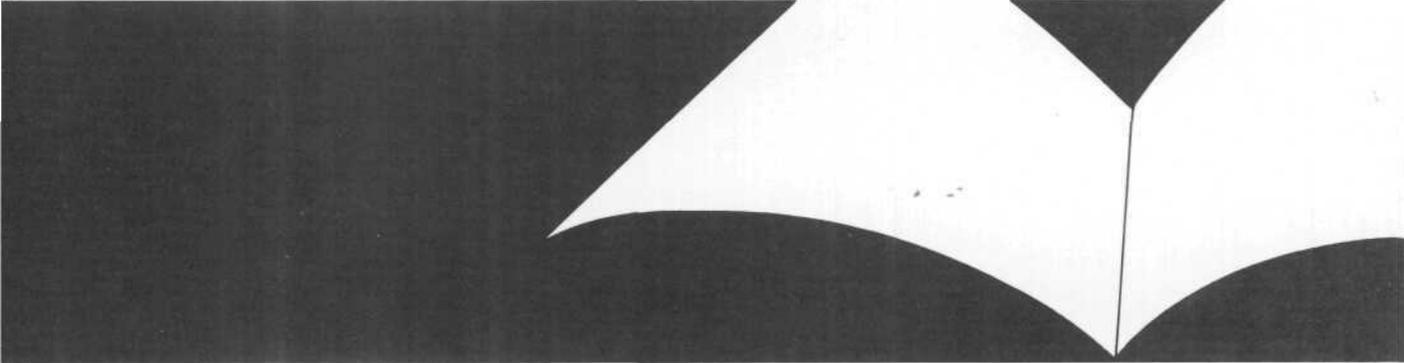


**BUDGET  
ISSUE PAPER**



**Planning U.S.  
General Purpose Forces:  
Overview**

January  
1977



Congressional Budget Office  
Congress of the United States  
Washington, D.C.

**PLANNING U.S. GENERAL PURPOSE FORCES:  
OVERVIEW**

**The Congress of the United States  
Congressional Budget Office**

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## PREFACE

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As the Congress makes decisions on budget targets for the First Concurrent Resolution on the Budget for Fiscal Year 1978, the appropriate size of the defense budget will be one of the most important issues. The military forces that the budget buys can be divided into two parts. These are the strategic retaliatory forces--intercontinental ballistic missiles, submarine-launched ballistic missiles, and bombers; and the general purpose forces--all the rest of the Navy, Army, Air Force, and Marine Corps. The general purpose forces account for most of the defense budget; decisions about their size, location, equipment, and level of readiness determine much of the defense budget. In turn, the appropriate character and size of these forces should be tied to conceptions of how and where they would be used, and to assessments of the capability of likely adversaries.

The series of six Budget Issue Papers on the general purpose forces, of which this is a part, is intended to lay out the most significant assumptions underlying current planning of the general purpose forces, to discuss the match between those assumptions and the current or projected forces, and to suggest what might change in defense programs if somewhat different planning assumptions were adopted. The other papers in the series are: The Navy, Army Procurement Issues, The Tactical Air Forces, The Theater Nuclear Forces, and Forces Related to Asia. This Overview is intended to establish the context for the other papers, to sketch their major findings, and to draw together options for the defense budget as a whole rather than element by element. The Summary of this paper is presented as a brief summary of the entire series.

The Overview was prepared by John E. Koehler and Robert B. Pirie, Jr. of the National Security and International Affairs Division of the Congressional Budget Office. The authors are indebted to Dov. S. Zakheim, Nancy J. Bearg, Carl R. Neu, G. Philip Hughes, and Charles A. Sorrels, who wrote the papers on which the Overview draws, and to R. Stephen Brent who drafted an early version of this paper. The authors also gratefully acknowledge the assistance of Patrick L. Renehan and Stephen A. Thompson of the CBO Budget Analysis Division, David S. Mundel of the Human Resources and Community Development Division, and of Patricia Johnston, Johanna Zacharias, Nancy Swope, Shirley Hornbuckle, Patricia Edwards, and Patricia Minton.

Alice M. Rivlin  
Director

January 1977

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## SUMMARY

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Most of the manpower and budget of the U.S. Department of Defense (DoD) go to maintaining "the general purpose forces." These include all of the ground forces; all of the air forces--Navy, Marine, and Air Force--other than strategic bombers and continental air defense; all of the Navy except the ballistic missile submarine fleet; and the ships and aircraft that transport these forces. Decisions about the size and structure of the general purpose forces, and about their future size and structure determine most of the defense budget.

This series of papers 1/ describes the scenarios or combat situations for which the general purpose forces are planned, assesses the match between these scenarios and the current and planned forces, and discusses how changes in the planning scenarios or assumptions might affect the size and structure of the appropriate forces.

The possible changes in U.S. forces summarized in this Overview include options that could raise the defense budget by about \$3.2 billion in fiscal year 1977 dollars over the next five years or, alternatively, options that could reduce the budget by about \$15.5 billion over the same period. These are related to alternative assumptions about how much warning time might precede a major war in which the United States was involved, the duration of such a war, and how stringent constraints on the size of the defense budget are felt to be.

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1/ These papers are: The Navy, Army Procurement Issues, The Tactical Air Forces, Theater Nuclear Forces, and Forces Related to Asia.

Because the forces really are "general purpose," it is not possible to predict exactly how, or where, or against what adversary they might be used. Nonetheless, it is necessary to make assumptions about adversaries and circumstances in order to give coherence to the planning process. The Department of Defense assumes that an appropriate scenario against which to plan is a worldwide war between the United States and the USSR, along with their allies on both sides. This war is assumed to be concentrated in Central Europe, where large NATO and Warsaw Pact forces face each other, and where both the United States and the Soviet Union have vital interests. It is also assumed that some minor contingency not involving the USSR and its allies may require the use of U.S. forces at the same time as this major war. The forces are planned to be able to deal with such a minor contingency without impairing their capability to fight the major war. The Defense Department assumes that, if U.S. general purpose forces are planned to deal with these major and minor contingencies, they will be adequate for any other uses to which the United States might wish to put them.

Defense Department planning assumptions focus on possible future conflict in Central Europe. If that is the major threat, what do we know about it? We know that NATO forces in Europe face an adversary whose force design and tactical doctrine is geared toward blitzkrieg tactics. The Soviets appear to believe that, if war came, they might defeat NATO forces and occupy most of Europe within a few weeks, whether or not nuclear weapons were used. Whether they are right about this is uncertain. There is little agreement among Western observers on this point, and the Soviets do not seem to be perfectly certain of the outcome either. The deterrent value of U.S. and other NATO forces rests to a significant degree on this Soviet uncertainty. Accordingly, NATO force design should give high priority to forces that contribute directly and immediately to stopping and containing an initial Warsaw Pact attack of very great intensity. Also, because success in this depends on organizing a coherent defense rapidly, emphasis should be placed

on forces that can react very rapidly in case of attack.

Defense Department force planning scenarios generally assume that a few weeks warning time would be available to mobilize and deploy forces and to start reinforcing NATO from the United States. Recently, some observers have argued that even this stringent assumption may not lead to proper force design and that we should plan for a war following even shorter warning. Even if the assumption of several weeks warning is valid, much of U.S. general purpose forces either cannot be moved to Europe quickly enough to affect early phases of a war or are not sufficiently well organized and equipped to engage in the combat there. Thus, while the specific planning assumptions emphasize the importance of rapid reaction and combat capability early in a war, the forces themselves appear more appropriate for fighting a longer war. The force-related sections of this overview paper, and the papers of the general purpose forces planning series, consider how U.S. forces might be affected by a decision to plan for an abrupt war that reaches its initial phase quickly.

### Ground Forces

The U.S. Army has the equivalent of five divisions in Germany and could bring in the equivalent of two more before the fighting starts, assuming several weeks warning. Prepositioned equipment is planned to be available in Germany for this force by the end of fiscal year 1979. However, seven divisions are less than one-third of the Army's total force of sixteen active and eight guard and reserve divisions. Further, there are three active and one reserve U.S. Marine Corps divisions. Prepositioning more equipment in Germany, providing high quality armored vehicles, and augmenting the antitank capabilities of forces in Germany would be consistent with the view that the early, intense phases of a NATO war would be crucial. Planned conversion of two U.S.-based infantry divisions to mechanized divisions more suitable for the NATO war may not be appropriate because of the time required to move the equipment of these divi-

sions from the United States to Europe. If warning were short and the NATO defense disorganized, the need for numerous antitank helicopters to counter massive Warsaw Pact tank attacks might indicate buying larger numbers of relatively inexpensive Cobra/TOW helicopters, rather than fewer of the more expensive Advanced Attack Helicopter now in development.

### Tactical Air Forces

U.S. tactical air forces are a flexible and rapidly reacting means of bringing firepower to the aid of NATO ground forces in case of a Warsaw Pact attack. Further, because of their inherent mobility, the capability of the tactical air forces to support NATO does not appear to be affected strongly by shorter warning time. Thus, they constitute an important supplement to NATO ground force capability and a hedge against an attack coming before the ground forces are ready to fight.

The capability of the tactical air forces may be limited by darkness or bad weather, by enemy air defenses, or by preemptive enemy attack against vulnerable, unsheltered aircraft. Much of the U.S. tactical air forces is designed for operations in daylight and good weather. Since fighting on the ground goes on around the clock and in any weather, it might be useful to place more emphasis on aircraft and other systems that can be used at night and in bad weather. This would mean procuring aircraft with specialized, relatively expensive capabilities, and probably a second seat for an assistant to the pilot. Soviet air defenses over the battlefield include a formidable array of surface-to-air missiles and anti-aircraft artillery. These systems may inhibit tactical air strikes in support of friendly ground forces. Suppressing enemy air defenses would require special aircraft and equipment to jam acquisition and tracking radars and to seek out and destroy radars and missile batteries. Finally, vulnerability of friendly aircraft to destruction on the ground would be much reduced by keeping the aircraft in hardened shelters.

Measures to assure that the tactical air forces could perform to full capability, like those described above, might have more immediate payoff than simply expanding the total size of the force. This would be particularly true if the limitations reduce the capability not only of present aircraft, but also of new aircraft being introduced into the force. Therefore, if resource constraints dictate, improvements to reduce aircraft limitations might be paid for by reducing the planned Air Force size from 26 tactical air wings to 25 or 24.

If the numbers of tactical aircraft available to deploy to Europe in wartime are thought to be insufficient, consideration could be given to using Marine and Navy tactical air wings from land bases there. Thirty-one percent of U.S. tactical aircraft belong to the Navy, and a further twelve percent to the Marines. Present planning for a NATO war makes it uncertain whether Marine and Navy tactical air wings would be used, especially in the critical early stages. Providing equipment to permit land-based operation for at least the Navy air wings whose aircraft carriers are in overhaul might offer an inexpensive way to augment tactical air forces in Europe. The three Marine air wings could also be used in Europe without Marine ground divisions, and would not require additional equipment to do so.

### Naval Forces

Present U.S. naval forces do not appear to be planned primarily for a NATO/Warsaw Pact war in Europe. The naval mission that contributes most to such a war involves keeping the sea lines of communication open, and preventing Soviet use of the sea to attack friendly forces and shipping. The use of this "sea control" mission is controlling the Soviet submarine threat and whatever threat Soviet long-range aircraft might pose. Soviet surface ships, while heavily armed and capable of doing great damage in a preemptive first strike, are vulnerable to attack by land- or sea-based aircraft and by submarine. Thus, after the first days of a war, it is unlikely that Soviet surface ships will venture out

from under the protection of Soviet land-based aircraft.

It would take U.S. and allied forces considerable time, perhaps several months, to neutralize the Soviet submarine force. In the first month of the war, Soviet submarines could sink a fairly large number, perhaps as much as 25 to 30 percent, of military and civilian ships, whether under convoy or not. No feasible additions to allied antisubmarine warfare (ASW) forces would improve this situation substantially. Clearly, the war must go on for several months before the Navy's sea control contribution has a major impact on the ground war. If the war reaches a critical phase in a few days or weeks, the Navy may not have time to contribute significantly.

A Navy mission that is often assumed to play a direct role in a NATO/Warsaw Pact war is "power projection." This involves bombardment of and air strikes at targets ashore, and amphibious landings of Marine Corps forces. Perhaps the best examples of wars in which Navy power projection forces, mainly aircraft carriers, played a significant role are the Korean and Vietnam wars. In those wars, however, the enemy had little ability to menace carrier forces. Even so, it is not clear how much naval air strikes influenced the ultimate outcome of either war. In strikes against the Soviet Union, the Soviet naval and air opposition to U.S. carrier forces would be intense, raising the question of whether the carriers might not be so busy defending themselves that they would have little capacity left to attack enemy targets ashore. Further, it is not clear that attacks by carrier air forces on Soviet bases, or on Soviet forces engaged on NATO's flanks (Norway and the Eastern Mediterranean), would play a significant role in halting Warsaw Pact forces in Europe.

Other rationales for Navy aircraft carrier forces have been advanced. One holds that they are a hedge against a longer war that might ensue either from a stalemate in Europe or from a NATO defeat there. In either case the theater of operations would shift to regions where carriers might

play a more direct role. Other rationales include the use of the carrier in influencing local crises or in contingency operations not involving the USSR. These rationales, while important, are not the explicit basis on which naval forces are planned and sized, nor do they help much in deciding how many aircraft carriers the United States should have.

Present Defense Department plans involve maintaining 12 or 13 aircraft carriers in the Navy through the end of this century. In fact, with a service life extension program, 12 aircraft carriers could be maintained into the 1990s without construction of new ones. Thus the Navy will have very considerable power projection capability whether or not any more aircraft carriers are built.

Current Defense Department programs include construction of one more Nimitz-class nuclear aircraft carriers and one or more classes of large escort ships for carrier task forces. These escort ships will be equipped with the AEGIS air defense system, which is designed to defend against the sort of intense attack to be expected when approaching the USSR. An alternative to this DoD program would emphasize the primacy of the sea control mission in future Navy budgets. It would procure neither the carrier nor the AEGIS escorts over the next five years. Savings compared to the DoD program would be more than \$7 billion in fiscal year 1977 dollars, which could be used for other sorts of naval ships, or other purposes.

Another alternative to DoD programs would be favored by those who believe that it is important to maintain a power projection capability even in the face of heavy Soviet opposition. This view would buy more aircraft carriers and AEGIS escort ships than currently planned, at a rate mainly constrained by U.S. shipbuilding capacity. This alternative would cost about \$6 billion more in fiscal year 1977 dollars than current DoD programs over the next five years.

## Theater Nuclear Forces

U.S. theater nuclear forces located in Europe have two main purposes: (1) to deter Soviet first use of nuclear forces in Europe; and (2) to deter a massive Soviet conventional attack. When the weapons were first placed in Europe, the Soviets had few nuclear forces themselves. These U.S. weapons were seen then as a means not only to deter Soviet conventional attack, but to defeat it militarily. They also came to be seen by NATO allies as a kind of guarantee that U.S. power, both theater and strategic, would be used in case of Soviet aggression in Europe. As the Soviets' own nuclear forces have grown, however, it has become apparent that U.S. first use of nuclear weapons to stave off defeat by Soviet conventional forces would likely trigger a massive Soviet nuclear response. Whether or not this strike were confined to the theater, it might lead to a situation considerably less favorable to U.S. interests than loss of the battle on the European mainland. Thus, the possible use of nuclear means to defeat a Soviet conventional attack raises substantial problems, and the rationale of deterrence of such an attack by this means loses some credibility.

If deterrence of Soviet first use of theater nuclear weapons is the primary objective, our forces should reflect it. A prime requirement of such deterrence is that the force should not be vulnerable to preemptive destruction by enemy forces. U.S. theater nuclear forces in Europe, except for Poseidon submarines allocated to NATO, do not have this quality of survivability. Thus, if theater nuclear forces are to be improved or modified in the future, improvement in their survivability, and hence deterrent capability, seems to warrant priority.

## Conclusions

Much of the force expansion and modernization planned by DoD seems aimed primarily at increasing the longer-term fighting ability of the forces. However, concern is growing that, because of the size and power of Soviet forces in Europe, a NATO/Warsaw

Pact war might be swiftly concluded in favor of the Soviets before the bulk of U.S. forces could be brought to bear. Some actions could be taken to improve this situation, such as increasing stocks of prepositioned equipment for the U.S. Army in Europe, and providing a night/bad-weather version of the A-10 attack aircraft. The cost would be about \$3.2 billion in fiscal year 1977 dollars over the next five years. This sum could be added directly to DoD programmed budgets, or it could be offset by restraining some DoD plans which are associated with longer war capability, such as expansion of the Army and Air Force and procurement of new Navy carrier forces. The net effect of these offsets would reduce the DoD budget by \$12.3 billion in fiscal year 1977 dollars over the next five years. Finally, restraint of DoD longer-war programs without adding the force improvements would reduce the DoD budget by \$15.5 billion fiscal year 1977 dollars over fiscal years 1978-1982.



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CHAPTER I. INTRODUCTION: FOREIGN POLICY AND  
MILITARY FORCES

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The general purpose forces comprise the ground and tactical air forces, all of the Navy except the ballistic missile submarine fleet, and the mobility forces that provide air- and sea-lift. Some of these forces are capable of delivering nuclear weapons of various kinds. The general purpose forces contain most of the manpower, and are responsible for most of the cost, of the U.S. defense establishment.

Major programs to expand and modernize the U.S. general purpose forces are currently underway or contemplated. U.S. Air Force tactical wings are being increased from 22 to 26. Aircraft are being procured to equip the new wings, replace aging aircraft, and modernize the reserves. Navy and Marine Corps air wings are receiving new equipment as well. The Army ground forces are being restructured from 13 to 16 divisions within a constant active-duty manpower ceiling, and programs are underway to procure new helicopters and new armored fighting vehicles such as the XM-1 tank and MICV (Mechanized Infantry Combat Vehicle) personnel carrier and to furnish several formerly "light" infantry divisions with the tanks and transport required to turn them into "heavy" mechanized or armored units. The mobility forces may be provided with new short- and long-range transport aircraft. A program for expansion and modernization of the Navy is still taking shape.

The Congress will have to evaluate these programs, decide which of them to carry out, determine how quickly, and in what numbers.

This overview paper and the five accompanying papers in this series <sup>1/</sup> are intended to help focus debate on the general purpose forces and on the defense budget by addressing the following questions:

- o What missions are the general purpose forces intended to be able to carry out? What are the scenarios or combat situations for which they are planned?
- o How do the current and planned forces match the assumptions of these scenarios?
- o How would changes in the scenarios affect the size and character of the appropriate forces?

#### POLICY INTERESTS AND MILITARY OPTIONS

In principle, the U.S. military posture should be designed to reflect a coherent view of foreign policy objectives and threats to those objectives. At present, it is difficult to extract such a link from official statements except at the most general level. Furthermore, the new Administration may choose to redefine both our foreign policy objectives and our military posture. It is possible, however, to sketch the broad outlines of a consensus on foreign policy that is sufficiently detailed for the purposes of this paper. This consensus is as follows:

The most important foreign relations of the United States are with Japan and the Western European nations on the one hand and with the Soviet Union and the People's Republic of China (PRC) on the other. We share with the first group economic ties, common values, analogous political systems, and mutual

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<sup>1/</sup> These papers are: The Navy, Army Procurement Issues, The Tactical Air Forces, Theater Nuclear Forces, and Forces Related to Asia.

defense arrangements. With China and the Soviet Union, the United States shares a mixed set of relationships, partly competitive and partly cooperative. Both the USSR and the United States could devastate a substantial portion of each other's homeland and significant parts of the rest of the world as well; this ability overshadows all relations between the Soviets and the United States. Because of the power both countries possess, neither can risk hurting the other too much because to do so would invite such destructive response.

The question of how much damage is too much is ambiguous for both nations; no one knows for sure what would drive the Soviets to massive response, nor do the Soviets know for sure what would similarly inspire the United States. Thus, although the two countries are engaged in a long-term political and military competition, both share an interest in limiting the scope and character of the competition, keeping it within certain bounds, and persuading allies to do the same. In policy statements, both sides try to clarify the terms and permissible limits of the competition without being so explicit as to cede marginal interests or areas. The relationship between the United States and the Soviet Union may not be symmetric; the Soviets, for example, may be more willing than the United States to upset the status quo if it might yield them an advantage. Since Moscow views the PRC as a significant military threat, the Soviets are sensitive to signs of emerging collaboration between the United States and China. Therefore, the warmth of U.S. relations with the Chinese is limited by Soviet interests and fears, as well as by the interests of Japan and Taiwan. Those Soviet fears and the military deployments they engender have nonetheless tied up resources that the Soviets might otherwise use to threaten the United States and Europe or to divert to consumption or economic growth.

In addition to these two sets of relations, the United States also has a special interest in the Middle East, both because of our close ties with Israel, and because of our dependence on oil from the countries of the region. The fact that

our allies have an even greater need for Middle Eastern oil compounds the situation. Because of the intense antagonism among Middle Eastern countries and the importance of the region to the United States and the USSR, the likelihood of conflict growing into direct battle between U.S. and Soviet forces seems relatively high. Hence, the region is the focus of constant attention, with the result that significant U.S. and Soviet forces are deployed to the Eastern Mediterranean.

Military forces, both strategic and general purpose, provide the United States with options--that we may or may not choose to exercise--to persuade, coerce, and defeat adversaries and to persuade or reassure allies. As the forces become larger, more varied, and more astutely deployed or organized, the range of alternative actions the President might order in any particular situation becomes broader. For example, suppose that NATO non-nuclear general purpose forces were obviously incapable of withstanding a Warsaw Pact invasion of Western Europe. If NATO were then faced with such an attack, the United States would have only the choices of strategic nuclear action, theater nuclear action, or some form of negotiation and compromise, or surrender. Capable non-nuclear general purpose forces add to this set of possible choices; they provide a possible non-nuclear response that is plausibly related to the threat. This was part of the logic of the buildup of conventional forces early in the Kennedy administration and the accompanying movement away from reliance on massive retaliation to respond to even comparatively minor attacks.

If adversaries perceive that the United States has a broad and useful range of options on which to draw if challenged, they may be deterred from offering such challenges. The corresponding perception on the part of our allies, that we could in fact help them, may provide reassurance and prevent their acceding to political, economic, and military pressures. Reassurance in the military sphere may also serve as the basis for agreement with allies on a range of economic and diplomatic matters, such as trade negotiations.

As the likelihood of Soviet-Chinese military cooperation against the United States and its allies has been seen to diminish, and as U.S. interest in major military operations beyond NATO, Northeast Asia, and the Middle East has declined, Soviet and other Warsaw Pact forces have come to be the adversary against which U.S. general purpose forces are planned. In such planning, of course, U.S. allies are counted as well. If the Warsaw Pact is the appropriate adversary against which to plan, and if conflict between the two alliances would be worldwide, then the details of U.S. foreign policy commitments are less important for planning U.S. forces than they once were.

The process of adjusting U.S. forces to political and military changes in Southeast Asia may not yet be complete. There are some military units and installations in the Pacific that might be eliminated were the United States to focus still more exclusively on NATO and Northeast Asia, but such forces and bases account for a relatively small part of the defense budget, and likely reductions would not generate large and continuing savings. These issues will be examined in the forthcoming report in this series, Forces Related to Asia.





scenarios, however, does carry a risk that some force components that are appropriate hedges against unforeseen threats will be eliminated.

#### PLANNING SCENARIOS AND OUR STRATEGIC CONCEPT

Thus, the Department of Defense (DoD) makes detailed assumptions in order to plan future forces systematically. These assumptions take the form of a small number of scenarios or situations for which the conventional forces are planned and in terms of which force plans are justified to the Congress by the Department of Defense. Underlying these scenarios is a "strategic concept", as described in the current Annual Defense Department Report. <sup>1/</sup> The concept derives from four main principles:

- o That we support two main centers of strength --in Western Europe and in Northeast Asia;
- o That we have the non-nuclear capability, in conjunction with our allies, to deal simultaneously with one major contingency and one minor contingency;
- o That we have the ability to keep open the lines of communication by sea between Western Europe and Northeast Asia and the United States;
- o That we allocate our resources in such a way that our active forces provide an initial defense capability and our reserve forces supplement the more costly active units; the reserves also provide a hedge against non-nuclear campaigns of substantial duration.

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<sup>1/</sup> Donald H. Rumsfeld, Report to the Congress on the Fiscal Year 1977 Budget and its Implications for the Fiscal Year 1978 Authorization Request and the Fiscal Year 1977-81 Defense Programs (January 27, 1976), pp. 114-115.

Following these principles the primary emphasis in planning of specific forces is on a hypothetical NATO conflict. As the Annual Defense Department Report states:

Since the centerpiece of our strategic concept is to have the ability, in conjunction with our allies, to manage one major contingency, we believe that the most prudent way to arrive at the specific requirement for general purpose forces is to consider what we would need to establish and maintain a forward defense in Central Europe. 2/

The European contingency is viewed as a suitably realistic and severe test case because of (1) the importance of Europe in U.S. international interests; (2) the existence of a concrete military threat deployed in Eastern Europe that could be reinforced by other Warsaw Pact forces; and (3) the belief that if our forces are adequate for NATO, they will also be adequate for other contingencies.

Although this strategic concept concentrates on conflict in Europe, it assumes as well that there would be combat or a threat of combat in Northeast Asia at the same time. The Soviet Union maintains significant numbers of submarines and surface warships on its eastern coast, and these fleet units could threaten shipping in the Pacific and preclude movement of parts of the U.S. fleet to European or Atlantic waters. Thus, U.S. forces deployed in the Pacific may have a direct role to play in worldwide conflict with the USSR. In addition, some forces may be required for the "minor contingency" specified above. It is unlikely that significant forces would be withheld from a major European war to deal with hypothetical minor contingencies elsewhere; however, U.S. forces are intended to be able to deal with a

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2/ Ibid., p. 116.

minor contingency without substantially reducing their capability to deal with a NATO war that breaks out during--or as a consequence of--that minor conflict.

### The NATO Scenario

The NATO scenario assumes a large-scale attack on NATO's central region (mainly on Germany). Canada and all U.S. allies in Europe, including France, are assumed to participate. The Soviet Navy is assumed to attack shipping and naval forces in the Atlantic and Mediterranean. Since a European conflict could become worldwide, U.S. and allied forces hold a defensive position in Northeast Asia and defend lines of communication to that area. Less intense naval conflict is assumed in the Pacific.

Should the war described in the planning scenario actually occur, it would cause enormous casualties, widespread destruction, and profound disruption and confusion. All of the options open to the United States would be miserable alternatives, and all of the choices would have uncertain outcomes.

NATO policy stresses forward defense as far east in Germany as possible. The aim is to hold loss of NATO territory to a minimum. This emphasis arises out of political considerations in Europe and out of the military fact that it requires more force to recover territory once it is lost than to hold it in the first place. Because Soviet doctrine and structure of force emphasize rapid offensive movement, "blitzkrieg" tactics, the United States also views the initial stages of a war in Europe as particularly critical. Accordingly, planning emphasizes initial combat capability of active forces.

Except for four reserve brigades associated with active divisions and selected units that provide combat service support to active forces, reserve ground units cannot contribute significantly to combat capability soon after mobilization. The main purpose of these forces is to provide a hedge against the possibility that a NATO war could draw out over a

period of months or even years. Recent evidence of improvement in Soviet capability to fight a longer war has reinforced U.S. concern with this possibility.

The roles of the U. S. armed services in a NATO war are as follows:

- o The primary role of the Army is to fight the land war in Europe. Nearly all Army forces are devoted to this, although it takes up to six months after mobilization for the Army reserves to be ready to fight.
- o The Marines provide amphibious capability in case it is needed on NATO's southern or northern flanks, and help in the land war.
- o The Air Force's missions are to secure air superiority, provide close air support for the land battle, make interdiction attacks, and carry out airlift to Europe.
- o The Navy's job is to defend shipping, defeat the Soviet Navy, and possibly to project airpower ashore on NATO's flanks from its aircraft carriers.

Although those are the roles of the U.S. armed forces, it is important to realize that they might not be successful. The balance of forces between NATO and the Warsaw Pact is such that neither can be sure of a successful military outcome. The United States is probably unable to buy general purpose forces large enough to guarantee a NATO victory in such a situation. An attempt to acquire such large forces might simply provoke an offsetting Soviet buildup. Thus, in a major war with the Soviet Union, the outcome would be uncertain because the United States and its allies are not likely to have the overwhelming predominance of force required to reduce to zero the role of generalship, circumstances, morale, and luck. Either side can undertake programs that might shift the odds, but there is no way for either in the near term to acquire an overwhelming advantage.



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## CHAPTER III      CRITICAL NATO ASSUMPTIONS

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Under the strategic concept described in the preceding chapter, planning of conventional forces is based primarily on NATO, with some consideration for requirements that might arise in Asia, the Middle East, or other areas. Because of the importance of the NATO scenario, this chapter seeks to identify critical assumptions for NATO--assumptions DoD planners make about a NATO conflict that have the greatest effect on planned force structure.

The relevant assumptions can be divided into two sets: broad strategic premises, and detailed assumptions about the circumstances in which a war begins. The principal broad premises are three:

- o It is assumed that pre-war alliances remain generally intact. Both NATO and the Warsaw Pact nations act together, and South Korea and Japan also participate on the NATO side. It is also assumed that the forces of our NATO allies are at least effective enough to avoid U.S. forces being overrun by enemy breakthroughs in weak sectors held by our allies.
- o It is assumed that it is possible to have a major war that does not rapidly escalate to use of theater or strategic nuclear weapons; further, the Warsaw Pact might begin such a major war without a preemptive nuclear strike.
- o It is assumed that such a war, although non-nuclear, will still be fought all-out, with both sides expending as much effort as they can to win.

The most important of the detailed scenario assumptions concern:

- o How much warning there would be.
- o How intense the pace of the war would be.
- o How long the war would last.

Because the Warsaw Pact nations can deploy additional divisions quickly, NATO planners have often assumed that they would mobilize before launching an attack. <sup>1/</sup> If this were so, NATO would receive some warning and could decide to begin a competing mobilization, alerting and deploying parts of the Western European armies and air forces, and moving forces from the United States to Europe. War would be delayed for a time, and forces available but not deployed in peacetime could be brought to bear early in the war. Alternatively, the war might be abrupt, beginning with little or no mobilization by the Warsaw Pact nations and with little opportunity to augment NATO forces. A Warsaw Pact attack might be intense--that is, fast moving and focused on achieving a general military victory quickly. Alternatively, the attack might be restrained and more tentative, either because Warsaw Pact forces were not capable at the time and place of the attack of moving forward quickly in large numbers or because of political decisions to reduce the risk of a desperate NATO nuclear response. In planning U.S. forces, it has typically been assumed that war would be delayed for a few weeks of mobilization and that when the attack occurred, it would be intense.

If the expected attack is delayed, then forces that might be slower to emplace, but that are stronger, are more useful. For example, armored divisions take longer to move than airborne divisions and might not arrive in time unless the war is delayed; but once deployed, they have more firepower. If fighting is intense, then provision for large quantities of

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<sup>1/</sup> Donald H. Rumsfeld, Report to the Congress on the Fiscal Year 1977 Budget and its Implications for the Fiscal Year 1978 Authorization Request and the Fiscal Year 1977-81 Defense Programs (January 27, 1976), pp. 117-118.

consumables should be made. The implications of such variations in assumptions will be traced through the accompanying discussions of the various general purpose force components.

The defense planning process leaves the political scenarios accompanying the outbreak of war largely undescribed. A bolt-from-the-blue attack in Central Europe not foreshadowed by a period of deteriorating political relations is implausible. An attack would be a desperate and risky act, courting possible failure and even nuclear retaliation. Even if the political scenario leading to an abrupt attack is implausible, however, it is reasonable to plan against such an assault because NATO might fail to interpret correctly or to respond to the warning implied in a deteriorating political situation. There is, after all, a considerable history of failure to heed such warning.

Whether a war--in its conventional phase--is short or long is partly under U.S. control. We could, for example, ensure that any war would be short by maintaining forces incapable of effective resistance, or by choosing to surrender. We have to survive a short war in order to have an opportunity to engage in a long one. But some forces--for example, some naval forces and reserves--may not contribute greatly to early capability, so an important set of policy choices centers on the balance between greater immediate capability and greater capability after a time.

In the five chapters that follow, this paper discusses the ground, tactical air, naval, and theater nuclear forces as they relate to the assumed NATO scenario and indicates the sensitivity of these forces to changes in the NATO scenario assumptions. Since these chapters summarize more detailed papers, they state their broad conclusions without all of the accompanying analysis and qualifications. The analyses are intended to focus on the NATO scenario--including worldwide war with the Soviets. Thus, some potentially important uses for some of the forces are not considered.



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CHAPTER IV            GROUND FORCES AND MOBILITY FORCES

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Current national security policy makes unprecedented demands on the U.S. Army. From a normal peacetime posture the Army is expected, with little or no warning, to be capable of fighting a war of great intensity against a well-equipped and well-trained foe of superior numbers. Further, in this fight the Army must operate in close coordination with the forces of at least five and possibly more allied nations in the main battle front. How is the Army to carry out this responsibility? What is the concept of operations? What force levels, force structures, organizations, and doctrines are appropriate? What are the implications for the future costs of raising and supporting armies?

U.S. objectives are, above all, to deter the outbreak of war in Europe. If deterrence fails, we want to contain an attack without giving up significant amounts of territory, then hope to transform the war from one of movement to one of attrition, thereby convincing the Soviet leadership that negotiations and withdrawal from Western Europe are their best course of action. If negotiations cannot be achieved, we then want to be able to continue to hold off continued attacks until full mobilization of the alliance can be achieved.

It should be clear that the first objective --deterrence--depends very much on having what the Soviets perceive as a reasonable capability to attain the second and third objectives--containing and holding the Warsaw Pact armies. Deterrence also depends upon the perceived capability of U.S. strategic nuclear and theater nuclear forces and the chance that they might be used.

What is known of Warsaw Pact doctrine and capabilities suggests that if there were a war in Europe, Soviet armies would attempt to break through, encircle, and destroy NATO's armies in a

blitzkrieg campaign of very short duration--perhaps two weeks. If this expectation is correct, only a part of the U.S. Army will participate in the early, and probably crucial, phase of a European war. The problem for the Army, then, is to ensure within constraints imposed by its resources that the part that can engage early is adequate to the task facing it, and that reinforcement capabilities are consistent with the longer-term holding action.

The equivalent of about five U.S. Army divisions is deployed to Europe on a permanent basis. <sup>1/</sup> These are all so-called "heavy divisions" with firepower and vehicles suitable for intense combat in a war of maneuver. In addition to the five divisions in place, the equivalent of two other divisions, plus a number of non-divisional units required to put the theater logistics system on a wartime footing, are earmarked for rapid deployment to Europe. Stocks of prepositioned equipment are supposed to be available in theater to equip these units. At present, there are some shortages in these stocks, called POMCUS (Prepositioned Material Configured in Unit Sets) stocks, but shortages are expected to be eliminated in fiscal year 1979. Thus depending upon warning time, about five to seven heavy U.S. Army divisions would be available to assist NATO in countering the initial Warsaw Pact attack. This is out of a total force of sixteen active and eight guard and reserve divisions. The remaining active divisions (less the division in Korea) can be moved to Europe over the next 45 days and the guard and reserve divisions over the course of the next six months. They would depend mainly on sealift, particularly for the equipment of heavy divisions. Nine of the 16 active Army divisions and three of the eight guard and reserve divisions are heavy. The remainder are infantry, airborne, and air assault divisions whose light equipment makes them less suitable for combat against the Warsaw Pact ground forces in

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<sup>1/</sup> Three U.S. Army divisions have one brigade each in Europe and the rest of the division in the United States.

Europe, but more useful for contingency operations against light opposition, and in jungle and mountain warfare.

In addition to the 24-division Army total force, there are four Marine divisions (three active, one reserve). Two active Marine divisions might be available for European contingencies, in which they could be used for amphibious landings or as a theater ground force reserve. All Marine divisions are classed as light divisions.

Present Department of Defense plans for the ground forces for the next five years include the following:

- o Building up POMCUS stocks as discussed above.
- o Completing the 13 to 16 division active Army expansion.
- o Converting two U.S.-based active Army infantry divisions to heavy divisions.
- o Accelerating tank production and conversion programs to modernize active forces and to fill shortfalls of war reserve stocks.
- o Improving the mobility, firepower, and anti-tank capability of ground forces by acquiring additional attack helicopters, anti-tank guided missile systems, tanks, and armored personnel carriers.

Further, improvements in mobility forces are contemplated through such means as:

- o Increasing utilization rates of mobility aircraft.
- o Modifying present aircraft to increase service life or capacity.
- o Modifying commercially-owned aircraft to provide reserve capacity which could be called on in an emergency.

Some of the initiatives described above relate directly to the ability of U.S. ground forces to counter the first, intense phases of an attack by Warsaw Pact forces in Europe. Others are more appropriately viewed as contributing to a holding capability, assuming the initial attack had been stopped. For example, providing more heavy divisions based in the United States would not contribute directly to initial defense in Europe, since they would likely not get there in time. On the other hand, filling out POMCUS stocks and increasing the mobility and firepower of forces in Europe clearly does improve the Army's ability to stop the first attack. Whether the mobility forces are more important for the earlier or later phases of the war depends upon assumptions about warning time, and whether the troops airlifted into theater can immediately marry with prepositioned equipment. Movement of people by airlift is relatively fast and efficient; because the civil reserve air fleet (CRAF) is large, such movement is constrained only by the need to organize and prepare the people to move. Movement of large amounts of heavy equipment is constrained by the availability of cargo aircraft.

The defense budget for fiscal year 1978 will contain funding requests for improvements to the Army and Marine Corps. The issues will be whether these improvements are the right ones, given the present balance of ground force capabilities, to blunt an initial Warsaw Pact attack and to sustain a conventional force buildup and repulse further attacks. The early phase of the war is of particular importance. If a coherent NATO defense cannot be established without sacrificing too much territory, it may not be possible to bring to bear forces procured for sustained operations. Thus, primacy belongs to forces which allow rapid response to the initial attack. At the same time, it would not be wise to sacrifice all capability to reinforce the initial defenders. There must be a balance. The question is whether the defense budget will contribute to setting the proper balance.

Much concern has been expressed in the Congress and elsewhere about NATO's initial defense capability, particularly in view of the buildup in size and quality of Soviet forces in Eastern Europe. One way to improve the U.S. contribution to NATO's capability, beyond those measures already in DoD programs, would be to increase the size of POMCUS stocks to allow more heavy divisions to be rapidly outfitted after air deployment. Another would be to increase the quality and firepower of Army equipment in theater.<sup>2/</sup> Another would be to accelerate replenishment of shortfalls in War Reserve Munitions.

All of these actions would be expensive. If resource constraints require that such ground force improvements must be paid for by adjustments elsewhere in ground forces, one could reduce the size of the guard and reserve and the number of light active Army and Marine divisions. The guard and reserves contribute the last part of the reinforcements to arrive in Europe, including a considerable number of non-divisional support units; and the light divisions are configured to fight best somewhere other than in Europe.

Whether improvements are required in ground force capabilities to meet and stop a sudden, intense Warsaw Pact attack, whether these should be add-ons to present programs aimed at improvement in longer-term capability or should be traded with them, or whether ground force modernization and improvement is needed at all depends not only on the forces themselves and the assumptions about their use, but also on the roles of other U.S. and allied forces in our planning.

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<sup>2/</sup> See Planning U.S. General Purpose Forces: Army Procurement Issues of this series.



U.S. tactical air forces have unique advantages in supporting NATO's forces. They need not all be kept deployed abroad to have an impact in the early phases of a war with the Warsaw Pact nations. Rapid deployment is inherent in the force and does not depend upon massive airlift of equipment and supplies. U.S. tactical air forces could concentrate rapidly against Warsaw Pact thrusts in a variety of circumstances, including short-warning attacks. Finally, U.S. tactical air forces are superior in equipment and training to those of the Warsaw Pact nations. Warsaw Pact forces are more numerous, and are improving, but there remains a reasonable degree of assurance that U.S. tactical air forces can carry out their assigned missions against Warsaw Pact opposition. This degree of assurance contrasts with the concern expressed by many knowledgeable observers about how well NATO's ground forces may be able to carry out their missions. Thus, U.S. tactical air forces must be viewed as contributing significantly to the deterrent value of NATO's forces, and to their ability to fight.

The tactical air forces have two main missions: (1) to defeat an enemy's air force and prevent it from interfering with our own air and ground operations; and (2) to attack enemy forces and installations in support of the ground forces. Success in the first mission depends upon, among other things:

- o the numbers and quality of U.S. aircraft, weaponry, and pilots;
- o the degree to which the air battle can be observed and controlled by higher commanders;
- o the degree of mutual support or interference afforded by our own ground-based air defense systems (missiles and anti-aircraft guns); and

- o the degree to which we and our allies can coordinate our efforts.

These factors are largely subject to our control; much work and substantial resources have been invested in generally assuring that NATO's tactical air forces can defeat those of the Warsaw Pact nations. Success in the second tactical air mission, attack on enemy ground targets in and behind the battle area, depends more upon factors beyond our immediate control. Weather, and the ability of allied aircraft to penetrate weather and deliver ordnance accurately, are of prime importance, particularly given the incidence of bad weather in Europe. The enemy air defenses, particularly missiles and anti-aircraft guns, can seriously degrade aircraft attack performance. Pre-emptive Soviet surprise attack represents considerable danger to allied aircraft without shelters; programmed shelter improvements stretch out beyond the end of this decade.

How allied air forces deal with these factors has probably a more significant effect on the tactical air forces' role in the land battle than does the overall size of the U.S. tactical air forces. In fact, the limited availability of bases in Europe probably would not permit deployment of more than about half of the 215 squadrons of fighter/attack aircraft (5,160 aircraft in all) that presently exist in the Air Force, Navy, and Marine inventory. Some, if not all Navy and Marine Corps aircraft would be held in reserve or committed to other functions, but if need arose could be used from land bases in Europe, provided there were room for them and that appropriate support equipment and training had been provided in advance. Thus, the major constraints in delivering tactical air firepower in support of NATO ground forces are not numbers, types, or quality of aircraft, but other factors having to do with weather, enemy air defenses, adequacy of base facilities, aircraft vulnerability to surprise attack, and so on. In good weather, against light enemy air defenses, a U.S. Air Force that has not been greatly damaged can deliver the necessary firepower. The problem is to

ensure that bad weather, heavy air defense, and aircraft destroyed on the ground do not unacceptably reduce that capability. If the aircraft do not work, having a lot of them will not improve matters. The solution, then, primarily involves buying additional capabilities in munitions, electronic countermeasures, reconnaissance, base hardening and so on, rather than more aircraft. Within given resource constraints it may be prudent to exchange the former for the latter.

An important feature of the tactical air forces is that their contribution to the defense of Europe will probably not vary much as the result of differences between planning assumptions and actual warning time or duration and intensity of the war. They even provide something of a hedge against the land forces being taken by surprise. The shorter-term contributions of the tactical air forces can be most important to the crucial early phases of a NATO war. Here, as in the case of the U.S. Army, the size of the total force is not so important as the capabilities that can be mustered quickly. Unlike the case of the Army, however, air forces that are not in Europe when war breaks out may be useful in an abrupt, short war. If bases are available, some wings can fly to Europe and be in battle in a matter of hours. This flexibility is particularly important given how unlikely it is that U.S. forces permanently stationed abroad will be increased significantly in the future.

Current Department of Defense plans for the tactical air forces over the next five years include:

- o Completion of the 22 to 26 U.S. Air Force tactical air wing expansion.
- o Modernization of present air wings through replacement of older F-4 and A-7 aircraft with new F-15s, A-10s, and F-16s.
- o Deployment of the E-3A AWACS, which will greatly improve NATO's air surveillance capability and ability to manage air battles.

- o Improved night and all-weather attack capability through use of Loran-D, deployment of an additional F-111 wing to Europe, and by aircraft modifications to provide forward-looking infrared target location capability.
- o Improved defense suppression capability through modification of 40 F-111As with extensive ECM equipment, and replacement of older F-105G and F-4C defense suppression aircraft with more modern F-4G Wild Weasels.
- o Continued construction of aircraft shelters on primary and auxiliary air bases in Europe.
- o Development of minimal support capability for U.S. aircraft at selected allied air bases, thus decreasing the wartime load on U.S. primary and auxiliary bases.
- o Modernization of Navy and Marine Corps air wings by replacement of F-4 aircraft with F-14s and F-18s.

As in the case of the ground forces, some of the program described above relates directly to improved ability to stop an initial, intense Warsaw Pact attack. These measures include the night and all-weather capability improvements, the building of shelters, increases in the capacity of European bases, deployment of AWACs, and, to some extent, the force modernization. The force expansion to 26 wings may not be the most effective way to increase the ability of NATO to fight an abrupt war or to add initial reinforcement and longer-term holding capability. It appears, however, that the bulk of DoD's programmed improvements in the tactical air forces are such as to improve NATO's chances of surviving through the early days of an attack by Warsaw Pact forces. An exception to this general observation must be made, however, in the case of Navy and Marine Corps tactical air forces.

Marine Corps air wings are designed primarily to support Marine Corps ground forces with close air support and interdiction strikes. Navy air wings are designed to protect naval forces, particularly carrier, amphibious, and underway replenishment forces, from enemy aircraft and missile attack. They can also strike enemy naval forces at a distance, and can fly missions against enemy ground forces and installations ashore. The primary functions of Navy and Marine Corps aviation are not likely to support ground force operations in Europe directly, particularly in the initial stages of a NATO war. As the Annual Defense Department Report says:

To the extent that the location of major conflicts can reasonably be predicted, and where land-basing rights can be assured (as in Central Europe), land-based tactical aircraft make the greatest sense. In the event of a general war with the USSR, although the most likely focus will be on Central Europe, sea-based tactical air will be needed to maintain control of the seas. For other than European land conflicts this sea-based air might be required to carry the brunt of initial operations...1/

In short, to the extent that Naval and Marine Corps tactical air forces are relevant to a war in Europe, they affect principally the later phases--the longer-term holding capability. The Navy does this by gaining control of the sea, the Marine Corps by providing a reserve of tactical air power.

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1/ Donald H. Rumsfeld, Report to the Congress on the Fiscal Year 1977 Budget and its Implications for the Fiscal Year 1978 Authorization Request and the Fiscal Year 1977-81 Defense Programs (January 27, 1976), p. 180.

Some observers have asked how much sea-based tactical aviation is required to assure sea control in a general war against the USSR. The answer clearly depends upon what seas are to be controlled, and under what circumstances. Controlling the northern Norwegian Sea with carrier-based tactical aviation does not appear feasible with reasonably attainable forces. Nor does it appear to be so necessary to the critical campaign in Central Europe as ensuring, if the initial Pact thrusts are stalled, that sealift can substantially reinforce NATO armies there over the longer term. But the problem of protecting sealift is primarily one of anti-submarine warfare, and thus does not involve sea-based tactical air nearly so much as it does land-based patrol aircraft, nuclear attack submarines, and convoy escort ships. Thus, to the extent one views a very intense, short-warning Warsaw Pact land attack on NATO as the principal or most likely case against which to plan, one might wish to consider trading sea-based tactical air capability for other general purpose forces, such as land-based tactical air or ground forces, or providing sea-based wings with the ability to operate from land bases in Europe and elsewhere.

The present size and structure of the U.S. Navy cannot be fully explained by reference to the DoD primary planning scenario of a major war with the Soviet Union in which the critical theater of operations is Central Europe. Even if one is prepared to assume that an initial Warsaw Pact attack could be stopped, so that the conflict would reach a phase in which reinforcement and resupply of Europe by sea would become a critical factor, the role to be played then by a significant part of the U.S. Navy is not clear. Soviet capability to interdict shipping to Europe is primarily dependent on her attack submarines. Soviet surface ships lack sufficient defensive capability to conduct operations in a hostile environment beyond the range of land-based air cover. Even where such air cover is available, U.S. submarines would threaten Soviet surface fleets. Soviet naval aviation and long-range aviation must operate from bases in the USSR, which requires them to make long flights to reach the sea lanes, and exposes them to interdiction by NATO land- and sea-based tactical aviation. Thus, although there are other threats, Soviet submarines are the dominant sea control problem for the U.S. Navy.

The United States has, over the years, recognized the threat posed by Soviet submarines, and spent large amounts on antisubmarine warfare (ASW). The resultant forces, consisting of long-range patrol aircraft, nuclear-powered attack submarines and surface escort ships, plus associated weapons, sensors, and command and control systems, present a powerful counter to the Soviet submarine fleet. Navy studies of ASW campaigns in the Atlantic generally conclude that the Soviet submarine fleet could be defeated within a few months. But during that period the Soviet fleet would probably succeed in sinking on the order of 15 to 20 percent of allied convoy ships sailing toward Europe. Two other important points also arise from Navy ASW studies:

- o The technology of submarine/antisubmarine warfare has changed profoundly since World War II. Thus, the relevance of ASW experience in that war to future wars should be carefully weighed and tested against modern capabilities before drawing conclusions about the outcome of an ASW campaign against the Soviets.
- o A considerable body of analysis of the ASW problem tends to the conclusion that large increments to U.S. ASW forces would not materially affect the rate at which Soviet submarines could be destroyed, and thus would not greatly reduce expected shipping losses.

The major part of expenditures on the U.S. Navy is not for ASW. The largest expenditures are for aircraft carriers, their associated aircraft, escort ships, and logistics train. The carriers can carry ASW aircraft, which help defend the carrier task force against submarines and might make some contribution to the more general ASW task as well. Carrier task forces, however, are a very expensive way to pursue ASW, and because of their small numbers, their contribution would be limited. They may also provide some defense against Soviet long-range bombers that might reach the Atlantic shipping lanes. As the previous chapter pointed out, the carriers are not intended to participate directly in the early European land battle. Since carrier forces directly contribute little to either the ASW campaign or to the land campaign in Europe, one is led to the conclusion that either their indirect contributions are of great value, or there is some other fundamental justification for maintaining large and expensive carrier forces.

It is argued that carrier-based tactical aviation would provide important support for NATO forces on the northern and southern flanks of NATO (i.e., Norway and the Eastern Mediterranean). It must be noted, however, that Soviet medium- and short-range defensive systems could make the Norwegian Sea virtually untenable for aircraft carriers and other surface ships. Thus, even if the striking power of carrier aircraft were

a critical factor in a campaign in northern Norway, which is not in itself certain, there is no guarantee that any number of U.S. carriers could survive Soviet defenses to launch the requisite strikes. Since there are bases in Norway from which U.S. tactical air forces can operate, it seems reasonable, if the region is critical to the outcome of the war, to investigate the feasibility of using those bases, rather than aircraft carriers, in that region. This would accord with the general DoD policy noted in the quotation from the fiscal year 1977 Annual Defense Department Report cited in Chapter V (see page 27).

The case of the Eastern Mediterranean may be somewhat different. NATO does indeed have air bases in Greece and Turkey, but because of an unhappy sequence of events in the past few years, it is not clear whether, or under what circumstances, those bases would be made available to NATO tactical air forces. On the other hand, if Greece and/or Turkey do not become involved in a NATO war, it is hard to see what NATO tactical air power will be required to do on the southern flank. In sum, the flanks argument does not establish a compelling case that sea-based tactical aviation makes an indirect contribution of great value to the successful outcome of a NATO war. Thus, if there is a case for maintaining sizable carrier forces, it must be made on other grounds. 1/

The central place of the European land war in DoD planning scenarios has, perhaps, tended to obscure the importance of the aircraft carrier. This is in part because, against any opponent but the USSR, it is difficult to generate a requirement for anything like 12 to 15 carriers. It is important, however, to see carrier forces for what they are, whether or not they fit a particular planning scenario. In peacetime, U.S. Navy carrier forces represent a potent, flexible means of shifting local

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1/ See Planning U.S. General Purpose Forces: The Navy of this series.

military balances in sensitive areas to deter the outbreak of war. If war comes, those forces are an important hedge against a prolonged war that would involve a worldwide campaign to assure control of critical sea lines of communications, and could also involve extensive fighting in regions remote from the United States, the USSR, and Europe (e.g., the Persian Gulf, Angola). Such a prolonged war might come about because of a stalemate in the land fighting in Europe, or because NATO forces were defeated on the European continent, but conflict continued on the flanks, in the Middle East, in the Pacific, and elsewhere.

Naval forces sufficient for direct attack on the USSR, such as many large carriers, heavily escorted by AEGIS equipped frigates and cruisers, would be very expensive. They would face very heavy Soviet defenses. If limited to conventional ordnance, it is doubtful they could significantly damage the installations and forces within their reach. If nuclear ordnance were to be used, present strategic delivery systems would be more reliable and certainly less expensive.

On the other hand, it is essential that the Navy retain the capability to deny the USSR use of the sea, and to permit the United States and its allies to use the sea to the extent required to support the land and air campaign against the Warsaw Pact. This capability is supported primarily by our ASW forces, but also probably requires some part of existing attack carrier forces, some part of existing amphibious forces, long-range maritime patrol aircraft, and land-based tactical aircraft near choke points and other critical areas. Whether all of the existing attack carrier forces or amphibious forces are required for the sea control mission is doubtful. Thus the Navy, as presently configured, may have surplus resources that might be adapted to other purposes, such as contributing directly to countering a Warsaw Pact attack in Europe. For example, appropriate support kits could be procured to permit operation of Navy carrier wings from land bases if required. Navy all-weather aircraft, such as the A-6, might be particularly welcome additions in

the early phases of the war. Similarly, Marine divisions might be equipped and trained to take part directly in the European battle.

Much depends upon Soviet naval developments. At present, the Soviet Navy, even though it has improved greatly and has made startling technological progress in some areas, cannot challenge the U.S. Navy for control of the sea anywhere of importance except, perhaps, the Eastern Mediterranean. Even there, Soviet ascendancy could probably only be achieved by surprise attack, and would in any case be short-lived. Should the USSR develop the same kind of worldwide naval capability that the United States has, however, the picture would change drastically, and countervailing measures, such as sizable expansion of attack carrier forces, could be indicated.



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CHAPTER VII            THEATER NUCLEAR FORCES

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Concern about the ability of NATO forces to contain a large-scale Warsaw Pact attack raises the question whether theater nuclear forces could be used to redress a conventional force imbalance, or to deter the Pact from overrunning Europe if their blitzkrieg operations proved successful. The prospects for this kind of use for the theater nuclear forces are not good. As this chapter will argue, they do not substitute for conventional forces. They are primarily useful in deterring the outbreak of war and, specifically, Soviet first use of theater nuclear weapons. However, present U.S. theater nuclear forces lack some important aspects of good deterrent forces, such as survivability.

For almost twenty years the United States has maintained nuclear weapons in Europe as a part of NATO's defenses against a Warsaw Pact attack. These weapons were first introduced into Europe during the time of the doctrine of "massive retaliation." That doctrine presupposed an overwhelming U.S. superiority in nuclear weapons and delivery systems, and hence the capability to fight and win a nuclear war with the USSR. This allowed nuclear capability to be substituted for comparatively more expensive conventional force capabilities. This was viewed as particularly important in Europe, where, in the perception of the time, there was no real prospect of NATO's matching the massive deployment of Soviet ground forces.

Since the mid-1950s the USSR has developed formidable strategic and theater nuclear forces, and the United States no longer enjoys its former marked superiority. Because of the nuclear standoff, neither side can expect to win, in any meaningful sense, a war in which nuclear weapons are widely used.

Thus, the U.S. perception of the role of nuclear weapons, both strategic and theater, has changed from one that permitted defeat of the enemy to one that deters the enemy from using his nuclear arsenal.

The effect of this changing perception of the role and usefulness of nuclear weapons on those deployed in Europe has been mixed. The number of weapons was stabilized at about 7,000 in the early 1960s, as the result of Secretary of Defense McNamara's and President Kennedy's understanding the implications of growing Soviet nuclear capability. The doctrine for the use of such weapons, and their kinds and numbers have responded much more slowly to the changing situation, however. In large part, this was due to our allies' perception, based partly on the underlying logic of massive retaliation, that the United States had offered them a "nuclear guarantee," which assured them that the United States would engage in nuclear war with the USSR in defense of Europe, if that were required. The nuclear weapons on European soil were viewed as an important link between U.S. forces and commitment there and the ultimate use of U.S. strategic nuclear forces in Europe's defense. This close association in European eyes between the theater nuclear weapons and U.S. willingness to support the alliance in defense of Europe has made changes in the weapons stockpile so politically sensitive that it has proved difficult to make any but the most minor marginal adjustments to it, in spite of the very greatly changed environment.

The present rationale for theater nuclear weapons emphasizes their deterrent role: (1) they deter Soviet first use of nuclear weapons in Europe through threat of retaliation in kind; and (2) they assist in deterring Warsaw Pact conventional attack in Europe through the threat of defeat and destruction of invading armies if NATO's conventional forces prove inadequate to that task. These two notions contain serious ambiguities and may, indeed, be inconsistent with one another. Further, the theater nuclear forces as presently configured

may not serve either of these objectives, even if the ambiguities or inconsistencies are resolved.

Deterrence of Soviet first use of nuclear weapons in Europe depends on both the strategic nuclear balance and on theater nuclear forces. To the extent that deterrence depends upon U.S. theater nuclear forces, however, a clear requirement must be that a Soviet first strike cannot remove the possibility of a serious counter strike by those forces. U.S. nuclear weapons on European soil are located at about 100 sites, which are easily locatable and identifiable. These sites are vulnerable to nuclear and conventional attack, and there seems little question that a well designed and executed Soviet attack could destroy many of them. An exception to this would be the Poseidon submarines committed to NATO, which would almost certainly be available for retaliation. If, however, deterrence rests in the end with the submarines, why have the weapons on land?

Deterrence of a massive Soviet conventional attack through threat of escalation to the use of nuclear weapons also presents some difficulties. Presumably in such a case NATO would attempt to repel the Soviet attack using conventional forces. Only if this failed, and NATO forces were threatened with collapse and annihilation, would nuclear weapons be invoked. In such a situation it is hard to see how the weapons would salvage victory out of defeat. If NATO forces were in danger of collapse, the conditions for effective battlefield use of nuclear weapons--such as good knowledge of the location and composition of friendly and enemy forces, carefully planned and positively controlled modes of delivery, good command and control, and so on--would not exist. Also, Soviet ground forces are well-trained and well-equipped for sustained operations in a nuclear environment. Therefore, on a nuclear battlefield, the Soviets may be relatively better off than NATO forces. Finally, if U.S. nuclear forces deter Soviet first use of nuclear weapons, it is hard to see why the presence of an intact Soviet retaliatory capability in Europe would not be a strong deterrent to U.S. first use, even

if the alternative were acceptance of defeat in the European battle. It can be argued that some form of selected use of theater nuclear forces, as a signal of resolve to retaliate for the destruction of NATO armed forces and the occupation of Europe might give the Soviets pause, and lead to negotiations. A President confronting such a decision would have a difficult choice to make. On the one hand, some use of theater nuclear weapons might be the least miserable of options in the sense that it would be the only one offering a chance of preventing the loss of Europe. On the other hand, breaching the nuclear barrier might trigger preemptive Soviet strikes at remaining NATO nuclear facilities; make Britain and Iceland untenable; bring about nuclear blackmail or worse of other U.S. allies, such as Japan; and spread nuclear use to the sea, where the U.S. stands to lose substantially more than the USSR.

That such a choice would be agonizing is plain, and argues strongly for measures to avoid placing any future U.S. President in such a position. Such measures relate primarily to ensuring adequate conventional capability to prevent rapid and decisive Warsaw Pact operations in Europe. Some changes to U.S. theater nuclear forces may be desirable, such as enhanced survivability to improve their credibility as a deterrent to Soviet nuclear first use. On the other hand, improvements for actual use, such as better delivery accuracy or greater land-based missile range, do not appear to significantly improve the miserable alternatives among which a President would have to choose in the event of a NATO war. Nor do they seem likely to substantially increase the likelihood of a relatively favorable outcome from such a war. Thus choices regarding theater nuclear weapons should focus on improving their value as a deterrent to Soviet first use, rather than a general deterrent against aggression with conventional forces. For the latter purpose there is no substitute for NATO conventional capability.

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CHAPTER VIII      CONCLUSIONS AND OPTIONS

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The ability to maintain a coherent early defense without giving up too much ground in the face of a Warsaw Pact attack in Europe is clearly the sine qua non of our defense strategy. Only if that can be done can other forces, existing and planned, be brought to bear to produce a relatively favorable outcome. Thus, priority in defense planning should go first to ensuring initial capability to stop an attack, then to sustaining the war for as long as need be. However, because we can never be perfectly sure, within feasible sets of forces, that we have a "stopping" capability, it might be possible to concentrate too heavily on forces for the initial battle, and provide too little for later phases. That would be as undesirable as having too little initial capability. The deterrent and war-fighting value of NATO's forces depends not only on the ability to turn back an initial attack, but also on being able to resist further buildup and attack until hostilities can be stopped or until the full potential of NATO's economies can be mobilized for war.

Although recent DoD reports have pointed out the importance of the initial battle in Europe, much of the present Department of Defense force expansion and modernization program is aimed at improving U.S. military forces' capability to fight the longer war. Expansion of the Army from 13 to 16 active divisions might not improve its contribution to early NATO defense, and might even reduce it. 1/

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1/ This is primarily because the smaller force could mobilize faster and would be less dependent on affiliated reserve units. For a more detailed treatment of this point, see U.S. Army Force Design: Alternatives for Fiscal Years 1977-1981, a CBO Staff Working Paper, July 16, 1976.

Conversion of Army infantry divisions to armored or mechanized divisions would not bolster initial capability because the equipment for the new divisions would most likely be moved to Europe by sea, and would thus not arrive in time for the early phases of the war, even under optimistic assumptions about warning time. Navy force expansion proposals are not as yet well defined or understood. In all likelihood, however, they, too, will focus on capabilities that do not directly affect the outcome of the early phases of the land war in Europe. The expansion of the U.S. Air Force to 26 tactical air wings is primarily aimed at improving sustaining capability. Strategic mobility improvements proposed by DoD, such as the airlift enhancement program, are in principle capable of improving NATO's early responses, particularly after current shortfalls in prepositioned stocks are made good.

Present assessments of the NATO/Warsaw Pact balance tend to point out that the Warsaw Pact nations have increased their military forces somewhat in size and quite sharply in quality. NATO, too, has made improvements, but these generally tend to center on modernization and organizational and infrastructure improvements. There has never been a consensus among knowledgeable observers of the European balance as to whether NATO has a viable conventional defense option or not. Those who contend that it does point out that NATO can mobilize nearly as many men as the Pact and has qualitatively superior forces, especially tactical air forces. They go on to say that NATO spends as much on its forces as the Warsaw Pact nations, perhaps more. If the resources expended do not produce appropriate forces, in their view, the solution is not to spend more resources, but more efficient use of what is already being spent. Opponents of this view are numerous and tend to point out that the Warsaw Pact would probably have the benefit of some degree of surprise, that it benefits by having the vast bulk of its capabilities in Soviet forces unified in doctrine, command, language, etc., and that in key determinants of land warfare, such as numbers of tanks and artillery pieces, Warsaw Pact forces are greatly superior to NATO's forces.

This divergence of opinion is not likely to be resolved. But it revolves around the balance of capabilities for generating forces rapidly and for reinforcing deployed forces and sustaining the defensive effort. The arguments of those who say NATO forces are adequate presuppose that all those forces can be brought into play quickly and effectively. The arguments of those who say NATO forces are insufficient point to the possibility of very short warning time. They note that Warsaw Pact forces' mobility and firepower give them excellent capabilities to exploit both initial breakthroughs and any failure of the defenders to present an organized, coherent front. Running through these arguments is a theme of concern for the outcome of the first engagements of the war. The point has been very directly put by one knowledgeable observer, Senator Nunn:

What I'm saying in essence is this: We do possess an adequate strategic nuclear deterrent. We do possess an adequate theater nuclear deterrent. We do possess, in our vast industrial might and manpower resources an adequate deterrent to protracted conventional war.

What we do not possess, and this is the focus of my remarks tonight, is an adequate deterrent to a short, intense conventional war. 2/

If NATO is seen to be deficient in present capability for defense against sudden and intense attack by Warsaw Pact forces, there are a large

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2/ Senator Sam Nunn, "Gearing Up to Deter Combat in Europe: The Long and Short of It," address to the 92nd Annual Conference of the New York Militia Association, quoted in the Congressional Record, September 13, 1976, p. S15661.

number of possible solutions. One, which would be direct and which would have an immediate and measurable impact, would be for the United States to deploy more forces to Europe. Another would be to subsidize our European allies to upgrade the equipment and readiness of their forces in NATO. Both of these measures would clearly raise defense budgets and would be contrary to a significant trend in U.S. foreign policy that emphasizes encouraging our allies to take the primary burden of their own defense upon themselves. Neither seems likely to be considered seriously except under conditions of a much more threatening situation in Europe. Thus, these programs will not be further discussed in the options considered here. Nevertheless, they should not be ruled out as possible responses to future exigencies.

Other means of improving the ability of U.S. forces to resist an initial Warsaw Pact attack involve improving the forces that can get into the early battle and the capability to move such forces rapidly from their peacetime location to the battle. Improvements of this kind, beyond those programmed by DoD, could be simply added to present programs. Willingness to add additional resources to the defense budget would, however, imply that the presently programmed longer-war capabilities were of equal importance to achieving our defense objectives. Otherwise, one would be willing to sacrifice the less important improvements to those that were thought more vital. Since resources are scarce, even in the budget of the United States, it is important to examine such trades and their results. Thus, various budget options will illuminate the results of adopting different approaches to meeting national objectives.

An option which would add initial fighting capability improvements to the present DoD force modernization and improvement programs would include the parts of the current DoD program that are aimed at longer-war capability.

Those parts of the current program include:

- o Expansion of the Army from 13 to 16 divisions.
- o Conversion of two light infantry divisions to heavy divisions.
- o Expansion of the Air Force from 22 to 26 tactical air wings.
- o Procurement of further nuclear aircraft carriers and AEGIS air defense ships for the Navy.

Additional DoD programs that may improve rapid reaction capabilities in Europe would be funded as they have been proposed or would be accelerated. These include:

- o Base hardening, including shelters for aircraft.
- o Airlift enhancement.
- o Armored combat vehicles (XM-1 and MICV). 3/
- o Cobra/TOW and infantry ATGM programs. 4/
- o Reconnaissance and battle management improvements such as AWACS.

Other improvements not presently programmed by DoD would be added, including:

- o Increased propositioned (POMCUS) stocks for Army forces.

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3/ See Planning U.S. General Purpose Forces: Army Procurement Issues of this series.

4/ Ibid.

- o Procurement of additional all-weather tactical aircraft and adaptation of present aircraft, especially the A-10, for night and bad weather missions.

If all of the above initiatives were accepted, the National Defense category of the Budget (050) would grow rapidly, as shown in Table 1.

DoD and the military services have been planning and producing forces aimed at longer-war capability for some time. The capability thus produced and now existing may be assessed as adequate to provide the required underpinning, either as a deterrent or war-fighting capability, to forces designed for rapid reaction to Warsaw Pact aggression in Europe. For example, present and programmed ASW capability can defeat the Soviet submarine force over a period of months. Present Navy aircraft carrier force levels are adequate to support ASW forces in asserting necessary control of the sea for resupply and reinforcement of NATO. Because of the Navy's emphasis on the power projection support mission in its force planning, the United States may now have somewhat larger carrier forces than are required for such sea control. But the power projection mission may not be germane to the war in Europe. It may be prohibitively expensive to acquire the capability to attack the USSR or Soviet forces in nearby countries directly from the sea, and such a capability may have little effect upon the outcome of the campaign in Central Europe, either in the shorter or longer term. <sup>5/</sup> Thus, programmed Navy force improvements relating to the projection mission could be curtailed in order to free resources for rapid reaction capability, as discussed above.

Similarly, the Army's force expansion from 13 to 16 divisions could be stopped, both to save the

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<sup>5/</sup> See Planning U.S. General Purpose Forces: The Navy of this series.

TABLE 1. OPTION ONE: BUDGET AUTHORITY IN BILLIONS OF FISCAL YEAR 1977 DOLLARS

	1978	1979	1980	1981	1982
DoD Base-line Program <sup>a/</sup>	122.4	131.9	141.6	151.5	160.2
1978-82 Add-ons <sup>b/</sup>	<u>+0.4</u>	<u>+1.0</u>	<u>+1.1</u>	<u>+0.7</u>	<u>0.0</u>
Total	122.8	132.9	142.7	152.2	160.2

<sup>a/</sup> This baseline is taken from the President's fiscal year 1977 budget submission, and extrapolated to fiscal year 1982. It is primarily derived from the DoD Five-Year Defense Program, and results from the detailed costing out of a large number of different program elements, which include DoD force improvements noted in the text. It is possible, as was suggested in the CBO Report Budget Options for Fiscal Year 1977, that this baseline funding will not be adequate to pay for improvements programmed. However, other baselines, such as those used in the CBO report, Five-Year Budget Projections: Fiscal Years 1978-1982, are simply dollar projections of current policy and are not based on actually estimating the cost of programmed forces. Thus, the President's submission, although it may understate actual costs to be incurred, is preferred as a baseline from which to show the effect of the cost of incremental forces.

<sup>b/</sup> Assumes POMCUS for two additional mechanized divisions and development of a night/bad weather capable A-10.

resources involved in outfitting the additional three divisions and also to free manpower to ensure that those Army divisions that do join the battle in Europe have adequate sustaining capability. Finally, the Air Force expansion could be stopped at a 24-wing force level. If the additional planned two wings were thought to provide a needed reinforcement capability or hedge against unexpectedly large attrition, consideration could be given to equipping Marine Corps or Navy wings to operate from land bases in Europe.

If the improvements that relate to rapid reaction capability mentioned in the high option (option one) are programmed into the present force, along with the restraints mentioned above, the National Defense category would grow more slowly. The following table shows the budgetary impact of choosing this option.

TABLE 2. OPTION TWO: BUDGET AUTHORITY IN BILLIONS OF FISCAL YEAR 1977 DOLLARS

	1978	1979	1980	1981	1982
DoD Base-line Program	122.4	131.9	141.6	151.5	160.2
Less Force Expansion	-2.2	-3.3	-3.0	-4.4	-2.6
1978-82 Add-ons	<u>+0.4</u>	<u>+1.0</u>	<u>+1.1</u>	<u>+0.7</u>	<u>0.0</u>
Total	120.6	129.6	139.7	147.8	157.6

Other competing needs for national resources may be found to be more pressing than the need for a substantial increase in U.S. military capability in Europe. The likelihood of a Warsaw Pact attack may

be assessed as very low, given the sizable U.S. commitment already to NATO and the probability of escalation to nuclear warfare. The overall deterrent capability of NATO may be seen as adequate, and in any case, it can be argued that U.S. force improvements in Europe do not appreciably improve NATO capabilities as a whole unless our allies follow suit with commensurate improvements. This line of reasoning would continue by arguing that, since our allies, with the possible exception of the Federal Republic of Germany, have never taken a conventional force response for NATO seriously enough to have acquired the forces and war reserves to support it, there is little incentive for the United States to do so.

An option that would reflect willingness to continue with the deterrent capability represented by forces very similar to our present forces, without the expansion and upgrading described in the high and middle options, would imply National Defense category costs as shown in the following table.

TABLE 3. OPTION THREE: BUDGET AUTHORITY IN BILLIONS OF FISCAL YEAR 1977 DOLLARS

	1978	1979	1980	1981	1982
DoD Base-line Program	122.4	131.9	141.6	151.5	160.2
Less Force Expansion	<u>-2.2</u>	<u>-3.3</u>	<u>-3.0</u>	<u>-4.4</u>	<u>-2.6</u>
Total	120.2	128.6	138.6	147.1	157.6



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## GLOSSARY

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A-6: Navy/Marine Corps night/bad weather attack aircraft.

A-7: Navy and Air Force attack aircraft.

A-10: Air Force attack aircraft designed mainly for close air support.

AEGIS: A Navy fleet air defense system designed to be effective against enemy cruise missiles.

AIR SUPERIORITY: Denial of enemy use of the air to attack friendly air or ground targets.

ASW: Antisubmarine warfare.

ATGM: Antitank guided missile.

AWACS: Airborne Warning and Control System. An early warning and battle management aircraft being procured by the Air Force.

BASE HARDENING: Improving the resistance of bases to air attack, through concrete aircraft shelters, bunkered command posts, and other facilities.

CLOSE AIR SUPPORT: Air attacks on enemy forces in contact with friendly forces.

COBRA/TOW: Army AH-1S attack helicopter equipped to launch the TOW ATGM.

CONVENTIONAL: In the sense of, e.g., conventional warfare, means non-nuclear.

E-3A: AWACS aircraft.

F-4: Air Force, Navy, and Marine Corps fighter/attack aircraft.

F-14: Navy air superiority fighter.

F-15: Air Force air superiority fighter.

F-16: Air Force fighter/attack aircraft (in development).

F-18: Navy fighter/attack aircraft (in development).

F-105G: Air Force air defense suppression aircraft. Currently being replaced by F-4G.

F-111: Air Force night/bad weather attack aircraft.

HEAVY DIVISION: An armored or mechanized division. So called because of the equipment of the division.

INTERDICTION: Air-to-ground attacks on enemy forces, logistics, or facilities behind the battle line.

LIGHT DIVISION: An infantry division, lacking the heavy equipment of armored or mechanized divisions.

LOGISTICS: Military supplies and materiel for support of combat forces, and the arrangements for such.

LORAN-D: A very precise electronic navigation system.

MICV: Mechanized Infantry Combat Vehicle. An Army armored fighting vehicle.

MOBILITY FORCES: The transport, cargo, and tanker ships and aircraft used to move U.S. forces abroad and support them where deployed. Also called airlift/sealift forces.

POWER PROJECTION: In naval terms, the launching of sea-based air and ground force attacks against enemy targets ashore.

SEA CONTROL: Use of naval forces to secure relatively uninhibited use of sea areas for shipping or offensive operations, and to deny enemy forces the same uses.

TOW: Tube-launched, optically-tracked, wire-guided missile. An Army ATGM.

WILD WEASEL: An Air Force air defense suppression aircraft.

XM-1: A new Army medium tank (in development).