will be used by the Navy for advanced jet training instead of procuring new trainers at a cost of about $60 million.

Last year, we planned a permanent force structure of five medium (CH-46) and one heavy (CH-53) helicopter squadrons for each of the three air wings. We now believe we should plan four medium and two heavy squadrons per wing, which will provide the same lift capability at a lower cost. The new force structure will require 10 percent fewer aircraft and pilots, and, based upon preliminary estimates, would save about $80 million in procurement costs alone. The FY 1969 procurement program of 48 CH-46s and 94 CH-53s gives us the option of achieving this mix by FY 1971.

Experience in Vietnam has shown that the Marine Corps requires improved fire support during air assault operations, especially for close-in fire suppression around landing zones. While we expect that the OV-10s now entering the force will be more effective than current fixed-wing aircraft in this role, we are also proposing procurement of 38 AH-1G HUEY COBRAs in the FY 1969 Budget to provide a more effective armed helicopter and to replace losses of UH-1E observation and reconnaissance helicopters now used in the armed helicopter role.

[redacted]

9. Navy and Marine Corps Reserve Forces

The Navy will continue to maintain about 50 ships in the highly ready Naval Reserve Training Fleet (NRT), increasing slightly after FY 1970. As more modern ships become available from the active forces, older NRT ships will be phased out.

The Navy also maintains a large number of inactive ships in the reserve, designated either Category B (BRAVO) or Category C (CHARLIE) according to their physical condition and urgency of need upon mobilization. As shown on Table 8, at end FY 1968, we will have about 72 ships in Category B, about 284 in Category C, and about 249 more in the National Defense Reserve Fleet (NDRF). Generally, ships phasing out of the active force (or the Naval Reserve Training Fleet) enter Category B, and the oldest similar type BRAVO ship may then be transferred into Category C. The Navy continuously surveys the Category C ships and scraps or otherwise disposes of those no longer useful.

About 300 ships, mostly non-combatant types, are maintained by the Maritime Administration in the National Defense Reserve Fleet to meet potential Navy needs during wartime. In addition, the Maritime Administration also maintains a reserve of merchant ships, which I will discuss later in connection with the Airlift/Sealift Program.

The Naval and Marine Corps Reserve fighter and attack units will have about 355 aircraft by end FY 1969, and they will be maintained at this level through the program period. All of the fighters and about one-third of the attack aircraft are earmarked for the Marine Corps Reserve air wing; the rest are for the Navy Reserve carrier forces. ASW carrier aircraft are also retained in the Naval Reserve for the four CVSs in the Reserve fleet.

[redacted]

G. AIR FORCE GENERAL PURPOSE FORCES

The composition of the Air Force's General Purpose Forces are shown on [redacted] Again, let me remind you that the aircraft data refer to the total authorized active inventory (AAI).

1. Fighter and Attack

In the case of the fighter/attack aircraft, we are attempting in the near term to tailor the composition of the force structure and the procurement program to the changing demands of the Vietnam conflict. Over the longer term, our goal remains the same as in the past -- a balanced force whose capabilities span the entire range of possible requirements.

Last year our long term force objective called for 24 aircraft wings -- [redacted] F-4s, [redacted] F-111s and [redacted] A-7s. Now, however, as mentioned earlier in the discussion of the Navy's program, we plan to incorporate a new avionics system in the A-7. This system will so increase the A-7's bombing accuracy, that we believe we can eliminate one of the five originally planned A-7 wings and still achieve an overall increase in the target destruction capability of the A-7 force. Accordingly, the longer range goal has been reduced to 23 wings, and the A-7 procurement program [redacted] has been adjusted to reflect this reduction and a somewhat slower force build-up. [redacted]

No change is presently envisioned in the ultimate size of the F-4 force, [redacted] Tentatively, we plan to modify the avionics of the early model F-4s in order to improve their ground attack capability, and funds have been included in our FY 1969 request for the necessary development work. The F-4 procurement program [redacted] has been adjusted on the basis of our latest attrition experience.

The first F-111 squadron will be operational by March 1968. [redacted]

We have decided to build up the F-111 force somewhat more slowly than planned last year in order to permit a more orderly phase-in of the "D" model. The F-111D, with the superior MARK II avionics now under development, promises to provide a four-fold improvement in navigational

accuracy over the F-111A, plus a better all-weather air-to-ground weapon delivery accuracy and an all-weather, radar guided, air-to-air missile capability. The pacing item in the F-111D production schedule will be the availability of the MARK II avionics. As now planned, the F-111 force should have four squadrons by end FY 1969, reaching the full 18 squadron objective by end FY 1972. F-111Ds will constitute about five-sixths of that force. The production schedule has been adjusted to reflect these changes.

With respect to the F-105, lower-than-expected attrition will permit us to support one more operational squadron in the active force during FY 1968 and two more squadrons in FY 1969. We now plan to retain three squadrons in the force until end FY 1971 to offset the slower phase-in of A-7s. By end FY 1972, all operational F-105 units would be retired from the active force.

We now plan to retain at least through FY 1969 the F-102 squadron stationed in Iceland, which last year had been scheduled to phase out in FY 1968. Together with the three squadrons supporting the Vietnam effort and four squadrons in Europe, this will give us an active operational F-102 force of about 200 aircraft during the FY 1968-69 period. To support this higher force level, some of the F-102s formerly assigned to continental air defense are being transferred to this program. In FY 1970, the European-based units are scheduled to convert to F-4Es. This will leave in the active force a total of about 100 F-102s, with three squadrons in the Pacific and one in Iceland. All of these aircraft are tentatively scheduled to be phased out of the active force by end FY 1971.

In the case of the F-100s, it now appears that one more operational squadron than previously planned can be maintained in the force this year and two more next year as a result of lower-than-expected combat losses. However, another year of projected attrition would reduce the force to 19 squadrons by end FY 1970. In FY 1972, all F-100 operational units would be retired from the active force.

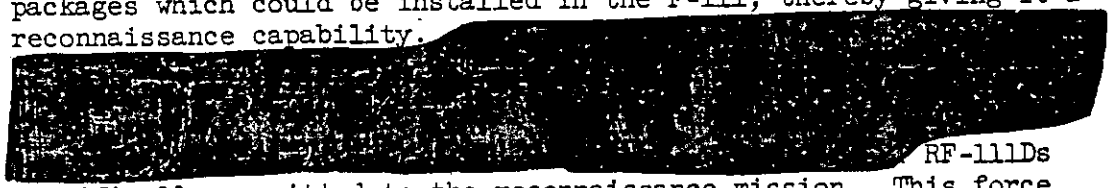
Finally, all of the B-57s will phase out of the force by end FY 1969 as scheduled.

For the more distant future, the Air Force will most likely require a replacement for the F-4 beginning some time in the latter part of the 1970s. As previously mentioned in connection with the Navy's program, funds have been included in our FY 1969 request to finance the Air Force's share of the joint FX/VFAX development program. The Air Force may also, ultimately, need to replace the A-7 with an aircraft especially tailored for the close support role. This requirement, however, is less certain. The FY 1969 Budget includes funds to

support preliminary work on the long leadtime subsystems which such an aircraft would require.

2. Tactical Reconnaissance

Last year our long-range objective for the tactical reconnaissance force was [redacted] RF-4s and [redacted] RF-101s. [redacted] we had tentatively planned to procure 72 palletized reconnaissance packages which could be installed in the F-111, thereby giving it a reconnaissance capability.



RF-111Ds specifically committed to the reconnaissance mission. This force will provide the long-range reconnaissance support that the fighter/attack force will require when the F-111 is introduced. Development of the equipment is now underway and additional funds have been included in the FY 1969 Budget to continue the program. [redacted]

The force structure for the RF-4 remains the same as projected a year ago. Lower-than-expected losses for the overall reconnaissance force, however, have permitted us to reduce the FY 1968 procurement program, but another year of projected attrition will require additional procurement in FY 1969-70.

Last year we had tentatively planned on keeping four squadrons of RF-101s in the active force structure [redacted] and had scheduled the conversion of [redacted] F-101s to the reconnaissance role in FY 1969 so as to be able to maintain this level. With the introduction of [redacted] RF-111s, we now feel that all of the RF-101s (except two used for test purposes) can be phased out of the active structure [redacted] And, as a result of lower attrition, the planned number of F-101 conversions has now [redacted]

3. Tactical Electronic Warfare Support (TEWS)

TEWS aircraft provide the tactical forces with specialized capabilities for active and passive electronic countermeasure operations, airborne radio direction finding and para-military communications countermeasures. No change has been made in the EC-47 [redacted] program from that shown a year ago. However, we are adding some more

EB-66s this year [redacted]

(4) Night Warfare

The rising importance of night operations in Southeast Asia, coupled with the recent availability of improved illumination and sensing devices, has led us to create a special Night Warfare category in the tactical forces. By the end of the current fiscal year we will have [redacted] C-130s specially modified and equipped for this mission. Some of these C-130s will be used to provide floodlight illumination of a large area to assist our forces in bringing their firepower and mobility to bear on the enemy at night. The others will be reconfigured with a variety of [redacted] devices and side-firing guns to provide a rapid-fire, gunship capability.

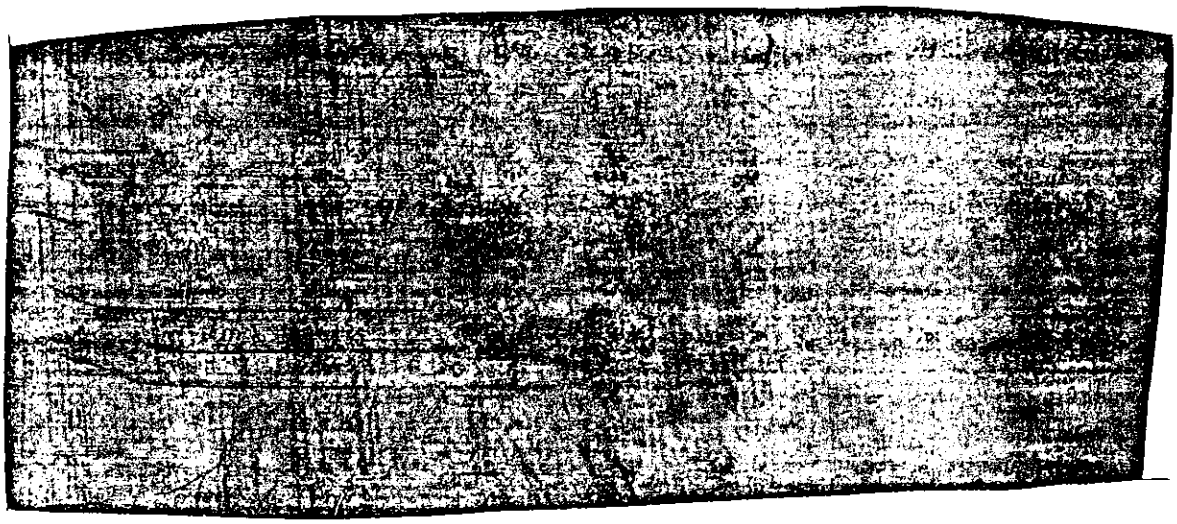
(5) Special Air Warfare (SAW) Forces

For post-Vietnam planning purposes, we are tentatively projecting a peacetime SAW force (in the active structure) [redacted] consisting of C-123s, C-130s, U-10s, UH-1s and A-37s. A force [redacted] would provide a quick reaction capability to meet one major counterinsurgency situation, an organizational base for expansion in a future emergency, and a mechanism for testing new concepts, tactics and equipment.

The Vietnam-augmented SAW force is now scheduled to grow from [redacted]

Because of the large transfer of A-1s from the Navy to the SAW force, [redacted] the build-up of the A-37 force to its planned level [redacted] This, in turn, has enabled us to stretch out the procurement of A-37s, deferring [redacted] of the previously planned FY 1968 quantity of [redacted] aircraft until FY 1969. This will provide a "hot" production line for a longer time, giving us the option of buying more aircraft later if that should prove necessary.

[redacted]

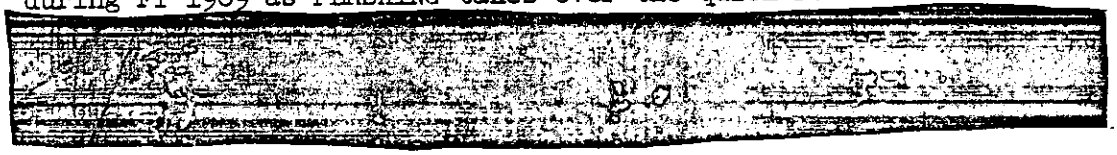


6. Tactical Air Control (TAC)

The long-range peacetime Tactical Air Control force is tentatively scheduled to consist of [redacted] OV-10s and [redacted] CH-3s. Presently the forward air control element of the force, augmented to meet the needs of the Southeast Asian conflict, consists primarily of O-1s and O-2s. The stepped up pace of operations in 1967 has generated a ten percent increase in requirements for forward air control. To meet these needs, we increased our FY 1968 procurement of O-2s [redacted] In FY 1969 we propose to buy an additional [redacted] aircraft. The O-1 aircraft are scheduled to phase down in FY 1969 as the OV-10 force reaches its programmed strength and both the O-1 and O-2 will phase out completely after the conflict is over. Five EC-135s, also a part of the temporary Vietnam augmentation, are employed as airborne command and control aircraft to help coordinate strikes over North Vietnam. They will be dropped from the force when this mission is over.

7. Tactical Missiles

The 18 MACE B missiles in Germany will be phased out on schedule during FY 1969 as PERSHING takes over the quick reaction alert role.



8. Air National Guard

The long-range peacetime force structure objective for the Air National Guard's fighter force has been adjusted on the basis of our most recent attrition data. As currently planned, the force will be

composed of 4 F-105 and 19 F-100 squadrons. However, since we must now plan on retaining more F-100s and F-105s in the active force to help support another year of combat in Vietnam, the Guard's build-up will be delayed commensurately. To help offset this delay, the Guard will retain the F-84s, F-86s and F-104s somewhat longer than previously planned.

We now plan to build the Guard's reconnaissance force from the present level of 208 aircraft to 223 aircraft by the end of FY 1971, phasing in RF-101s from the active force and retiring the RF-84s. The Guard's SAW force presently consists of about 60 aircraft (C-119s, HU-16s and U-10s) and is tentatively scheduled to remain at about this level throughout the program period. Eight EC-121s being transferred to Guard operations in FY 1968 will provide a reserve capability for tactical electronic warfare.

As you know, nine F-100 squadrons, four RF-84 squadrons and one Tactical Air Control unit of the Air National Guard have been authorized additional manning and training so that they can maintain a very high level of combat readiness. We propose to continue this program through FY 1969.

9. Theater Air Base Vulnerability

Over the past year, the great importance of adequate protection for air bases and aircraft in forward areas has again been dramatically demonstrated in the Middle East and in Southeast Asia. In a few hours of lightning strikes against the Arabs' unprotected air bases and aircraft on 5 June, Israel annihilated the Arab air forces and achieved absolute air superiority in the combat zones for the duration of the six-day war. Moreover, in South Vietnam, where enemy hit and run mortar attacks against U.S. air bases have continued, the passive defensive measures we have taken have greatly reduced the potential losses.

The reduction of an air base's vulnerability involves such diverse measures as aircraft revetment or sheltering, rapid runway repair, the hardening of POL and communications facilities, camouflaging, and improved perimeter defense for the base itself. In South Vietnam where the principal threat is from mortar and rocket attacks, revetments have been provided for all our tactical aircraft, rapid runway repair kits have been in use for two years, [redacted] Steps have also been taken to increase perimeter security. In Thailand, all the B-52s have been revetted and all tactical aircraft will be revetted by the end of the current fiscal year.

[redacted]

In situations such as South Vietnam, where the enemy has not demonstrated a capability for air strafing and bombing, revetments alone may be adequate against the residual threat of intermittent rocket or mortar attacks. But for our other overseas bases, particularly those in Europe, where the enemy poses a strong air threat, roofed shelters are required to give adequate protection against aircraft attack. As I have mentioned in former years, the Air Force has developed and successfully tested a prefabricated metal and earth-mounded shelter which would provide excellent protection against anything but a direct hit by a conventional bomb, and some protection in a nuclear attack. These shelters would cost between $130,000 and $160,000, (depending on whether they were equipped with blast resistant steel doors) -- only a fraction of the value of the aircraft they would protect -- and together with the active defense by our CHAPARRAL and HAWK missiles and our VULCAN guns would provide a strong integrated defense for our overseas aircraft.

Thus far, while the Congress has appropriated funds for runway repair materials and equipment for various physical security measures, our past requests for aircraft shelter construction have been denied. This reluctance to make fixed investments overseas has, no doubt, been related to recent uncertainties with respect to the size and location of our future overseas deployments. In Europe, those uncertainties have now been eliminated as the effects of the relocation from France have been absorbed. Consequently, we believe that our tactical aircraft basing plans for Europe are now reasonably firm for the foreseeable future. We are, therefore, again requesting funds ($17.4 million) for the Theater Air Base Vulnerability Program in FY 1969. These funds will provide 60 shelters at European bases. As presently planned, the total program would provide shelter for 515 aircraft, together with a complete complementary set of other vulnerability reduction measures. I strongly urge the Congress to approve the FY 1969 request.

[redacted]

IV. AIRLIFT AND SEALIFT FORCES

The Airlift and Sealift Program comprises: the Military Airlift Command's strategic airlift aircraft; the Air Force's tactical airlift aircraft assigned to the Tactical Air Command and the Unified Commands; the transport and tactical airlift aircraft in the reserve components of all the Services; certain cargo and transport aircraft of the Navy and Marine Corps; specialized transportation forces such as aeromedical evacuation units and aerial port squadrons; and the troop ships, cargo ships, tankers and "Forward Floating Depot" ships operated by the Military Sea Transportation Service.

Last year I noted that the lift mission consists of two principal tasks: the strategic requirement for transportation support of overseas military operations, and the tactical requirements for intratheater and assault airlift.

A. STRATEGIC MOVEMENT

As I pointed out in the previous section of this statement, the ability to respond promptly to clear threats to our national interests and the security of our allies, possibly in more than one place at the same time, can serve both to deter and to prevent such threats from expanding into larger conflicts. There are essentially two main approaches, bracketing a broad range of alternatives, by which this capability can be provided. The first is to maintain very large conventional forces stationed around the globe near all potential trouble spots. The second is to maintain a smaller central reserve of highly ready forces supported by the lift capability required to deploy them promptly to wherever they might be needed. Although, for a number of technical, political and economic reasons, these two approaches have never been truly distinct alternatives, both the relative feasibility and desirability of the second have greatly increased during the last decade.

The most obvious and pressing requirement in early 1961 was for a greatly improved strategic airlift. We, of course, had the benefit of a long history of Congressional concern over the state of our airlift resources and, in the light of the shortcomings thereby identified, were able to act promptly to help correct them. These early actions included a step-up in the C-130 program, the procurement of C-135s and the initiation of the C-141 development.

Since then, each succeeding crisis -- e.g., Berlin, Cuba, and Vietnam -- has served to underscore the importance of adequate airlift, and we have continued to expand this program. In quantitative terms, our 30-day airlift capability between the U.S. and Southeast Asia has been increased fivefold between 1961 and the current fiscal year; by FY 1973, under our presently planned program, this capability will more than double again -- an elevenfold increase over 1961. At least as important is the increase in the quality of our airlift. In the future, even our largest transport, the C-5A, will be able to deliver its cargo to "primitive" airfields well forward in the theater of operations. And where formerly only relatively light land force equipment could be airlifted, our C-5As and C-141s will be capable of carrying virtually all types of equipment organic to Army divisions.

Aside from the build-up of the airlift fleet itself, the most important measure taken to improve our rapid response capability was the forward prepositioning of the heavy equipment and bulk supplies which could be quickly "married up" with lightly equipped land force units airlifted into the area. Land-based prepositioning has been provided for two divisions in Europe and one in the Far East.1/ However, there are practical limits to how far land-based prepositioning should be carried since it would clearly be very costly to use this tactic in more than a few of the most important areas of potential contingencies. Therefore, we decided to turn to a more flexible method of prepositioning, using converted Victory ships as mobile depots carrying balanced loads of heavy equipment and supplies. Permanently stationed in secure overseas areas, such ships would be able to move quickly to threatened areas where they could provide timely materiel support to the forces airlifted from the central reserve. By the time the Vietnam conflict worsened in 1965, we had deployed three such Forward Floating Depots and had proposed the deployment of several more.

However, aside from this limited form of mobile prepositioning, the potential contribution which sealift might make to a rapid response capability was not fully recognized until recent years. Because of the relative slowness of its response, sealift had been generally associated with the important but less urgent tasks of follow-on support and reinforcement. Based on all of our previous experience, the existing military-civil sealift capabilities were

[redacted]

deemed basically adequate for these purposes. Two factors served to change this situation. First, as we achieved better understanding of the size of the rapid response requirement, the cost implications of meeting it through airlift alone strongly encouraged the search for alternatives. Second, in the process of exploring the relative advantages of replacing some of the cargo ships in the MSTS nucleus fleet with various improved roll-on/roll-off types, it became increasingly apparent that modern shipbuilding technology could provide fast, highly efficient, specialized military sealift to complement our strategic airlift in the rapid response role.

Initially, the new ships were envisioned as simply much improved versions of the Forward Floating Depots. However, further study, together with the emerging prospect of even more efficient and capable ships than envisioned earlier, opened up the possibility of an entirely new rapid deployment strategy in which sealift would play a much more prominent role. The key to this rapid deployment strategy was the very fast reaction time required of the sealift, a fact which dictated that a ship assigned to this role could not be used in peacetime for any other purpose such as point-to-point cargo transport. Rather, the Fast Deployment Logistic ships (FDLs) would be used either in the Forward Floating Depot role or be held in a ready status in U.S. ports where heavy equipment, such as wheeled and tracked vehicular equipment or helicopters, tailored to the mission could be quickly loaded when the need to deploy arose. In addition, these ships would be specifically designed to accommodate the peculiarities of military equipment and would have the capability to discharge cargo at primitive ports or over the beach using embarked lighterage and heavy lift helicopters.

As I noted in the preceding section of this statement, the most demanding contingency which we use for planning our forces is a rapid deployment to Southeast Asia to counter a conventional attack and a simultaneous reinforcement of our forces in Europe. We have, therefore, used this case to test the relative effectiveness of the FDL force and its principal alternatives in the rapid response role in the projected environment of the mid-1970s. In such a serious situation, it is reasonable to assume that the U.S.-owned commercial fleet would be requisitioned and available without delay. However, in more limited contingencies, this would not necessarily be true, nor would it necessarily be desirable. Accordingly, we have also examined the requirements for such a more limited contingency.

[redacted]

[redacted]

[redacted] After testing a wide range of various combinations of airlift, sealift and prepositioning, we have found that the force which gives us the required capability at the least cost consists of: six C-5A squadrons [redacted], 14 C-141 squadrons [redacted] and 30 FDLs; prepositioned equipment [redacted] in Europe and [redacted] in the Pacific [redacted]; a Civil Reserve Air Fleet [redacted] and 460 commercial general cargo ships.1/

However, we have also examined three variations of the recommended force: (a) the force without the FDLs; (b) the force without the FDLs, but with 140 more privately-owned and operated merchant ships (equivalent to 295 more "notional" ships) which would normally be employed in commercial liner service and subsidized in the amount of the FDL program cost; and (c) the force without FDLs, but with an enlarged MSTS-controlled fleet obtained by long term charter (at a cost equal to the FDL program) of 54 privately-owned and operated vessels (equivalent to 157 "notional" ships) designed specifically for military cargo and used exclusively for Defense business in peacetime as well as wartime.

Under the first alternative -- no FDLs -- we would [redacted] for a combined European/Southeast Asian contingency. While such shortfalls may not seem critical at first glance, their significance becomes more apparent when related to our experience in the Korean war, where we came close to being pushed off the Korean peninsula before we were finally able to stem the attack and secure a beachhead for later reinforcement. What prevented this from happening was the availability of three U.S. divisions in Japan. After North Korea invaded the South on June 25, 1950, we were able to move the first of these divisions into action by D+14 and two additional divisions by D+23. [redacted] however, the first division deployed from the continental United States to Korea did not

1/ These are "notional" ships with a capacity of 15,000 measurement tons, a speed of 15 knots, a 5-day load or unload capability and a 10,000-mile round trip distance factor.

[redacted]

arrive until D+56. We managed to build up to five divisions (although understrength and without substantial support elements) by D+60 and seven divisions by D+70.

Under the second alternative -- an enlarged subsidized merchant fleet -- our deployment objectives in a combined contingency could not be met; we would fall two divisions short throughout the period D+20 through D+40. For a Southeast Asian emergency alone (without requisitioning), we would fall behind our objectives by more than two divisions in the early critical weeks and be unable to complete the deployment until some 20 days after the desired date. Moreover, dependence on commercial shipping would mean deployment of our forces in piecemeal fashion because the ships employed would be too small to preserve the unit integrity of troops and equipment. This shortcoming is important because unit integrity largely determines the military effectiveness of the first combat forces arriving in the theater of operations.

In contrast, 12 FDLs would lift an infantry division's equipment with its initial support increment and necessary supplies, while it would take 33 C-5 type ships (the largest commercial cargo ships being built today) to do the same job. Moreover, the FDL force will carry its own lighterage and helicopters for moving the equipment ashore rapidly wherever needed, even in the absence of port facilities. The FDL will also carry sufficient POL to fuel all vehicles before discharge, thus facilitating their rapid exit from port or beach and avoiding confusion and delay in the supply line.

The third alternative -- the long term charter of private ships -- in both the single Southeast Asian and the combined contingencies, would cause slippages of one to two divisions through the vital period up to D+40. Because these charter ships would be used in regular peacetime service, carrying Defense cargo, they could not offer the same responsiveness as the FDLs.

Thus, neither of the two equal cost alternatives to the FDL force can meet the requirements of a rapid deployment strategy. Moreover, the kinds of ships which they would employ lack many of the functionally unique operating characteristics which make the FDL ideally suited to the rapid response mission.

One objection that has been raised to the FDLs is, in fact, an objection to any kind of rapid response capability. The argument has been made that because of the rapid response capability provided by the FDL, we would be tempted to intervene in many situations where our long range best interests would dictate otherwise. I want to

emphasize that the FDLs, per se, would in no way add to or subtract from our commitments. But as long as we adhere to a policy of fulfilling our treaty commitments, we should be prepared to do so with the minimum political and military risks and the minimum cost in lives -- that is why the FDL program is unanimously recommended to the Congress by the Chiefs and the Secretaries of each of the Services, as well as by Mr. Nitze and myself.

As you will have noted from the foregoing discussion, even with the FDLs, we would need a substantial assist from the U.S. commercial fleet in order to meet the rapid response requirement. Last year, as a result of our Vietnam experience, I discussed at some length our concern about the availability and cost of such shipping in future emergencies. Subsequently, the Committee of American Steamship Lines, representing most of the subsidized U.S. Merchant Marine, proposed a new program which would guarantee that emergency sealift to meet defense requirements would be made available according to predetermined arrangements. Encouraged by this industry initiative, we have continued to study the problem, working with industry, the Department of Transportation, the Federal Maritime Commission, and the Maritime Administration. Using the original industry proposal as the starting point and adding the best of the proven features of the Civil Reserve Air Fleet (CRAF) program, a new plan was developed.

This plan, known as the RESPOND Commercial Sealift Augmentation Program, is designed to ensure timely sealift augmentation from commercial sources in future emergencies according to prearranged contractually defined commitments, administrative arrangements and prices. It is based on three fundamental concepts. First, as originally proposed by industry, a prior commitment to provide emergency sealift augmentation would, in the future, normally be a prerequisite to sharing in the award of Defense peacetime business. Second, a cost-based rate schedule for Defense Department cargo would be established for each trade route. Finally, Defense cargos would be allocated so as to reward both the operator's efficiency and his mobilization commitment. However, within this broad framework, there is still a considerable amount of work to be done in developing specific procedures. To this end we are currently engaged in joint studies and consultations with industry looking toward partial implementation of the program in FY 1969, with full implementation to be completed in time for the award of contracts on the new basis in FY 1970.

B. TACTICAL MOVEMENT

Within the theater of operations, equipment and supplies are moved by a variety of means, only one of which, intra-theater airlift,

[redacted]

need concern us here. For a number of reasons, the requirement for this type of lift is particularly difficult to establish with any degree of precision.

Our approach to this problem has been, essentially, to analyze our present capabilities and compare them with possible intra-theater lift requirements in the same contingency situations which we use to establish our General Purpose Force and strategic lift requirements. Intra-theater airlift serves two major missions: (1) support of the air line of communications, i.e., the air movement of equipment, supplies and personnel within the theater of operations; and (2) the tactical movement of combat units with their equipment in areas where road or rail transportation is not available. With respect to the first mission, about one-fourth of all equipment and supplies being moved within Vietnam today go by air -- earlier in the war, it was one-half. With respect to the second mission, about one-tenth of the tactical airlift missions are for combat unit movements (i.e., the equivalent of moving one battalion per division per week).

Our study shows that about half of the aircraft in the planned C-130 force could support simultaneously two separate contingencies. In a Southeast Asian contingency, these aircraft could: (1) deliver half of all the equipment and supplies (including bulk petroleum) consumed by the combat forces; (2) deliver a quarter of all equipment and supplies consumed by support forces; and (3) support about the same proportion of combat unit movements as we are in Vietnam at present. And, in Europe, they could simultaneously deliver a quarter of all the equipment and supplies consumed by our combat forces. (The European road system makes it unncesssary to provide aircraft specifically for the supply of the support forces or for tactical movements, although this capability would be inherent in the airlift aircraft assigned to the theater.) The rest of the planned C-130 force (the C-130A/B/D, which have about one-half the C-130E capacity) would provide a capability to handle minor contingencies, to support allied forces, and to support deployed Navy and Marine Corps forces. The C-141s, of course, can also be used for intra-theater and airborne operations, and adequate short-field capabilities are provided by the presently planned force of C-7As and jet-augmented C-123Ks.

Thus, on the basis of our present understanding of the requirement, it does not appear that any additional intra-theater airlift capability need be procured at this time.

[redacted]

C. AIR FORCE AIRLIFT

The airlift forces currently planned through FY 1973 are shown [redacted]

1. Active Forces

In the active forces, the planned deployment schedules for the C-5A remain the same as a year ago. First flight is scheduled to take place next June with first delivery of an operational aircraft coming about a year later. The first squadron will be operational in FY 1970, and the full strength of six squadrons [redacted] will be reached in FY 1972. Funds are included in the FY 1969 Budget for another 27 C-5As, [redacted]

By end FY 1968, the C-141 force will reach its planned strength of 14 squadrons [redacted]

As previously mentioned, one-half of the present C-130 force [redacted] should be able to provide an adequate intra-theater airlift capability in the active force. Therefore, we plan to start phasing large numbers of the older [redacted] into the reserves in FY 1970, and by end FY 1973, the active force will consist of 14 squadrons [redacted] of the "E" model, plus one squadron [redacted] of the ski-equipped C-130Ds. Thirteen of these C-130E squadrons will be modified with the Adverse Weather Aerial Delivery (AWAD) radar system to give them an accurate night and all-weather airdrop capability. We did consider once again the question of procuring additional C-130Es in view of the Congress' appropriation of funds for this purpose last year. However, the present inventory, as reequipped, should be able to meet all important needs into the mid-1970s, when we may want to introduce a new intra-theater transport. To this end, the FY 1969 Budget includes funds to start contract definition of a Light Intra-theater Transport (LIT) to provide an appropriate replacement for the C-123 and the C-7A aircraft in the mid-1970s.

In order to retain more outsize cargo capability during the early stages of the C-5A force build-up, we now plan to hold two C-124 squadrons in the force [redacted] a year longer than previously scheduled. And, to augment the capability of the active force to operate from short airfields, we tentatively plan to transfer [redacted] squadrons of the jet augmented C-123Ks from the Special Air Warfare forces to the regular airlift force structure [redacted]

[redacted]

2. Air Force Reserve

The FY 1967 Supplemental Appropriation Act directed that the Air Force Reserve continue to maintain a force of 40 troop carrier and airlift groups through FY 1968, and this will be done. For the future, however, I am convinced that the structure of the Reserve's airlift force should be determined solely by our military requirements and the most efficient use of all our airlift resources, including our skilled Reserve personnel. As a result, we have made a number of changes in the forces planned for FY 1969-73.

The most significant of these is not reflected on the force table. The C-141/C-5A force which we have programmed for the early 1970s will be capable of considerably higher daily utilization rates in an emergency, providing the additional crews and support personnel can be made available. Thus, if reserve component skills could be used to raise the sustained utilization rate of our most modern transports (which are in the active forces), especially in the crucial early days of an emergency, this would be potentially far more valuable than the contribution of reactivated reserve units equipped with older, less efficient aircraft. In order to test this concept, we are converting a former C-119 group to a C-141 "associate" unit which will train with the aircraft in an active squadron. If this test proves successful, it will give us a good way to maintain and capitalize on the skills of our reserve component personnel without having to retain costly inefficient older aircraft in the structure. Accordingly, we have tentatively scheduled the conversion of four more C-119 squadrons to "associate" C-141 units in FY 1969.

In order to prepare for the introduction of C-130s into the Reserve, a special dual-purpose squadron of eight aircraft is being created this year, using the personnel of two former C-119 units. This squadron will provide combat crew training for both active and reserve personnel and at the same time constitute a reserve airlift unit capable of mobilization if needed. Thus, the C-119 force will be kept at 18 squadrons through the end of the current fiscal year, phasing down to ten by end FY 1969 and out of the structure completely the following year. Thirty-six Air Force Reserve squadrons are retained through FY 1969 as follows: 10 C-119, 19 C-124, 5 C-141 (associate), 1 C-130 and 1 C-130A CCTS without aircraft.

The first large quantities of C-130s would be received by the Air Force Reserve in FY 1970 as the force builds to five squadrons replacing C-124 squadrons. In FY 1971-73 the remaining C-124s would be phased out and the C-130 force built up to 13 squadrons.

[redacted]

3. Air National Guard

The FY 1967 Supplemental Appropriation Act also directed that the Air National Guard should be maintained at not less than 25 airlift groups during FY 1968, and this will be done. As in the case of the Reserve, however, the Guard's future airlift force structure should be determined by the test of military need.

Of the 26 airlift groups in the ANG structure at the end of FY 1967, three were C-124 units and one was a C-123 unit which are scheduled to remain in the force for the next few years. Five were C-121 groups which will all be converted to aeromedical evacuation or tactical electronic warfare missions -- two in FY 1968 and three in FY 1969. Seventeen were C-97 units, which we plan to phase down to eleven by end FY 1968, to six by end FY 1969 and out of the force completely in FY 1970. However, the six being phased out this year are being converted to C-124 groups, giving us a total force of 26 at end FY 1968, including two C-121 groups converted to other missions. In FY 1969, one more C-97 group will convert to C-124s. The end FY 1969 position will reflect 22 squadrons: 17 airlift, 4 Aeromedical Evacuation, and 1 Tactical Electronic Warfare. The accelerated transfer of C-130s from the active force will allow the Guard to convert four C-97 squadrons to this aircraft by end FY 1970 instead of one as planned a year ago, with the full twelve squadron force being reached in FY 1973 as the last of the C-124s are retired.

D. NAVY AIRLIFT

This year for the first time we are showing the Navy's airlift elements in this program instead of the General Purpose Forces.

At end FY 1968, the Fleet Tactical Support category will consist of 86 aircraft, including C-1/C-2 COD (Carrier On-board Delivery) aircraft, C-118s, C-130s and C-131s. In FY 1969, the present COD force will decline from 41 to 37 aircraft and hold at that level through the rest of the program period. We believe that the 24 C-118s now in the force can be retired and their mission assumed by the Military Airlift Command; 12 would phase out in FY 1969 and, pending a review of their missions, the remainder would be eliminated the following year. Seven C-130s and 14 C-131s would remain in the force throughout the program period providing an organic non-scheduled lift capability for special Navy missions.

[redacted]

[redacted]

The present Marine Corps airlift structure consists of 71 aircraft, including C-47s, C-54s, C-117s and KC-130s. We believe that the intra-theater capabilities of the regular airlift force should be able to meet the Marine Corps' needs and, therefore, have tentatively scheduled the phaseout of all but the KC-130s which the Marine Corps would continue for use as inflight refuelers for tactical aircraft and for combat transport needs.

The Navy's present reserve airlift structure consists of 77 aircraft, including C-54s, C-118s and C-119Fs. We plan to phase the C-54s out of the force completely in FY 1970 as the C-118 force builds up to 50 through transfers from the active forces. Seventeen C-119Fs would be retained throughout the program period to provide an organic assault transport capability for the Marine Corps Reserve's aircraft wing.

E. SEALIFT

Following a successful contract definition competition for the Fast Deployment Logistic Ship Program, which was completed last July, the Navy is now preparing a biddable package based on the selected proposal. Assuming Congressional authorization of the program late this spring, negotiations will be conducted with the contractor whose proposal was selected. If these negotiations are successful, a contract could be ready for award promptly after final Congressional appropriation action. If unsuccessful, the entire biddable package would be offered to the industry at large. Funds for four ships are included in the FY 1969 request, and we tentatively plan on ten more in FY 1970 and eight in each of the two following years. As shown on the table, under the revised schedule the first four FDLs would enter the force in FY 1972, with subsequent deliveries being made at the rate of one a month.

[redacted]

V. RESEARCH AND DEVELOPMENT

Included in this major program are all of the R&D efforts not directly identified with weapons or weapons systems approved for deployment. I have already discussed some of the more important R&D projects earlier in this statement, in connection with the military forces they support. Dr. Foster, the Director of Defense Research and Engineering, will discuss the details of the program later. What I would like to do now is to concentrate on some of the larger and more fundamental problems involved in this area of the Defense effort.

A. OVERALL POLICY MATTERS

In the seven fiscal years, 1962-68, we have devoted a total of $47 billion in new obligational authority to research, development test and evaluation, and we are requesting $8.0 billion for this purpose in FY 1969. These amounts include not only the cost of R&D projects in this major program, but also the continuing development costs of systems already approved for deployment and, therefore, included in other major programs. Nevertheless, these are very large sums and the trend over the years has been rising, as has been the case in Federal R&D expenditures, generally. Thus, the interest of the Congress in this program is quite understandable.

One of the special characteristics of the R&D program, which makes it so difficult to evaluate, is the great diversity and very large number, literally thousands, of separately identifiable tasks and projects encompassed within it. Thus, it seemed to me that one of the first things we had to do in this area was to sort out all of these tasks and projects and group them into some meaningful categories from a management point of view. The approach we adopted for this purpose is based, in a very general sense, on the phases of the evolutionary process by which ideas are eventually translated into useful military hardware. These are: Research, Exploratory Development, Advanced Development, Engineering Development and Operational Systems Development.

"Research" constitutes the effort directed toward the deeper understanding of natural phenomena and our environment, i.e., toward the solution of basic problems, relevant to long-term national security, in the physical, chemical, biological, engineering, medical, behaviorial, and social sciences. Accordingly, Research is oriented basically to scientific disciplines. Individual research tasks are

derived from analyses of the basic needs and limits in defense technology today, and from a selection of the scientific opportunities relevant to national security in the next decade.

"Exploratory Development" constitutes the effort directed toward the application of research results, and the development of materials, components, devices and subsystems useful to new military weapons and equipment. Here the emphasis is on exploring the feasibility of various approaches to the solution of specific military problems, by demonstrating the feasibility of "bread-board" devices and prototype components and subsystems. This work is oriented to the various technologies, e.g., electronics, explosives, communications and propulsion.

"Advanced Development" encompasses the efforts directed toward producing experimental hardware for feasibility testing to determine its suitability for military use before proceeding with the design and engineering for actual service use. As ideas progress to this stage, we can begin to identify each project with specific military applications or techniques and can, therefore, begin to question in depth its potential military utility. It is also in this phase that we begin to explore in detail the cost of the most likely applications to determine whether the potential operational benefit would be worth the cost of further development, production and deployment.

"Engineering Development" encompasses the efforts directed toward designing weapons systems or equipment specifically engineered for service use and for operational employment (but which have not as yet been approved for production and deployment), and it is in this phase that large commitments of resources may have to be made to single projects. Accordingly, before we place a system into full-scale engineering development, we must first determine its specific operational requirements and compare its relative cost effectiveness with that of other available alternatives. In this connection, we need a careful formulation of the development concept in <u>all</u> of its related aspects. It is also in this phase that we must establish firm goals, milestones and time schedules.

"Operational Systems Development" encompasses the efforts directed toward the development, test, evaluation and design improvement of weapon systems or equipment which have been approved for production and deployment. Once a decision is made to proceed with production and deployment, a project is thereafter included in the appropriate mission-oriented program (e.g., Strategic Forces).

A sixth category, "Management and Support", includes the operation of the test ranges, some of the in-house laboratories and the general R&D indirect support and is, thus, an integral part of the R&D program.

I believe it is clear from this brief description of the six categories of the R&D effort that each has its own particular management problems. It is from the first two categories -- Research and Exploratory Development -- that we derive understanding, new ideas, scientific principles, and advanced technology. In effect, they constitute the source of the "technical building blocks" we need for the development of major systems. Indeed, we cannot do a proper job of Engineering Development, still less of Operational Systems Development, until these "next generation" building blocks are available. Thus, the effectiveness of the weapon systems we will have a decade hence, and our technological strength generally, will depend critically upon how well we conduct these two categories of R&D over the next few years.

Because Research and Exploratory Development, by their very nature, involve the search for new knowledge and techniques, we cannot, as a general rule, prescribe specific goals, milestones and time schedules for them. We can and do establish general goals and a framework of priorities in the various scientific areas. Accordingly, we try to manage these two categories of R&D on a "level of effort" basis. Decisions about specific tasks and projects in this area, as you can readily understand, are virtually impossible to make from a central vantage point and we must, therefore, depend upon our R&D managers to cull out the less promising efforts so that the prescribed level of resources is concentrated on the most promising.

Although the line of demarcation between Research and Exploratory Development is by no means precise, management of the former does present some unique problems largely because research is done in universities as well as in our in-house laboratories and by our defense contractors. If we are to maintain a vigorous research program in all of the principal disciplines of concern to the Defense effort, we must assure the university participants some reasonable degree of stability in the level of support we give them. This does not mean we should not change the level or focus of effort over a period of time as our interests shift but it does mean we should avoid sharp year-to-year fluctuations. The university researchers who are of most value to us are those who have achieved a certain unique knowledge of their respective fields of endeavor, and one of the important prerequisites in this regard is continuity of effort. In fact, without such continuity, we cannot expect to retain their interest in our problems.

Indeed, after examining all the evidence in this area for some years, I believe we should be willing to give first priority in the R&D program to a reasonable, sustained level of research spending, taking into account the inevitable price and wage increases from year to year. During FY 1965-68, after adjusting for inflation, Research funding declined. But it is quite clear that we must now reverse this trend and support more vigorously many scientific fields that show great promise and clear relevance to our future security. It is on this basis that I have recommended a total of $450 million for Research in the FY 1969 Budget, $79 million more than the amount provided by the Congress for FY 1968 but only $37 million more than the amount available for FY 1967. As shown on Table 15, the FY 1969 figure represents about a 31 percent increase over FY 1962, or an average of about four percent a year over the entire seven-year period.

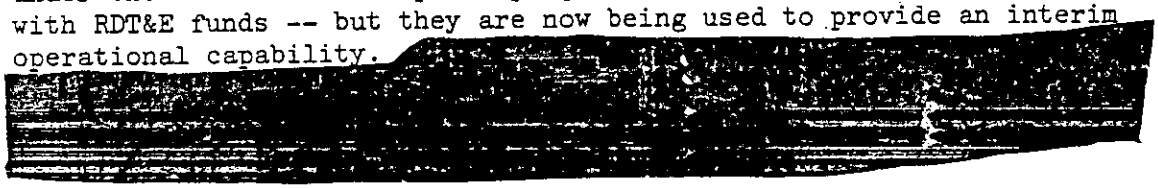
The management problems involved in Exploratory Development are also complex. As I have stated to this Committee on previous occasions, I have never been fully convinced that we are getting full value from this $1 billion a year effort. (Funds devoted to this purpose rose from $956 million in FY 1962 to $1,158 million in FY 1964 and have since declined to about $948 million in the current fiscal year.) There is no question that this type of work is essential, and that it has contributed significantly to our military strength over the years. But the effort is so diverse, large, and decentralized (more than 12,000 active tasks at the present time), that it is difficult to evaluate all of the results in relation to the costs. Although this area of work is also subject to rising price and wage levels, I am not sufficiently confident that we have a coherent enough grasp of the overall program to recommend an increase commensurate with the rise in costs. Accordingly, I am recommending a total of $980 million for Exploratory Development in FY 1969, approximately the amount originally requested for FY 1968.

It is extremely important that no new major systems developments be started until the basic components and technology are in hand. This is one of the principal purposes of Advanced Development efforts. It is in this category that we develop many of the major components of new systems -- engines, avionics, airborne radars, penetration aids, etc. It is also here that we develop the experimental prototypes prior to commitment to full-scale development. The V/STOL aircraft is an excellent example of both of these types of Advanced Development. During the last seven years, we have invested a total of several hundred million dollars in the development and construction of a wide variety of V/STOL prototype aircraft, using different design approaches. None of them proved to be both technically and

operationally feasible. Indeed we found that, technologically, the pacing item was the engine, and that until we had a suitable engine, none of the approaches were likely to produce a successful aircraft. Accordingly, beginning in FY 1966, we concentrated our resources on engine development and, through FY 1968 we devoted almost $70 million to this project; additional funds will be required in FY 1969. Whether this engine will solve the problem is yet to be demonstrated, but at least we have resisted the temptation to embark on a full-scale development before the required technology and basic components were at hand.

Another good example is the AWACS, the Advanced Airborne Warning and Control System. The problem here, as I noted in my discussion of the air defense problem in the second section of the statement, is the availability of a downward-looking radar capable of discriminating an aircraft in flight against the ground clutter. Accordingly, we concentrated our efforts on the demonstration of feasability of critical features of the radar, deferring the development of the AWACS system as a whole until we were reasonably sure that the overland radar technology was well in hand. This radar has been under development in the Advanced Development category since FY 1966. Experiments last year demonstrated the necessary capacity for discrimination. Therefore, we are proceeding in FY 1969 with AWACS.

In some cases advanced developments turn out to be so successful that they can be moved immediately into production or even into operation. The heavy lift helicopter is a good example of the latter. Six experimental prototypes were constructed with Advanced Development funds. They proved to be so successful that when we needed such a heavy lift capability in Vietnam we were able to deploy four of these six helicopters for operational use. A somewhat different example is the Over-the-Horizon radar. The first prototype radars were fabricated under the Advanced Development program -- i.e., they were procured with RDT&E funds -- but they are now being used to provide an interim operational capability.



Projects in the Advanced Development category are managed on a line item basis. Each project of any significance is individually reviewed in the Office of the Secretary of Defense and individually managed by one of the Services or Defense Agencies. I believe that we have this area of the R&D program under reasonably good control. The total amount of funds devoted to Advanced Development fluctuates

within a fairly wide range from year to year, as new projects are started and older projects are dropped or moved into the Engineering Development or Operational Systems Development categories. Thus, the totals shown on Table 15 for Advanced Development do not reflect any meaningful trend over the years. For FY 1969 we are requesting a total of $1,023 million for this purpose.

While Research and Exploratory Development are not directly related to immediate military requirements, a full-scale Engineering or Operational Systems Development can be justified only in terms of its potential contribution to our strategy, considering both its cost and its military effectiveness, as well as the cost and effectiveness of any other available alternatives. All too often in the past, systems development work was started before adequate consideration had been given to how a proposed weapons system would be used, what it would cost and, finally, whether its contribution to our military capability would be worth its cost. In many cases, the capability promised by a new development can also be achieved in other ways, usually through the modification or the more imaginative use of existing weapons systems.

In this connection, there has been a great deal of confusion about what constitutes a "new weapons system." During the late 1950s and early 1960s, we spent well over $10 billion for the development of an entirely new family of strategic weapons, the first generation of ballistic missiles -- ATLAS, TITAN, THOR, JUPITER, etc. Involved in this program were vast expenditures for the acquisition of basic scientific knowledge and for the creation of entirely new technologies. While these great initial investments did not have to be repeated during the 1960s, we did have to spend about a billion dollars a year on the improvement of our ballistic missile capabilities in order to stay ahead of the rapidly increasing Soviet strategic threat. This work has involved not only modifications of the booster vehicles, but also improvements in their survivability, payloads, and penetration capabilities against ABM defenses.

With regard to submarine launched missiles, we have advanced from the POLARIS A-1 to the A-2 to the A-3, and we are now moving on to the POSEIDON. In the case of the MINUTEMAN, we have gone from the I-A to the I-B to the MINUTEMAN II and now to the MINUTEMAN III. In each of these steps we have achieved major advances in the overall capabilities of these missiles. The MINUTEMAN III, for example, represents just as much of an advance over the MINUTEMAN I-A as the POSEIDON does over the POLARIS A-1 or the B-52 over the B-47. We could have just as easily given each of these new versions of the

POLARIS and MINUTEMAN entirely new names, as we did in the case of POSEIDON or the B-52, thus increasing, in a popular sense, the "number" of new development starts. But it is not the number of new names which is important, but rather the real improvement achieved in meeting a genuine defense need. Thus, each major technical advance should be judged on its own overall merits, in terms of what it adds to our previously existing military capabilities.

We have an analogy in tactical aircraft development. In many cases it is not only the capability of the vehicle that is important, but more particularly the capability of the equipment which it carries. This point has been well illustrated by our experience in Vietnam. We found that North Vietnam was building up an enormous air defense complex of surface-to-air missiles and anti-aircraft artillery controlled by an extensive radar network. Thus, it was clear we would have to increase our electronic warfare capabilities if we were to penetrate and survive in this tougher environment. What was needed was not a new aircraft but rather new electronic warfare equipment in our existing aircraft. This equipment has now been developed and provided to our air forces operating over North Vietnam. Similarly, as I noted in my discussion of the strategic bomber forces, our most urgent need for the 1970s is not a new aircraft but rather new penetration systems for the aircraft already in the program.

Thus, in planning the R&D program, we must consistently focus our attention on the new or improved capabilities that are required, and not just on the vehicles. If these capabilities can be provided through the modification of existing vehicles or by the development and installation of new equipment, there is no reason why we should incur the additional cost of developing new vehicles.

Before a system is moved into Engineering Development, or into any costly phase, we need to determine as precisely as possible the threat it will face, the operating capabilities we need, alternative ways of meeting the threat, the size of the force proposed, the time schedule to be followed, and the probable cost of each alternative. Although we made much progress in this kind of system definition in recent years, certain significant shortcomings in the process still remained.

What we needed was an overall plan which would tie all of these elements together into a comprehensive balanced analysis. Accordingly, we inaugurated last fall a new device which we call the Development Concept Paper. These papers will be prepared for all major Advanced, Engineering, and Operational Systems Developments by the Director,

Defense Research and Engineering, and his staff together with other elements of my staff, and the top management of the military departments. Each paper will fully outline the military purpose to be served by each program and will appraise the financial and management, as well as the technical risks at each milestone, enabling the Secretary of Defense to review the key elements of the entire program at each decision point. We hope through this process to be able to minimize the initiation of unpromising programs and to eliminate in a more timely manner those which are revealed to be unpromising or unneeded as the development process unfolds. These documents will provide the Secretary of Defense with the premises and rationale underlying each of the alternatives from which he must choose at each stage of a major development program.

When a weapons system project reaches the point where engineering development is contemplated, we are then ready for the next step -- "Contract Definition". This process begins with the solicitation of proposals from industry. Two or more contractor teams can then explore in depth the many technical and management unknowns which are present in any new effort. They accomplish an overall system design, define the subsystems and major components and begin the early stages of laboratory experimentation and design. Most important, they can identify the critical problems and make best estimates on how long and how much money it will take to solve them.

With this information at hand, we are in a much better position to decide whether to proceed with full-scale development. If we decide on full-scale development, the basic scientific and management team will have already been established, with a visible history of successful performance. Contract Definition allows us to embark on a full-scale effort with far greater assurance that our cost estimates are sound, that the performance of the system will meet the promise, and that the military requirement will be fulfilled at the time needed.

Because the content of the Engineering Development category changes significantly from year-to-year as new projects are started and older projects mature, the trend in overall funding is not very meaningful. But to round out this discussion, I would simply like to mention that for FY 1969 we are requesting a total of $856 million, compared with $923 million in FY 1968 and $1,011 million in FY 1967.

For Management and Support -- which includes the operation of the test ranges and R&D laboratories, services provided by such organizations as RAND and Aerospace Corporation, etc. -- we have included $1,689 million in the FY 1969 Budget.

[redacted]

We are also requesting for FY 1969 an appropriation of $125 million for the Department of Defense Emergency Fund, plus $150 million of transfer authority. For many years, FY 1959-64, the Congress provided a total of $150 million in appropriations and $150 million in transfer authority for the Emergency Fund. In the FY 1965-67 period the appropriated amount was reduced to $125 million, and in FY 1968 to $100 million. I believe this downward trend must now be reversed. The Emergency Fund provides the Defense Department a very essential degree of flexibility, especially at times when our forces are engaged in combat and new, unanticipated technical requirements continually arise.

As you know, we have been financing and managing the special R&D requirements of the Southeast Asia conflict through the PROVOST Program. But each year we have had to add to the amount requested for that program in the initial budget. In FY 1966, for example, we requested $180 million in the initial budget and had to add later another $190 million; in FY 1967 the initial request was $395 million and $285 million was added later; in FY 1968 the initial request was $566 million and through December 31 of last year $103 million had already been reprogrammed or added. While we are requesting $522 million for PROVOST in FY 1969, we can be sure that new requirements will arise during the year which will have to be financed from some other source. And, the most important single source of financing for such anticipated but indefinite requirements is the Emergency Fund. I, therefore, strongly urge the Committee to appropriate the full amount requested for FY 1969.

The PROVOST Program has provided many significant new capabilities during its existence. New hardware is being introduced at the rate of about 20 items per quarter for operational test and 35 items per quarter for first operational use. This hardware runs the gamut from personnel items for the individual foot soldier, to new combat radios, highly accurate new weapons, and new airborne attack equipment, to a complete system embracing many components designed to improve our counter-infiltration capabilities. [redacted]

Our ability to respond quickly to new technical problems arising from combat operations in Southeast Asia has been one of the most encouraging developments of the last few years. I attribute this ability in large measure to the sustaining effort we have made to provide an on-the-shelf inventory of new technology and components which can be quickly assembled into new weapons and operational equipment when they are needed. This is another reason why we must not permit our technological base to erode because of the lack of adequate financial support.

[redacted]

[redacted]

Another problem of fundamental importance to the R&D program is that of equipment standardization and compatibility. While attention in this area is usually focused on the number of different items in our supply system, the origin of this problem lies in the R&D program. Here is where the decisions are really made to add new items to the supply system. Each time a new weapon system enters the inventory, it brings with it thousands of new items of spares and support equipment, and there is little we can do in the management of the supply system to offset the consequences of these R&D decisions.

But even aside from the supply management problem, the cost of a major development, itself, has become so great that we can no longer afford to support full-scale parallel approaches to meeting the same basic requirement. The fact that we have four Services does not mean that we need four separate, independent R&D programs. Rather, our attention should be focused on the military missions to be performed and, if more than one Service shares a mission, other things being equal, there is no logical reason why they cannot use the same weapons and equipment. In fact, our experience in Vietnam has again demonstrated the great benefits that can be realized by using the same weapons and equipment for identical missions and the difficulties that can be encountered when standardization is lacking.

The F-4 is an excellent example of the former and the 20mm gun of the latter. The common use of the F-4 by the Air Force, Navy and Marine Corps in Southeast Asia has helped greatly to simplify the logistics support problem in that area, while the use of different 20mm guns on some Air Force and Navy aircraft has complicated the ammunition supply problem.

In certain cases, e.g., IFF (Identification, Friend or Foe) equipment, the lack of standardization has seriously complicated our air operations. Fortunately, enemy air activity over North Vietnam is limited and over South Vietnam nonexistent. But it is perfectly clear that in a major air war involving combined operations of all of our Services (including the Army's helicopters) a standardized IFF system would be of the utmost importance. Indeed, much more must be done to standardize all tactical communications systems so that all of our forces within a combat theater can communicate directly with each other. Such problems are very difficult and costly to solve once the equipment has been produced and issued to the troops. The most efficient and perhaps the only practical solution is to preclude them from occurring in the first place by achieving the desired standardization or compatibility in the development stage.

[redacted]

We must then, from the very beginning, design for the Defense Department mission and not just for a Service mission. Of course, where different operating conditions are involved, e.g., carrier vs. land-based aircraft operations, these differences must be taken into account. But even in such cases there is usually much room for standardization, if not the airframe, at least the engines, avionics, armament, etc. Moreover, we must strive for such standardization, or commonality, not only because it helps relieve costs, but also because it increases combat effectiveness.

Two related general problems in the R&D program, which have apparently troubled the interested Congressional Committees for some time, are the role of the Federal Contract Research Centers and our expenditures for "studies and analyses", which now make up a large part of the work of some of these centers. Over the years the Committees have focused their attention on some 16 of these FCRCs. Seven of them, however, are relatively small university groups which perform essentially the same kind of research as many other Defense-sponsored university groups. The remaining nine can, in turn, be divided into three categories: (1) Mitre and Aerospace Corporation, which are essentially Air Force systems engineering organizations; (2) the Massachusetts Institute of Technology Lincoln Laboratory and the Johns Hopkins Applied Physics Laboratory, which are specialized research groups in the physical sciences; and (3) the Institute for Defense Analyses (IDA), RAND, Research Analysis Corporation (RAC), the Center for Naval Analyses (CNA), and Analytical Services, Inc. (ANSER) which are essentially operations and systems research organizations.

The first two, Mitre and Aerospace, provide the Air Force with systems engineering capability over and above that furnished by the in-house organization. It was the lack of such in-house capability which gave rise to the establishment of these two organizations in the first place. Subsequent events have demonstrated wisdom of having such a highly flexible and independent source of support, and nothing has occurred in the interim which would permit the Air Force to dispense with their services now.

Those in the second category, MIT's Lincoln Laboratory and the Johns Hopkins Applied Physics Laboratory, also provide unique capabilities to the Air Force and the Navy, respectively. Because they are so closely associated with two of our leading educational institutions, they are in a good position to attact the high quality research talent needed.

The last five institutions provide a most important augmentation for our own in-house operations research or systems analysis capabilities. IDA supports the Office of the Secretary of Defense and the Joint Chiefs of Staff; RAND and ANSER support the Air Force; RAC the Army; and CNA the Navy. These organizations have one important attribute in common, they are all Defense Department sponsored independent corporations that were established in the first instance to support the Defense program. They have two principal advantages over our in-house organizations: (1) they are relatively free of what one might call "institutional bias" which is characteristic of all large policy making groups and, therefore, they can provide a fresh, independent insight into Defense problems; and (2) they are relatively free from day-to-day pressures and can, therefore, address themselves in a more searching and comprehensive manner to these problems.

All of these institutions are governed by Boards of Trustees of impeccable integrity and extraordinary dedication to public service. They provide the Defense Department with a capability which in a qualitative sense cannot be duplicated in any other manner. I have personally reviewed many of their reports, and I have no doubt that we are getting full value for the funds expended. The management problem from the Defense Department point of view is to strike a proper balance between policy control and public accountability on the one hand and the need for freedom to move rapidly on important national defense issues on the other. Dr. Foster will report to you in detail on the actions we have taken to achieve such a balance.

As in the case of the Research program, we must generally assure these institutions a reasonably stable level of work if they are to continue to attract the kind of talent we need. Unfortunately, the across-the-board cuts made by the Congress last year in the funds intended for the support of these institutions has raised understandable doubts among both the managements and the Boards of Trustees as to whether their services are still desired. Accordingly, if you share my belief in the need for and value of the work that these institutions do, you should vote the funds we have requested in the FY 1969 Budget for their support.

As I noted earlier, "studies and analyses" constitute a very important part of the work of these and other defense contractors. In FY 1967 we spent a total of $51.0 million for this purpose. In FY 1968 the Congress provided only $45.2 million. While this approximately 10 percent reduction may seem small in relation to the total, the rise in costs over the period has accentuated its impact. Nevertheless, we have carefully reviewed all studies and analyses proposed for FY 1969, and we have included in our budget request a total of only

$46.4 million, about $1 million more than the amount appropriated by the Congress last year, but almost $9 million below the original request for FY 1968. To obtain even tighter management control over this category of activities, we now require that each such study must be approved by the level of command empowered to implement the findings. Moreover, the principal official responsible for R&D in each Service will now periodically review all such studies and analyses both for budget purposes and for implementation.

B. THE DEPARTMENT OF DEFENSE SPACE PROGRAM

Inasmuch as the various elements of the Defense Department space effort are included in several program and budget categories, I have followed the practice of assembling all of them in a summary table (Table 16) and discussing the program as a separate entity.

As I pointed out in past years, we have always considered the Defense Department space effort as an integral part of the National Space Program. A whole network of formal and informal channels has been established with the National Aeronautics and Space Administration (NASA) and other agencies engaged in the national program to ensure the maximum interchange of men, ideas, technology and hardware, and to avoid wasteful duplication of effort. For example, in addition to most of the astronauts we also provide NASA with over 200 experienced military officers. Whenever possible, we try to accommodate the equipment and tests of other agencies in our own space vehicles, and they do the same for us. And, we also provide the other participants in the National Space Program with launch, range and recovery support.

The Defense portion of this national program is designed to maximize the utilization of space technologies and environments for military purposes, e.g., to apply space technologies and capabilities to our strategic and tactical weapons systems to increase their effectiveness, to exploit the new potentials in information systems made possible by satellite-based communication and sensors, and to explore the usefulness of manned space systems for military purposes. In every case, I have insisted that the space projects undertaken by the Defense Department must hold the distinct promise of enhancing our military power and effectiveness, and that they mesh in all vital areas with those undertaken by NASA, so that, together, they constitute a single fully integrated national program.

The largest project in the Defense Department Space Program is the Orbiting Laboratory (MOL), for which $431 million was provided last year and $600 million is requested in FY 1969. The MOL will consist of a modified GEMINI B space capsule, a laboratory section, a mission module, and a TITAN III M launch vehicle.

[redacted] All of the major components of the system are now under development. Mockup and structural test assemblies of the laboratory and experimental modules have been completed, and fabrication of test and qualification system components has begun. The TITAN III M vehicle (a modified TITAN III C with attached boosters increased from five to seven segments) is progressing well, and static test firings of the first stage engine, which employs a new nozzle, have been successfully conducted. Construction of the launch complex at Vandenberg Air Force Base will be completed on schedule this July, and the installation of the ground equipment will then begin.

As indicated by our budget request, FY 1969 is expected to be a peak year of activity in the MOL program, including the completion of a major portion of the structural test programs on flight hardware, continued fabrication of hardware for the first three flights, developmental test firings of the seven-segment solid motors for the TITAN III M, and installation of the ground equipment in the launch complex.

For development work on the Defense Satellite Communications and Tactical Satellite Communications programs (including the procurement of satellites and advanced terminals), we have included a total of $60.4 million in the FY 1969 Budget (exclusive of work at the Lincoln Lab, $11.4 million, which is funded separately). The NASA-developed SYNCOM satellites and the Initial Defense Communications Satellite Program (IDCSP) are now both operational and are providing communications support for our forces in Southeast Asia and the Pacific. (These operational programs will be discussed further in Chapter VI.) We are currently procuring additional IDCSP satellites to replenish the present system in 1968 and extend its useful life until a modern synchronous satellite system (i.e., each satellite is stationary over a single point on the earth) can be established. Development work on this new improved, higher-power, synchronous satellite [redacted] is scheduled to be initiated in FY 1969. Concurrently, we will continue our programs to upgrade our present satellite communications terminals and initiate development of advanced land, sea and air terminals.

The Tactical Satellite Communications Program (TACSATCOM) is designed to demonstrate the feasibility and utility of using satellite communication repeaters and their associated surface terminal equipment to satisfy important communication needs of our tactical combat forces. This program will provide very small, lightweight and relatively low-cost tactical equipment which can be used by highly mobile land, sea and air forces.

A TACSATCOM UHF satellite was successfully launched in 1967 and placed in an equatorial, near-synchronous orbit, with all systems operating properly. Another UHF satellite capable of multiple access operation (i.e., numerous stations using the satellite simultaneously) will be launched in mid-1968. The development and fabrication of a new, larger experimental tactical communication satellite is now in progress. Highly successful tests have already been conducted with R&D terminals installed in operational aircraft, submarines, ships and combat vehicles, and new terminals are under development. For the longer-range future, the Services are studying the requirements for an operational system, and desired technical features which are identified by this effort will be included as objectives in the present R&D test program wherever possible.

The next two projects on Table 16 are the now completed "Program 461" and its follow-on, "Program 949", both of which I discussed earlier in connection with the Strategic Forces. A total of $110 million is included in the FY 1969 Budget to continue work on advanced strategic surveillance satellites under "Program 949".

The next item, for which $10.5 million is requested in the FY 1969 Budget, comprises the space-related portion of the VELA nuclear test detection program. (Another major part of this program is the Large Aperture Seismic Array which is used to monitor underground nuclear detonations.) This effort constitutes one of the four specific safeguards maintained by the Department of Defense and the Atomic Energy Commission in relation to the Nuclear Test Ban Treaty. (The other three are: the continuing underground test program; the maintenance of modern nuclear laboratories and continued nuclear research; and the maintenance of a standby atmospheric testing capability.)

The fourth pair of VELA satellites were successfully placed into orbit last April. These were the first VELA satellites to have a "downward-looking" capability (i.e., facing the earth at all times) for providing continuous optical surveillance of the earth. They have already improved tremendously our detection and yield measurement capabilities. We plan to complete and launch the last pair of VELA satellites, which will also be earth-oriented and will have new improved electro-magnetic sensors, late this year. With this launch, we expect to have sufficient data to develop an operational system,

The next item, the Navy's navigation satellite system ("Program 783"), for which $23 million is requested for FY 1969, permits ships to determine their location promptly and precisely by observation of

orbiting satellites which continually broadcast their own position. The major portion of the FY 1969 request is for the procurement of new satellites and launch vehicles to replace inoperative or dying satellites, and for the operating and maintenance costs of the launches and four tracking stations (two of which are used to inject orbital data into the satellites' memory bank for rebroadcast).

The research and development funding for the THOR Satellite Interceptor, "Program 437", has been completed, and the $14.5 million shown for FY 1969 will provide for its normal operating costs.

The $16 million for space "Geodesy" will support tri-Service efforts to provide the precise information about the earth's size, shape and gravity field needed to support advanced strategic weapons systems.

The early versions of the TITAN III space boosters have already entered the operational inventory. The TITAN III B (AGENA) was put into production over a year ago, and the TITAN III C followed last summer, after having demonstrated its reliability and capability over two years of flight testing. These TITAN vehicles will be used for many of our high-priority space shots over the next few years. Meanwhile, development work will continue on the previously mentioned TITAN III M launch vehicle for the MOL program. Development was also initiated this past year on a new TITAN III D configuration to provide the greater thrust which may be required for certain classified missions. A total of $62 million is included in the FY 1969 Budget to support TITAN III programs.

The $14 million requested in FY 1969 for "AGENA D" will continue the effort I described last year to increase the low polar orbit payload capability of the standard AGENA D for the heavier satellite payloads now projected, as well as to improve its payload and orbit adjusting capability. This program involves modifying the engine to operate on storable propellant, developing a small secondary propulsion module operating off the engine's main tanks, and making the necessary changes in the vehicle's overall configuration to accommodate these modifications.

The "Spacecraft Technology and Advanced Reentry Test" (START) program, which has largely (and very much less expensively) replaced the DYNASOAR program cancelled in FY 1965, is developing multi-purpose reusable spacecraft and reentry vehicle technology, and presently comprises three major efforts: Project PILOT; the high performance maneuverable reusable spacecraft; and expandable structure airlocks and encapsulation techniques.

Project PRIME, completed last August, comprised a series of flights of a small maneuverable lifting body, the SV-5. These flights demonstrated the feasibility of returning data capsules from orbit by means of a spacecraft capable of highly accurate maneuver over large lateral ranges and at extremely high altitudes to precise recovery areas where they could be aerially retrieved. The first three flights were so successful in demonstrating the feasibility of accurate long-range spacecraft maneuvers at hypersonic speeds that a fourth flight previously scheduled for last summer became superfluous and was cancelled.

Project PILOT, an extension of the PRIME experiment, is designed to investigate the characteristics of a full-scale maneuverable manned lifting body at slower speeds and lower altitudes, including a detailed examination of its landing characteristics. The first PILOT flight is scheduled for this summer. The data obtained from PRIME and PILOT, when taken together, will help provide a technological base for the future development of a reusable, maneuverable spacecraft for returning astronauts from space. Such a highly-maneuverable craft, which is presently under study, would enable astronauts to leave space at almost any time and maneuver to a safe landing area, rather than being required to wait until the spacecraft reached an orbital position from which a safe, non-guided landing trajectory could be achieved, as is presently required.

The third effort under this program includes the development and test of expandable structures for use as airlocks (in order to permit ingress or egress from a spacecraft without depressurizing the whole vehicle), and the exploration of encapsulation techniques for the return of data to earth from orbit.

"Advanced Space Guidance", for which $3 million is requested in FY 1969, is a program which seeks to improve our autonomous space navigation capabilities by supporting research and equipment development in such areas as: the reliability and accuracy of inertial guidance systems; horizon sensors; star and landmark trackers; and the on-board determination of astronomical data.

The $6.3 million for "Advanced Liquid Rocket Technology" supports the sole remaining program of this type not only in the Department of Defense, but in the Nation. The two projects in this program involve the development of a reusable upper stage cryogenic liquid engine for use in recoverable spacecraft, and a high-performance fully throttleable hydrogen/fluorine engine.

The 'Ground Support' category shown on Table 16, for which $249 million is requested in FY 1969, is that portion of the costs of the missile ranges, test instrumentation, and satellite detection and tracking systems which is charged to space activities. The last two categories, "Supporting Research and Development" and "General Support", constitute the overhead of the military space program and consist of prorated portions of the costs of a wide range of space-related activities. About $1,039 million has been included in the FY 1969 Budget for these purposes.

In total we are requesting about $2,216 million for the Defense Department's space effort in FY 1969, about $267 million more than FY 1968 and about $552 million more than FY 1967. Most of this increase is related to the MOL program.

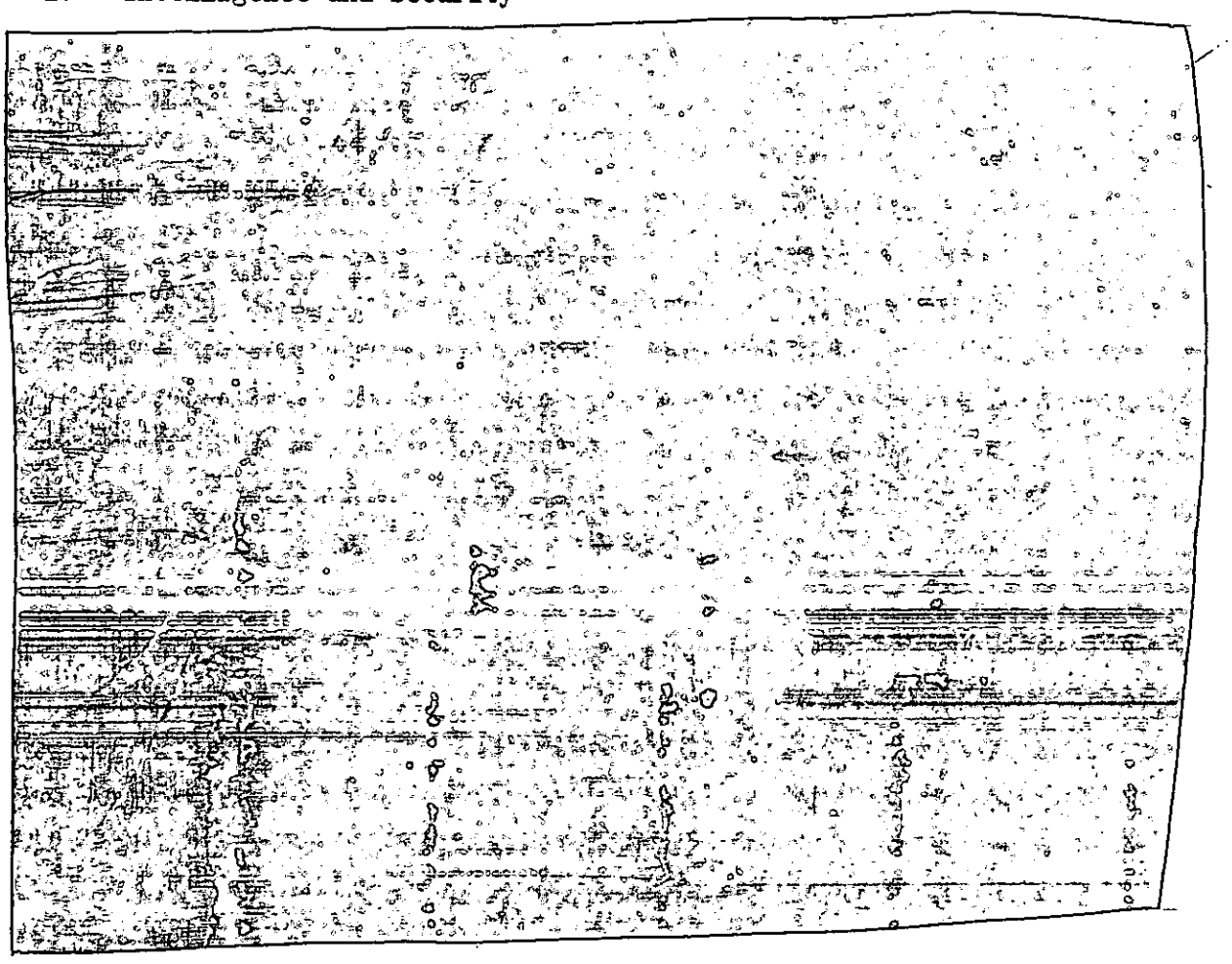
VI. OTHER MAJOR PROGRAMS

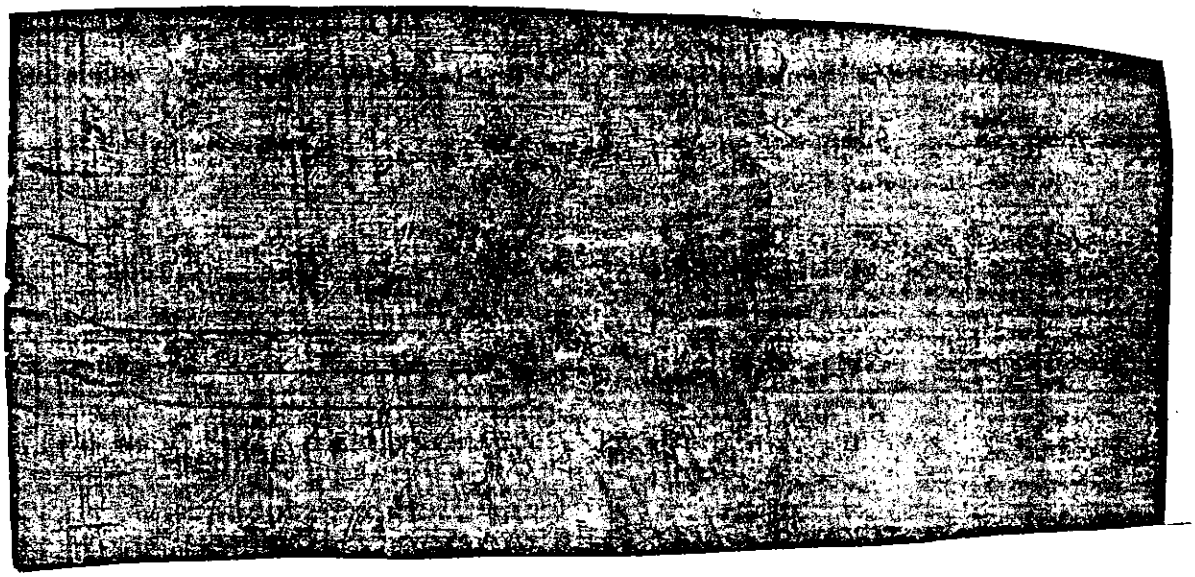
For purposes of presentation, four major programs covering support-type functions have been grouped together in this section.

A. INTELLIGENCE AND COMMUNICATIONS

This program comprises the centrally directed Defense intelligence and security functions, communications, and other special activities conducted by the Services, which are directly related to the missions of the combat forces in the Strategic, General Purpose and Airlift/Sealift programs, but which are more easily managed in homogenous functional groupings of similar or complementary activities than by distribution among the relevant programs.

1. Intelligence and Security





2. National Military Command System

The National Military Command System (NMCS), the primary subsystem of the World-Wide Military Command and Control System, is designed to provide the means for exercising strategic and operational direction of the Armed Forces in time of crisis or under conditions of limited or general war. 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 communications linking these command facilities with the unified and specified commands and Service headquarters.

With respect to the NMCC, we have expanded its automatic data processing capacity to handle the increased workload related to Southeast Asia operations and to meet other needs. The FY 1969 Budget provides funds for a still further improvement in data processing capability which will permit the NMCC to maintain, under all conditions, up-to-date information on operations being conducted by the unified and specified commanders, the disposition of friendly forces, and the enemy order of battle.

With respect to the NECPA, we propose to upgrade the automatic data processing and communications equipment on the NORTHAMPTON to give it capabilities comparable to its sister ship, the WRIGHT. This new equipment should be operational by January 1969. A third troposcatter communications station at Lola, North Carolina, will be completed this year, further extending the operating range of the NECPA ships.

With respect to the NEACP, VLF/LF transmitting systems are being installed in the three EC-135J airborne command post aircraft. These communications systems can be used in a nuclear environment for the transmission of emergency orders [redacted]

3. 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, radio and satellite communications facilities. Its two principal elements are the Automatic Voice Network (AUTOVON) and the Automatic Digital Network (AUTODIN), but it also includes other systems some of which are discussed here. The non-DCS elements include: (1) the tactical portions of those communications systems which serve the subordinate commanders of unified commands, or which are self-contained within tactical organizations; (2) self-contained local communications facilities such as those serving an individual Army base; (3) land, ship and airborne terminal facilities; and (4) ship-to-ship, air-to-air and ground-air-ground systems. Also included in this category is the COMSEC program which comprises our efforts to protect telecommunications and certain other communications systems [redacted]

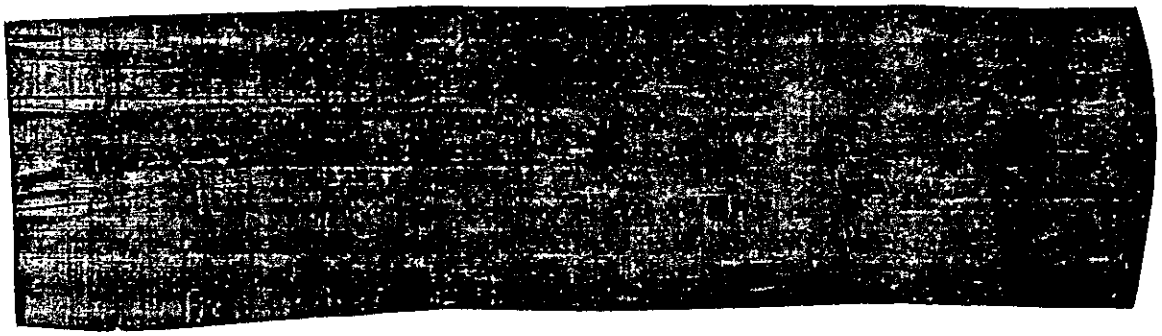
The AUTOVON System is essentially a direct dial telephone system served by a number of switching centers. Our present plans call for expanding AUTOVON to 93 switching centers by 1972 -- 19 overseas, 9 in Canada and 65 in the United States -- a reduction of one from last year's plan. We are also continuing the expansion of the AUTODIN System, and by the end of FY 1968 we should have 19 switching centers in operation, substantially completing the planned world-wide system of 20 switches. This system will be able to handle more than 40 million punch cards daily, greatly facilitating Defense management in such areas as command, supply, inventory control, personnel, finance and intelligence.

The Phase I portion of the Automatic Secure Voice Communications Network scheduled to be completed during FY 1969, will provide manual and automatically switched secure voice communications to about 1,850 subscribers, about 450 more than planned a year ago. This system will consist of three prototype VOCOM switches and other automatic and manual switches including the TALK QUICK Southeast Asia system, organized in a single integrated complex.

[redacted]

During the present fiscal year, we expect to complete most of our improvement program in Southeast Asia for the Integrated Wideband Communications System, which covers the extension and modification of high quality wideband communications within and between South Vietnam, Thailand and other areas of the Pacific.

Last July three operational satellites were added to the space segment of the Initial Defense Satellite Communications System (IDSCS), along with an experimental satellite. One of the three operational satellites failed to function properly, giving us an operating system of 17 satellites and 28 terminals as of December 1967. By end FY 1968, 36 terminals (including 7 aboard ship) should be operational. This initial system provides from one to eleven duplex voice channels, depending on the equipment and operating conditions. This system also provides an emergency capability for transmitting high quality reconnaissance photographs [redacted], within hours rather than days. It is expected that this emergency capability will be converted to an operational capability in early FY 1969. Improved equipment for both the space and ground terminal portions of the system are being developed in the R&D program.



In addition to the systems already approved for operational deployment, there are a large number of other communications projects in research and development. One such project, MALLARD, is a cooperative international effort to develop and produce a major tactical (trunking and distribution) communications system for possible use within the field armies of the United States, the United Kingdom, Canada and Australia. Such a system would provide secure, fully automatic, switched communications in the battle area [redacted] Other projects include the development of both light-weight and heavy transportable communications packages for possible use in areas where adequate military or commercial communications do not exist.

[redacted]

[redacted]

4. Other Specialized Activities

The "Intelligence and Communications" program also includes certain [redacted] mission-related activities such as weather service, oceanography and aero-space rescue and recovery. [redacted]

a. Weather Service

The Naval and Air Force Weather Services operate a global network of facilities for gathering and analyzing climatological and geophysical data and for disseminating forecasts in support of all Department of Defense components and NASA's space program. They also collect nuclear debris air samples for the AEC in connection with the test ban treaty safeguards, and operate hurricane and typhoon tracking services.

Our capabilities in this area have been significantly enhanced during the past year by the addition of a number of new satellite and surface-based data acquisition systems, including: (1) the National Operational Meteorological Satellite System, which provides cloud cover pictures that can be received directly by military ground and ship-based terminals; (2) the Application Technology Satellite, which provides cloud cover photographs and processed weather and oceanographic charts from a stationary orbit; (3) two new VELA satellites which augment the space and environmental data of the Solar Observing and Forecasting Network (SOFNET) [redacted] performing nuclear test detection functions; and (4) the addition of three new solar telescopes to SOFNET to permit continuous surveillance of the sun and an assessment of the effects of solar flares on satellite and other space operations and of the effect of magnetic storms on communications. SOFNET also provides data for the Over-the-Horizon radars and for calculating satellite orbits.

b. Oceanography

This program, together with portions of the general intelligence and R&D programs (e.g., Mapping, Charting and Geodesy, and Deep Submergence), comprises the Navy's activities in the field of ocean science and technology. The size and scope of our undersea survey, research and technology programs have been increased considerably in recent years.

[redacted]

[redacted]

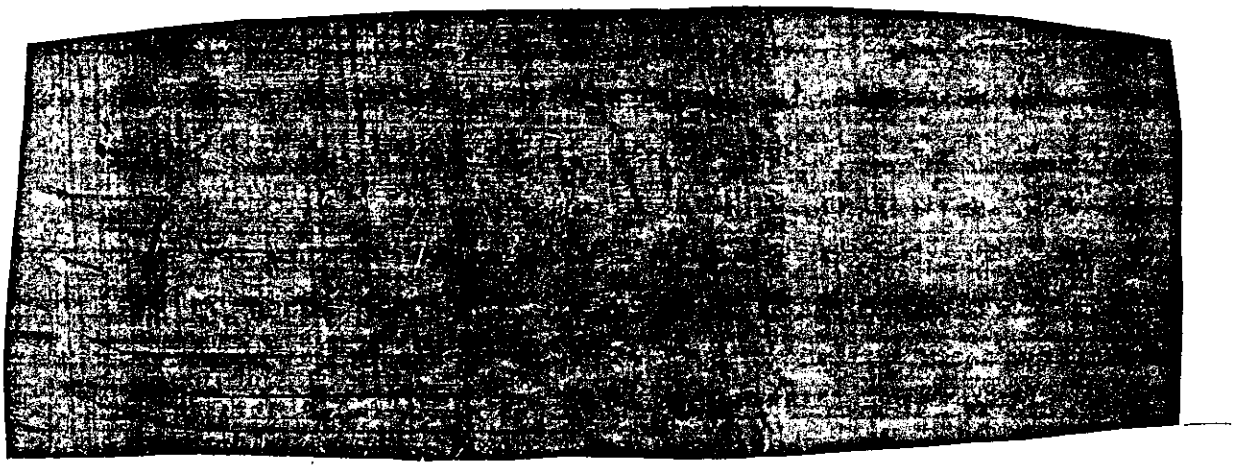
The Navy, of course, has long conducted oceanographic and charting surveys in support of both operational requirements and research and development programs. The Oceanography program includes the activities of the Navy's Oceanographic Office, the Naval Observatory, Defense support of the National Oceanographic Data Center, and their related research aircraft and survey ships which are engaged in a broad range of missions. For example, oceanwide surveys provide oceanographic and acoustic data to support ASW and undersea warfare systems in controlling the strategic ocean areas of the world, while marine geophysical surveys provide acoustic propagation loss data for support of new long-range sonars [redacted]

At end FY 1968 the Oceanography program will have ten oceanographic research ships and three environmental prediction research aircraft. The new AGS oceanographic survey ship funded in FY 1967 and originally expected to be commissioned by end FY 1969 has slipped somewhat and will now enter the force in FY 1970, along with the two new small AGORs (oceanographic research ships) funded last year and subsequently transferred from the R&D program. We presently plan to build seven more oceanographic ships over the program period, and by end FY 1973, we should have 13 ships, nine of which will have been commissioned since FY 1966.

The closely related Mapping, Charting and Geodesy program collects hydrographic, magnetic and gravitational data [redacted] and will include 13 oceanographic survey vessels and two specially equipped aircraft at end FY 1968.

The major R&D effort in this area is the Deep Submergence Program which is designed to improve man's ability to live, work, and conduct salvage and rescue operations beneath the sea. The Program includes the "Man-in-the Sea" project which is concerned with developing the technology to permit "saturated" divers to live and work at depths of 600 feet (and later 1,000 feet) for periods up to a month or more. The SEALAB series of experiments in underwater habitation are a part of this effort, and SEALAB III will be conducted at 450 ft. and 600 ft. depths in 1968. Another project is concerned with developing self-propelled, highly maneuverable personnel rescue vehicles which will be able to reach disabled submarines in any part of the world. The prototype vehicle is currently under construction, and a total of six are planned. An emergency rescue capability with the first vehicle is expected by early FY 1969. These vehicles will have a 5,000 foot diving capability -- [redacted] so they may also ultimately be used for underwater search operations. Also under development is an even deeper diving search vehicle for operations down to a depth of 20,000 feet.

[redacted]



c. Air Rescue and Recovery.

The Air Rescue and Recovery Program comprises the Air Force Aerospace Rescue and Recovery Service (ARRS) and certain specialized forces of the other three Services. Only the Air Force has a specifically designated sea and air rescue service; the other Services assign helicopters and fixed-wing aircraft to this mission on an as-needed basis. The total number of rescues of downed crewmen from hostile areas in Southeast Asia by all four Services as of October was in excess of 650. Needless to say, the success of these rescue and recovery missions has made a great contribution to the morale of our servicemen in Vietnam.

The Air Force ARRS operates and maintains 15 air rescue squadrons consisting of about 130 aircraft, and has about 140 additional aircraft assigned to various bases for local short-range rescue activities. Of the 15 ARRS rescue squadrons, three are presently deployed in Vietnam. These squadrons presently comprise 11 HC-130 fixed-wing aircraft and 32 HH-43, 22 HH-3 and 6 HH-53 helicopters. Past procurements will permit the addition of another 4 HH-53s to these forces by end FY 1969. To meet projected HH-3/HH-53 attrition, funds for the procurement of 14 additional HH-53s have been included in the FY 1969 Budget. ARRS also assists in the evacuation of wounded combat personnel, and supports NASA's manned spaceflight recovery operations in alternate recovery zones with aircraft and para-rescuemen. The planned increase in APOLLO and MOL space activities is expected to double the requirement for recovery support by FY 1970, and we are presently investigating the best way of meeting these increased demands.

The Navy maintains helicopters with a search and rescue mission on all aircraft carriers (including some LPH helicopter carriers) and cruisers, but most of these helicopters have other missions as well. In addition, the Navy has created a special rescue detachment of

[redacted]

12 helicopters in the Gulf of Tonkin -- half deployed aboard destroyers on coastal patrol and half aboard one of the carriers on Yankee Station. The FY 1969 Budget includes funds for 27 UH-1Es for the Navy's search and rescue mission.

For the future we have a number of studies underway aimed at improving our combat aircrew recovery capabilities. These include new designs for rescue aircraft, better methods for night time search and rescue operations, and improved escort and suppressive fire tactics.

d. Nuclear Weapons

The Defense Atomic Support Agency (DASA) provides: operational, logistic and training support for the Military Services on nuclear weapons; liaison with the AEC on the development of nuclear weapons; management of the national nuclear weapons stockpiles and the stockpile sites; conduct of nuclear effects tests; and specialized staff assistance to the Secretary of Defense and Joint Chiefs of Staff on these matters. The nuclear weapons effects tests and research, funded as part of the Research and Development Program, are designed to characterize the phenomena associated with nuclear detonations, their effect on military systems, and the means of countering these effects. While some of these effects can be simulated in the laboratory, others require actual underground tests, and the FY 1969 Budget includes funds for both activities.

Most of our present underground nuclear effects tests are designed to provide data on the survivability of our strategic missile boosters and reentry systems, while the remainder are concerned with investigating the vulnerability of strategic defensive systems, satellite systems, etc. DASA also maintains scientific and operational test facilities at Johnston Island in support of Joint Task Force Eight, which is charged with maintaining a capability to resume atmospheric testing on short notice in support of the Test Ban Treaty safeguards.

B. CENTRAL SUPPLY AND MAINTENANCE

Central Supply and Maintenance logistic support includes a wide array of highly diverse activities, none of which can be readily assigned to other major programs and program elements. Activities comprised within this category include: (1) transportation of passengers and freight by the Military Sea Transportation Service, the Military Airlift Command and commercial land, sea and air carriers; (2) operation of supply depots, inventory management, etc.; (3) the provision of new industrial facilities and the maintenance of reserve facilities and equipment as portions of the industrial

[redacted]

preparedness program not allocated to program elements elsewhere; and (4) the major repair and rebuilding of items returned to common stock and which cannot, therefore, be related directly to specific weapon systems or military forces.

The management of some of these logistic support activities is discussed in more detail in the section on the Cost Reduction Program.

C. TRAINING, MEDICAL AND OTHER

This program includes training, medical and other activities associated with personnel, except where such activities are an integral part of another program. For example, the costs of basic flight schooling are included in this category, while the costs of advanced flight training, i.e., to qualify a pilot for a specific combat aircraft, are included in the appropriate mission-oriented program.

1. Training

Individual training, from recruit instruction to professional education, is a large and important Defense activity. Training costs in FY 1969 will rise only slightly to $4.4 billion from the $4.3 billion of FY 1968 now that the period of rapid force build-up is over and manpower levels are expected to stabilize.

a. Recruit Training

Recruit training loads in FY 1969 are expected to remain at about current levels. We now estimate that about 883,000 recruits will enter basic training in FY 1969. Of the FY 1969 total, the Army will train about 535,000; the Air Force about 128,000; the Navy about 136,000; and the Marine Corps about 84,000.

Last year I discussed the efforts that we were making to eliminate the 135,000 man backlog of personnel awaiting training in the Army Reserve Enlistment Program. By last June, the backlog had been reduced to about 11,000, and since that time it has been running below the normal level of about 20,000, although it is expected to rise, temporarily, to about 23,000 during the next few months. The lower recruit training requirement has also permitted the Army in June to relieve the Strategic Army Forces (STRAF) of the basic training task which some of the units had been performing during the period of rapid build-up. The Navy and the Air Force are currently expanding their recruit training capacities with new or improved facilities at Orlando, Florida, and Lackland, Texas, respectively, and should be able to handle all foreseeable enlisted training loads over the next few years.

b. Technical Training

Enlisted personnel in the four Services are currently receiving advanced training for some 1,500 occupational specialities. Technical training usually requires an average of two months of classroom instruction, although proficiency in some specialties is acquired on the job and for a few highly technical occupations up to a year may be needed.

Since the beginning of the build-up in July 1965, we have been faced with a sharply increased requirement for junior non-commissioned officers (particularly in the combat branches) and for technical supervisors. To alleviate this problem, the Army has instituted a new accelerated program designed to meet the added requirements for NCOs and technical supervisors in short tour areas by providing this training in some 70 military occupational specialties. This training will be provided to about 50,000 men in FY 1968-69. Upon completion of basic combat and advanced individual training, personnel selected for this special training will be given an initial period of intensive formal instruction averaging about 12 weeks, followed by 8-9 weeks of on-the-job experience in a training center or unit.

c. Professional Training

In order to fulfill the growing requirements for officers with advanced education in scientific, engineering, managerial and professional military fields, the Services provide for professional training at the postgraduate level in both military and civilian schools. The military schools include the various Service command and staff colleges, the Service war colleges and the joint Service colleges, where over 3,000 students are enrolled (including foreign military officers and U.S. civilians). For specialized scientific and technical graduate education, the Services as a matter of policy send officers to civilian institutions whenever feasible. At the present time about 2,800 officers are enrolled at these civilian schools. In addition, the Naval Postgraduate School and the Air Force Institute of Technology (accredited, degree-granting military graduate schools) provide Service-oriented graduate education to approximately 1,700 officers.

d. Pilot Training

Pilots are among the most highly trained and skilled personnel in the Military Services, and flight training is the most expensive kind of instruction given by the Defense Department. We are now spending over $1.5 billion annually for pilot training. In addition

to the combat aircraft used for advanced flight training, we are using 8,000 trainer aircraft, representing an investment of about $6 billion, for undergraduate and other non-combat flight training.

The demands of the Southeast Asia conflict, coinciding with the retirement of large numbers of World War II and Korean war veterans and the keen competition of the commercial airlines, have caused some concern about the adequacy of our pilot inventories. Until recently we have been severely handicapped in discussing this problem knowledgeably for two reasons: (1) We didn't know how many pilots we really needed because some jobs not clearly related to flying were designated as "pilot billets" (i.e., included in the requirement) to utilize surplus pilots left over from World War II and the Korean war; and (2) We didn't know how many usable pilots we had because within the total pilot inventory there were many categories not readily available for flying, such as general officers, colonels, grounded pilots and waivered pilots.

Accordingly, we have had underway for some time a comprehensive study of both of these problems. First, we sorted out our requirements and grouped them into two general categories, Core and Supplement (defined below). Then, we surveyed the inventory to determine which of our pilot assets would actually be available to meet those two requirements. Basically, pilot requirements are derived from our overall contingency war plans and must be brought into balance with all the other elements of those plans. In addition, we have to ensure our pilots a reasonable workload, limited combat exposure, and adequate opportunities for career development and family life if we are to retain them in the Service. Using these criteria the pilot requirements and inventories have been computed for each Service, as shown in the table on the following page.

[redacted]

PILOT REQUIREMENTS AND INVENTORY AT END FY[a/]

	FY 68	FY 69	FY 70	FY 71	FY 72	FY 73
Air Force						
Core Requirement[b/]	34128	32666	28256	27583	27452	27012
Supplement	4079	5378	6154	5330	5330	5330
Total Requirement	38207	38044	34410	32913	32782	32342
Total Inventory	38207	38044	35033	33642	32619	31860
Navy						
Core Requirement	11564	11401	10688	10528	10363	10223
Supplement	1986	2070	1985	2825	2893	2763
Total Requirement	13550	13471	12675	13353	13256	12986
Total Inventory	13440	13101	12825	13475	13815	14152
Marine Corps						
Core Requirement	3780	3657	3590	3554	3570	3568
Supplement	320	815	1200	1200	1200	1200
Total Requirement	4100	4472	4790	4754	4770	4768
Total Inventory	3990	4239	4630	4763	4773	4770
Army						
Core Requirement	15203	18325	17533	13967	14027	14020
Supplement	1130	3071	2024	5591	5531	5538
Total Requirement	16333	21396	19557	19558	19558	19558
Total Inventory	16333	21396	21187	21009	20858	20731

a/ Lt. Col./Cdr. and below. (All higher ranking pilots are not considered available to meet these requirements.)
The core requirement in each Service consists of the pilots needed to man every aircraft, to train new pilots and other crewmen, and to provide supervision at all levels. These requirements are computed on the basis of normal peacetime work schedules and combat readiness requirements; thus an immediate wartime surge capability is inherent in the core force and can be obtained by simply increasing the work schedule in an emergency.
In addition to the core requirement we need a supplement to meet the increased pilot requirements which occur in the early stages of a war. These extra requirements result from combat

[redacted]

As can be seen on the preceding table, the Air Force has enough pilots to meet both its core and supplement requirements. I should note, however, that these requirements are based on a gradual change-over to one pilot and one navigator for each F-4/F-111 crew, as is the case in the Navy and the Marine Corps. The Air Force would like to have two pilots for perhaps 70 percent of its F-4/F-111 crews, but the advantage of a second pilot has not as yet been demonstrated and there are substantial costs involved -- roughly $400 million over the next five years. And, on this basis, the "total" Air Force requirement would be about 3500 higher than shown on the foregoing table from FY 1971 on. Accordingly, the Air Force will undertake a series of tests to explore this problem further and I have, therefore, deferred a final decision until these tests are completed. In any event, we are providing for a substantial expansion of the normal capacity of the Air Force pilot training base in the FY 1969 Budget, so that if we decide to provide two pilots for about 70 percent of the F-4/F-111 crews, or if other requirements arise, we can increase pilot production rapidly.

Footnote a/ continued from previous page:
losses, more pilots in travel or training status, and rotation policies that limit the time a pilot spends in combat and the frequency with which he is returned to combat. In computing these supplements we have assumed a very severe single theater war (i.e., high attrition and large deployments) and the maintenance of liberal rotation policies (6-12 months in combat, with at least 2 years between combat tours) to limit combat exposure. This amounts to fighting the worst likely kind of war under near-peacetime personnel policies. Moreover, we have excluded from this computation a call-up of the reserve components. In addition, we have also assumed that pilots would be allowed to retire or resign under the same conditions as in peacetime.

Under normal peacetime conditions, the supplement would provide the broad pilot base necessary for career development, management job assignments, graduate education and professional training, and in addition provide a buffer against unanticipated drops in pilot retention rates. In limited war situations, when more pilots are needed, the supplement could be used temporarily to meet the core requirements until new pilots could be trained. As long as commitments are met with reasonable rotation policies, failure to meet the full core and supplement requirement in any given year should not be interpreted as a pilot shortage.

b/ Crew composition for F-4/F-111: 2.0 pilots in FY 1968, 1.7 in FY 1969, 1.35 in FY 1970, 1.0 in FY 1971 and thereafter. Requirements are additionally adjusted to reflect an OSD-Air Force agreement to use some physically disqualified pilots in specified pilot supervisory positions.

The Navy will have enough pilots to meet the core and supplement requirements in FY 1969 and 1970 even after calculating the supplement on the basis of the current tour policy, i.e., two six-month combat tours during a three and one-half year period. The Navy believes we should plan on three pilots for each of its P-2 and P-3 crews, but, as in the case of the Air Force F-4/F-111 crews, we have no evidence that a third pilot (rather than a navigator) would provide substantial advantages, while we know it would result in higher costs. (On this basis, the "total" Navy requirement would be about 500 higher than the figures shown on the foregoing table.) Accordingly, I have also deferred a final decision on this requirement pending further study by the Navy. In addition, the Navy is studying whether additional pilots should be authorized for some staff and management jobs. Funds have been included in the FY 1969 Budget to provide an increase in Navy pilot training capacity, so that output can be expanded rapidly if that later appears desirable.

The Marine Corps has enough pilots to meet its core requirements and with a steady build-up in inventories will fill its supplement by FY 1971. Marine Corps pilots are now being trained by the Army and Air Force as well as by the Navy. However, the planned increase in the Navy's training capacity will allow it to train most Marine Corps pilots in the 1970s.

The Navy and Marine Corps pilot inventory problems have been complicated by the unexpectedly severe drops in pilot retention rates since 1965. As a result, both services have had to take certain special management actions and draw on their supplements temporarily to meet the core pilot requirements. (For example, the Navy and Marine Corps have to retain temporarily some pilots on active duty beyond the time when they wished to retire and cut back the number of career development assignments given to pilots.)

There has been a tremendous build-up of Army aviation since 1965, when we decided to improve further the Army's air mobility, and we have had to increase pilot production accordingly. At end FY 1964 there were about 8,300 pilots in the Army inventory, at end FY 1968 there will be over 16,000, and by end FY 1969 the total should pass 21,000. Army pilot training rates have increased rapidly since FY 1964, when 1,283 pilots were trained, and will increase further to 5,345 in FY 1968 and 7,320 in FY 1969.

The Army's increased pilot inventory is being put to immediate and effective use in Southeast Asia. At end FY 1965 there were about 1,200 Army pilots deployed in Southeast Asia and by FY 1969 there will be about 8,500. This simultaneous build-up and deployment of

air units has been difficult, and the Army pilot training rate has been carefully designed both to provide for an increase in pilots commensurate with the build-up in aircraft, and to minimize the number of pilots who must return to Southeast Asia with less than two years between tours. However, because of the need for senior experienced pilots in the deployed force and the relatively small number of such pilots in the rotation base, it is unavoidable that some of them have to be sent back for second combat tours without an intervening 24 months of non-combat assignments. As the build-up continues, the experienced pilot base will increase, thus alleviating the present problem.

Total Defense Department pilot production has been increased each year, from a low of 3,292 in FY 1962 to a total of 10,586 expected in FY 1968. A total output of 13,317 pilots has been provided in the FY 1969 Budget.

NEW PILOTS TRAINED[a/]

FY:	1962	1963	1964	1965	1966	1967	1968	1969
Air Force	1304	1433	1675	1992	1969	2760	3067	3247
Navy	1000	1156	1104	1195	1322	1345	1601	1852
Marine Corps	366	490	526	478	514	573	573	898
Army	652	877	1283	1432	1536	3097	5345	7320
Total DoD	3292	3956	4588	5097	5341	8585	10586	13317

a/ Actuals through FY 1967.

In addition, pilot training capacity is being increased, and this additional capacity will allow us to raise pilot training rates above those shown in the foregoing table if there are increases in pilot requirements caused by changes in forces, manning policies or further unexpected drops in pilot retention rates.

e. Service Academies

We are continuing our program to increase the output of the Military Academy. In FY 1969 we expect enrollment will average about 3,800 cadets, and by 1971 we should be able to reach our goal of 4,400. To accommodate this larger enrollment, we will continue the expansion of facilities with the construction in FY 1969 of new barracks for 1,364 cadets.

At the Naval Academy enrollment in FY 1969 will remain at about 4,100 midshipmen, roughly the same level as in the past few years. Construction funds are requested in FY 1969 to prepare suitable sites for future library and engineering buildings, a laboratory complex and a new auditorium.

The Air Force Academy is also building its enrollment toward an ultimate goal of 4,400. In FY 1969 we anticipate an average enrollment of about 3,400 cadets. No new major construction will be undertaken at the Air Force Academy in FY 1969.

2. Medical Services

Medical Services include those costs for medical and dental care not directly related to military units in the other major programs, the costs of providing medical care for authorized personnel in non-military facilities, veterinary services, and the operation of various health service activities such as the medical centers, preventive medical units and the Armed Forces Institute of Pathology. The annual operating costs of these facilities and services now exceed one billion dollars a year.

The Department of Defense now operates 254 hospitals -- including 169 in the United States, 19 in Vietnam, 26 elsewhere in the Pacific area, 31 in the European area, seven in the Atlantic and Carribbean areas, and two hospital ships -- and nearly 500 tactical dispensaries and field medical units. The military community, including dependents and retired personnel, required over 49 million clinic visits and over 1.2 million hospital admissions last year. The military hospital system cared for an average of about 38,600 patients per day, while an average of about 3,100 dependents of active duty personnel were treated in civilian hospitals under the military "Medicare" program.

The military medical services are continuing to provide the finest in medical care to our servicemen. On a world-wide basis the percentage of men absent from duty for medical reasons during FY 1967 was only about half the rate reached during the peak year

of the Korean war. Moreover, in spite of the fact that helicopter evacuation techniques are bringing to hospitals wounded men who in other wars would have died without benefit of surgical assistance, we are saving 97 percent of those hospitalized in Vietnam. The past year has seen lowered incidences of malaria, diarrheal diseases, skin conditions and neuropsychiatric cases. For example, in June 1967 the malaria rate was 2.2 per thousand, as compared to a rate of 2.9 for June 1966, and the development of new treatment methods has reduced the average period of hospitalization for this disease by almost 30 percent.

At present, we have about 4,000 patients under treatment in the 7,000 hospital beds available in Vietnam. The Hospital Ships, U.S.S. SANCTUARY and U.S.S. REPOSE, each with another 560 beds, operate offshore. Helicopter carriers also have improved surgical facilities for initial treatment of battlefield casualties. In addition, each air base has a dispensary with up to ten beds for overnight care. There are also about 35 clearing companies and similar field medical units of varying sizes operating with troop units. A 1,300-bed convalescent center, principally for malaria patients, is in operation at Cam Ranh Bay. There are also casualty staging units for medical air evacuation at Da Nang, Tan Son Nhut, and Cam Ranh Bay. Finally, several new mobile tactical hospital units are now being operated by the Army and Marine Corps.

The Medical Air Evacuation System carried more patients in 1967 than in any year since the end of World War II, with about 29,600 patients being returned from Pacific areas and 4,500 from Europe by the Military Airlift Command (MAC). Within the United States, an additional 10,500 patients were carried by air, including 2,400 veterans. Within the Pacific area, including Vietnam, 128,000 patients were airlifted to medical care centers, and within Europe another 18,500, for an overall total of more than 191,000 patient moves.

All transoceanic medical air evacuation is accomplished in returning cargo C-141 aircraft which have been fitted with removable medical facilities. In the U.S., Europe, and the Pacific, specially configured propeller-driven aircraft, organized into three regular aeromedical evacuation units are currently in operation.

A recent study of the aeromedical evacuation system within the United States concluded that the present fleet of 20 older aircraft should be replaced with a new modernized force of eleven C-9 aircraft, which would provide equal capability and greater speed and comfort at lower operating costs. Four of these aircraft were procured in

FY 1967, and the Congress provided funds for eight more in FY 1968. Pending the completion of similar studies on the need for modernizing the Pacific and European systems, we propose to limit procurement to the eleven C-9s for the U.S. system, procuring four in FY 1968 and the last three in FY 1969

3. Retirement

This program provides the pay, as authorized and prescribed by law, for retired military personnel and survivor payments under the Retired Serviceman's Family Protection Plan.

In FY 1969, the average number of retirees will increase by about 57,900 to a total of approximately 680,000, as shown on the following table. A continuation of this trend would increase the retired rolls to an average of 904,000 in FY 1973. By then, the cost will have risen to about $3.0 billion and the unfunded "Past Service" liability to about $88.5 billion.

MILITARY RETIRED PAY

Fiscal Year	Average No. of Retirees (Thousands)	Average Cost Per Man 1/ ($)	Total Cost 1/ ($Millions)	Unfunded "Past Service" Liability 1/ ($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	2,996	1,386	59,450
1966	508.6	3,131	1,592	66,585
1967	564.3	3,245	1,831	70,913
1968	622.8	3,326	2,072	75,817
1969	680.7	3,341	2,275	78,561
1970	735.0	3,346	2,459	81,214
1971	790.0	3,347	2,644	83,773
1972	847.0	3,355	2,842	86,219
1973	904.0	3,364	3,041	88,548

1/ As of the end of the fiscal year, based on pay rates in effect on that date and budget average force strengths for FY 1961-67 and on October 1, 1967 pay rates and FY 1967 strengths for subsequent years.

[redacted]

D. ADMINISTRATION AND ASSOCIATED ACTIVITIES

Included within this program category are the expenses of: (1) departmental headquarters operations, including the Office of the Secretary of Defense, the Joint Chiefs of Staff, and the four Services; (2) specific major field headquarters not otherwise provided for, such as Headquarters, Continental Army Command; (3) a wide variety of specialized field activities, such as the Washington area special military contingents and the Marine guards at U.S. embassies; and (4) numerous support activities, such as construction planning and design, audio-visual activities, interdepartmental activities, the Defense Contract Audit Agency, and the appropriation accounts for "Contingencies, Defense" and "Claims, Defense".

Costs of these functions in FY 1969 are projected to be about $1.7 billion, compared with about $1.6 billion in FY 1968. As in previous years, I will not attempt a detailed review of these activities, since they will be dealt with by other witnesses before the interested Congressional Committees. Instead, I will confine my discussion here to "Contingencies" and "Claims".

1. Contingencies

The Congress has regularly provided the Secretary of Defense an annual contingency fund for emergency or extraordinary expenses dictated, in his judgment, by the requirements of national security or for other purposes he deems essential. The Secretary alone may authorize expenditures of these funds which he must certify as necessary for confidential military purposes. The Congress is kept regularly apprised of their status. Over the FY 1961-67 period, an average of $8.5 million per year was utilized from the fund, ranging from $14.4 million in FY 1963 to only $96,000 in FY 1967. As the only reserve available to the Secretary for unanticipated contingencies requiring prompt, discrete action, a fund of $15 million seems both justified and adequate. We are, therefore, again requesting $15 million for "Contingencies" in FY 1969.

2. Claims

The "Claims" appropriation covers the payment of all non-contractual small claims against the Department of Defense, as authorized under various statutes. The continuation of a higher level of claims against the Department during FY 1968 reflects the stepped-up tempo of Defense activity related to our augmented force levels. We are currently reviewing the FY 1968 claims in order to determine whether the $30 million appropriated by the Congress last year for this

[redacted]

purpose will be adequate. We will not be able to make a final determination, however, until later in the fiscal year. However, on the basis of recent experience, we believe at least $38 million will be required to meet "Claims" in FY 1969. We are again requesting the Congress to appropriate these funds on an annual indefinite basis so that we can pay all valid claims promptly.

E. MISCELLANEOUS DEPARTMENT-WIDE ACTIVITIES

There is one other matter cutting across a number of programs which I would like to discuss, and that is our "mission support" aircraft fleet.

You may recall that from the very beginning I have been concerned about the large number of aircraft being used for mission support, i.e., transportation of key personnel and priority cargo, proficiency flying, and attache support, etc., and that I was extremely reluctant to recommend the procurement of new aircraft for these purposes until the inventory had been reduced to a reasonable level. At end FY 1961, about 4,100 aircraft were being used for mission support; by the end of the current fiscal year, the number will have been reduced to about 2,500.

Now that the present fleet is more in balance with legitimate requirements, I believe it is appropriate to begin to plan on modernization. This will make possible a further reduction in the size and cost of the mission support fleet. In fact, I believe it should be reduced to no more than 2,000 aircraft by FY 1973. To begin this modernization, the FY 1969 Budget includes funds for the procurement of 18 mission support type aircraft.

VII - PERSONNEL MATTERS

A. PERSONNEL STRENGTHS

Both military and civilian personnel strengths will be somewhat higher at end FY 1968 than projected a year ago. In FY 1969, civilian strength levels are expected to rise slightly, while military strengths decline slightly.

1. Civilian Personnel Strengths

Direct hire civilian employment, as currently estimated for end FY 1968 and planned for end FY 1969, is shown on the table below:

	End FY 1967 (Actual)	End FY 1968 (Estimated)	End FY 1969 (Planned)
Army	436,830	439,681	443,654
Navy	402,513	417,714	413,202
Air Force	323,316	316,856	318,906
Defense Agencies	75,342	73,885	75,368
Total DoD	1,238,001	1,248,106	1,251,130

We now expect the total end FY 1968 strength to be about 8,000 higher than projected a year ago, and about 10,000 higher than the actual strength at end FY 1967. The FY 1969 Budget request provides a small increase of about 3,000 over the level estimated for end FY 1968.

Although the foregoing figures indicate an increase of about 13,000 civilian employees from end FY 1967 to end FY 1969, on a comparable basis there will actually be a decrease of about 21,300 since we plan to substitute about 34,400 civilian positions for about 39,900 military positions during that two-year period. This is the second phase of our civilian/military substitution program. You may recall that in the first phase, which was completed in June 1967, we substituted 60,500 civilian positions for 74,300 military positions. (The differences between the civilian and military requirements reflect the elimination of training and support spaces associated with the use of military personnel.) The second phase is more than 40 percent completed. We expect to complete most of the second phase by the end of the current fiscal year and fully complete it early in FY 1969.

The civilian employment figures also reflect for end FY 1968 an increment of about 5,800 direct-hire foreign nationals in Vietnam in lieu of 3,900 U. S. military personnel. For end FY 1969 a further increment of 8,300 direct-hire foreign nationals is reflected in lieu of 5,500 U. S. military personnel.

In order to hold the gross increase in civilian personnel to about 13,000 over the two year period, we have assumed a continued improvement in employee productivity and, in addition, levied a 7,000 man reduction on administrative and support activities not directly engaged in the provision of materiel and services to the operating forces. I believe we have gone as far as is prudent under the present circumstances in holding down the number of civilian employees.

2. Military Personnel Strengths

The active duty military strengths now estimated for end FY 1968 and planned for end FY 1969 are shown in the table below:

	End FY 1967 (Actual)	End FY 1968 (Estimated)	End FY 1969 (Planned)
Army	1,442,422	1,535,626	1,508,394
Navy	751,394	768,200	794,550
Marine Corps	285,269	301,922	306,435
Air Force	897,426	884,128	868,141
Total DoD	3,376,511	3,489,876	3,477,520

On a comparable basis (i.e., including reimbursables), the currently planned end FY 1968 strength is about 23,100 higher than originally projected a year ago. Because of the civilian/military substitution program, total military personnel strength will drop about 12,400 in FY 1969. Between June 30, 1965, and end FY 1968 we will have added about 834,000 military personnel to the Defense Establishment. The effective increase was 114,000 higher if we take account of the civilian/military substitution program.

B. VIETNAM-RELATED PERSONNEL MATTERS.

There have been no significant changes in any of our Vietnam-related personnel policies during the past year. The normal tour of duty in South Vietnam has been and will continue to be 12 months, the shortest possible tour consistent with the military requirement.

In recognition of the special hardships of duty in a combat zone, servicemen in Vietnam are given certain benefits and privileges which other military personnel do not receive. Enlisted men are entitled to a full income tax exclusion of all compensation received for active service in the combat zone, while officers are entitled to an exclusion of $500 per month. All military personnel in Vietnam also receive a special "hostile fire" pay of $65 per month and free postal privileges, and they are allowed to send duty free to the U.S. gifts of $50 or less. We also attempt to give each serviceman an opportunity to take one out-of-country rest and recuperation leave of five to seven days during his 12-month tour of duty.

Since November 1966, under the provisions of PL 89-735, the Department has been granting a special 30-day leave for service members who voluntarily extend their tours of duty in Vietnam and by December 31, 1967, over 1,300 officers and 48,000 enlisted men had done so. This authority, which has been of significant help in meeting our Vietnam-related manpower requirements, expires on June 30, 1968. We now recommend indefinite extension of the authority to grant special leaves to those who voluntarily extend their tours for at least six months.

With regard to involuntary extensions of terms of service, all of the Military Services have at one time or another selectively deferred regular officer voluntary retirements and resignations and, for a brief period of time, the Army, only, involuntarily retained some reserve officers on active duty. In the Navy and Marine Corps, only, some enlistments were extended involuntarily, but then only for periods of four months or less during FY 1966. Today, the Service Secretaries can deny applications for voluntary retirement or resignation of regular officers only after making a specific determination that there is an overriding military need for the officer's services. Reserve officers are not involuntarily retained on active duty except to complete a term of active duty to which they consented or are obligated. No enlisted personnel are now being involuntarily extended in any of the Military Services.

C. MANPOWER PROCUREMENT

Total requirements for new active duty military personnel, including both volunteers and draftees, have ranged between 890,000 and 990,000 in each fiscal year since the beginning of the Vietnam build-up, compared with an average of only about 560,000 new entrants in FY 1964-65, when our active duty strengths averaged less than 2.7 million. In meeting these higher manpower procurement requirements, we have continued to place maximum emphasis on voluntary recruitment programs. In FY 1967, a total of 590,000 officers and enlisted personnel volunteered

for active duty, about 60,000 less than in FY 1966, but considerably more than in any other year since 1952. We expect recruitment levels in FY 1968 and FY 1969 to equal or exceed those of FY 1967.

Because of the high enlistment levels, only the Army has had to resort to induction during the past year and a half. Draft calls reached their peak during the July-December 1966 period when they averaged about 34,000 per month. As the planned Army strength build-up approached completion, draft calls dropped to an average of only about 15,000 per month in January-June 1967. The Army has now entered a replacement cycle for the relatively large number of draftees who were called up in FY 1966, and as a result we now estimate that draft calls will average about 28,000 per month in FY 1968.

Our projections indicate a somewhat lower Army requirement for FY 1969, averaging approximately 20,000 per month. We expect that draft calls will run below this level in the July-December 1968 period, but rise again during January-June 1969. These estimates are, of course, highly tentative since the draft calls are determined each month on the basis of the most recent enlistment and reenlistment experience.

In recent years, it has been necessary to procure physicians, dentists and other medical specialists via the Selective Service System. It will be necessary to do so again in the case of physicians in FY 1969. However, we estimate that only 1,226 of these specialists will have to be called in FY 1969, compared with 2,229 in FY 1968. While the draft remains the most important source for physicians, the Berry Plan, which offers a temporary deferment from active duty to permit completion of residency training, is being accepted by a steadily increasing number of medical school graduates.

Active duty officer candidate training programs will continue to provide a significant portion of the new officers required in FY 1968 and FY 1969. We expect to obtain a total of 34,000 new officers from these programs in FY 1968, the majority (19,000) being Army officers. In FY 1969 we expect to receive a total of 23,500 officers from this source -- 10,000 Army, 7,000 Navy, 3,500 Marine Corps, and 3,000 Air Force.

The Senior Reserve Officers Training Corps is also an important source of commissioned officers. In FY 1969, we estimate that approximately 263,000 students will be enrolled in ROTC courses, 59,000 in the advanced program (i.e., the third and fourth years), and we expect to commission a total of 23,000.

We are now operating 475 ROTC units at 329 colleges and universities. In order to increase the output of officers and to extend the opportunities for ROTC training, 15 more Army units are being created in FY 1968, and we propose to establish 15 more in FY 1969. About 178,700 students will participate in the Army ROTC program, from which we expect to commission 16,600 graduates. The Navy plans to enroll about 5,600 students in the regular (scholarship) program and 5,600 students in the contract (non-scholarship) program next year and commission about 1,500 ensigns from both ROTC programs. Air Force Senior ROTC enrollment will be about 68,300 with some 4,500 cadets scheduled to receive commissions.

The ROTC Vitalization Act of 1964 (P.L. 88-647) authorized the Army and the Air Force to establish scholarship programs similar to the longstanding Navy program, and to have in force up to 5,500 scholarships each per year. In FY 1969 the Army and the Air Force, which are still building up their programs, will each have about 4,000 men on scholarships.

D. MILITARY COMPENSATION

The Uniformed Services Pay Act of 1965 requires the Department of Defense to conduct, not less than every four years, "a complete review of the principles and concepts of the compensation system for members of the uniformed services." The first quadrennial review under this law has now been completed. The findings and recommendations, however, are quite complex and will be transmitted to the Congress, together with proposed new legislation, early in this session. The President's FY 1969 Budget, under Government-wide Contingencies, includes the funds required to support the automatic July 1, 1968 pay increase, enacted as part of last year's pay bill.

E. SPECIAL MILITARY MANPOWER MATTERS

1. "Project 100,000"

Between October 1967 and September 1968 we will be taking into military service about 100,000 men who in the past would have been disqualified because of educational deficiencies or correctable physical defects. We were convinced that they could qualify as fully satisfactory servicemen if exposed to modern instructional techniques and that they could be returned to civilian life as productive members of society with vastly improved lifetime earnings potentials. The results obtained from the 49,000 men accepted during the first year of the program (October 1966-September 1967) have been most encouraging -- 96 percent completed basic training compared with 98 percent of all other men.

Only about ten percent of this group required extra help in basic training, compared with four percent of all other trainees.

While entrance requirements have been revised, performance standards have not been lowered. These men are being trained right alongside other men in the regular training centers and schools of all the Services. They are not singled out or stigmatized in any manner, and any special assistance they may require is provided as part of the normal training process. After completion of basic training, they are trained in a military skill, either through formal schooling or by on-the-job training. About one-third of the first year group have been trained in combat specialities, with the remainder receiving training in a variety of other specialities. We plan to continue this program in FY 1969.

2. Project TRANSITION

Last May, the President requested that the Department make available, to the maximum extent possible, in-service training and educational opportunities to increase non-career servicemen's chances for employment in civilian life. In response, the Department promptly initiated pilot studies at five military installations to work out procedures for giving servicemen an opportunity to gain a civilian-related skill or raise their educational achievement level before leaving service. These pilot programs have proven highly successful, and out of them has grown Project TRANSITION.

Project TRANSITION consists of five basic elements: (1) a comprehensive counseling program; (2) a skill training program for civilian-related jobs; (3) a program aimed at the completion of the equivalency of high school education; (4) a placement program to relate the training received to actual job opportunities; and (5) an evaluation program to follow-up on individuals after they leave the Service to determine the effectiveness of the project. The program uses civilian-related military training courses and facilities, courses provided by other Federal Agencies or sponsored by the Manpower Development and Training Act, and instruction provided by private industry in areas where companies have specific job requirements. Training will take place at all major military installations during the last one to six months of a man's term of service. We estimate that of the 750,000 men who leave active duty each year, as many as 20 percent may participate in Project TRANSITION training.

F. EQUAL OPPORTUNITY

One of the traditional obligations of the military leader is to

see to the welfare of his men, and that obligation clearly extends up through the chain of command to the Secretary of Defense and the Commander-in-Chief, the President. Since at least July 26, 1948, when President Harry S. Truman issued Executive Order #9981, the accepted concept of the serviceman's welfare has explicitly included the assurance of equal treatment and opportunity without regard to race, color, religion or national origin. Subsequently, as a result of that order, the work of the advisory committee which it established and the continuing support of subsequent administrations, discrimination within the Military Services has been largely eliminated. However, this cannot be said of the treatment being accorded many of our servicemen and their families in the communities near our military installations, especially in the important area of housing. Indeed, off-base housing now constitutes the single most important outstanding problem in realizing full equal opportunity (and full military effectiveness) for all the men and women who serve their nation in uniform.

The urgency of this problem was underscored in the report of the Committee on Equal Opportunity in the Armed Forces, appointed by President Kennedy in June 1962. Because military personnel do not have a civilian's freedom of choice as to where they work and live, racial discrimination practiced against them in the area of housing was clearly of direct concern to the Department of Defense. Indeed even before the Committee had reported its findings in June 1963, we had already become sufficiently aware of the dimensions and seriousness of this problem to start remedial action. For example, by March 1963 we had ordered that all future Defense leases for family housing should include a non-discrimination clause and that housing offices at Defense installations should no longer accept listings of housing not available to all Defense personnel.

With regard to off-base housing, the principal recommendation of the President's Committee was that local military commanders be given the responsibility for combatting all forms of discrimination affecting servicemen or their families in communities close to military bases. To this end, we established, under the direction of the local commander, voluntary non-discrimination housing programs at every major U.S. military installation and required periodic reports of progress.

By early 1967 it was evident that this voluntary program could not accomplish the objective. To ascertain the facts, we sent investigatory teams to a number of installations and surveyed some 17,000 service families. This survey showed that in the majority of the communities covered, over half of the families of Negro servicemen living off-base were dissatisfied with their housing, and that on the average four out

of ten such families were having difficulty finding suitable housing, principally as a result of racial discrimination. Most important, we found that this situation was adversely affecting the morale, job performance and career motivation of thousands of Negro servicemen and, thereby, the operational effectiveness of the Defense program.

It seemed clear that additional action was urgently required. From the first, our desire has been to obtain the voluntary acceptance by real estate managers, owners and operators of the principle that all servicemen must be given equal access to available housing. To this end, we have held meetings with local leaders and real estate interests throughout the country. In some instances, cooperation was quickly forthcoming and the number of off-base housing units open to military personnel on a non-discriminatory basis has increased dramatically. In other areas, however, our initial efforts to obtain voluntary cooperation were unavailing, and it has been necessary to resort to sanctions, i.e., forbidding military personnel in the immediate area of the affected installation to enter into new leases or rentals of apartment or trailer court facilities unless such facilities are available to all military personnel on an equal basis.

Overall, progress during the past half year has been encouraging. In our housing census last May, June and July, we identified 1.1 million rental units (in facilities with five or more units) near military bases which could be utilized by service personnel seeking off-base housing. Of these, only 59 percent were open to all military families. By year's end the proportion increased to 75 percent. "Open" units listed with base housing offices rose during the period from 241,700 to 585,800, or more than double.

I am convinced that the time has come when we must insist on this simple measure of equity for our Negro servicemen and that once having made a sincere attempt to obtain voluntary compliance, the Department should delay no further in taking appropriate action to remedy an unsatisfactory situation. The Negro serviceman and his family deserve the opportunity, on-base and off-base, to live with pride and dignity.

VIII. ORGANIZATION AND MANAGEMENT

It seemed to me, when I took office in January 1961, that the principal problem standing in the way of efficient management of the Department's resources was not the lack of management authority -- the National Security Act provides the Secretary of Defense a full measure of power -- but rather the absence of the essential management tools needed to make sound decisions on the really crucial issues of national security.

As I have said on other occasions, I think that the role of a public manager is very similar to the role of a private manager; in each case he has the option of following one of two major alternative courses of action. He can either act as a judge or a leader. In the former case, he sits and waits until subordinates bring to him problems for solution, or alternatives for choice. In the latter case, he immerses himself in the operations of the business or the governmental activity, stimulates and leads an examination of the problems, the objectives, and the alternative courses of action.

But to perform effectively in the latter role, he must have readily at hand all of the relevant information which he needs to make sound decisions and to control their execution. Among the crucial decisions confronting the Secretary of Defense and the President, and for that matter the Congress, are the choices of major military forces and weapons systems needed to carry out the tasks and missions which derive from our national security objectives. Accordingly, the pertinent information must be so organized as to focus directly on these forces and weapons systems. One must know, for example, the military effectiveness and the cost of a B-52 squadron vs a MINUTEMAN squadron vs a POLARIS submarine, including all of their associated equipment, personnel, supplies, facilities and funds, regardless of the particular appropriation accounts in which these resources may be financed, and regardless of the particular Service to which the force element may be assigned. And in order to optimize the allocation of resources, one needs not only the cost of equipping these units but also the cost of manning and operating them for at least a reasonable period of years into the future. Only then can one assess the cost and effectiveness of each of the alternatives in relation to the Defense missions they are designed to perform.

Thus, one of the first things we had to do in 1961 was to design a new mechanism which would provide this information in the form

desired and to integrate it into a single, coherent management system. The product of this effort was the Planning-Programming-Budgeting-System (PPBS), which is now being widely applied throughout the U.S. Government and which is being introduced in foreign governments as well.

For the Defense Department, this system serves several very important purposes:

1. It produces the annual Five-Year Defense Program which is perhaps the most important single management tool for the Secretary of Defense and the basis for the annual proposal to the Congress.

2. It provides the mechanism through which financial budgets, weapons programs, force requirements, military strategy, and foreign policy objectives are all brought into balance with one another.

3. It permits the top management of the Defense Department, the President and the Congress to focus their attention on the tasks and missions related to our national security objectives, rather than on the tasks and missions of a particular Service.

4. It provides for the entire Defense Establishment a single "approved" plan, projected far enough into the future to ensure that all of the programs are both physically and financially feasible.

In short, the PPBS has allowed us to achieve a true unification of effort within the Department without having to undergo a drastic upheaval of the entire organizational structure.

The PPBS, however, would be a shell without substance were it not backed by the full range of analytical support which operations research and other modern management techniques can bring to bear on national security problems. To this end, we have developed within the Office of the Secretary of Defense, the Joint Chiefs of Staff organization and the military departments highly capable systems analysis staffs. They provide the top level civilian and military decision makers of the Department a far higher order of analytical support than has ever been the case in the past. I am convinced that this approach leads not only to far sounder and more objective decisions over the long run, but also maximizes the amount of effective defense we obtain from each dollar expended.

A. ORGANIZATIONAL CHANGES

The creation of the Defense Department, as you know, stemmed directly from one of the great lessons learned in World War II -- i.e., that separate land, sea and air operations were gone forever, and that in future wars the combat forces would have to be employed as teams under unified strategic direction. The National Security Act of 1947, and its subsequent amendments, established the Department and shaped its basic mode of operation. Three separate military departments reporting to the Secretary of Defense were retained to train, supply, administer and support the respective land, sea and air forces. However, operational direction of the combat forces in the field was made the responsibility of the unified and specified commanders, reporting to the Secretary through the Joint Chiefs of Staff. Thus, from a functional viewpoint, the Department of Defense has been given a bilineal organizational structure, wherein the operational control and direction of the combat forces extends down through one chain of command and the direction and control of the supporting activities extends down through another. While this basic structure proved to be entirely sound and workable, we have found it necessary over the past seven years to make a number of changes in both parts of the organization.

With respect to the former, it seemed to me that two major deficiencies still remained to be corrected. First, some of the combat ready forces had not yet been placed under the unified and specified command structure. Second, the Joint Chiefs of Staff had yet to be provided the organizational and management tools they needed to give the most effective day-to-day operational direction to the combat forces.

To correct the first deficiency, we created the U.S. STRIKE Command in 1961, putting under a single Joint Command the combat ready forces of the Tactical Air Command and the Strategic Army Corps, which had previously been controlled directly by their respective military departments. With that change, all combat ready forces are now assigned within the unified and specified command structure. The STRIKE Command has provided us with an integrated, mobile, highly combat ready force, available to augment the unified commands overseas or to be employed as the primary force in remote areas. Moreover, as a result of the improved operational concepts developed under STRIKE Command and the Joint training received, the entire Army-Air Force team is now better integrated and works together more efficiently and effectively than at any other time in history.

With respect to the second deficiency, both the internal organization of the Joint Chiefs of Staff and the various support functions were reviewed to determine what improvements might be necessary. We found two combat support functions of particular importance to the field commanders -- communications and intelligence -- that were being performed separately by the three military departments with little or no regard for the role of the JCS in the operational direction of our combat forces in the field. While it was clear that both of these functions should be brought under the direct supervision of the JCS, they were too large and diverse to be placed within the Organization of the Joint Chiefs of Staff, and too important to be fragmented among the individual unified and specified commands. Accordingly, we decided to consolidate them in two new Defense agencies, reporting to the Secretary of Defense directly through the JCS.

Since actions were already underway in 1961 to form the Defense Communications Agency (DCA), we expanded its functions to include not only the management and operational control of the long-haul communications facilities of the Defense Establishment, but also the communications facilities required for command and control functions, intelligence, weather services, logistics, and administration for all components of the Department. Over the intervening years we have given DCA responsibility for providing support to the National Military Command System, for supervising the development of the Defense Communications Satellite System, and for leasing commercially-owned communications facilities on behalf of all components of the Defense Department. Most recently, we have strengthened DCA's management authority over the development of technical imporvements to the Defense Communications System.

The intelligence function was consolidated under a new organization, the Defense Intelligence Agency (DIA), which now provides all current operations intelligence; assembles, integrates, and validates all Defense intelligence requirements; produces all Defense intelligence estimates; supervises the mapping, charting, and geodesy activities of the military departments; oversees the Defense attache system; and provides management guidance on technical intelligence matters. While DIA is responsible for the consolidated intelligence function at the national level, field components still retain a tactical intelligence capability of their own. This capability is supplemented by DIA's intelligence summaries and estimates as needed.

A number of improvements have also been made in the Joint Chiefs of Staff organization itself. For example, a new National Military Command System, with a command center in the Pentagon, supplemented by

alternate fixed and mobile Command Posts, has been established so as to ensure that the Joint Chiefs of Staff can carry on their operational direction of the Armed Forces under all foreseeable circumstances. In addition, several new offices have been authorized to help the Chiefs carry out their responsibilities, including special assistants for strategic mobility, military assistance affairs, counter-insurgency and special activities, and environmental services (weather forecasting, etc.). Also, a Joint Command and Control Requirements Group and a Joint War Games Agency have been added to the Joint Chiefs of Staff organization.

With respect to the support functions, we found that organizational change had lagged far behind technological advancement. The logistics structures of the military departments had simply not kept pace with the demands of rapidly changing technology, particularly in the development, procurement, and support of new weapons systems, nor had we fully come to grips with the problem of managing commonly used supplies and services. This latter problem, as you know, had long been a source of concern within both the Congress and the Executive Branch. Following the Unification Act, the problem of overlapping logistics functions drew the repeated attention and criticism of the Congress, beginning with the recommendations of the Bonner Subcommittee in 1952, then with the O'Mahoney amendment to the 1953 Defense Appropriation Bill and later with the McCormack-Curtis amendment to the Reorganization Act of 1958. In all of these enactments, the Congress continually prodded the Department in the direction of truly unified logistics management.

The Defense Establishment, however, moved very cautiously toward that objective with various improvisations. These improvisations, however, did not get to the core of the problem -- the need for a single agency charged with the responsibility for procuring and managing all commonly used and centrally procured supplies and services. Our solution was to create the Defense Supply Agency (DSA). Established in 1961, DSA was made responsible for the management of most common supplies and services. In January 1962, the eight existing single managers for common supplies, the single manager for traffic management, the Armed Forces Supply Support Center and the surplus property sales offices were all consolidated within the Agency. Later, additional responsibilities were assigned to DSA, including the management of common electrical and electronics items, chemical supplies, and industrial production equipment. The results: substantial reductions in inventories and operating costs and improvements in supply service.

In 1964, it became apparent that centralized management of the contract administration function would not only yield greater efficiency with fewer personnel but would also produce significant savings for our contractors which, in turn, would be eventually reflected in lower procurement costs to us. Accordingly, we consolidated under a single management in DSA the 150 field offices and 20,000 personnel concerned with contract administration, including such related functions as materiel inspection, production expediting, industrial security, and payment of contractor invoices. Later, in that same year, we established the Defense Contract Audit Agency, bringing together under centralized management the audit activities previously performed by 268 offices of the three military departments.

We recognized, of course, that the creation of new functionally oriented Defense agencies was by no means the full answer to solving the problem of overlapping or duplicative activities among the Services. For example, in the area of specialized training we found that it was usually more efficient and economical to consolidate these functions within one of the military departments. Thus, the Army was made responsible for consolidated public information and language training, the Navy for consolidated computer training, and the Air Force for consolidated air intelligence and imagery interpretation training.

In addition to these Defense Department-wide organizational changes in the support field, many more were found necessary in the three military departments; particularly in the broad area of logistics management. In the Army, the logistics functions of the old "technical services" were merged into a new Army Materiel Command; in the Navy the logistics functions performed by the Bureaus were replaced by a Naval Material Command; and in the Air Force a realignment between the Research and Development Command and the Air Materiel Command resulted in two new commands -- the Air Force Systems Command and the Air Force Logistics Command. Each of these organizational changes was instituted because of the need for increased efficiency in the procurement and support of new weapons systems, as well as to keep pace with rapidly changing technology.

B. THE DEFENSE DEPARTMENT COST REDUCTION PROGRAM

While timely organizational changes, better analyses and improved procedures can all help to facilitate the management task, economy and efficiency in the day-to-day execution of the Defense program rests largely in the hands of the tens of thousands of military and civilian managers in the field. As I have noted in previous years, how to motivate these people to do their job more efficiently, and how to

determine whether they do so, has always been one of the most difficult and elusive problems facing the top management of the Defense Department.

Unlike private industry, which operates under the discipline of the profit and loss statement, there is no such built-in incentive for efficiency and economy in the operating environment of the Defense Department, or for that matter, in the Government as a whole. Moreover, because of the large number of the Defense managers involved and the literally tens of millions of individual decisions they make each year (e.g., 15 million purchase actions alone in FY 1967), it is obviously impossible to supervise the performance of these people directly from the Pentagon. Yet, the larger the number of intermediate management levels -- and in an organization of the size of the Defense Department the number cannot help but be large -- the more difficult it is to exert pressure from the top.

But even where poor performance is found, the remedies, as a practical matter, are more limited than the average person would think; the competition for competent management personnel is extremely keen, and we have no assurance that the people we could hire would be any better than those we might fire. Accordingly, the only workable solution I have been able to find, in private industry as well as Defense, is to make the best use of the talent available, not so much through the negative threat of sanctions, but rather through the positive use of incentives for better performance. In other words, we must devise some sort of management system through which we can mobilize the capabilities of the managers at the lower levels, involve them more intimately in the entire management process, and motivate them to seek out and develop more efficient ways of doing their jobs -- and that is the fundamental purpose of the Defense Department's Cost Reduction Program.

Inasmuch as almost three-quarters of the total Defense budget is spent for "logistics" in the broadest sense of that term -- i.e., beginning with research and development and extending through procurement, production, construction of facilities, supply, maintenance, etc., and ending with the disposal of surplus materiel and facilities -- we concentrated our efforts, first, on that area of activity. Even before I took office I made it my business to familiarize myself with the principal studies and reports relating to Defense logistics, e.g., those of the Hoover Commissions, the General Accounting Office and the various Congressional Committees. From these reports, I and my associates were able to identify the key areas in which improvements were urgently needed and where the potential for significant savings was the greatest.

The problem, then, was how to organize the effort on a Defense-wide basis. From past experience in the Defense Department we knew that "one-shot", transient efforts soon petered out, leaving no real long-term benefits. We also knew that without clear-cut goals and a system for measuring progress against those goals, the principal incentive for improvement would be lost. And finally, we realized that unless the top management, itself, placed a high priority on the effort, managers at lower levels would soon lose interest in the program.

1. The Initial Five-Year Program

Initially, a five-year program ending in FY 1966 was laid out. Ultimately, some 28 distinct areas of logistics management were carefully delineated and grouped under the three major overall objectives of the program -- i.e., to buy only what we need, to buy at the lowest sound price and to reduce operating costs. Specific annual cost reduction goals were established, in cooperation with the key logistics managers, for each of these areas. Selected goals, in turn, were established for the military departments and Defense Agencies, and subdivided down to the lowest responsible operating levels, so that all of our principal logistics managers would know exactly what was expected of them. A quarterly reporting system was designed to measure progress against these goals, and each Service Secretary and Agency head was directed to review personally the progress achieved and to report the results to my office. I then carefully reviewed these results, myself, and reported on them to the President and the Congress each year. Indeed, both President Kennedy and President Johnson have given this program their personal attention. President Johnson has personally participated in our annual awards ceremonies.

In order to ensure that we were not kidding ourselves or the public regarding the validity of the savings being achieved, I tried at the beginning to enlist the aid of the General Accounting Office in auditing these savings. As you know, the GAO, for understandable reasons, declined to undertake this task (more recently it has agreed to review the adequacy of our Cost Reduction audit program and our criteria for measuring savings). Consequently, I assigned the audit function to the Defense Comptroller, who, although a member of my staff, is not directly involved in the logistics management function.

In this connection, we must remember that it is extremely difficult to establish precise auditing standards for this sort of activity, and to some extent subjective judgments are bound to intrude in the evaluation of what constitutes a true savings. Nevertheless,

we have consistently tried to apply one basic test, namely, that a reportable savings must result from a clearly identifiable, new, improved or intensified management action which actually reduces costs while fully satisfying the military requirement. And, I believe, that by and large the savings we have reported over the years have met that basic test.

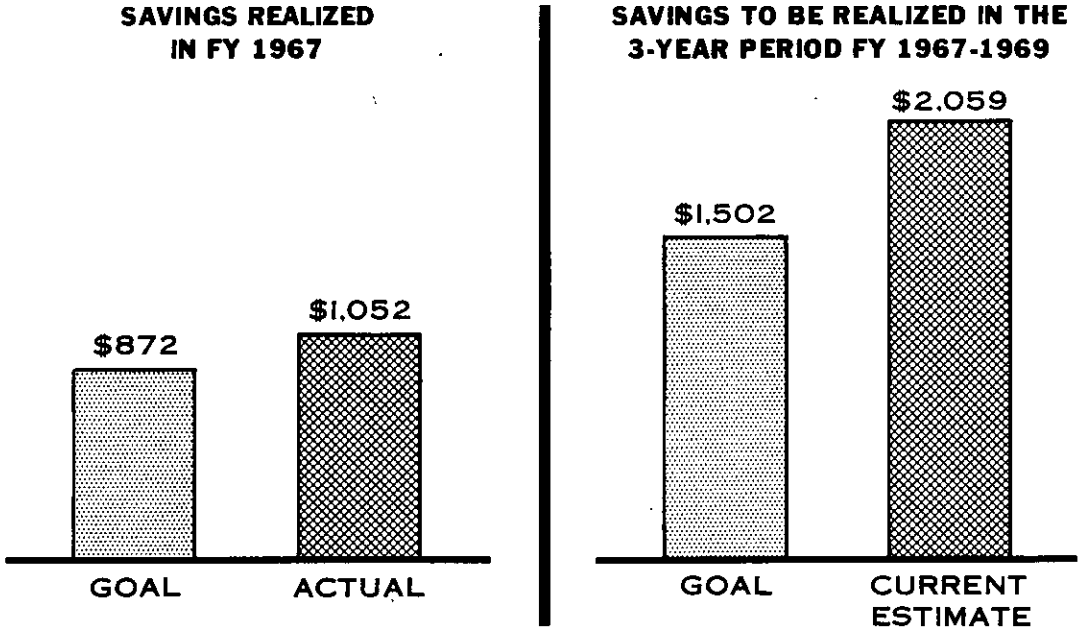
But over and above the large monetary savings achieved -- more than $14 billion during the five-year period -- the Program has significantly raised the level of effectiveness of our entire world-wide logistics system. New procurement techniques were developed and brought into everyday use to broaden the area of competition for Defense work and to minimize the use of cost-plus-fixed-fee contracts. Requirements computation methods were thoroughly reviewed and more realistic standards established. New procedures were devised to ensure maximum utilization of excess inventories on a Department-wide basis. Special "value engineering" staffs were organized in all of the Department's procurement agencies to eliminate "goldplating" (i.e., unneeded frills) from specifications. Defense contractors were offered a share in the savings resulting from "value engineering" changes which they originated. Programs designed to increase the efficiency of the day-to-day operations of the Department were established at the base level. Defense installations were systematically reviewed and those excess to our requirements were closed and the property turned over to more productive public or private use.

2. The Permanent Cost Reduction Program.

With the completion of the initial Five-Year Program in FY 1966 and with the basic policies and procedures firmly established throughout the Department, the Program was placed on an annual basis in FY 1967. We have now completed the first of the annual programs and are halfway through the second. As I told you last year, for FY 1967 actions we established a goal of $1.5 billion in savings to be realized in fiscal years 1967, 1968, and 1969, with $872 million of that amount to be realized in FY 1967 itself. As shown on the following chart, results have exceeded our objectives. (A more complete summary of the results shown on the chart can be found on Table 17 attached to this statement.)

SAVINGS FROM DECISIONS MADE AND ACTIONS TAKEN IN FY 1967

(MILLIONS OF DOLLARS)



In previous years, I have discussed each area of the program in some detail, giving specific examples of the savings achieved. This year I would like, instead, to review the overall status of this program and the prospects for the future.

3. The Future Program

As I have noted many times before, the management task is never finished, and this is particularly true of cost reduction. Even while old deficiencies are being corrected, entirely new ones make their appearance. And, this is to be expected since the character and content of the Defense program is constantly changing.

The recent build-up of our forces in support of our commitments in Southeast Asia is a good case in point. The extent and speed of this build-up and the great distances over which our forces had to be deployed and supported have placed a great deal of pressure on our entire logistics system. And, of course, whenever the element of time becomes the overriding factor in our actions, economy and efficiency tend to be sacrificed in favor of speed. It was for this reason that

I cautioned last July, in my Annual Progress Report on the Cost Reduction Program, that, "I would not be at all surprised if some unnecessary spending and inefficiency have crept into the Defense program during these last two years of rapid build-up." I went on to say, "Our task in the year ahead ... is to ferret out all of these new sources of waste and inefficiency and tighten up our operations all along the line. Further savings of millions of dollars can be achieved by actions which are completely consistent with a high degree of combat readiness."

I was delighted, therefore, last October when I learned that General Westmoreland, acting on his own initiative, had instituted a cost reduction program in his own area of responsibility. The objective of that program in his words is "to develop a well-balanced, hard-hitting and efficient military force which can be sustained at a minimum cost for an indefinite period." To accomplish that objective, he has laid out a comprehensive program, complete with goals for each of the major logistics areas and a quarterly report on progress toward those goals, the first of which will cover the period ending March 1968.

Now, with regard to the longer range goals of the Cost Reduction Program, although we must realize that the very large savings achieved during the first five years are not likely to be duplicated during the succeeding five years, there are still significant opportunities for improvement in many areas.

a. Buying Only What We Need

There are a number of logistics areas under this general heading where the opportunities for improvement are virtually unlimited. This is so because requirements are always changing, new items are continuously entering the inventories while older items are becoming obsolete and surplus to our needs.

Over the last seven years we have conducted literally thousands of "requirement" reviews of major items of equipment, spare parts and consumables to help us determine our real needs and avoid procurement of materiel which might later become surplus. More accurate predictions of wearout rates are being made through the use of automatic data processing equipment. Pipeline requirements are being reduced by the use of airlift to deliver high cost items, particularly to Southeast Asia. Better demand forecasts are being achieved through the widespread use of high-speed communication systems and by concentrating management effort on high-value items. Special review boards have been established to screen the need for the thousands of reports,

manuals, engineering drawings and other technical data required to develop, operate and maintain our equipment.

The importance of this entire requirements review process has been brought to the forefront by the Vietnam conflict, particularly with regard to such high consumption items as ammunition. For example, we have fully automated the Southeast Asia Air Munitions Reporting System, and we now receive a status report every 15 days on the 53 most important air munitions items -- including combat consumption, training consumption, inventory levels, and stocks in the pipeline. These reports are received within ten days from the end of each reporting period, permitting us to respond promptly to any change in the combat consumption of these 53 items. A similar reporting system has been established for the principal items of ground ammunition. Both of these reports will make it possible for us to meet our requirements without generating huge excesses as was the case during the Korean war. In fact, we are deliberately holding our world-wide inventories below the required peacetime "cold production base" level, both to avoid "over-buying" during the war and to soften the impact on the economy when the conflict ends and production has to be cut back to peacetime rates. By phasing down production gradually over a period of months, the employees, contractors and communities affected will have a better opportunity to make the necessary adjustments.

There is considerable room for improvement, however, in the management of our spare parts inventories. Here, the number of items is so great that we have not yet developed a satisfactory technique for closely relating procurement and inventories to consumption. Nevertheless, we have made substantial progress in this area (the value of "approved force stocks in storage" as a percent of the value of weapons and equipment in use has fallen from 41 percent at the end of FY 1961 to 33 percent at the end of FY 1967), and we hope that the transfer of aircraft spares to the stock fund will stimulate additional improvements.

The acquisition of technical data is another activity in which further progress can be made. It has been estimated that there may be as many as 100 million engineering drawings in our repositories. Moreover, we have approximately a quarter of a million technical manuals and about 40,000 specifications, standards, and related documents, and we are spending perhaps as much as one and one-half billion dollars annually for additional technical data. We have attacked this problem in a number of ways, ranging from "cross servicing" of manuals among the military departments to replacing hard copies of

drawings and other data with magnetic and punched tapes and computer memory banks. But I still feel we need a more comprehensive review on an item-by-item basis of each proposed procurement. There are still too many cases where we find ourselves buying technical data which nobody needs.

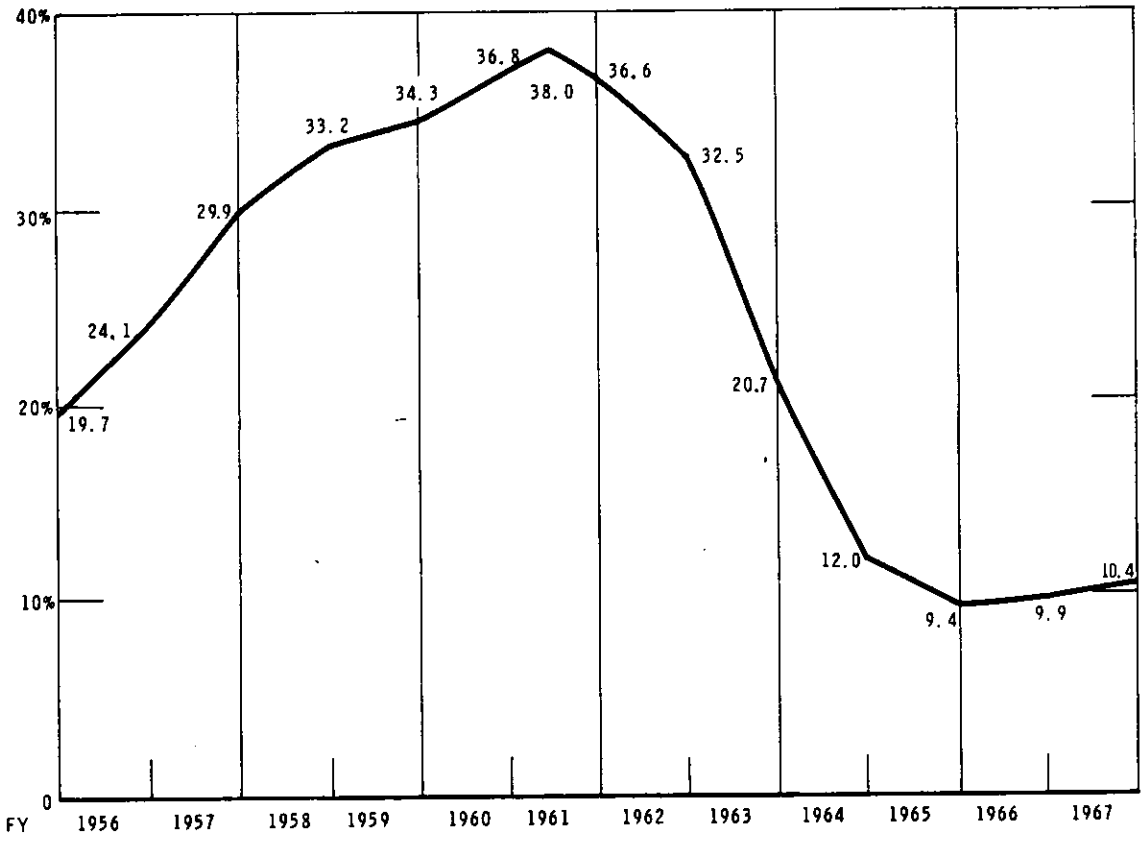
No matter how carefully we review our requirements, excess inventories are bound to develop as new major weapons systems replace the old. Thus, the reutilization of excess inventories will be a continuing problem. We have made good progress in this area during the past seven years, reducing long supply and disposable stocks from about $16.5 billion in 1961 to $12.3 billion in 1967, with the rate of reutilization rising from about $956 million a year to over $1.5 billion a year during this period. Further progress will depend importantly on how well we can adapt old items to meet new needs.

One area in which the job will never be completed as long as new weapons systems and equipment continue to enter the inventories is that of value engineering or the elimination of "gold plating." We have greatly increased our capabilities in this area over the last six years, and we estimate that we have saved more than $1 billion during this period by eliminating superfluous design or performance features. As I noted earlier, much of this work is done by our contractors, with whom we are sharing the savings.

b. Buying at the Lowest Sound Price

The opportunities for improvement, here, have been rather fully exploited. This is particularly true in the shift away from Cost-Plus-Fixed-Fee contracts, which neither reward good performance nor penalize bad performance. As shown on the following chart, we have completely reversed the previous trend and have driven down the proportion of contracts awarded on a CPFF basis from a peak of 38 percent in FY 1961 to about ten percent in 1967.

COST PLUS FIXED FEE CONTRACTS AS A PERCENT OF TOTAL CONTRACT AWARDS

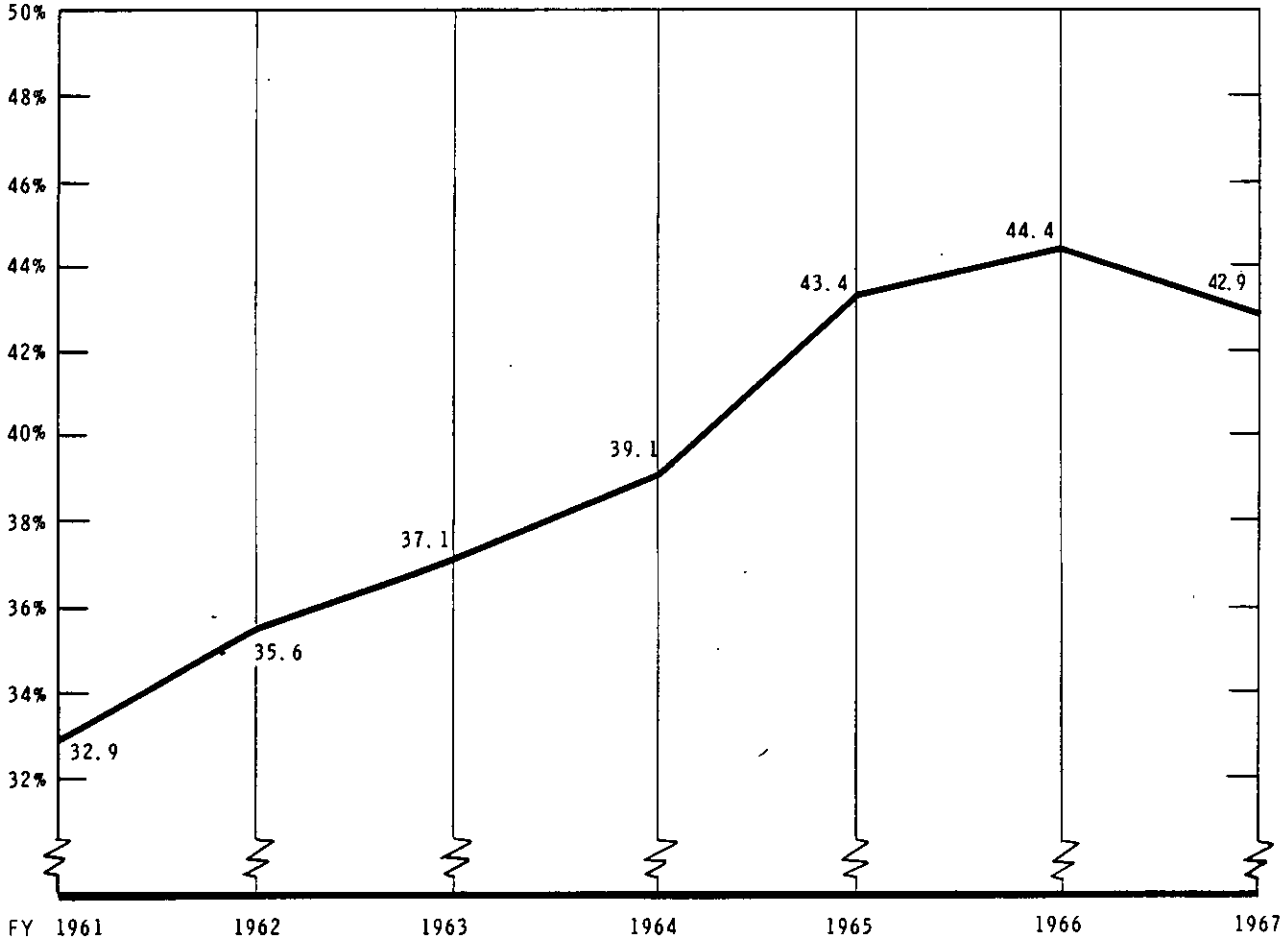


While we may be able to reduce the use of CPFF contracts by perhaps another percentage point when the Vietnam conflict is ended, it is apparent that there is very little room for further improvement in this area. Essentially, this type of contract is now being used only where there are great uncertainties involved in the scope of the work to be performed; for example, in research and development.

I also believe that we have gone far toward exploiting the possibilities of increasing the percentage of contracts awarded on the basis of price competition, although we should be able to reverse the slight downward trend encountered in the last year because of the Vietnam conflict. As shown on the following chart, we have raised the proportion of contracts awarded on a price competitive basis from 32.9 percent in FY 1961 to 44.4 percent in FY 1966.

[redacted]

CONTRACTS AWARDED ON BASIS OF COMPETITION AS A PERCENT OF TOTAL DOLLAR VALUE OF CONTRACT AWARDS



In achieving these results, we have made extensive use of such devices as two-step formal advertising, the spare parts breakout program, and multi-year procurements.

An opportunity for further progress in the procurement area lies in the expanded application of the "total package" procurement method. In addition to the C-5A transport, we have used this procurement method for other systems such as the SRAM, the LOH avionics package, the FDL and the air-to-ground MAVERICK missile.

[redacted]

c. Reducing Operating Costs.

There are some logistics areas included under this heading in which the opportunities for future improvement are still very extensive, but in the area of "terminating unncecessary operations", I believe future actions will be less numerous than in the past.

During the last seven years we have made a continuing, searching and systematic review of all of our installations and activities throughout the world. Facilities which had outlived their usefulness or were in poor condition and cost too much to operate and maintain have been closed. Those which were surplus to our peacetime and mobilization needs have been disposed of. Installations operating at below productive capacity have been shut down and their remaining useful activities consolidated at other more efficient locations. The results of this intensive seven year effort are shown on the table below:

	Total Through June 30, 1967
. Number of Actions	967
. Real Estate Released (Acres)	1,818,000
. Industrial Plants with Commercial Potential made Available for Sale	66
. Job Positions Eliminated	207,047
. Recurring Annual Operating Savings	$1.5 Billion

From the beginning, we have recognized that this rechanneling of resources, though beneficial to the Nation as a whole, could have serious adverse effects on local communities and our own employees. Two programs, each now of several years standing, were developed to help soften these effects.

One program is designed to help the local communities make the necessary adjustment and find productive uses for the land and facilities made available as a result of base closures. They are advised of pending closures months and sometimes years in advance, giving both the Defense Department and the community time to develop the adjustment plans. To assist in this process, I established in 1961 an Office of Economic Adjustment which, together with experts from other Federal agencies, has helped some 72 communities in 34 states.

The following table summarizes the disposition and use of military property released since 1961:

	Total Through June 30, 1967
Civil Airports	36
Schools and Universities	251
Parks, Recreation, Community Development	113
Private Industry for Production	66
Individuals and Small Companies	580
Federally Owned Reserve Lands	11
Other Federal Agencies	112
Total Acres Involved	944,996

The other program pertains to our own employees. Since base closures dislocate our employees as well as communities, the Defense Department as employer bears a special responsibility. We have discharged this responsibility by guaranteeing our career employees that no one displaced by a base closure will be separated without the offer of a new job opportunity. In order to help such displaced employees find jobs, we now operate a nationwide system which matches the qualifications with job vacancies, we give them preference in hiring, we guarantee their present pay for two years when they accept a lower paying job, and we pay their moving expenses when they relocate to a new Defense position. The table below shows the results of this program for career civilian employees (military personnel are simply reassigned to other duties -- a normal feature of service life) from its inception in January 1964 through last September:

	Employees	
	Number	Percent
Accepted offer of another Defense job	84,771	67.2
Placed in another Federal job	4,599	3.7
Placed in a non-Federal job	4,986	4.0
Declined job offer, transfer or placement assistance	11,338	9.0
Retired or resigned	17,625	14.0
Other (death, military service, etc.)	2,637	2.1
Total employees affected	125,956	100.0
Separated without offer of "job opportunity"	None	None

With respect to other areas of logistics management -- transportation, communications, equipment maintenance, etc. -- the day-to-day operations of the Defense Department should continue to offer a broad range of opportunities for cutting costs through such actions as consolidating management functions, finding more efficient organizational arrangements, simplifying work methods, and increasing productivity. For the most part, this type of action is taken at the installation level, and success in this area will depend importantly on the continued vigor of the Cost Reduction Program and the support it receives throughout the Government.

IX. FINANCIAL SUMMARY

There are again this year a few changes in the coverage of the Defense Program and Financial Budget which warrant special mention. The first concerns a further realignment and clarification of functional responsibilities in Vietnam between the Department of Defense and other U.S. Government Agencies. You may recall that last year the Defense Department took over from the Agency for International Development (AID) the funding of certain responsibilities which were more closely related to military operations in South Vietnam than to the economic assistance program. In FY 1969 we propose to finance a few more: for example, the support of the Chieu Hoi program, and certain air transportation costs. In addition, Defense will finance the support of the Revolutionary Development Cadre program. All of these changes will add about $112 million to the Defense Department budget in FY 1969.

The second category of changes has to do with the further realignment of the internal financing of the Defense Department Program. It has long been the established policy of the Defense Department to manage the acquisition, storage and supply of consumption-type items in the Stock Funds. Accordingly, we propose in FY 1969 to transfer to and capitalize in the Stock Funds approximately $3.5 billion of consumable items now financed under the Procurement and Operation and Maintenance appropriations. Since approximately $1.1 billion of these items are expected to be sold by the Stock Funds in FY 1969, with payments for replacements not being required before FY 1970, the cash balances of the Stock Funds will experience a one-time increase by a like amount. In addition, the sale of items in inventory not requiring replacement should result in a further increase in cash of approximately $400 million. Consequently, the cash balances in the Stock Funds by end FY 1969 would greatly exceed the amount needed to meet the legal and operating requirements. We, therefore, propose in FY 1969 to transfer $1.5 billion from the Stock Funds to certain Procurement accounts, in lieu of new appropriations -- $450 million to Procurement of Equipment and Missiles, Army; $440 million to Procurement of Aircraft and Missiles, Navy; $10 million to Procurement, Marine Corps; and $600 million to Aircraft Procurement, Air Force.

Taking account of the foregoing shifts in funding, the programs proposed for FY 1969, including Military Assistance and Foreign Military Sales, Military Construction and Family Housing, and Civil Defense, will

require $79,797,300,000 in new appropriations. From this figure, a net amount of $220,943,000 in miscellaneous receipts and trust fund adjustments must be deducted to arrive at the $79,576,357,000 in New Obligational Authority shown in the President's Budget. A summary by major programs for fiscal years 1962 through 1969 is shown on Table 1.

Of the $79,797,300,000 in appropriations required for FY 1969, the following amounts will be presented separately:

$540,000,000 for Military Assistance and Foreign Military Sales,

$2,031,500,000 for Military Construction and Family Housing (including the $82,674,000 for payment of mortgage principal and $11,800,000 for Homeowners Assistance), and

$76,800,000 for Civil Defense.

Also included in the total of new appropriations requested for FY 1969 is $75 million for three items of proposed legislation which are being separately transmitted. The first, $34 million, is for an increase in the per diem and travel allowances for uniformed service members. The second, $23 million, is for an increase in Servicemen's Group Life Insurance, and the third, $18 million, is to provide Federal employee status for the civilian technicians of the Army and Air Force National Guard. Provision for a number of other items of proposed legislation, including proposed changes in the military compensation structure, is made within the Government-wide "Allowances for Contingencies".

The Bill now before the Appropriations Committees would provide $77,074,000,000 in new appropriations (including $12,800,000 for the Special Foreign Currency Program) plus the $1,500,000,000 in transfers from the Defense Department Stock Funds. Of this amount, $22,385,052,000 is requested to be authorized for appropriation under the provisions of Section 412(b) of Public Law 86-149, as amended: $14,369,613,000 for procurement of aircraft, missiles, naval vessels, and tracked combat vehicles; and $8,015,439,000 for research, development, test and evaluation (including $9,239,000 to be financed by the Special Foreign Currency Program appropriation). Tables 18 and 19 provide a summary of the procurement amounts to be authorized for appropriation under the above provisions.

We are also requesting the Congress to transfer $1,695,600,000 of FY 1968 funds among and between the various appropriations of the Military Departments and the Defense Agencies to finance adjustments in the FY 1968 program. As I noted at the beginning the Statement, this transfer authority is essential if we are to meet our Vietnam and other requirements with the amounts already appropriated for FY 1968. Associated with these transfers among appropriations are decreases in fund authorizations totaling $1,846,818,000 and increases totaling $177,086,000. The increases are as follows: Aircraft, Army -- $130,500,000; Missiles, Air Force -- $12,100,000; RDT&E, Air Force -- $34,486,000. The decreases are spread among all of the other authorization categories.

In addition, $800,499,000 will be required in FY 1968 to meet the costs of the military and civilian pay increases enacted by the Congress last year.

Again this year, we strongly urge the Congress to continue in the FY 1969 Appropriation Act the authorities provided by Sections 635 and 612 (c) of the FY 1968 Appropriation Act. Section 635 authorizes the Secretary of Defense to transfer up to an additional $200,000,000 from any appropriation of the Department of Defense to improve further the readiness of the Armed Forces, including the reserve components. Section 612(c) permits the Secretary of Defense, upon determination by the President that it is necessary to increase the number of military personnel on active duty beyond the number for which funds are provided, to treat the cost of such an increase as an excepted expense. The continuing uncertainties that we face in Southeast Asia and elsewhere around the globe underscore the need to continue these two sections in the new appropriation act.

FY 1969 TABLES

[redacted]

TABLE 1.- FINANCIAL SUMMARY

	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969
Strategic Forces		11,252	10,403	9,257	7,075	6,685	6,893	7,884	9,618
General Purpose Forces		17,889	17,949	17,923	19,126	29,466	32,695	32,562	35,218
Intelligence and Communications		3,200	3,897	4,263	4,459	4,983	5,338	5,717	6,299
Airlift and Sealift		1,049	1,112	1,140	1,352	1,618	1,872	1,883	1,830
Guard and Reserve Forces		1,775	1,748	1,939	1,968	2,321	2,685	2,706	2,955
Research and Development		4,329	4,976	5,023	4,748	4,835	4,804	4,569	5,124
Central Supply and Maintenance		3,835	3,920	4,080	4,220	5,592	7,061	7,095	7,282
Training, Medical, etc.		4,923	5,098	5,545	5,877	7,459	8,521	9,398	9,752
Administration and Associated Activities		1,068	1,106	1,157	1,224	1,763	1,452	1,578	1,706
Military Assistance Program		1,900	1,665	1,305	1,333	1,894	2,523	2,122	2,720
Unfunded (-) Current Service Retirement Pay		-778	-665	-654	-517	-465	-409	-293	-90
Total Obligational Authority	46,029	50,441	51,208	50,979	50,866	66,150	73,436	75,219	82,414
Financing Adjustments	-2,923	-1,018	-89	-57	-373	-2,617	-444	-1,864	-2,838
New Obligational Authority a/	43,106	49,423	51,119	50,922	50,493	63,533	72,992	73,355	79,576
Expenditures a/	44,676	48,205	49,973	51,245	47,401	55,377	68,331	74,219	77,113
Expenditures as Percentage of GNP	8.8	8.9	8.7	8.4	7.3	7.8	9.0	9.2	8.9
Department of Army	10,355	12,747	11,980	12,460	12,347	18,610	22,543	24,215	26,087
Department of Navy	12,715	14,626	14,678	14,429	14,846	19,379	21,522	21,110	23,950
Department of Air Force	19,887	19,573	20,430	20,002	19,402	23,480	24,708	25,053	27,003
Defense Agencies	1,088	1,209	1,955	2,265	2,487	2,907	3,320	3,754	4,216
Defense Family Housing	440	454	574	603	578	612	439	604	538
Military Assistance	1,543	1,832	1,591	1,220	1,208	1,163	904	484	620
Total Obligational Authority	46,029	50,441	51,208	50,979	50,866	66,150	73,436	75,219	82,414
Military Personnel	12,143	13,058	13,057	14,194	14,816	17,047	20,067	22,199	23,037
Operation and Maintenance	10,264	11,420	11,472	11,703	12,544	15,378	19,361	20,548	22,839
Procurement	14,238	16,224	16,079	15,110	14,151	22,381	24,110	22,378	25,816
Research, Development, Test and Evaluation	6,366	6,308	7,039	7,074	6,467	6,927	7,289	7,415	8,031
Military Construction	1,035	894	1,271	964	1,001	2,537	1,160	1,505	1,440
Defense Family Housing	440	454	574	603	578	612	439	604	538
Military Assistance	1,543	1,842	1,591	1,220	1,208	1,163	904	484	620
Other		252	125	111	102	105	105	86	94
Total Obligational Authority	46,029	50,441	51,208	50,979	50,866	66,150	73,436	75,219	82,414
Unobligated Balance, End of Year	7,225	7,185	9,196	9,966	11,051	13,865	13,737	11,304	11,105
Memos:									
1. Price Inflation over 1961:									
a. DoD Purchased Goods Price Index	100.0	100.7	100.3	101.1	102.7	104.6	107.3	110.4	113.2
b. Price Increase on Purchased Goods		196	89	319	641	1,308	2,625	4,004	5,233
c. Military Pay Rates			132	1,093	1,590	2,445	3,381	4,204	4,480
d. Civilian Pay Rates			155	277	565	703	1,010	1,249	1,321
e. Payments to Retired Personnel		108	227	423	598	805	1,043	1,284	1,487
Total Price Inflation		304	603	2,132	3,394	5,261	8,059	10,741	12,521
2. Total Unfunded Military Retirement Liability	45,105	47,337	48,868	56,071	59,450	66,585	70,913	75,817	78,561

a/ Includes, for FY 1967 and subsequent years, adjustment for trust fund and receipts transactions.

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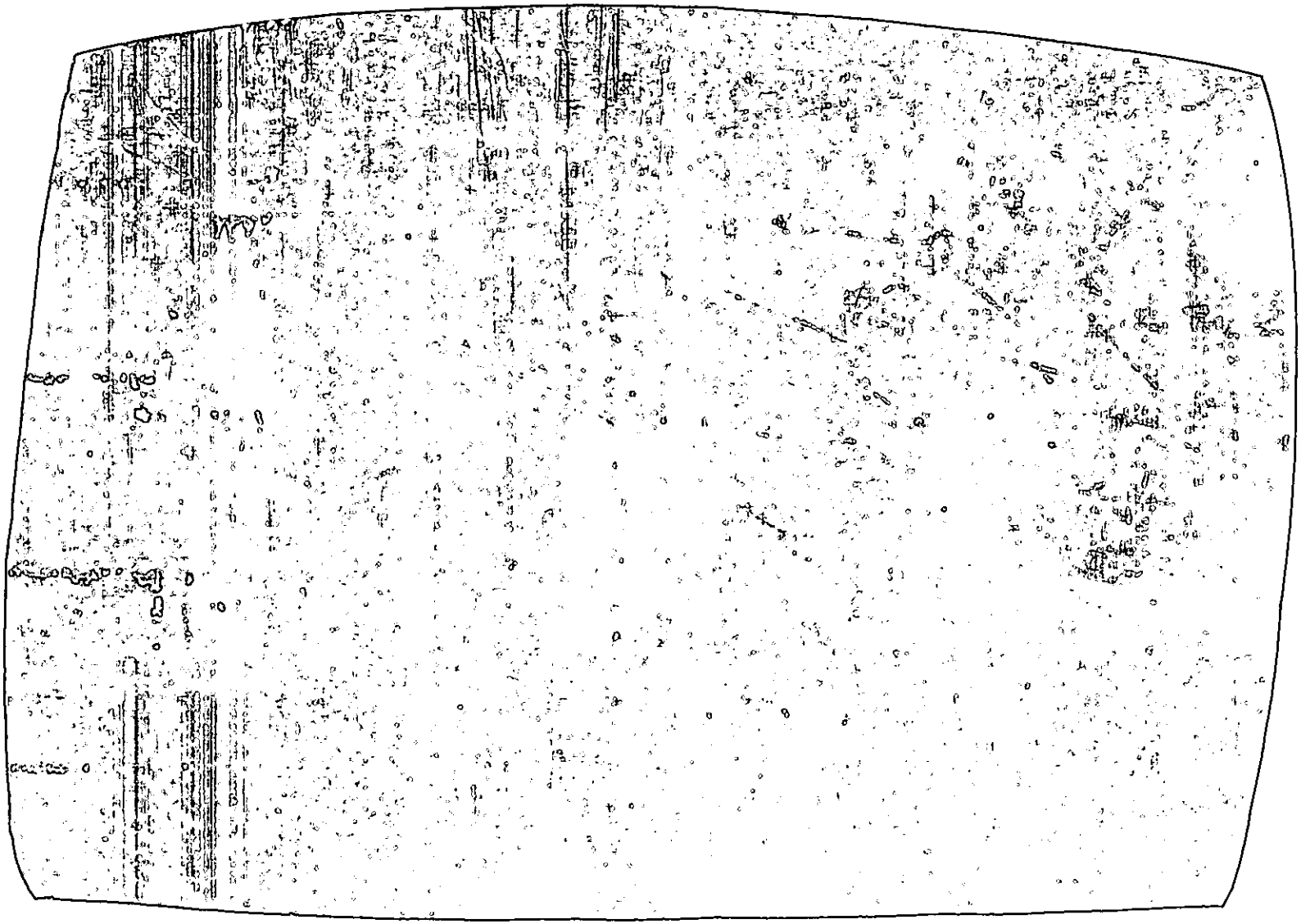

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TABLE 3 - STRATEGIC DEFENSIVE FORCES

	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971	FY 1972	FY 1973
Air Defense Systems													
Aircraft (Authorized Active Inventory)													
Interceptors a/													
Air Force													
F-101	435	344	343	361	318	318	318	278	140	134	134	134	134
F-102	322	322	281	259	259	94	37	29	29				
F-104	-	-	46	46	40	40	37	26	26	26	26	26	26
F-106	304	307	264	281	274	272	257	251	251	238	238	238	219
F-106X	-	-	-	-	-	-	-	-	-	-	-	-	19
Subtotal Air Force	1061	973	934	947	891	724	649	584	446	398	398	398	398
Air National Guard (ANG)													
F-86	275	220	165	110									
F-89	275	275	248	248	180	100	40	40	40				
F-100	66	67	72	42									
F-102	130	127	152	191	208	344	404	404	404	285	285	285	285
F-104	61												
Subtotal ANG	807	689	637	591	388	444	444	444	444	285	285	285	285
Navy													
F-6	28	30											
Total Interceptors	1896	1692	1571	1538	1279	1168	1093	1028	890	683	683	683	683
Tactical Support for F-106X (C-130) a/	-	-	-	-	-	-	-	-	-	-	-	-	20
Other Tactical Support Aircraft	160	169	156	152	166	176	173	175	175	153	153	153	153
Target Aircraft	243	432	420	407	420	365	330	308	265	262	255	255	254
Surface-to-Air Missile Launchers b/													
BOMARC	238	307	383	200	180	180	172	164	156	148	140	132	124
NIKE (HERCULES AND AJAX) c/: Army	1884	1372	1208	1009	859	656	656	656	656	552	552	552	552
ANG	608	552	428	357	473	473	473	473	473	429	429	429	429
HAWK (Regular) d/	-	48	48	48	48	48	48	48	48	48	48	48	48
Total SAM Launchers	2730	2279	2067	1614	1560	1357	1349	1341	1333	1177	1169	1161	1153
Control & Surveillance Systems e/													
NORAD Combat Operations Center	1	1	1	1	1	1	1	1	1	1	1	1	1
SAGE Combat Centers	8	8	8	7	7	6	6	6	5	1	1	1	1
SAGE Direction Centers	20	21	18	16	16	14	14	14	13	11	11	11	6
BUIC II Control Centers	-	-	-	-	-	13	13	9	-				
BUIC III Control Centers	-	-	-	-	-	-	-	-	12	15	15	15	15
Search Radars	182	179	169	168	162	158	154	141	128	128	128	128	128
ANG Search Radars	6	6	6	6	6	6	5	3	3	3	3	3	3
Gap Filler Radars	-	-	-	-	-	-	91	17	17	17	17	17	17
Distant Early Warning (DEW) Radars	67	67	67	39	39	39	39	39	39	39	39	39	39
Over-the-Horizon (OTH) Radar (Back-Scatter)	-	-	-	-	-	-	-	-	-	-	-	-	2
Surface-to-Air Missile (SAM) Fire Coordination Centers	10	28	28	26	25	19	22	22	22	22	22	22	22
Radar Ships	31	32	22	22	19								
Surveillance & Warning Aircraft a/													
EC-121: Air Force	77	76	85	85	83	80	80	80	80	80	80	80	80
Navy	55	49	49	47	22								
Airborne Warning and Control System (AWACS)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Surveillance & Warning Aircraft	132	125	134	132	105	80	80	80	80	80	80	80	80
Missile & Space Defense Systems													
Anti-Satellite Systems	-	-	-	8	8	8	4	4	4	4	4	4	4
Surveillance & Warning													
Ballistic Missile Early Warning System (BMEWS) (474L)	2	2	2	3	3	3	3	3	3	3	3	3	3
OTH Radar (Transmit/Receive)	-	-	-	-	2/4	2/5	2/5	3/5	4/5	4/5	4/5	4/5	4/5
Other	-	-	-	9	14	14	14	15	15	15	15	15	15
SENTINEL													124
SPARTAN	-	-	-	-	-	-	-	-	-	-	-	-	-
SPRINT	-	-	-	-	-	-	-	-	-	-	-	-	5
Missile Sites Radar (MSR)	-	-	-	-	-	-	-	-	-	-	-	-	3
Perimeter Acquisition Radars (PAR)	-	-	-	-	-	-	-	-	-	-	-	-	5
Batteries	-	-	-	-	-	-	-	-	-	-	-	-	

a/ Tentative air defense plan. Force levels after FY 69 to be resolved in 1968.
b/ Equivalent to deployed, operational missiles. Excludes training launchers.
c/ The precise number and location of HERCULES batteries to be phased out in FY 70-71 will be determined later this year.
d/ The number of deployed operational missiles is three times the number of launchers.
e/ Includes CONUS, Alaska, Hawaii, Puerto Rico, Canada, Greenland, and Iceland.

Civil Defense (Program 7)

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TABLE 4 - FINANCIAL SUMMARY OF CIVIL DEFENSE
(TOA, in $ Millions)
(Fiscal Years)

	1962	1963	1964	1965	1966	1967	1968	1969
Shelter Survey	58.4	9.3	7.1	10.6	17.7	20.1	8.3	8.0
Shelter Improvement				1.4	.5			
Shelter Development	4.4	1.4	1.7	3.6	5.1	4.5	3.1	4.5
Marking & Stocking	90.3	32.7	24.2	2.3	1.1	.2	1.0	.7
Shelter Use				4.5	2.7	2.2	3.0	3.3
Warning	6.8	4.1	1.8	2.7	.6	.8	.8	.6
Command, Control & Communications	5.4	3.1	6.5	8.4	11.6	4.0	2.5	1.4
Emergency Operations Support	16.8	10.1	6.7	6.0	6.6	7.3	6.1	5.0
Financial Assistance	18.9	27.5	23.7	25.6	23.9	28.3	27.5	26.0
Information Activities	3.9	3.4	2.0	1.4	1.7	1.3	2.3	1.3
Management	12.4	13.6	13.9	14.3	12.0	11.5	12.9	12.7
Research & Development	19.0	11.0	10.0	10.0	10.0	10.0	7.1	6.5
Training & Education	2.6	9.2	12.9	10.7	11.6	11.2	11.5	7.3
TOTALS	238.9	125.4	110.5	101.5	105.1	101.4	86.1	77.3

SHELTER SPACES
(Millions, Cumulative)

Identified	103.7	121.4	135.6	152.1	162.8	170.4	175.6
Marked a/	42.8	63.8	75.9	85.3	92.7	100.6	107.5
Stocked a/	9.7	23.8	33.8	41.3	47.1	55.0	60.0

a/ Only public shelters having 50 or more spaces are eligible for marking and stocking.

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TABLE 5 - ARMY AND MARINE CORPS LAND FORCES

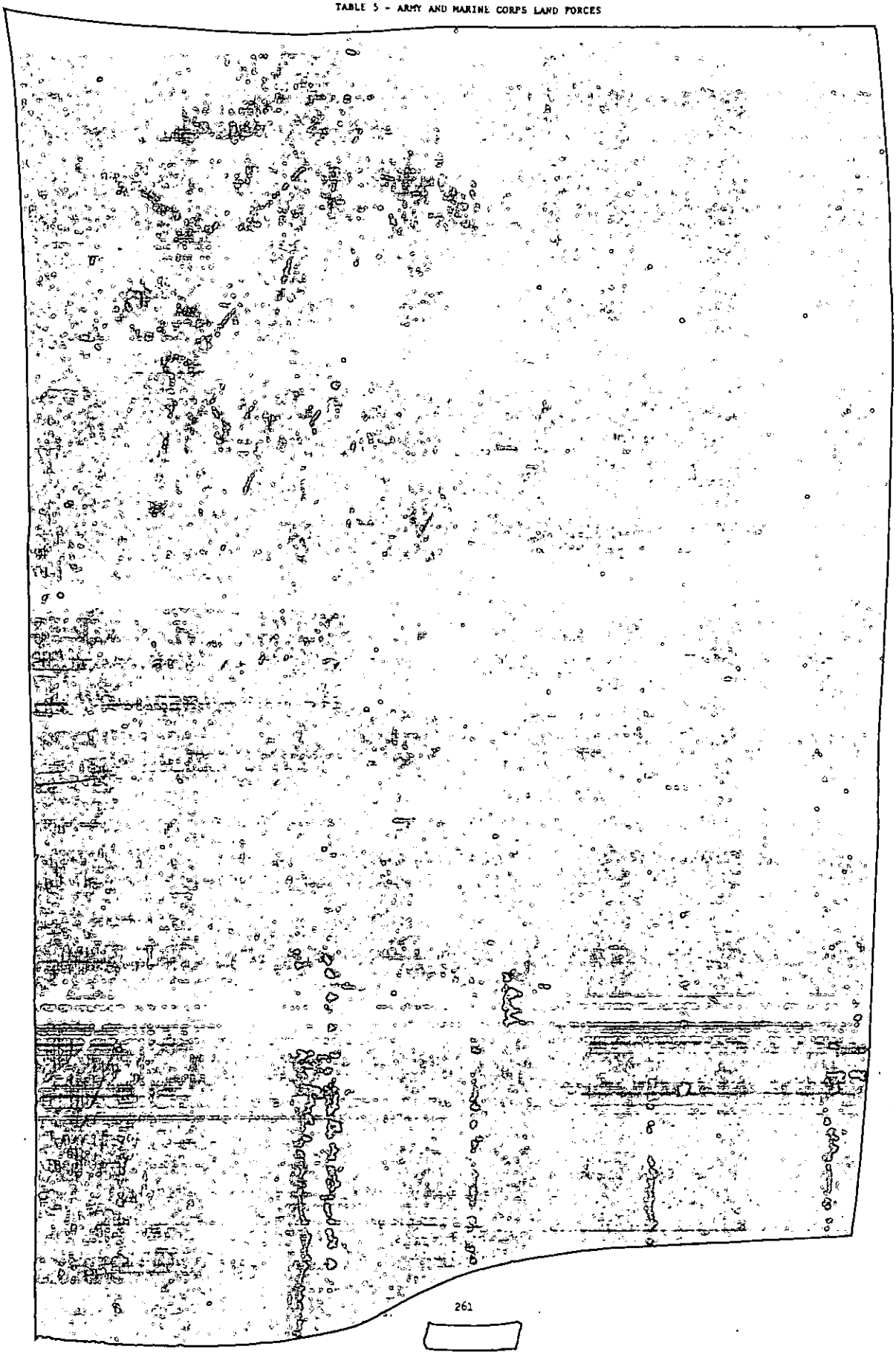

TABLE 6
COMPARISON OF THE OLD (1961) AND NEW (1968)
ARMY RESERVE COMPONENT STRUCTURES
(Paid Drill Strength)

UNIT CATEGORY	OLD STRUCTURE (1961)			NEW STRUCTURE (1968) a/ b/				
	Total	Manning Level	Readiness Goals (Weeks) c/	Army National Guard	US Army Reserve	Total	Manning Level	Readiness Goals (Weeks) c/
Units for which there is a military requirement								
Air Defense	9,200	84%	0	9,000		9,000	100%	0
Units to Round Out Active Army d/	129,158	71%		55,900	92,400	148,300	93%	4-6
Division Forces	181,100	71%	17-26	243,400	75,800	319,200	93%	4-8
Brigades e/	6,590	71%	17	73,900	12,600	86,500	93%	6
Mobilization Base	59,700	71%		10,800	62,200	73,000	93-100%	1-2
Support to Other Services	16,252	65%		1,100	11,500	12,600	93%	8
State Hq. & USAR Schools				5,900	5,500	11,400	100%	
Total	402,000			400,000 g/	260,000 g/	660,000 g/		
Units for which there is no military requirement								
Other Divisions f/	293,500	55%	27-37					
Training and Operational Base Units	4,500	55%						
Total	298,000							
GRAND TOTAL UNITS (Paid Drill Strength)	700,000			400,000	260,000	660,000		
Number of Units (Co/Det Size)	(8,677)			2,900 h/	3,450	(6,350)		

a/ Included in the new structure shown above is a Selected Reserve Force consisting of three full division force equivalents manned at 93%.
b/ Breakout of strength between ARNG and USAR and between categories is approximate and subject to refinement.
c/ Total time from alert for mobilization to actual readiness for deployment (including training time).
d/ Six in old structure, eight in new
e/ Three in old structure, 21 in new.
f/ Thirty-one in old structure, none in new.
g/ Does not include 3 percent overstrength authorized for managerial purposes.
h/ Does not include the 137 unsupported ARNG units added for the sole purpose of satisfying State needs.

TABLE 7 - ARMY PROCUREMENT
(TOA, $ Millions)

	1961		1962		1963		1964		1965		1966		1967		1968		1969	
	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost
UH-1B/D IROQUOIS	118	43	323	90	450	140	700	166	759	170	2,107	483	753	187	528	124	900	208
CH-47A/B CHINOOK	18	44	24	40	24	66	60	104	60	83	204	228	120	154	60	77	27	26
AH-1G COBRA											110	54	420	193	214	94		
OH-6A CAYUSE									88	7	296	30	687	51	300	30	300	26
CH-54A											6	30	18	59	30	52	23	29
OH-13/23 SIOUX/RAVEN	150	7	76	5	287	15	325	16										
OV-1 MOHAWK/STOL	54	51	58	43	21	18	36	36			16	27	36	40	36	41	30	51
CV-2 CARIBOU	34	26	53	33	48	37												
U-21A Airplane Utility											48	13	81	24			9	10
AH-56A CHEYENNE																32	15	127
Trainers/Inst. Trainers							295	11	122	12	529	18	582	25				
Mod. of In Service A/C								34		24		78		104		80		55
Spares and Repair Parts				32		22		79		48		249		241		279		143
All Other Items		10		9		3		54		40		66		117		90		60
Total Aircraft		181		252		301		500		394		1,276		1,195		899		735
PERSHING	2	61	43	139	120	147	134	107	45	44	60	39		7		82		67
LANCE														29				
HONEST JOHN	1,561	35	1,156	29	98	12	544	13		1		2						
LITTLE JOHN	380	12	480	10	480	5	471	5		1								
SERGEANT	50	70	136	70	180	60	93	25		2								1
SS-11/ENTAC	10,571	12	11,000	12	20,228	29	21,152	32	9,375	17								
TOW																11	5,550	67
SHILLELAGH									1,375	29	14,205	83	22,480	84	14,500	47	18,700	58
REDEYE					139	13			1,064	27	9,467	57	4,756	29	400	13	2,400	21
HAWK (All Types)	1,426	109	1,908	137	1,200	73	1,243	41		51		37		37		46	677	89
CHAPARRAL											970	27	1,355	66		8	2,480	97
NIKE-HERCULES	1,191	139	188	87	662	104	720	43		2						2		
SENTINEL																49		206
Spares and Repair Parts						12		10		13		47		29		33		35
All Other		20		3		4		112		63		58		102		202		315
Total Missiles a/		458		487		460		386		251		350		383		493		956
20mm Gun HS M139											1,080	13	1,250	15		15		6
20mm Gun, Anti-A/C, SP.											59	9	143	31	104	20	129	25
Rifle, 5.56mm M16A1							85,000	11			327,405	39			247,716	32	275,250	34
81mm Mortar											352	1	500	2	412	2	150	1
155mm SP Howitzer		1	217	39	150	22	360	28	360	38	454	43	420	44		2		2
M578 Lt. Recovery Vehicle			207	18	267	24	150	13	156	11	213	14	218	18				
M551 Gen. Sheridan Assault Veh.								1		31	139	59	560	91	420	73	360	59
M113 Personnel Carrier	1,800	51	3,030	75	3,000	70	1,329	39					1,045	26	1,952	54	1,507	44
Mortar Carriers SP			215	7	425	18	508	16	175	5	446	13	540	17			48	2
M577A1 Command Post Carrier			270	10	650	18	1,225	36	175	6	385	12	200	7			24	1
M548 Cargo Carrier									850	21	1,009	24	1,047	30	516	16	195	7
M48 Tank (Retrofit)													126	27	203	22		
M60 Tank (Inc. Retrofit)	825	130	710	109	720	105	360	59	240	45	597	107	300	128	300	72	300	63
Armored Vehicle Bridge							120	12	54	6			30	3	30	3	30	3
Combat Engineer Vehicle									60	13	46	9	30	6	30	7	30	7
Spares and Repair Parts						22		25		7		90		35		40		39
All Other		150		317		179		127		34		102		95		75		123
Total Weapons and Combat Vehicles		332		575		459		340		215		535		575		433		416

[redacted]

TABLE 7 - ARMY PROCUREMENT (CON'T)
(TOA, $ Millions)

	1961		1962		1963		1964		1965		1966		1967		1968		1969	
	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost	Qty	Cost
Truck 1/4 ton (All Types)	7,500	30	15,000	53	9,883	28	11,800	36	15,500	46	17,740	68	17,000	52	8,400	27	10,000	31
Truck 3/4 ton and 1-1/4 ton (All Types	7,100	30	4,750	20	10,602	43	3,998	17	4,000	6	13,855	59	11,500	65	6,000	25	2,044	12
Truck 2-1/2 ton (All Types)	6,033	49	6,364	52	8,000	71	10,000	87	16,000	144	15,129	136	10,756	98	10,000	106	8,165	85
Truck 5 ton (All Types)	2,250	27	6,809	78	4,027	52	4,500	56	4,678	63	9,213	125	4,800	82	2,400	50	3,900	74
Truck, tractor (10 ton)							500	15			477	15	1,527	49	526	20	446	17
Semi-trailer, Tank Fuel M131					113	2	528	7	800	9	1,405	17	1,222	16				
Spares and Repair Parts						15		4		2		18		33		42		23
All Other Vehicles		35		77		78		98		76		105		170		73		96
Total Tactical and Support Vehicles		171		280		289		316		344		543		965		343		338
STARCOM				21		143		86		79		215		153		101		120
Commo Security Equipment						29		20		6		14		38		32		28
Intelligence Equipment						24		18		11		24		23		13		36
AN/GRC-106 Radio							500	14			1,500	27	1,315	17	2,086	21	1,200	11
AN/PRC-25 Radio			8,600	20	10,800	14	10,800	11	15,000	14	17,500	16	6,300	9	12,300	15	12,197	12
AN/VRC-12 Radio	3,900	36	10,100	69	8,600	38	8,095	27	10,000	22	12,000	27	8,992	21	9,100	18	15,600	35
Radio Relay Systems														62		125		120
Counter Mortar Radars AN/MPQ													19	5	17	5		
Night Vision Equipment						9		11		8		22		47		62		52
Field Wire (Thous of mi.)									75	4	158	11	234	15	108	6		
Spares and Repair Parts										1		7		10		9		2
All Other Items		159		224		151		240		80		147		190		161		315
Total Comm & Elect.		195		333		416		424		214		516		590		568		731
Cartridge, 5.56mm (All Types)b/							132	9	63	4	356	33	667	56	618	61	606	59
Cartridge, 7.62mm (All Types)b/	487	35	169	12	528	38	698	49	603	41	1,009	90	932	78	1,868	191	2,000	219
Cartridge, 30 cal. (All Types)b/							45	3	13	1	392	30	510	30	401	29	552	42
Cartridge, 20mm (All types)b/											4	16	4	17	2	9	3	7
Cartridge, 40mm (All types)b/	1	3	2	11	2	10	2	12	3	11	26	84	5	23	17	59	26	86
Cartridge, 81mm (All types)c/					97	4	677	16			4,241	119	2,574	83	7,327	164	4,551	118
Cartridge, 90mm (All types)c/			205	7	60	3	712	20	202	8	709	22	761	39	612	22	534	33
Cartridge, 105mm (All types)c/	78	8	1,182	142	292	19	517	33	730	38	3,046	117	10,933	340	15,871	434	17,627	508
Cartridge, 10[illegible]mm (All types)c/									130	6	550	54	119	8	75	4	89	5
Cartridge, 4.2 in. (All types)c/					156	8	121	6	290		2,728	87	550	20	3,830	93	3,054	80
Cartridge, 152mm (All types)c/									50	19	95	18	192	34	294	53	194	42
Projectile, 155mm (All types)c/e/					99	4	52	3	139	9	1,420	36	2,303	89	3,643	130	4,865	179
Projectile, 8" (All types)c/					69	7	21	2	35	3	170	12	156	12	618	43	448	52
Rocket, 2.75" (All types)c/e/							868	18	1,431	63	4,084	207			536	43	3,734	218
Rocket, 66mm c/							110	5	30	1	300	12	229	10	473	33	362	15
All Other Items		233		210		231		154		32		400		535		911		975
Total Ammunition		279		392		394		330		363		1,337		1,380		2,279		2,637
OTHER SUPPORT EQUIPMENT		74		141		180		183		161		392		574		365		376
PRODUCTION BASE		75		142		96		68		77		208		274		138		187
TOTAL ARMY PROCUREMENT		1,755		2,990*		2,594*		2,948*		1,979		5,152*		5,535*		5,518		6,376

a/ Cost data includes ground support equipment.
b/ Quantity in Millions.
c/ Quantity in Thousands.
d/ Beginning in FY 1966 the 1-1/4 ton M715 truck was procured to replace the 3/4 ton truck.
e/ Includes remanufacture.
* May not add due to rounding

[redacted]

[redacted]

TABLE [illegible] - NAVAL FORCES
(Excluding Tactical Aircraft)

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
Strategic Forces													
Ballistic Missile Submarines	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
In Conversion/Modernization									[illegible]	[illegible]	[illegible]	[illegible]	7
Submarine Supply Ships	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
Submarine Tenders	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	5
Regulus Submarines	[illegible]	[illegible]	[illegible]		1								
Radar Ships	[illegible]	[illegible]		[illegible]	[illegible]								
Miscellaneous a/	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Subtotal Strategic Forces	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
General Purpose Forces													
Attack Carriers													
Nuclear		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]
Forrestal, Kitty Hawk, Kennedy	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Midway	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	3
Hancock	7	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
In Conversion/Modernization						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
Subtotal Attack Carriers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Missile Escort Forces													
Cruisers	[illegible]	[illegible]	11	[illegible]	[illegible]	[illegible]	11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Frigates	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Destroyer/DEG	7	13	[illegible]	21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
In Conversion/Modernization	[illegible]	[illegible]	[illegible]			[illegible]	7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Subtotal Missile Escort Forces	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Anti-Submarine Warfare (ASW) Carriers	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Attack Submarines													
SSN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Subtotal Attack Submarines	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ASW Escorts DL/DD/DE/DX	[illegible]	[illegible]	193	[illegible]	205	[illegible]	204	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	177
Radar Pickets DDR/DER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			
ASW Ships in Conv/Mod	[illegible]	[illegible]	[illegible]	19	[illegible]		3		[illegible]	[illegible]			
ASW Submarine Support	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
ASW Aviation Support	7	[illegible]	7	7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Underway Replenishment	65	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Major Fleet Support	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Minor Fleet Support	[illegible]	55	[illegible]	[illegible]	[illegible]	[illegible]	72	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Special Combat/Command Post	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	4	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
Small Patrol	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Amphibious Assault													
AGC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LHA/LPH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LPD			[illegible]	[illegible]	[illegible]	[illegible]	7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LSD	[illegible]	27	[illegible]	27	27	27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LST	40	41	41	41	41	61	64	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Subtotal Amphibious Assault	111	[illegible]	[illegible]	134	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fire Support Ships	4	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mine Countermeasures	86	[illegible]	[illegible]	87	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Icebreakers/Deepfreeze	3	3	[illegible]	[illegible]	[illegible]	[illegible]							
Miscellaneous Services a/	21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11
Others in Conversion/Modernization	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
Subtotal General Purpose Forces	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sealift Forces													
Troopships	17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	16	16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tankers	24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cargo Stores and Landing	[illegible]	[illegible]	57	[illegible]	[illegible]	[illegible]	55	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Forward Floating Depots (FFD)			3	3	3	3	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Fast Deployment Logistics Ship (FDL)												4	16
Subtotal Sealift Forces	101	[illegible]	101	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Research and Development Ships													
Oceanographic Survey and Research a/	12	[illegible]	17	17	[illegible]	[illegible]	24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Destroyer						1	1	1	1	[illegible]	[illegible]	[illegible]	1
Missile Test Ship/MCTS Range Ships	7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Submarines	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
Miscellaneous Services a/	15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Subtotal Research & Development Ships	37	41	45	[illegible]	[illegible]	[illegible]	60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other Miscellaneous Service Ships	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9	7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Reserve Training Ships	68	[illegible]	67	[illegible]	[illegible]	81	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Inactive Ships, Cat. B	[illegible]	[illegible]	[illegible]	149	140	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Inactive Ships, Cat. C	559	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	312
NDRF	[illegible]	207	[illegible]	[illegible]	[illegible]	211	277	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
In Preparation for Transfer, etc.	[illegible]	84	46	[illegible]	15	[illegible]	11	[illegible]	[illegible]	4	[illegible]	[illegible]	[illegible]
TOTAL INVENTORY SHIPS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,941	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ASW Carrier Aircraft													
S-2	231	[illegible]	[illegible]	254	243	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
A-4						[illegible]	[illegible]	37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
F-1				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EA-1	42	[illegible]	41	[illegible]	[illegible]	[illegible]							
C-1A	10	[illegible]	[illegible]	[illegible]	[illegible]	9	9	9	[illegible]	6	[illegible]	[illegible]	6
SH-3/SH-34	[illegible]	[illegible]	171	[illegible]	181	181	181	181	[illegible]	[illegible]	[illegible]	[illegible]	92
Total ASW A/C	453	541	451	[illegible]	477	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Patrol Squadron A/C													
P-2/SP-2	[illegible]	575	[illegible]	[illegible]	246	[illegible]	167	167	[illegible]	[illegible]	[illegible]	2	2
P-3			[illegible]	46	105	[illegible]	215	244	275	[illegible]	[illegible]	[illegible]	323
P-5	[illegible]	[illegible]	79	61	[illegible]	46	30						
Total Patrol A/C	441	674	434	[illegible]	[illegible]	[illegible]	412	411	407	[illegible]	[illegible]	[illegible]	325
Reserve ASW Aircraft	343	[illegible]	361	[illegible]	345	308	308	308	[illegible]	[illegible]	[illegible]	305	[illegible]

a/ Related Military Sea Transportation Service (MSTS) ships included in total.

[redacted]

[redacted]

Jan 6.7

TABLE 9 - TACTICAL AIR FORCES

	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971	FY 1972	FY 1973
Authorized Active Inventory (AAI) b/													
Fighter and Attack Aircraft													
Active Forces													
Air Force													
A-7	-	-	-	-	-	-	-	2	25	133	274	406	406
F-4	-	-	25	112	379	581	1,040	1,271	1,362	1,339	1,302	1,302	1,302
F-84	-	333	246	178									
F-100	1,296	1,232	1,018	949	883	883	813	749	683	625	237	72	72
F-102	316	303	296	225	144	175	201	202	202	105			
F-104	88	151	68	67	81	63	42	23	22	22	21	21	21
F-105	227	376	516	634	654	549	367	292	210	157	110	11	11
F-111	-	-	-	-	5	12	21	67	184	310	471	609	609
Others	243	252	157	152	147	53	49	26					
Subtotal Air Force	2,170	2,647	2,326	2,317	2,293	2,316	2,533	2,632	2,688	2,691	2,415	2,421	2,421
Air Force Tactical Fighter Wings	16	23	20	21	22	23	23	23	23	23	23	23	23
Navy													
A-1	310	319	291	256	248	161	109	1	1				
A-4	533	682	660	655	715	708	663	590	476	346	258	132	87
A-6	6	21	34	51	83	90	107	141	161	161	161	162	162
A-7	-	-	-	-	-	14	106	270	375	502	607	605	604
F-3	250	204	87	43									
F-4	60	151	218	271	338	377	384	373	415	401	289	251	215
F-8	355	470	499	448	351	296	300	274	262	209	176	159	143
F-111	-	-	-	-	1	2	5	5	5	12	55	122	174
Others	510	276	226	183	106	91	51	74	55	38	7	7	7
Subtotal Navy	2,024	2,123	2,015	1,907	1,842	1,739	1,725	1,728	1,750	1,669	1,553	1,438	1,392
Marine Corps													
A-4	268	317	317	288	269	207	191	173	161	173	173	173	173
A-6	-	-	-	5	18	41	55	83	100	100	100	100	100
F-4	-	12	44	110	128	173	207	323	323	323	323	323	323
F-8	220	220	198	198	147	86	52						
Others	170	134	88										
Subtotal Marine Corps	658	683	647	601	562	507	505	579	584	596	596	596	596
Subtotal Active Forces	4,852	5,453	4,988	4,825	4,697	4,562	4,763	4,939	5,022	4,956	4,564	4,455	4,409
Reserve Forces													
Air National Guard													
F-84	330	-	74	165	275	263	258	275	271	263	55		
F-86	138	55	140	130	83	75	78	55	55	55			
F-100	110	55	145	220	245	218	211	200	191	185	497	523	523
F-104	-	-	-	-	-	-	-	19	18	17	16		
F-105	-	-	-	21	19	26	27	28	27	26	28	110	110
Subtotal Air National Guard	578	110	359	536	622	582	574	577	562	546	596	633	633
Navy/Marine Corps Reserve													
A-1	86	73	15	29	24								
A-4	59	61	220	239	251	230	255	269	269	269	269	269	269
AF-9	19	102											
F-8	-	-	-	12	89	103	86	86	86	86	86	86	86
F-9/MF-1/AF-1	113	131	119	104									
Others	39	95	69	22	21								
Subtotal Navy/Marine Corps Reserves	316	462	423	406	385	333	341	355	355	355	355	355	355
Subtotal Reserve Forces	894	572	782	942	1,007	915	915	932	917	901	951	988	988
Reconnaissance Aircraft	677	644	661	672	684	781	762	779	796	822	756	756	755
Air Force Reconnaissance Squadrons	14	18	14	14	14	19	16	18	20	20	18	18	18
Other Aircraft													
Air Force/Air National Guard													
Special Air Warfare	2	73	117	280	372	532	539	601	631	656	280	280	280
Electronic/Night Warfare	-	-	-	-	-	-	123	162	162	162	131	131	131
Tactical Air Control	-	-	-	4	144	191	318	425	385	384	156	156	156
Miscellaneous	209	236	225	185	183	180	184	149	162	162	174	187	187
Navy/Marine Corps													
Electronic Countermeasures/ Airborne Early Warning	131	146	147	167	150	153	156	168	159	150	133	128	125
Tactical Air Control	41	39	37	39	41	42	42	41	41	41	41	41	41
Trainers for Readiness Air Wings	257	202	202	195	193	182	165	176	172	177	188	187	187
Miscellaneous	18	20	18	18	18	17	84	70	70	69	63	23	23
Subtotal Other Aircraft d/	658	716	746	888	1,101	1,297	1,611	1,802	1,782	1,801	1,166	1,133	1,130
TOTAL AUTHORIZED ACTIVE INVENTORY	7,081	7,385	7,177	7,327	7,489	7,555	8,051	8,452	8,517	8,480	7,437	7,332	7,282
Total Payload (Thousands of Tons) c/	7.3	8.2	8.5	10.7	12.4	12.9	15.4	18.1	20.8	23.1	25.6	28.3	28.4

a/ Assumes that the war in Southeast Asia continues through December, 1970.
b/ Inventory objective used for procurement planning: includes R&D and test aircraft.
c/ One nominal 300 mile attack sortie per authorized active aircraft.
d/ Does not include helicopters (for attack carriers).

[redacted]

Reid Dunn; 6-7 Jan

Cove

Davis

[redacted]

TABLE 10 - NAVY SHIP CONSTRUCTION PROGRAM

	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971	FY 1972	FY 1973
	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
Fleet Ballistic Missile Ships													
SSBN New Construction	10	10	6	6									
SSBN Conversions	-	-	-	-	-	-	-	2	15	5	4	5	
AS(FBM) New Construction	-	1	1	1									
AS(FBM) Conversions	-	-	-	-	-	-	-	1	1	1	-	-	1
T-AK(FBM) Conversions	-	-	-	-	-	-	-	-	1				
T-AGM(FBM) Conversions	-	-	-	-	-	-	-	-	2				
ARDM Conversions	-	-	1	1									
Subtotal FBM Ships	10	11	5	5	-	-	-	3	19	6	4	5	1
Other Warships													
CG Conversions	-	-	-	-	-	1							
CVAN New Construction	-	-	-	-	-	-	1	-	1	1			
CVA New Construction	1	-	1										
CVA Conversion	-	-	-	-	-	1	-	-	-	1			
DDG New Construction	2												
DDG (From DD 931) Conversions	-	-	-	4									
DDG (From DL) Conversions	-	-	-	2									
DD 931/945 ASW Conversions	-	-	-	1	-	-	2	6	-	3	2		
DD 710 Class FRAM Conversions	14	14	24	19									
DLG New Construction	3	6											
DLG Conversions	-	-	-	-	-	2	5	1	4	4	2	1	
DLGN New Construction	-	1	-	-	-	-	1						
DLGN (AA Mod) Conversion	-	-	-	-	-	-	-	-	-	-	-	1	
DX New Construction	-	-	-	-	-	-	-	-	5	9	9	9	9
DXG New Construction	-	-	-	-	-	-	-	-	-	6	6	6	6
DXGN New Construction	-	-	-	-	-	-	-	1	2	2			
SSN New Construction	1	3	8	6	6	6	5	3	2	2			
SS Conversions	-	6											
Subtotal Other Warships	21	30	33	32	6	10	14	11	14	28	19	17	14
Amphibious Ships													
New Construction	1	4	6	3	10	15	12	-	4	10			
Conversions	-	-	-	-	1	-	-	-	-	1			
Mine and Patrol Craft													
New Construction	2	6	10	20	19	26	25	20	3	9	1		
Conversions	-	-	1	1	-	1	-	9	20	10	12	10	4
Auxiliaries and Craft													
New Construction	5	5a/	4a/	3a/	14	10	13	6	6	35	36	26	4
Conversions	1	3	8b/	7b/	4								
Total Shipbuilding and Conversion	40	60	70	74	54	62	64	49	66	99	72	55	23
Recapitulation													
New Construction													
Full Funded	-	-	-	-	-	-	-	-	17	69	52	41	18
Advanced Procurement	-	-	-	-	-	-	-	-	6	5			
Subtotal New Construction	25	36	36	39	49	57	57	30	23	74	52	41	15
Conversions													
Full Funded	-	-	-	-	-	-	-	-	20	6	4	-	1
Advanced Procurement	-	-	-	-	-	-	-	-	23	19	16	17	4
Subtotal Conversions	15	24	34	35	5	5	7	19	43	25	20	17	5
Total Cost(Ship Constr-millions)													
Full Fund Authorization	$2020	$2417	$2396	$2049	$1788	$1798	$2166	$1221	$1551				
Advanced Proc. Authorization	157	144	168	40	51	61	71	185	327				
Less: Prior Adv.Proc.Auth.	-	-157	-144	-168	-40	-51	-61	-65	-66				
Net Program	2177	2404	2420	1921	1799	1808	2176	1341	1512				

a/ Excludes AS(FBM) shown under FBM Ships.

b/ Excludes ARDM conversion shown under FBM Ships.

Total Program Cost

Adv Proc Amount

704

[redacted]

6-7 Jan

TABLE 11 - NAVY AND MARINE CORPS AIRCRAFT PROCUREMENT PROGRAM

	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971	FY 1972	FY 1973
	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
Navy & Marine Corps Aircraft Proc.													
Combat Aircraft other than Helo.													
Fighter Aircraft													
F-8E	94	102	90										
F-4A/B/J F-14	72	118	150a/	125	124	156	250	-	68	36	72	72	72
~~F-111B~~	-	-	-	-	-	4	-	8	30	70	93	72	48
Subtotal Fighter Aircraft	166	220	240	125	124	160	250	8	98	106	93	72	48
Attack Aircraft													
A-4C/E/F	180	200	180	118	-	46	100						
A-6A	12	23	43	48	64	112	63	78	36	12	36		
A-7A/B	-	-	-	-	35	157	196						
A-7E	-	-	-	-	-	-	7	150	214	106	68	48	
Subtotal Attack Aircraft	192	223	223	166	99	315	366	228	250	144	68	48	
Observation Aircraft													
OV-10	-	-	-	-	-	-	76	36					
OV-12(X)	-	-	-	-	-	-	-	19b/					
Reconnaissance/ECM AEW													
RA-5A/C	42	20	23	-	-	-	-	12	24	20			
EA-6A	-	1	-	-	-	-	-	15					
EA-6B	-	-	-	-	-	-	-	4b/	-	19	23		
RF-4B	-	-	-	9	27	-	-	-	10				
E-2A/B/c/	3	12	24	14									
Subtotal Recon. & Observation	45	33	47	23	27	-	76	55	34	39	23		
Anti-Submarine Warfare													
S-2E	48	51	48	48	48	24							
VSX	-	-	-	-	-	-	-	-	-	-	2	17	52
SH-3A/D	60	53	36	36	24	24	24						
P-3A/C	12	47d/	48	48	48	45	32	24	32	32	16		
Total Combat A/C other than Helos.	120	151	132	132	120	93	56	24	32	32	18	17	52
Helicopters: Combat, Service, Utility													
UH-34D	85	99											
UH-2E	48	48	36	18									
UH-1E	-	-	30	48	24	86	18	-	27				
UH-46A	-	-	4	4	6	10							
CH-46A/E	-	14	36	56	84	184	92	60	48	48			
CH-53A	-	-	-	16	24	60	15	24	9	76			
AH-1G	-	-	-	-	-	-	-	-	38				
RH-53A	-	-	-	-	-	-	-	-	-	-	-	10	10
Subtotal Helicopters	133	161	106	142	138	340	125	84	207	124	-	10	10
Fleet Tactical & Mission Suppt.A/C							e/	f/					
C/KC/LC-130,G	30	7	-	4	-	-	8	1					
C-2A	-	-	-	e/	12	5							
Trainer Aircraft													
T-2B	-	-	-	10	36	18	36	48	36	32			
T-39D	-	10	32	-	-	-	-	-	3				
TA-4E/F	-	-	-	-	66	130	94	-	60	60	60	60	
TC-4C	-	-	-	-	-	-	9						
T-37B	-	-	-	-	-	-	-	-	-	-	114		
LTH	-	-	-	-	-	-	-	40					
TH-1E	-	-	-	-	-	-	-	-	-	45			
Subtotal Trainer Aircraft	-	10	32	10	102	148	139	88	99	137	174	60	
Grand Total Navy & USMC A/C:QTY	686	805	780	602	622	1061	1012	521	720	582	376	207	62
Navy and USMC A/C Cost g/							2150.5	1475.5	1961.5				
Less: Prior Year Adv. Proc.							-90.7	-106.8	-135.4				
Add: Adv. Proc. Subseq. Program							+101.3	+135.2	+115.6				
Net Funding Basis	1259.0	1801.0	1618.0	1150.0	1369.0	2082.0	2161.1	1503.9	1941.7				
Aircraft Modification Costs	104.0	75.0	89.0	226.0	188.0	281.0	472.2	361.6	420.9				
Spares and Repair Parts Costs	321.0	299.0	197.0	408.0	436.0	755.0	910.9	576.0	442.3				
Other Aircraft Support Costs	82.0	172.0	231.0	59.0	67.0	84.0	76.9	105.8	93.9				
Total Navy & USMC A/C Prog. Costs	1766.0	2347.0	2135.0	1843.0	2060.0	3202.0	3521.1	2547.3	2897.8				

a/ Includes 27 aircraft procured from Air Force.
b/ Excludes one aircraft financed under RDT&E.
c/ Includes 5 SP-2H aircraft.
d/ TACAMO aircraft.
e/ Excludes 2 aircraft financed under RDT&E in FY 1964.
f/ DEEP FREEZE aircraft.
g/ Includes flyaway aircraft, advance buy, peculiar AGE, and training device costs. All spares and other support are not included.
h/ For riverine forces in SEA.

6-4 Jan

[redacted]

TABLE 12 - AIR FORCE AIRCRAFT PROCUREMENT PROGRAM

	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971	FY 1972	FY 1973
	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
Strategic Offensive Aircraft													
B-[illegible]	40												
B58A	30												
KC-135A	65	89	88	13									
EC-135C	-	-	12										
RC-135B (ELINT)	-	-	1	9									
[redacted]													
General Purpose Forces Aircraft													
F-105	180	231	107										
F-4C/D/E		3 a/	307	327	222	615	191	24[illegible]	[illegible]	[illegible]	[illegible]		
F-111A/C/D	-	-	-	-	18	[illegible]	[illegible] b/	104	103	[illegible]	[illegible]		
RF-4C	-	2	24	89	128	96	42	64	51	[illegible]	[illegible]		
RF-111	-	-	-	-	-	-	-	-	-	29	31		
O-2A/B	-	-	-	-	-	-	176	96	69				
OV-10A	-	-	-	-	-	11	98	48					
A-7D	-	-	-	-	-	-	12	62	146	17[illegible]	[illegible]	[illegible]	
A-37B	-	-	-	-	-	-	57	70	50				
F-5A/B	-	-	-	-	-	10	22	[illegible]	3 c/				
Subtotal Gen Purpose Forces A/C	180	236	438	416	368	732	724	669	565	515	385	47	
Airlift and Sealift Aircraft													
C-123	-	-	-	-	-	5							
C-130	57	93	144	78	-	-	-	-	-	-	-	5	25
C-135	20	15											
C-141	-	-	16	45	84	100	34						
C-5A	-	-	-	-	-	-	8	18	27	33	29		
VC-6A	-	-	-	-	-	1							
CX-2(Aeromed) C-9A	-	-	-	-	-	-	4	4	3				
Subtotal Airlift and Sealift A/C	77	108	160	123	84	106	46	22	30	33	29	5	25
Intell, Comm, Train, Med, & Gen Pers A/C													
RC-135(APCS)	-	-	4										
HC-130,H	-	-	-	15	33	15	-	-	15				
T-37A/B/C	-	-	-	62	-	-	62	104	172 d/				
T-38A	144	144	137	140	144	70	78	123	54				
T-41	-	-	-	-	170	-	34	45					
Classified Projects													
Subtotal Int. Comm. Train.... A/C	144	144	141	217	347	85	174	272	86	—	—	—	—
A/C Proc Assoc w/two or more Prog													
UH-1F/H	-	-	28	26	55	40	9	28	125 e/				
CH-3C/E	-	12	16	17	35	13	6	1					
HH-3E	-	-	-	-	-	6	18	-	15				
C-10A	-	-	-	-	-	-	11						
U-17A/B	-	-	-	-	-	6	6	7	9 f/				
AWACS	-	-	-	-	-	-	-	-	-	-	-	6	38
U-10B	-	-	32	-	-	44	-	-	-	-	-	-	-
T-39	52	55											
CX-3	-	-	-	-	-	-	12	-	-	10	6	2	
CX	-	-	-	-	-	-							
HH-53B/C	-	-	-	-	-	8	4	20	14				
Subtotal A/C Assoc with two or more Prog	52	67	76	43	90	117	66	56	163	10	6	8	38
Total Aircraft Procurement Program Qty	[redacted]												
Total A/C Proc. Cost, $ millions g/							2576.7	2706.6	3119.9				
Less: Prior Year Advance Procurement							-115.8	-155.1	-268.3				
Add: Adv Procurement Subseq Prog							+155.1	+268.3	+142.0				
Net Funding	1930.0	1738.0	2249.0	2185.0	2476.0	3382.0	2616.0	2819.8	2993.6				
Modification of Aircraft							762.1	619.9	710.9				
A/C Spares and Repair Parts							1309.4	1319.1	964.5				
Common AGE							74.1	55.1	91.7				
Classified Projects							512.2	437.3	354.9				
Other A/C Procurement Support							324.9	274.5	246.4				
Total Procurement of A/C and Support	3731.0	3679.0	3719.0	3648.0	3898.0	5518.0	5590.7	5525.7	5382.0				

a/ Excludes 27 aircraft sold to Navy.
b/ Including 24 aircraft for eventual sales to Australia.
c/ Four Aircraft for Thailand, five to replace MAP aircraft previously transferred to South Vietnam.
d/ Includes two T-37s for Thailand.
e/ Includes 38 aircraft for South Vietnam and 16 for Thailand.
f/ Includes seven aircraft for South Vietnam and two for Thailand.
g/ Includes flyaway aircraft. Advance Buy, Peculiar AGE, and training device costs. All spares and other support are not included.

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[redacted]

TABLE 13 - AIRLIFT AND SEALIFT FORCES

	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971	FY 1972	FY 1973
Aircraft: Authorized Active Inventory													
Air Force													
C-5A	-	-	-	-	-	-	-	2	9	42	78	115	112
C-7A (Army until FY 67)	9	40	86	122	137	137	123	123	123	114	114	114	114
C-97	-	48											
C-118	108	102	100	52									
C-121	61	61	28										
C-123	101	80	88	84	-	-	-	-	-	36	98	98	98
C-124	293	356	341	339	348	294	205	141	88	35			
C-130	226	269	351	478	550	551	530	489	482	403	348	348	268
C-133	46	47	45	44	44	40	40	40	31	31	31		
C-135	-	44	41	39	30	19	10						
C-141	-	-	-	6	32	118	223	270	267	263	264	264	264
Subtotal Air Force	844	1,047	1,080	1,164	1,141	1,159	1,131	1,066	1,000	930	933	939	896
Air Force Reserve (AFR)/Air National Guard (ANG)													
C-97	89	41	128	158	162	162	152	99	54				
C-119	653	644	623	603	596	480	336	317	176				
C-121	-	-	-	56	56	56	40	27					
C-123	58	58	58	57	33	8	8	8	8	8	8	8	8
C-124	40	-	20	20	48	95	179	241	261	218	171	90	
C-130	-	-	-	-	-	-	-	8	8	79	131	131	208
Subtotal AFR/ANG	840	743	829	894	895	801	715	700	507	321	310	229	216
Navy (Fleet Tactical Support)	63	79	74	86	85	86	86	86	70	58	58	58	58
Marine Corps	40	57	69	75	73	71	71	71	71	41	41	41	41
Naval Reserve/Marine Corps	54	77	72	72	73	73	77	77	74	67	67	67	67
TOTAL AIRCRAFT (AAI)	1,841	2,003	2,124	2,291	2,267	2,190	2,080	1,999	1,722	1,417	1,409	1,334	1,238
30-Day Lift to Europe (Thousands of Tons)(non-add)	32.0	42.4	50.3	54.4	61.1	79.9	120.2	139.8	133.8	182.5	269.5	331.4	337.2
30-Day Lift to Southeast Asia (Thousands of Tons)(non-add)	14.7	20.0	23.6	25.4	29.0	44.3	65.1	75.1	72.2	102.7	140.0	170.4	172.2
Ships (All Active in Commission)													
Troopships	17	16	16	16	16	16	16	16	16	16	8	8	8
Tankers	24	25	25	25	25	26	26	26	26	26	24	22	19
Cargo Ships													
Cargo, Store, and Landing Ships	60	59	57	57	65	76	85	85	85	55	51	41	36
Forward Floating Depot (FFD)	-	-	3	3	3	3a/	3a/	3a/	3a/	3a/	19	19	19
Fast Deployment Logistics Ship (FDL)	-	-	-	-	-	-	-	-	-	-	-	4	16
Subtotal Cargo Ships	60	59	60	60	68	79	88	88	88	58	70	64	71
TOTAL SHIPS	101	100	101	101	109	121	130	130	130	100	102	94	98
Prepositioned Equipment													
Europe													
Division Sets Authorized b/	3	3	3	3	2	2	2	2	2	2	2	2	2
Other Support Unit Sets Authorized	12	12	12	12	10	10	93	93	93	93	93	93	93
Tons Authorized (Thousands)	99	99	99	99	87	87	130	130	185	185	185	185	185
Tons In-Place (Thousands)	88	88	88	89	89	89	93	96					
Western Pacific													
Division Sets Authorized	1	1	1	1	1	2	2	2	2	2	2	2	2
Other Support Unit Sets Authorized	-	-	1	1	5	13	13	13	13	13	13	70	70
Tons Authorized (Thousands)	20	20	34	34	41	80	80	80	80	80	80	137	137
Tons In-Place (Thousands)	20	20	27	34	34	13	14	16					

a/ The FFD Program is suspended during the hostilities in Southeast Asia; ships are operated in point-to-point service.

b/ Prepositioned division sets are in addition to the active divisions stationed in Europe.

[redacted]

6.7 Jan (FYDP)

TABLE 14 - RESERVE COMPONENTS AND ROTC

	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969
Army									
Guard - Paid Drills	364	324	[illegible]	336	354	399	365	394	375
Guard - Active Duty for Training	30	37	29	46	25	22	53	[illegible]	25
Reserve - Paid Drills	274	244	221	243	254	244	231	249	238
Reserve - Active Duty for Training	28	17	14	25	8	7	31	11	22
Reserve - Other Paid Training	59	48	47	77	55	71	72	71	69
Subtotal	755	670	648	727	696	743	752	731	729
Ready Reserve Non-Paid Pool	734	556	439	462	464	553	447	663	663
Standby Reserve	773	496	285	247	234	234	313	280	280
TOTAL - ARMY	2,262	1,722	1,372	1,436	1,394	1,530	1,512	1,674	1,672
Navy									
Category A Reserve (48 Drills/15 Days Training)	129	111	119	123	123	123	124	125	125
Reserve - Active Duty for Training	1	1	1	1	*	1	1	1	1
Reserve - Other Paid Training	9	8	10	9	9	8	8	8	8
Subtotal	139	120	130	133	132	132	133	134	134
Ready Reserve (Non-Pay)	311	272	182	206	205	210	211	201	203
Standby Reserve	102	105	63	73	68	62	53	43	41
TOTAL - NAVY	552	497	375	412	405	404	397	377	378
Marine Corps									
Category A Reserve (48 Drills/15 Days Training)	47	47	46	47	46	48	44	44	48
Reserve - Active Duty for Training	0	0	0	0	0	1	0	0	0
Reserve - Other Paid Training	2	2	2	2	3	3	3	2	2
Subtotal	50	49	48	49	49	52	47	46	50
Ready Reserve Active Status Pool	113	113	65	58	55	55	56	51	93
Standby Reserve	9	17	15	24	25	27	31	34	39
TOTAL - MARINE CORPS	176	178	128	131	129	134	134	131	182
Air Force									
Air National Guard - Paid Drills	69	48	70	69	73	75	50	82	79
Air National Guard - Active Duty for Training	2	2	-	1	3	3	-	4	5
Reserve - Paid Drills	63	56	56	59	44	[illegible]	44	48	46
Reserve - Active Duty for Training	2	2	3	2	2	1	2	1	2
Reserve - Other Paid Training	11	11	9	6	4	-	3	-	3
Subtotal	147	119	142	140	126	129	133	140	135
Ready Reserve Mobilization Reinforcements	149	148	110	117	148	165	158	157	157
Standby Reserve	266	185	117	130	142	146	144	88	80
TOTAL - AIR FORCE	562	449	369	387	416	440	435	385	372
GRAND TOTAL RESERVE FORCES	3,552	2,870	2,257	2,366	2,344	2,511	2,479	2,602	2,604
ROTC - All Services									
Senior Division (College) - Basic	241	261	246	229	230	204	209	185	204
Advanced	43	44	47	50	49	46	54	53	60
TOTAL - SENIOR DIVISION	285	305	293	279	279	250	263	238	264
Junior Division (High School) - Units	298	295	295	294	293	287	440	645	640
Students	69	71	71	69	68	68	91	115	157
Full Time Civilian and Military Technicians									
Army - National Guard	15	16	18	18	17	17	19	19	20
Reserve (Including Full Time Military)	3	3	3	5	4	4	5	5	5
Air Defense ARNG	4	4	5	5	5	5	5	5	5
TOTAL ARMY TECHNICIANS	25	25	26	28	26	26	29	29	30
Non-Reservists in Total	3	3	3	3	3	1	1	1	1
Air Force - National Guard	14	11	15	15	16	16	17	17	17
Reserve	4	4	5	4	4	4	4	4	5
TOTAL AIR FORCE TECHNICIANS	18	15	20	19	20	20	21	21	21
Non-Reservists in Total	1	1	1	1	1	1	1	1	1

* Less than 500

Note. - Totals may not add due to rounding.

TABLE 15 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT
(TOA, $ Millions)
(Fiscal Year)

	Prior Years	1962	1963	1964	1965	1966	1967	1968	1969
RESEARCH									
Army		76	76	78	83	81	89	84	98
Navy		116	126	118	122	123	132	127	136
Air Force		71	85	87	96	97	100	96	110
ARPA		31	31	34	44	49	51	21	54
DASA		46	38	36	38	39	41	43	50
Sub-Total		342	356	353	383	389	413	371	450
EXPLORATORY DEVELOPMENT									
Army									
Chemical Technology				60	56	49	41	43	42
Communications and Electronics				39	40	49	41	35	40
Ordnance				31	29	26	25	23	27
Life Sciences				22	30	34	25	27	28
Aeronautics				15	13	15	17	17	20
Materials				11	14	14	13	12	13
Other				60	59	67	60	50	60
Sub-Total		135	211	241	241	254	222	207	230
Navy									
Sea Warfare Systems				151	147	133	105	95	96
Chemical Technology				14	11	5	6	5	5
Communications and Electronics				41	37	30	25	24	26
Ordnance				47	49	51	36	61	47
Life Sciences				13	13	13	11	9	11
Aeronautics				38	35	28	31	24	33
Materials				12	10	10	10	11	11
Other				36	46	52	50	45	45
Sub-Total		316	351	352	348	320	286	271	277
Air Force									
Chemical Technology				34	37	37	37	28	35
Communications and Electronics				50	53	56	49	44	43
Avionics				55	41	64	55	52	56
Ordnance				10	8	8	9	8	11
Bioastronautics				27	26	30	36	31	33
Aeronautics				32	28	21	28	24	24
Materials				30	27	27	26	21	27
Other				72	81	36	66	56	57
Sub-Total		286	290	314	304	330	306	264	287
ARPA									
DEFENDER		116	110	131	131	127	114	111	103
VELA		56	56	60	61	58	48	45	40
AGILE		11	18	25	23	30	29	26	27
Other		34	34	35	20	15	37	24	22
Sub-Total		217	220	251	235	230	228	206	192
TOTAL EXPLORATORY DEVELOPMENT		956	1072	1158	1128	1134	1042	948	980
ADVANCED DEVELOPMENT									
Army									
Operational Evaluation V/STOL	1	7	12	17			1		1
New Surveillance Aircraft	2	7	11	9	14	4	1	1	1
Heavy Lift Helicopter			15	2	2	3	1		
Research Helicopter				1	1	2	4	5	4
Aircraft Weaponization			2	9	6	2	5	4	4
Auto Data Sys/Army in the Field		7	21	15	9	2	5	4	3
Surface-to-Air Missile (SAM-D)					14	15	12	28	60
Satellite Communications	80	102	26	25	15	23	10	4	6
Tactical Satellite Communications						1	6	5	5
NIKE-X Adv. Development							30	30	165
Anti-Tank Weapons	34	26	28	18				2	
Lightweight Howitzer		1	1	1	3	3	6	2	
Limited War Lab			4	4	4	13	7	10	7
Therapeutic Developments							11	10	10
Power System/Converters		5	10	10	12	12	12	8	9
Night Vision				2	3	4	17	15	14
Abn. Surveillance & Target Acq.		3	6	8	5	5	13	10	3
Other		32	124	35	29	30	55	62	82
Sub-Total		190	260	156	117	119	196	200	374

TABLE 15 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (Cont'd)
(TOA, $ Millions)
(Fiscal Year)

	Prior Years	1962	1963	1964	1965	1966	1967	1968	1969
ADVANCED DEVELOPMENT (Cont'd)									
Navy									
V/STOL Development	1	6	12	22	8	4	2		1
New Ship Design						1	3	7	12
Airborne Elec. Warfare Equip.		4	6	9	9	15	14	13	14
Adv. Surface-to-Air Missile System (ASMS)				5	2	6	4	10	2
Adv. Point Defense Surface Missile System						9	8	5	2
Adv. ARM Systems							3	2	3
Landing Force Support Weapon (LFSW)							2	3	4
Augmented Thrust Propulsion			15	12	7	1	2	4	4
Astronautics		1	1	11	12	5	8	7	15
Adv. Undersea Surveillance							10	11	12
Abn. ASW Detection System			4	11	19	16	23	12	15
Adv. Sub Sonar				3	2	4	13	10	9
Adv. Surface-Ship Sonar Devs				5	11	2	1		3
Acoustic Countermeasures		1		1	5	3	3	3	3
ASW Torp C/M Resist					3	7	10	4	4
Sub-Launched Anti-ship Torp.					2	3	3	4	3
Deep Submergence Program				2	63	15	26	35	26
Active PLANAR Array Sonar				1	7	9	7	4	
ASW Ship Int. Combat System					7	9	7	5	5
Reactor Propulsion Plants		13	10	11	13	20	13	13	13
Adv. Surface Craft				1	4	2	5	9	10
Adv. Mine Development					1	5	7		2
Adv. Mine Countermeasures						2	1	1	2
Other Advanced Developments		25	40	42	28	44	48	89	118
Sub-Total		52	88	136	203	182	223	251	263
Air Force									
Light Intra-Theater Transport									15
V/STOL Aircraft Technology				3	10	5	3		
Aircraft Propulsion Systems Int.		2	5	8	11	8	3	3	5
Tri-Service V/STOL	1	6	12	19	31	21	5		
V/TOL Engine Development						31	24	14	15
Overland Radar						9	10	4	3
OTH Radar (Program 673A)						1	4	2	2
Advanced Avionics					11	5	6	5	5
Penetration Aids for Manned Aircraft			6	9	9	5	3	5	16
Conventional Weapons			4	5	8	15	10	4	8
Flight Vehicles Sub-systems		2	7	5			9	8	10
Advanced ASM System						9	8	6	6
X-15 Aircraft	150	10	10	9	8	7	5	3	
Adv. Manned Strat. Acft. (AMSA)					28	46	19	26	30
Aerospace Structural Materials					5	6	8	6	9
Adv. ICBM & Basing			9	8	3	6	10	5	6
SABRE (Self-Align. Boost & Reentry)					12	15	12	6	4
X-20 (DYNASOAR)	109	100	132	64					
GEMINI (Manned Space Flt)				16	10	1			
Large Solid Prop. Motor		14	14	31	11	5			
[redacted]									
Tac. Satellite Comm.			5	49			18	16	11
Abn. Term. for Sat. Comm.							3	2	4

TABLE 15 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (Cont'd)
(TOA, $ Millions)
(Fiscal Year)

	Prior Years	1962	1963	1964	1965	1966	1967	1968	1969
ADVANCED DEVELOPMENT (Cont'd)									
Air Force									
[redacted]									
Spacecraft Tech. & Adv. Reentry Tests			14	18	21	32	16	6	1
Adv. Liquid Rocket Tech.					4	11	11	3	8
Adv. Space Guidance					1	4	2	2	3
Adv. Space Power Supply Tech.								2	1
Space Experiments Support (SESP)							3	12	19
Other Advanced Developments		79		101	75	70	54	34	74
Sub-Total									
[redacted]									
TOTAL ADVANCED DEVELOPMENT									
ENGINEERING DEVELOPMENT									
Army									
NIKE-ZEUS Testing	836	263	175	64	40				
NIKE-X				270	339	409	418	375	
Forward Area Air Defense System		36	50	59	22	7			
Fire Power other than Missiles	3	30	47	48	42	28	27	21	24
Air Mobility		14	16	22	17	31	35	28	27
Surface Mobility		6	11	7	6	10	9	4	11
Combat Surv. & Target Acq.		33	34	22	15	10	9	9	7
Communications & Electronics		29	48	27	19	20	19	24	29
Combat Support Items		31	32	36	33	42	36	44	58
Other Engineering Development		27	18	15	13	9	13	18	11
Sub-Total		469	431	570	546	566	565	523	167
Navy									
Three-T Major Systems Dev.								6	15
Unguided/Conventional Air-Launched Weapons				1	4	5	5	19	12
VFAX-Navy								1	30
CVS ASW A/C (VSX)								19	62
Sub-Sonar Developments			1		1	5	7	9	11
Other Undersea Warfare Projects		4	21	33	35	9	20	23	21
CBATCS								12	
Bomt Sensor Veh. Sys. (TRIM)							26	13	6
Ship Contract Definition									59
Marine Corps Developments		7	3	5	9	17	18	15	13
Other Engineering Developments		56	75	89	59	67	47	60	124
Sub-Total		67	101	128	108	103	123	197	363
Air Force									
INT/FCS/MISSILE						5	25	11	
XB-70	800	220	207	156	57	23	5		
J-58		33	92	94	84	64	21		
F-4 Improvements						10	21		
MAVERICK					3		20	5	25
Adv. Tac. Fighter (FX)						1	1	2	30
Adv. Attack Aircraft (A-X)									3
ABRES			123	155	161	150	138	108	116
Hard Rock Silo Dev.								4	38
Adverse Weather Aerial Deliv						2	1	3	3
[redacted]									
Point-to-Point Satellite Comm.									5
Other Engineering Develop.		116	155	139	96	102	100	56	90
Sub-Total									
[redacted]									
TOTAL ENGINEERING DEVELOPMENT									
MANAGEMENT & SUPPORT									
Army									
White Sands Missile Range		54	64	74	86	86	87	88	87
Kwajalein Test Site		1		1	33	39	35	42	44
General Support		169	172	194	193	217	218	208	225
Sub-Total		224	236	269	312	342	340	338	356

[redacted]

TABLE 15 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (Cont'd)
(TOA, $ Millions)
(Fiscal Year)

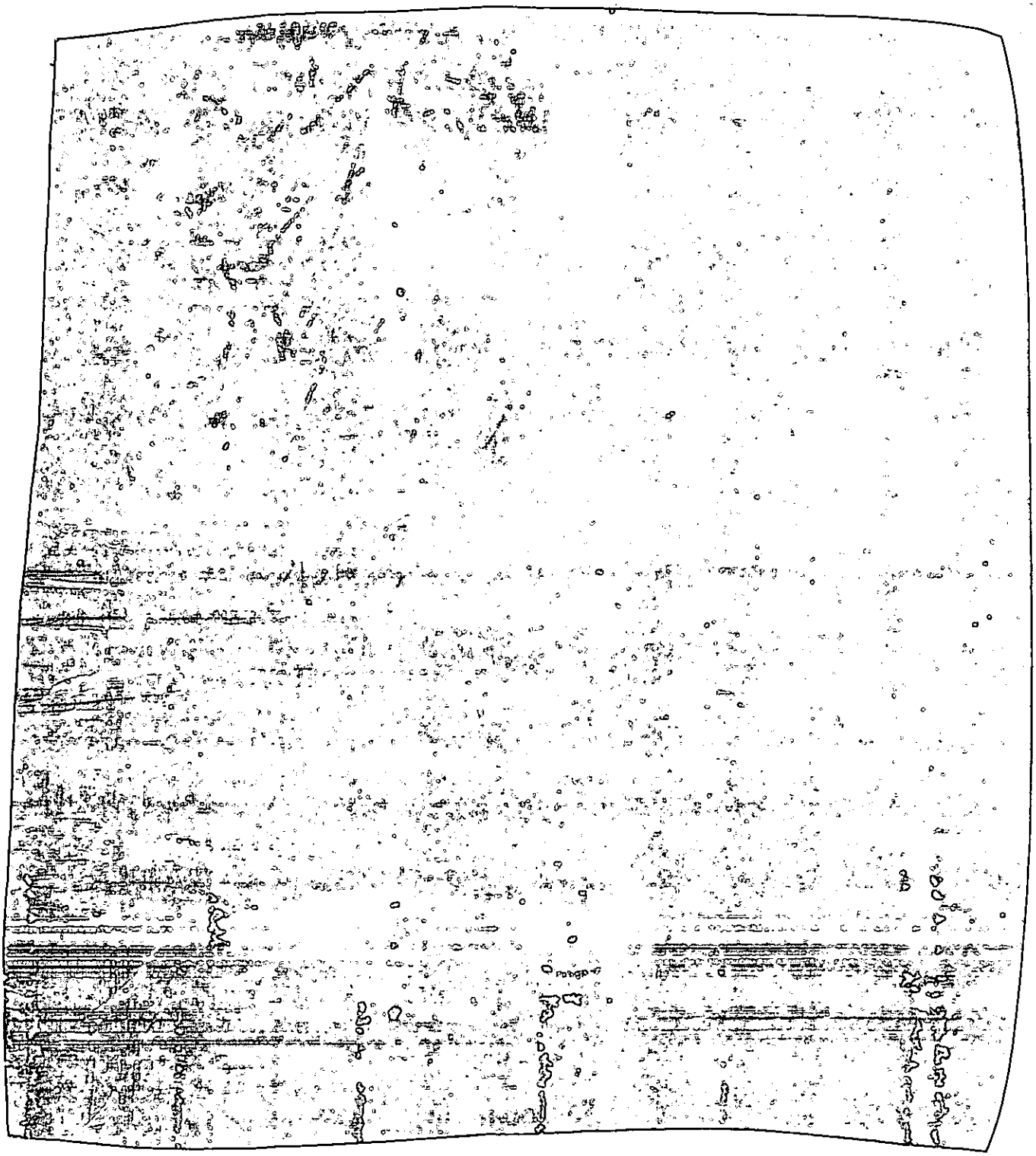

TABLE 15 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (Cont'd)
(TOA, $ Millions)
(Fiscal Year)

	Prior Years	1962	1963	1964	1965	1966	1967	1968	1969
OPERATIONAL SYSTEMS DEV. (Cont'd)									
Navy									
A/L G/M Flt. Sprt.				7	5	10	6	9	4
U/W Ordnance Flt. Support Prgm.				4	6	8	9	7	10
AL/SL Ordnance Flt. Sprt.				3	7	6	5	7	7
Torpedo MK-46	38	11	21	14	15	8	4	2	2
Directional JEZEBEL Sonoboy Sys.					2	10	20	11	3
Torpedo MK-48			4	19	19	45	40	34	46
Operations Control Centers		6	10	13	7	6	5	1	
Naval Tactical Data Systems	68	10	7	6	4	4	4		
Marine Corps Tac Data System	21	8	6	5	3	2	2	2	2
[redacted]									
FDL Ship						10	8		
Anti-Radiation Missile (Std. Arm)						6	53	29	10
Other Operational Systems		48	56	110	67	62	56	65	98
Sub-Total		[redacted]							
Air Force									
SR-71			20	70	81	17	6	2	
MINUTEMAN		538	430	418	333	279	369	457	413
PACCS (Post Atk.Com.& Cont.Sys)			7	2	4	5	9	3	2
OTH Radar System			7	10	10	4	1	1	1
AWACS					1	5	4	2	75
SPACETRACK	4	19	23	13	8	8	3		
RF-111						13	10		12
F-111A/Mark II Avionics	5	6	116	231	321	264	168	199	117
B-52							9	27	12
SRAM					6	3	39	79	43
FB-111						25	23	79	49
C-5A				10	42	159	279	345	128
Orbiting Lab (MOL)				10	37	150	237	431	600
TITAN III Vehicle					34	36			
TITAN III Space Booster		19	237	330	200	105	68	57	62
NIKE Targets		4	6	4	7	9	10	7	8
Comm. Intel. & Security		29	39	33	30	42	66	84	53
Special Activities	807	328	486	414	273	407	290	234	218
Other Operational Systems		732	455	153	60	53	51	62	114
Sub-Total		1675	1826	1698	1467	1584	1642	2069	1907
Defense Agencies									
Defense Agencies Sub-Total		47	68	90	87	104	95	108	128
TOTAL OPERATIONAL SYSTEMS DEV.		2502	2643	2585	2260	2645	3031	3369	3417
TOTAL R&D		6831	7619	7608	7008	7480	7835	7939	8541
Less Support From Other Appro.		523	580	533	541	553	647	525	510
TOTAL OBLIGATIONAL AUTHORITY									
RDT&E Appropriations		6308	7039	7074	6467	6927	7289	7415	8031
Financing Adjustments		-940	-46	-90	+16	-181	-117	-267	- 25
NEW OBLIGATIONAL AUTHORITY									
RDT&E Appropriations		5368	6993	6984	6483	6746	7172	7148	8006

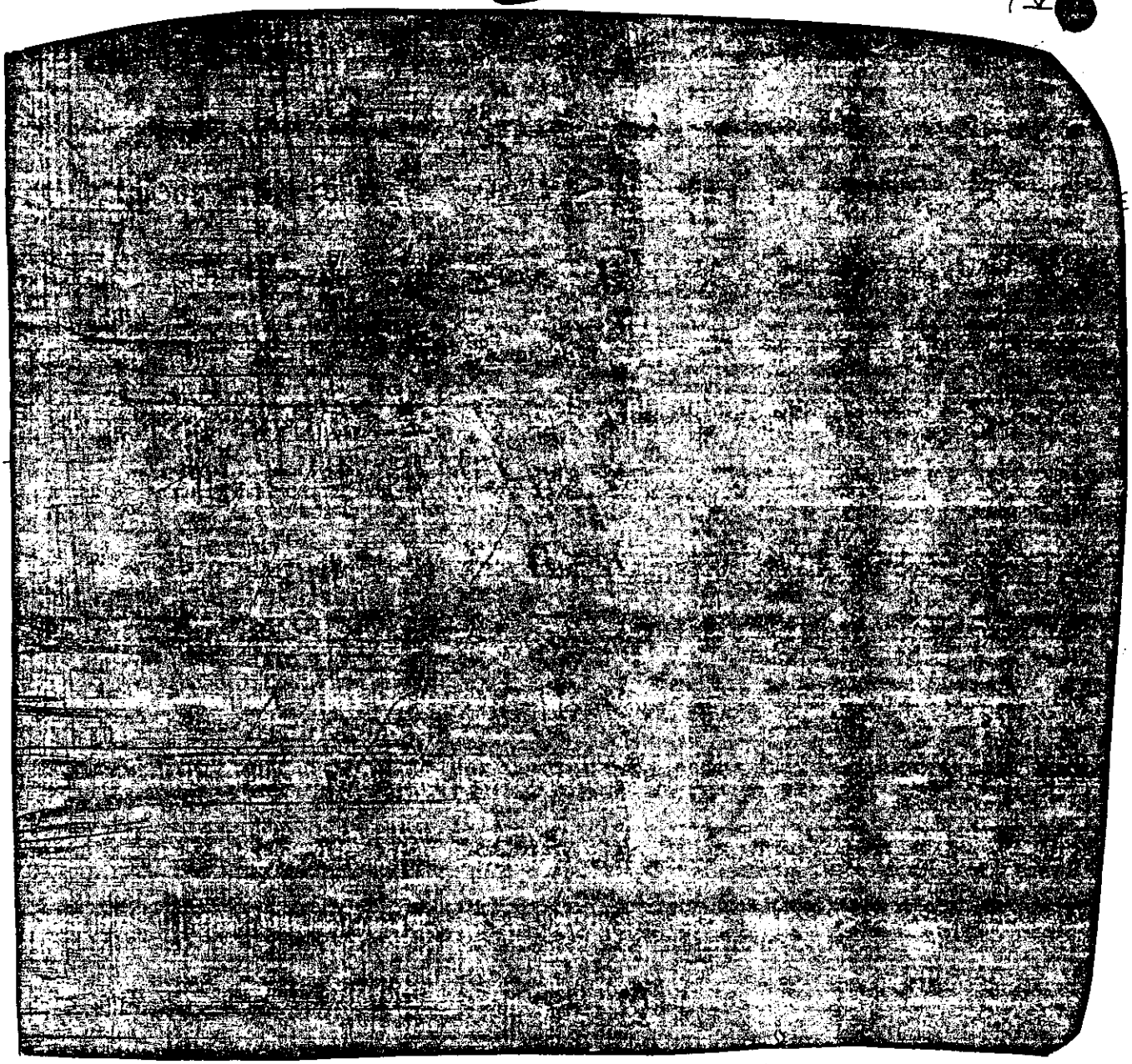

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TABLE 17 - DOD COST REDUCTION PROGRAM

Area	Fiscal Year Program Savings Realized in a/					FY 1967 Program		FY 1968 Program		FY 1969 Program	
	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1967-1969	FY 1968	FY 1968-1970	FY 1969	FY 1969-1971
Buying Only What We Need											
Refining Requirement for --											
Major items b/		90	487	1,060	803	136	[illegible]	144	235	145	240
Initial provisioning		163	218	368	215	31	61	30	45	30	45
Secondary items	348	481	643	626	53	110	123	127	149	124	146
Technical Manuals			10	9	8	2	3				
Tech. data and reports			2	6	13	10	15	9	14	9	14
Prod. base facilities		35	14	18	4	4	4	3	3	3	3
Increased Use of Excess--											
Equip. and supplies			57	169	114	49	62	60	80	61	79
Idle prod. equip.		1		4	20						
Contractor inventory		18	14	8	29	1	1				
Elim. "Goldplating" (VE)	64	72	76	204	324	339	609	265	440	265	440
Inventory item reduction				83	82	3	3				
Total Buying Only What We Need	412	860	1,521	2,555	1,665	685	1,077	638	966	637	967
Buying at Lowest Sound Price:											
Shift to Competitive Proc.:											
Percent competitive c/		37.1%	39.1%	43.4%	44.4%						
Amount of savings	160	237	448	641	551	30	79	43	107	44	109
Shift to Fixed Incentive:											
Percent CIFF d/		20.7%	12.0%	9.4%	9.0%						
Amount of savings			100	436	600 g/						
Direct Purchase Breakout			5	6	14	11	19	17	34	17	34
Multi-Year Procurement				67	70	29	63	33	81	34	83
Total Buying at Lowest Sound Price	160	247	553	1,150	1,235	70	[illegible]	93	222	[illegible]	[illegible]
Reducing Operating Costs:											
Unnecessary Operations		123	334	484	704 h/	7 f/	64		79		80
Reducing Oper'g. Expenses--											
DSA e/	31	31	42	59	60						
Contract admin. consol.					5						
Departmental			95	186	230	135	360	137	280	143	[illegible]
Increasing Efficiency--											
Telecommunications mgmt.	75	80	131	116	153	11	50	15	32	16	36
Transp./traffic mgmt.	24	25	7	35	84 i/	53	140	79	102	23	51
Equipment maint. mgmt.	48		65	117	93	32	93	36	79	36	80
Non-combat vehicle mgmt.		2	18	24	30	2	8				
Contract technicians			20	5	9	4	7				
Military housing mgmt.		6	13	11	38	5	10	3	6	3	6
Real property mgmt.		23	25	47	54	14	31	15	29	16	30
Packing/packaging			7	8	[illegible]	18	37	18	32	12	24
Total Reducing Operating Costs	178	289	757	1,119	[illegible]	291	700	503	[illegible]	[illegible]	602
Military Assistance Program				19	3	16	41	8	11	8	11
TOTAL PROGRAM	[illegible]	1,396	2,831	4,863	[illegible] j/	1,052 k/	[illegible]	1,042	1,848	980	1,806

Footnotes

a/ Includes some non-recurring savings.

b/ Not included in totals are reductions in the "savings requirements" for major items in FY 1962 of $24 billion and in FY 1963 of Army pipeline requirements of $500 million.

c/ FY 1961 was 32.9%. Savings are 25% per dollar converted.

d/ First nine months of FY 1961 was 38%. Savings are 10% per dollar converted.

e/ Excludes DSA inventory drawdown of $38 million in FY 1962; $262 million in FY 1963; $161 million in FY 1964; $51 million in FY 1965.

f/ Represents savings realized as a result of FY 1967 base closing decisions.

g/ Full annual effect of actions through FY 1966 will be $780 million.

h/ Full annual effect of actions through FY 1966 will be $1,450 million.

i/ Full annual effect of actions through FY 1966 will be $120 million.

j/ Full annual effect of actions through FY 1966 will be $5,299 million.

k/ New reporting criteria for FY 1967 measures savings on an annual basis only. The three-year effect of FY 1967 actions (FY 67-69) amounts to a total of $2,0[illegible] million.

[redacted]

[redacted]

TABLE 18 - AMOUNTS REQUESTED FOR AIRCRAFT, MISSILES, SHIPS, AND TRACKED COMBAT VEHICLE PROCUREMENT AUTHORIZATION IN FY 1969 REQUEST AS COMPARED WITH FY 1968 AUTHORIZATION
($ in Thousands)

	Authorized 1/ FY 1968	Requested FY 1969
Aircraft		
Army	899,200	735,447
Navy and Marine Corps	2,363,246	2,782,788
Air Force	5,270,700	5,212,000
Missiles		
Army	492,700	956,140
Navy	582,154	879,212
Marine Corps	22,500	13,500
Air Force	1,355,100	1,768,000
Naval Vessels		
Navy	1,063,800	1,712,300
Tracked Combat Vehicles		
Army	323,200	299,426
Marine Corps	3,300	10,800
GRAND TOTAL	12,375,900	14,369,613

1/ Reflects effects of legislation submitted to revise the authorization in PL-90-22.

[redacted]

TABLE 19 - SOURCE OF FUNDS FOR AIRCRAFT, MISSILES, SHIPS AND TRACKED COMBAT VEHICLES FY 1969 PROCUREMENT PROGRAM
(In Thousands)

	Total Amount of FY 1969 Program	Funding Available for Financing Program in Part	NOA Requested for Authorization
Aircraft			
Procurement of Equipment and Missiles, Army	735,447	-	735,447
Procurement of Aircraft and Missiles, Navy (and Marine Corps)	2,897,788	115,000	2,782,788 1/
Aircraft Procurement, Air Force	5,362,000	150,000	5,212,000 2/
Sub-total - Aircraft	8,995,235	265,000	8,730,235
Missiles			
Procurement of Equipment and Missiles, Army	956,140	-	956,140
Procurement of Aircraft and Missiles, Navy	879,212	-	879,212
Procurement, Marine Corps	13,500	-	13,500
Missile Procurement, Air Force	1,793,000	25,000	1,768,000
Sub-total - Missiles	3,641,852	25,000	3,616,852
Navy Vessels			
Shipbuilding and Conversion, Navy	1,812,300	100,000	1,712,300
Tracked Combat Vehicles			
Procurement of Equipment and Missiles, Army	299,426	-	299,426
Procurement, Marine Corps	10,800	-	10,800
Sub-total - Tracked Vehicles	310,226	-	310
GRAND TOTAL	14,759,613	390,000	

1/ Of the amount requested for authorization, $440.0 million i
by transfers from the DOD Stock Funds.
2/ Of the amount requested for authorization, $600.0 mill
by transfers from the DOD Stock Funds.