THE HENRY L. STIMSON CENTER

Key West Revisited:

Roles and Missions of the US Armed Forces in the Twenty-first Century

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Summary

On March 11–14, 1948, the first secretary of defense, James Forrestal, convened the chiefs of the military services in Key West, Florida to resolve a long and bitter conflict among them about how to allocate responsibilities for military roles and missions. To Forrestal's regret, the conference resulted in only a weak compromise, giving each service more or less what it wanted; Key West restored a degree of civility among the services, but in the process built redundancy into the heart of the US military posture.

When resources are ample, redundancy in military capabilities is not all bad, providing an extra degree of insurance. The nation has lived more or less happily with the consequences of Key West throughout the cold war, being willing to accept a relatively high cost for defense in order to contain Soviet military power. Now that the USSR has disintegrated, however, and the defense budget seems likely to reach levels not witnessed since before World War II, the cost of redundancy could be very great. If one assumes that deep budget cuts are inevitable, then the cost of not cutting redundant capabilities will be reductions in unique and, possibly, essential forces.

The time is ripe, therefore, for a new look at the roles and missions of the US armed forces. This report summarizes the results of one such analysis undertaken by The Henry L. Stimson Center. The full study will be published by St. Martin's Press in the summer of 1993.

The study concludes that the individual armed services are vital national institutions that serve essential social and political roles, as well as their military purposes. These domestic functions are reason enough to preserve the four services as autonomous institutions within the Department of Defense, responsible for organizing, recruiting, training, equipping, and maintaining US military forces.

The study also concludes, however, that major steps could be taken to reduce the redundancy, and therefore added cost, that resulted from the Key West agreement. Generally speaking, these steps would result in the consolidation of support functions, thereby binding the services more closely. Yet they would also foster greater specialization in the services' combatant roles, thereby strengthening their uniqueness and special contributions to the nation's security. The study also concludes that the long-standing trend toward a larger role for the chairman of the Joint Chiefs of Staff, the Joint Staff, and the unified commands, responsible for the actual conduct of US military operations, should be extended.

The study's main recommendations are listed below. For convenience, they are divided into three broad categories: protection of the United States, protection of US interests abroad, and participation in multilateral operations to protect collective international security.

Protection of the United States

The United States should continue to maintain substantial, nuclear-armed offensive forces to deter attacks on the United States but greater attention should be paid to active defenses against attacks, as well.

- The START (Strategic Arms Reduction Treaty) II goal of 3,500 warheads should be achievable by the early years of the next decade. Beyond that, the United States should seek agreements making possible an offensive force of 2,000 or fewer warheads, deployed on bombers and submarine-launched missiles.
- To deter potential threats to US forces overseas by countries with weapons of
 mass destruction, the United States should also earmark a wing of specialized
 strike aircraft, based in the United States, and equip these aircraft with a modest
 number of tactical nuclear weapons.
- The United States should build a missile defense system capable of defending against attacks of as many as 50 warheads. Such a system should be deployed in compliance with the terms of an amended Anti-Ballistic Missile (ABM) Treaty. In addition, modest defenses against aircraft and submarine-launched cruise missiles should be maintained.
- The armed services should continue to provide information derived from surveillance of US borders, airspace, and adjoining waters to civilian agencies charged with protecting the United States from drugs and other contraband. This does not require giving the military a law enforcement role.

Command of all forces utilized for protecting the United States should be given to the Strategic Command; a Space Command and a Continental Defense Command should be subordinated to it. The Air Force should be given lead responsibility for developing defenses of US territory against missile and air attacks; the Army should retain primary responsibility for ground-based theater missile and air defenses.

Protection of US Interests Abroad

While some US forces should be retained in Europe and East Asia, US forces intended for use in contingencies abroad should be based largely in the United States and should place primary emphasis on exploiting advanced technologies to strengthen their flexibility, mobility, and unique characteristics.

The **Army** should place greater emphasis on light divisions, exploiting the advanced capabilities of modern ground-based fire support systems and heliborne weapons to increase its ability to respond to contingencies abroad in a timely manner. The Army should take primary responsibility for providing its own close fire support; however, fixed-wing aircraft are not required to carry out this mission. Equipment sets for all remaining heavy Army divisions should be located abroad, either in potential combat theaters or on ships prepositioned near them.

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- The Air Force should concentrate on achieving air superiority and on interdicting enemy forces and supporting units and facilities on the battlefield. The Air Force should also expand its lift capabilities, adding to the mobility of both its own forces and the Army's. The proportion of Air Force resources devoted to nuclear warfare and to attacks on strategic targets deep behind enemy lines can be reduced.
- The Navy and the Marine Corps are uniquely capable of providing ground and air power in crises and in the opening stages of most conflicts abroad. Specific measures are suggested by which to enable these services to increase the amount of firepower that they could bring to bear at such times. The Navy also should increase its capabilities for sealift, and it should continue to improve its ability to gain air and sea superiority in support of US military actions abroad and to support US diplomacy by maintaining a global presence. At the same time, with the demise of the USSR, the Navy can diminish its current attention to strategic warfare and to defense of the sea lanes. The Navy also does not require specialized aircraft for deep strikes; this mission can already be accomplished by Navy cruise missiles and by a variety of Air Force aircraft.

A unified Contingency Forces Command should be established to develop joint doctrine, to ensure commonality among forces, and to carry out joint training of forces based in the United States. When contingency forces are deployed abroad, command of them should pass to one of three geographic commands: Atlantic, Pacific, and Central.

Support for International Collective Security

The United States should give greater attention to preparing for its participation in international peacekeeping operations and in multilateral operations to enforce collective security.

- Peacekeeping needs should be taken into account in decisions on the future size
 and structure of the US armed forces; these needs should be considered to be
 additive to needs for unilateral capabilities. Specialized forces for peacekeeping
 should be created and might eventually include two specially configured Army
 light divisions and six independent, specialized battalions for monitoring operations.
- Units of regular US forces should be earmarked for duty in collective security enforcement operations and receive special training to facilitate their assignment with the forces of other countries.

A specified Army Peacekeeping Command should be created to plan, develop doctrine, carry out specialized training, and develop equipment for international peacekeeping. This command should be subordinated to the unified Contingency Forces Command mentioned above.

An illustrative force posture is provided in the report. We believe that such forces could not be supported adequately if the defense budget fell much below \$200 billion in

1993 dollars. It is particularly important to maintain US technological advantages and to exploit the recent technical breakthroughs that make possible the effective use of numerically smaller forces.

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Preface

Few argue with the proposition that the United States must maintain well-equipped and well-trained military forces of considerable size and substantial diversity. Yet soaring federal deficits have required painful reductions in government spending. The coincident demise of the USSR, previously the nation's foremost military adversary and primary justification for defense appropriations, makes the Defense Department's budget a particularly inviting target.

The last time the armed services faced domestic pressures for substantial cuts in a radically altered international environment was after World War II. A long and bitter battle ensued among the services over how to divide responsibilities for military roles and missions. The eventual compromise, known as the Key West agreement, gave each service more or less what it wanted, at the price of redundancy, and therefore greater cost.

The obvious difficulties associated with reallocating roles and missions make the services reluctant to revisit the issue today. Although broad redundancy in military capabilities can be viewed as added insurance when resources are plentiful, it is an unaffordable luxury when budget deficits loom large. Failing to reduce redundancies as budgets decline can also lead to misdirected cuts in other kinds of capabilities that are unique and essential to U.S. security.

Anticipating that defense budget cuts would soon reach the point where roles and missions questions could no longer be avoided, The Henry L. Stimson Center began to address this issue in 1991, thanks to a grant from the Carnegie Corporation of New York. The analytic task we undertook was difficult and complex, and the problems we encountered showed clearly why roles and missions are revamped so infrequently. Making rational allocations requires, first, an assessment of the basic purposes of the armed forces and how they can best protect and advance U.S. national security interests in a changed and turbulent international environment. Some of these purposes—ensuring national survival, for example—are fundamental, while others change as politics and technology evolve.

After assessing basic purposes, we considered various ways that these might be met efficiently. Our effort was necessarily conducted on a high level of aggregation and is far from complete. We hope that we have demonstrated how one should go about such a study, but we are under no illusion that we have completed the task definitively. In presenting our findings, we hope to stimulate a serious domestic debate on roles and missions and to encourage other studies that will tackle this difficult question in a rigorous way.

We would like to extend our thanks to those individuals who took time out to comment on various aspects of the study. They include Stephen Biddle, Ivo Daalder, John Hamre, Rodney Liesveld, Russell Murray, Michael O'Hanlon, Don Snider, John Tillson, and Michael Wheeler. Of course, responsibility for the final contents, and for any errors or omissions, rests with the authors alone.

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Michael Krepon President, The Henry L. Stimson Center **Key West Revisited: Roles and Missions of the US Armed Forces in the Twenty-first Century**

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Key West Revisited: Roles and Missions of the US Armed Forces in the Twenty-first Century

No sooner had the ticker tape ceased to fall after World War II than the military services and their respective backers in the executive branch and the Congress began to fight bitterly over the organization, size, and structure of the armed forces for the postwar period. The conflict raged viciously for several years, with the stakes believed to include such fundamental issues as the very existence of the Marine Corps and the independence of the Air Force. Two historic agreements ended the struggle—to the relief of all, but the satisfaction of none.

- In July 1947 the Congress passed the National Security Act; among other things, the legislation set up the National Security Council, created the Department of Defense and placed its authority above the individual services, and established the Air Force as an independent service.
- Eight months later, on March 11–14, 1948, James Forrestal, the first secretary
 of defense, sequestered the uniformed military chiefs in Key West, Florida, and
 brokered an agreement that apportioned military roles and missions among
 them.¹

Whereas the National Security Act established a sound organizational context and structure for the nation's military establishment, the Key West agreement was relatively unsuccessful in resolving the roles and missions issue. Rather than compelling a definitive clarification of the services' respective areas of responsibility, Forrestal was able to forge only a weak compromise, which essentially gave each service what it wanted. The results were ambiguities in service roles, and redundancy in service functions, which built higher costs into the very heart of the US defense establishment.

Officially, the military services defend the Key West agreement tenaciously, thereby avoiding the reopening of old battles that they believe once jeopardized their very existence. This was demonstrated most recently by conflict within the Pentagon over the report of Chairman of the Joint Chiefs of Staff Colin Powell on roles, missions, and functions. While the final report recommends several important reforms in the activities of the armed services, the service chiefs compelled General Powell to remove or water

^{1.} The phrase "roles and missions" refers to the allocation of combat tasks and responsibilities among the four branches of the US armed forces under US defense organization set in the late 1940s. Subsequent alterations in US defense organization have changed how the terminology is applied. Under current Defense Department organization, **missions** are the operational military tasks that the president or secretary of defense assign to the commanders-in-chief (CINCs) of unified and specified combatant commands. **Functions** are tasks of preparing and maintaining forces for particular types of combat action or military activity that are assigned to the individual armed services. Military functions can be defined broadly, for example, the Air Force's assigned function "to organize, train, and equip Air Forces for the conduct of prompt and sustained combat operations in the air", or narrowly, such as its assigned function "[t]o furnish close combat and logistical air support to the Army." (DoD Directive 5100.1, 31 December 1958.) The broadly defined functions of the services are also referred to as service **roles**.

down some of the more far-reaching measures that had been proposed by the chairman in an earlier draft.²

Few defense experts, however, either in uniform or civilian mufti, would dispute the Key West agreement's shortcomings in private. In the abstract, there may be nothing wrong with the redundant capabilities that resulted from the Key West compromise; it can be argued, in fact, that duplication in services' roles and functions provides an extra margin of security. But, at the same time, redundant capabilities implicitly increase the cost of defense. If the Key West agreement's redundancies could be substantially reduced, the same level of military capabilities could be achieved at lower cost.

During the cold war, when Americans perceived very serious military threats to their security and were therefore willing to allocate large amounts of resources to defense, the greater cost of the armed forces that resulted from Key West could be lived with. In 1993, however, confronted with massive and persistent fiscal deficits that are seriously undermining the country's economic health, Americans are searching for means of reducing federal spending. The demise of the Soviet Union makes defense a logical target. The defense budget is already slated to decline substantially during the 1990s; continuing pressures for deeper reductions can be anticipated for many years. This prospect suggests that redundancies in service roles and functions could become more costly. If deeper defense cuts are taken as a given, the alternatives to reducing redundancies in service roles and functions are reductions in unique capabilities that may be essential for the nation's security.

The nation's fiscal situation alone thus compels a new look at the military services' roles and functions. Forty-five years after the Key West conference, moreover, two additional factors also suggest that the issue should be reexamined.

- With the end of the cold war, the United States has been left without a commonly
 accepted rationale for its armed forces. Popular support for military spending
 will reemerge only when a persuasive new paradigm has been articulated.
 Rethinking the missions of the US military and the roles and functions of the
 armed services is an important component of any effort to design such a new
 paradigm.
- Military technology has changed as radically as world politics during the past forty-five years, altering the capabilities of different kinds of weapons systems and raising the possibility, at least, that various military missions might be achieved most efficiently by kinds of forces different from those used in the past.

^{2.} Chairman of the Joint Chiefs of Staff, Report on the Roles, Missions, and Functions of the Armed Forces of the United States (Washington, D.C.: Department of Defense, February 1993) and Draft (December 1992); John Lancaster, "Military Reshaping Plan is Short of Clinton Goals," Washington Post, February 13, 1993, 1, 4; Barton Gellman, "Services Moving to Protect Turf: Powell to Rebuff Call to Streamline," Washington Post, January 28, 1993, 1; John D. Morrocco, "JCS to Backtrack Decisions in Roles, Missions Study," Aviation Week & Space Technology (January 18, 1993), 58–59.

Thus, only by revisiting the fundamental decisions taken in the late 1940s will it be possible to shape the United States' armed forces so that they can continue to protect the country and its interests abroad, at an affordable cost, in the years to come.

This study is more a demonstration of how one should go about such a fundamental reevaluation of US military needs than a definitive assessment of these controversial issues. Far larger staffs than ours are required to carry out the detailed analyses necessary for a complete review of the organization and structure of the US armed forces. At a high level of aggregation, however, we were able to carry out a comprehensive review of the purposes of the armed forces, to ask how the Defense Department might be organized efficiently to fulfill those purposes, and, illustratively, to derive the implications of our analysis for the structure of forces and for military budgets.

The study is *not* a blueprint for cutting the defense budget. Rather, it should be seen as a guide for using military capabilities more efficiently, whatever the level of resources made available to the Department of Defense.

We deliberately carried out the analysis without recourse to specific scenarios of future conflicts. We sought to identify the basic missions of the armed forces without identifying individual villains or real-world threats. Recent history has shown how fragile such notions can be. Threat scenarios are essential for detailed military planning; however, at the level of aggregation at which our analysis was conducted, we were largely able to avoid postulating threats in concrete terms.

Our complete study will be published by St. Martin's Press in the summer of 1993. Our methodologies and detailed analyses are contained in that manuscript. This report, which only summarizes our thinking and conclusions, is organized into five sections. In the first, we describe some of the key domestic factors that will influence decisions on the US armed forces. In the second, we discuss the military purposes of the armed forces and propose a means for categorizing them that makes it easier to identify particular types of forces with particular purposes. In the third section we propose specific changes to the organization of the Defense Department and to the roles and functions of the individual military services. In the fourth and fifth sections we discuss the implications of these proposals for the structure of US forces and for military budgets, respectively.

Boundaries on Choice

Choices about the size and structure of the armed forces will be influenced by any number of factors, but chief among them are the special status of the military services in American society, American beliefs about the uses and importance of military power, and the opportunities and costs afforded by modern technology.

The Armed Forces and American Society

The individual armed services are valuable national institutions that serve vital roles in American society. Symbols of the nation's might, defenders of its traditions, reminders of its history, the military presence at national ceremonies and national shrines reminds citizens of their patriotic responsibilities and of the sacrifices made by so many Americans in defense of American liberties. Without a royal family to embody the country's legacy, the armed services are particularly important sources of continuity

in national affairs, lending life to the abstractions contained in the historic documents and bloodless monuments that otherwise represent American history.

It is not the "military" per se that serves these functions but the individual services; Americans tend to identify with the Army, Navy, Air Force, or Marine Corps, not with the Department of Defense or some joint abstraction. The symbolic social roles of the armed services alone make it essential to preserve them as separate and autonomous organizations. While it may be possible to gain efficiency by eliminating individual services as the building blocks of the military establishment, as the Canadians did some years back, the loss to the country in terms of the intangible worth of these institutions would be incalculable. Changes may be desirable in the functions carried out by each service. It may be possible to reduce redundancy and to integrate their efforts more closely in pursuit of common goals. But the basic structure of autonomous service institutions should be retained.

The special ethos of the American military would make such fundamental changes hard to impose in any event. Declining budgets may initially prompt raids on the functions of sister services, as when corporations seek to acquire weaker rivals in lean economic times, but the armed services are not your typical economically motivated organization. They are psychologically bonded tribes reluctant to part with any function believed to define the core image of the organization, and particularly resistant when the attempt is made to impose change from the outside. Bringing about fundamental structural change in large organizations is always difficult, but any attempt to alter the basic structure of the US military establishment would unleash a political donnybrook whose costs could quickly overwhelm any potential gain.

In addition to their symbolic social roles, the armed forces play tangible socializing roles as well. The experience of military service has often been important in the history of the country toward bringing a greater sense of national participation to disadvantaged minorities. Military service has been a basic learning experience for many Americans, not only teaching them basic skills and providing advanced on-the-job training but instructing them also on social relationships and the perspectives of diverse groups.

The armed forces serve other important domestic purposes. They provide a guarantee of law and order after natural disasters and violent incidents, and they can provide a range of services to civilian agencies and communities. Being well-organized, highly mobile, dispersed around the country, and equipped to provide most basic government services, the armed forces can be useful in helping communities recover from natural and man-made calamities, providing a basic level of comfort and security while utilities, medical facilities, and other government functions are being restored.

Some have suggested giving additional domestic duties to the armed forces in recent years, such as providing security and other services in the inner cities and helping to clean up the environment. We do not believe that this would be a good idea. American democracy has flourished by establishing as sharp a division as possible between the military and civilian elements of government, a dividing line welcomed by the armed forces. Over the long term, and in certain circumstances, a blurring of the lines between military and civilian functions of government could either weaken the high regard with which the armed forces are now held by Americans or threaten the basic precepts of our

democratic system. These are grave risks not worth running for the expedient of seemingly prompt solutions to certain domestic problems.

American Beliefs about Military Power

Quite apart from their views of the armed services, Americans' beliefs about the utility and limitations of military power place constraints on choices concerning the size and structure of US forces. Such beliefs not only place rough limits on the likely size of future military budgets but also should impart clear directions for decisions about how resources should be allocated within the military establishment.

Americans tend to be conservative on international affairs, with a healthy respect for military power and its importance for the nation's security. As a result, the nation supported a heavy burden of military spending for nearly five decades after World War II, far larger a burden than that accepted by most other democratic nations. Americans also clearly understand the value of US military involvement overseas; despite persistent isolationist strains and recurrent bouts of "ally-bashing," Americans supported the deployment of hundreds of thousands of troops overseas throughout the cold war.

Now that the USSR has been dismantled, Americans rightfully understand that the burden of military spending can be reduced. The so-called peace dividend is sought eagerly to make possible domestic initiatives and to help remove the crippling impact of massive deficits. Yet, just as perceptions of fiscal needs place a ceiling on the defense budget, perceptions of continuing needs for military power are likely to build a floor under it, curbing the extent of cuts and, thereby, the degree of structural change in forces that might otherwise become necessary. Americans will likely want to continue supporting traditional allies in Europe, the Middle East, and East Asia, particularly now that the cost of doing so is greatly reduced. The tradition of a global military presence, initiated by Theodore Roosevelt with the cruise of the "Great White Fleet," and made permanent after World War II, will almost certainly be sustained. The US goal of maintaining these commitments will place a lower limit on the size of its forces. A 200-ship navy, for example, could not maintain a forward presence in Europe and the Pacific, far less in the Indian Ocean as well.

Americans' beliefs about the proper uses of military power should also affect decisions on the structure of forces. Americans retain a crusading spirit and express support for democracy and basic human rights throughout the globe. Americans tend to be conservative about the actual use of force in pursuit of such ideals, however, when tested in situations that may require the exercise of military power. This reluctance to become involved in other nations' internal affairs should affect decisions on the types of military capabilities that are most likely to be required. Increasingly, moreover, Americans seem to believe that military interventions overseas should be carried out multilaterally, through the United Nations or some other international organization. This tendency too, if sustained, should affect decisions on the structure of US military forces.

A final boundary on choice is established by Americans' belief in technology and their insistence on technological superiority in military forces. Throughout the cold war, the United States chose to emphasize quality over quantity, depending on its technical provess to offset the USSR's massive armed forces. Throughout the twentieth century, the United States has happily invested capital to spare American lives, investing more in

its armed forces but realizing capabilities that reduced the price in casualties of victory in war. The demand for technologically superior forces is not likely to dissipate, requiring continuing modernization of military equipment and establishing a floor under budgets for research, development, and procurement. The more technically advanced US forces become, moreover, the more expensive each unit of force becomes—both to acquire and to operate and maintain.⁸

Military Technology

Throughout the cold war, the United States invested considerable sums in military research and development with the aims of avoiding any technological surprise at the hands of the opponent and providing its own armed forces with superior military equipment. Americans assume that technological superiority will help maximize success in war, reduce casualties, and even intimidate potential opponents from initiating hostile actions.

Many different kinds of technologies have contributed to the United States' superior military capabilities. During the past twenty years, however, the most important developments have been advances in microelectronics and resultant leaps in capabilities to gather and process information. These developments are resulting in quantum jumps in the capabilities of virtually all types of military equipment. As a result of this revolution in military electronics, new types of functions can be contemplated for several types of forces, a situation that contributes to the opportunity to rethink the roles and missions of the armed forces.

As the United States already maintains an active research program in virtually every type of military equipment and technology, the issue in contemplating the research and development program is not which new programs to initiate but which programs to accord the highest priority if budgetary pressures compel reductions. Insofar as new concepts typically require at least fifteen years to advance from ideas in the laboratory to weapons in the field, decisions on research priorities taken now will affect the capabilities of US forces in the second decade of the next century.

Our survey of prospective advances in military technologies highlighted ten potential developments as being the most important (see Table 1). Each of these developments could have major effects on the capabilities of different types of military forces, and therefore on choices concerning the roles and functions of the military services.

Purposes of the Armed Forces

In military terms, and on the most general level, the armed forces have three broad purposes: protection of the United States, protection of US interests abroad, and the support of international collective security.

^{3.} William White, US Tactical Air Power: Missions, Forces, and Cost (Washington, D.C.: The Brookings Institution, 1974).

Table 1 The Ten Most Significant Prospective Advances in US Military Technology

Advanced electro-optical sensors: Reduced in cost, capable of penetrating camouflage and foliage.

Airborne surveillance systems: Resistant to countermeasures, and able to perceive, identify, and track an opponent's forces over a wide area to provide accurate targeting of long-range precision munitions and to support the efficient maneuvering of U.S. forces.

Ground surveillance systems: Low-cost, inter-netted, capable of detecting, identifying, and tracking people attempting to penetrate into protected areas.

Information-processing systems: To be used for the high-speed fusion of intelligence data in order to present a real-time, comprehensive picture of the battlefield.

Self-guiding anti-armor munitions: Resistant to countermeasures, allowing highly efficient fire support by relatively small and lightweight forces.

Long-range fire support systems: Highly responsive, deployable with light ground forces, including laser-homing anti-personnel munitions.

Defenses against nuclear, biological, or chemical weapons: Active and passive, rapidly transportable overseas.

Lightweight body armor: Improved, primarily for infantry.

Affordable air cargo aircraft: Large, long-range, capable of faster deployments of ground forces, along with their advanced fire support systems and the matériel needed to sustain high-tempo tactical air operations.

Improved combat simulators: Making possible the training of forces to high levels of proficiency before they actually engage in combat, as well as efficient assessments of new weapons and employment doctrines before substantial resources are invested.

Protection of the United States

Geography blessed the United States, permitting it to pay little attention to possible threats to its own territory from the mid-nineteenth century to the mid-twentieth century. When a significant threat did appear in the form of the USSR's long-range, nuclear-armed aircraft and missiles, the United States built some defenses but chose to rely mainly on deterrence—the threat of deadly retaliation—to protect its territory, accepting the coincident risks of attacks owing to accidents and technical failures, unauthorized actions by individuals, and failures of the deterrent system. Happily, none of these risks were realized; the deterrent gamble paid off throughout the cold war. The diminished threat of Soviet nuclear attack, however, combined with advances in technologies that could contribute to effective defenses against missiles and aircraft, provides

an opportunity to rethink whether or not the US armed forces in the future should, and could, do more to defend American territory. The slowly rising risk that other, potentially hostile nations may also eventually obtain long-range missiles or aircraft armed with weapons of mass destruction provides serious reason to take advantage of these opportunities and rethink these issues.

After contemplating these factors, we have concluded that protection of the United States should receive a higher priority in US military planning and that three types of capabilities are necessary to fulfill this premier purpose of the armed forces.

Deterrence. The United States should continue to maintain substantial, nuclear-armed offensive forces to deter deliberate attacks on this country. This mission is easier to carry out now than before, however, and these US deterrent forces can decline in size over time, along with the long-range nuclear and chemical forces of other nations, as agreements are negotiated and implemented. The United States should concentrate initially on implementing START (Strategic Arms Reduction Treaty) II, ensuring that US and Russian strategic nuclear weapons decline to 3,500 by the early years of the next century and that no new nuclear power emerges from the former Soviet Union. Looking farther into the future, we believe that an offensive force smaller than 2,000 warheads, deployed on long-range bombers and submarine-launched missiles, may be attainable through negotiations.

Defense. The United States also should develop capabilities to defend itself against attacks by small numbers of aircraft or missiles, whether launched by accident, inadvertence, or deliberate decision. Such defenses might initially be restricted to current numbers of interceptor aircraft, and a small deployment of land-based missile interceptors and radars, compliant with the terms of the 1972 Anti-Ballistic Missile (ABM) Treaty. The system eventually should include more capable space-based sensors and control systems, useful for cuing theater missile defenses as well as the strategic defense system. Reliably effective defenses against attacks involving as many as 50 warheads should be possible in about ten years without disturbing progress toward further reductions in offensive forces or undermining deterrence at those lower force levels. Deploying such defenses would require an amendment of the ABM Treaty, however, and this recommendation is predicated on the assumption that the treaty will be altered through negotiations.

Surveillance. The US armed forces also should continue to support law enforcement agencies by providing long-range surveillance of the approaches to US borders, airspace, territorial waters, and adjoining economic zones. Such strategic surveillance by the armed forces, although its effectiveness is dependent on intelligence, can help to protect the country from terrorists, particularly those that might be armed with weapons of mass destruction. It can also help prevent unwanted penetrations of US borders by smugglers bringing drugs and other contraband to the United States' shores. Fulfilling this mission does not require that the armed forces play a role in civilian policing functions, a role that they rightfully abhor. Instead, the services would continue to concentrate on obtaining information about movements through adjoining regions systematically and on providing such information on a timely basis to the government organizations charged with

interdicting interlopers, including the Border Patrol, Customs, the Coast Guard, and local authorities.

Protection of US Interests Abroad

Protecting US interests abroad has become far easier for the armed forces with the dissolution of the Soviet Union and the changed policies of the successor states. Assuming that Russian military power continues to decline, as promised, substantial reductions should be possible in the American forces dedicated to protecting US interests abroad, or what we call "contingency forces." Should a major new threat emerge in the future, there would be time to reconstitute larger contingency forces, as described below.

Some of the specific tasks involved in defending US interests abroad, such as the protection of US citizens in foreign countries or the capture or destruction of specific facilities or groups that threaten US interests overseas, require only small, if specialized, military capabilities. Sometimes, however, the protection of US interests abroad requires a major intervention to defend friendly governments or to defeat an aggressor, in which cases substantial quantities of conventionally armed, active and reserve, ground, sea, and air forces are required. In fulfilling this purpose, the armed services must also maintain capabilities to reconstitute even larger forces, for contingencies in which a foe substantially more capable than any now apparent began to emerge.

Contingency Forces. In considering the types of forces that might be needed for overseas contingencies, three kinds of threats need to be evaluated; each suggests the development of different kinds of military capabilities.

- In the Persian Gulf War the United States and its allies faced a foe whose armed forces had been trained, equipped, and organized for **maneuver warfare**; this is the same type of conflict that the Soviet Union and its allies had planned to fight in the event of war in Europe. Already well-prepared for this kind of conflict, US armed forces thus turned in a superb performance in the Gulf. Among other things, success in maneuver warfare requires that the armed forces be capable of containing the opponent's initial foray short of its objectives, of establishing military superiority in the air over the theater and on the adjoining seas, and of carrying out a broad air and ground campaign to destroy the opponent's forces. For the most part, the changes in the mission priorities and equipment of the US armed forces necessary to maintain and further improve US capabilities for maneuver warfare are already under way; we suggest a few additional ones later in the report.
- The United States in Vietnam, and the USSR in Afghanistan, faced a very different kind of situation, which we call "hit and run" warfare. Neither great power proved to be very good at it. While the United States obviously would be, and should be, reluctant to become involved in such a conflict again, the armed forces might nonetheless be called upon to do so; indeed, to rule out such contingencies categorically could only encourage potential foes to concentrate on the capabilities needed to mount this type of threat to US interests abroad. Although only political and diplomatic measures can ultimately resolve situations characterized as hit-and-run warfare, effective military operations can

buy time and leverage for such political initiatives to work. Consequently, the US armed forces need to make preparations to acquit themselves better in any future hit-and-run conflict in which they, however reluctantly, are called upon to participate. These preparations include not only steps to enhance the United States' ability to respond promptly and effectively to attacks but measures that might enable the US side to gain the initiative, making the enemy as visible and vulnerable as possible, and cutting off its supplies of manpower and matériel.

• A dimension of warfare that might be encountered more often in the future is an adversary's threat, or actual use, of **nuclear**, **chemical**, **or biological weapons**. These possibilities must not be permitted to deter the United States from being willing to protect its vital interests abroad. Awareness of the risk dictates special preparations in the design and use of contingency forces, including the acquisition of more capable theater air and missile defenses, the acquisition of surveillance, targeting, and quick-strike forces able to pinpoint and rapidly destroy mobile missiles, and the retention of a modest force of tactical nuclear weapons, based normally in the United States, that in special circumstances could be used to help deter attacks on US forces abroad by weapons of mass destruction.

Combining an appreciation for the nature of these three types of threats, a reasonable assessment of their maximum magnitude over the next ten to fifteen years, and the capabilities made possible for US forces by advances in military technology allows us to suggest certain changes in the size and structure of US forces. An illustrative force posture is described later in this report. In general, however, it seems clear that:

- Army and Marine ground forces, active and reserve, can be smaller than those
 planned in the Bush administration's Base Force, and that the mix of heavily
 armored and lighter forces should shift further toward the latter, reflecting
 improvements in ground-based fire support and in helicopters equipped with
 precision munitions, and reflecting as well the need for the more rapid deployment of contingency ground forces if they are to respond effectively to future
 crises.
- The further exploitation of precision munitions, stealth technology, and precision location systems can make possible smaller, but better equipped, tactical air forces than are now planned while allowing US air superiority to make an even greater contribution to the achievement of US objectives in future conflicts.
- Freed from threats to its dominance of the high seas, the Navy, including the Marine Corps, can concentrate on its strength—the projection of ground and air power to distant regions in crises and in the early days of conflicts. As the number of US troops deployed abroad declines, the United States will count increasingly on the Navy for the initial containment of threats overseas, buying the time required to move Army and Air Force units to the combat theater. Navy planning should stress the sealift and prepositioning required to bring necessary force to bear in the early stages of any conflict. It should also stress the systems

needed to ensure dominance of the air and sea areas adjoining the area of intervention.

Reconstitution. A final consideration in preparing to protect US interests abroad is maintaining an ability to meet any larger threat that is not present now but that conceivably could emerge. Maintaining a capability to reconstitute larger forces, if they were needed, is largely a matter of choosing effective strategies for modernizing US weapons and for maintaining necessary industrial facilities. The extensive design, engineering, and production capabilities associated with the US weapons modernization program provide a core capability for expanding US forces, even as US defense industries diminish in size over the coming years.

In particular, to establish the basis to reconstitute larger forces, if necessary, in the future, the United States should:

- Shape and train active and reserve forces to provide a base for expanding the force.
- Continue to invest in science and technology with emphasis on the exploitation
 of commercially viable technologies in the design and manufacturing of military
 equipment. Such an approach would make possible the rapid mobilization of
 commercial industries for military needs, should it become necessary.
- Adopt weapon designs and administrative practices that make it easier for commercially oriented firms to deal with the government, thereby expanding the number and capacity of potential defense suppliers, especially for subsystems and weapon components.

Maintaining adequate reconstitution capabilities requires relatively small amounts of resources; a package of initiatives identified in our larger study would amount to no more than 2 percent of the defense budget per year. Harder to achieve, however, are the fundamental changes in the way the Department of Defense manages forces and acquires weapons that are needed to maintain adequate reconstitution capabilities. Changes such as the relaxation of excessively demanding performance requirements for weapon components, or reducing requirements for the certification of manufacturing processes, would not only improve the efficiency of the Defense Department in normal times but also facilitate the sudden expansion of the US armed forces should the need arise.

Support for International Collective Security

It is clearly in the long-term interest of the United States to build a more peaceful international order in which conflicts are resolved through lawful procedures rather than violence and in which international institutions are better able to contribute to stable relations among nations. The armed forces, in our view, could contribute more to the achievement of this long-term objective if they were provided with greater resources to prepare for, and to carry out, multilateral operations in support of collective international security. Such operations can take a variety of forms, ranging from peacekeeping—which takes place in basically cooperative situations—to coercive military efforts to enforce a peace between warring parties or to achieve other objectives of the international community. Although there is no precise dividing line between the two, situations tend to fall

into one category or the other, and different types of preparations are necessary for each one.

Peacekeeping. The US experience in peacekeeping has been limited and not always successful. The United States' participation in the Multinational Force in Lebanon in the early 1980s, of course, ended with the tragic bombing of the Marine barracks. The United States has participated in a successful multilateral peacekeeping mission in the Sinai for many years, helping to ensure peace between Israel and Egypt, but many officials wonder when and how the mission can be brought to an end. Most international peacekeeping is carried out by the United Nations, moreover, and US participation in these operations in the past was restricted largely to the provision of airlift and the assignment of a few military officers as planners or observers.

The current operation in Somalia marks a new departure for the United States in peacekeeping. As now planned, some US forces will remain in Somalia as part of a UN peacekeeping force, under the command of the UN commander. This will be the first time in 30 years that US units have participated in such an operation. The pledge of Secretary of State Warren Christopher of US forces for peacekeeping in support of a negotiated settlement in Bosnia would be the second. Additional needs for US forces for peacekeeping can be expected in the future.

It is desirable to create additional US forces that are structured, trained, and equipped especially for peacekeeping operations. The forces needed for these purposes are not very large, but they should be considered a supplemental requirement and, in force planning, be added to whatever forces are believed to be necessary to protect US interests unilaterally through traditional types of military operations. The US armed forces cannot be expected to contribute significantly to international peacekeeping if their contributions are taken from resources believed to be necessary for other purposes, as has so far been the case.

Prospective needs for peacekeeping will likely pose incremental requirements for US airlift and, possibly, sealift forces. More to the point, we believe that the United States should create two types of ground units specialized for peacekeeping operations: (i) modified Army light infantry divisions and (ii) specialized observer/monitoring battalions.

The Army divisions would differ from standard configurations in that they would have less armor and artillery but more organic transport, communications and surveil-lance equipment, supplemental nonlethal weapons, military police, and medical personnel. The observer/monitoring battalions would include specialized observation companies equipped with sensors of various types. All told, a specialized peacekeeping force of as many as 50,000 people might eventually be created, including two peacekeeping divisions,

^{4.} Somalia is a case in which the line between peacekeeping and enforcement begins to blur. While the warring parties in Somalia have so far been unwilling to challenge the forces that intervened there, the absence of effective government authority leaves plenty of room for violent challenges in the future. The UN's "peacekeeping" missions in the former Yugoslavia move much further, of course, toward the enforcement end of the spectrum.

six specialized observer/monitoring battalions, a new peacekeeping command staff (discussed below), personnel assigned to the UN and other regional organizations' planning staffs, and specialized training units.

Enforcement. The United States organized and led the two major UN enforcement actions, in Korea in 1950–53 and Kuwait in 1990–91, and insisted on maintaining full control of the operations. At the same time, the United States has made it impossible for the UN to take steps to prepare for multilateral collective security actions, by resisting implementation of the Charter's provisions for such preparations, even after the end of the cold war made such movement feasible. This reluctance, among other things, to permit the UN's Military Staff Committee to begin functioning has a corrosive effect on the possibilities for building stronger international institutions, a prerequisite for a more peaceful international order.

As we have noted, and will soon describe, the United States should retain very substantial unilateral military capabilities for contingencies in which US interests might be threatened abroad. Some of these forces—although intended primarily for unilateral operations—should be earmarked for enforcement actions in support of collective security and receive the specialized training that could enable them to operate more effectively with the forces of other nations.

Continuity and Change

Our analyses suggest that to fulfill these purposes most efficiently, significant changes should be made in the roles, mission priorities, and organization of the US armed forces. The changes we propose build on trends long evident in US military planning and operations but carry them further in order to take advantage of the recent fundamental alterations in the political and technological environments.

In examining how the United States might best protect its interests in the years to come, we evaluated several alternative political/military strategies. In our view, the best strategy remains essentially the one that has been pursued for the past four decades, involving the continued engagement of the United States in political and military affairs in key regions of the globe. In particular, in our view, although reductions can be made in the number of US troops deployed abroad, it is essential that some US armed forces continue to be based in Europe and East Asia. The changes we propose in the structure of the military establishment would make it possible for the United States to maintain predominant, global military capabilities and to continue to defend US interests through such a political/military strategy of worldwide engagement, but to do so at an affordable cost.

In the following sections, we summarize our recommendations for the organization of the Department of Defense and for the roles and functions of the individual armed services. These recommendations fall into two categories: alterations in Defense Department organization through realignment of the Unified Command Plan and the role of the commands in the budgeting process, and changes in the allocation of functions among the services. Although affecting different aspects of defense policy, they address the same two imperatives for change. The first imperative is driven by changes in the battlefield of the future. The US must tailor its forces to meet a new array of military threats and to exploit continuing technological developments.

The second imperative derives from the long-standing tension between service autonomy and the effort to bring all US forces under joint operational command, integrating the services' efforts to ensure they work together as a single team. The issues surrounding roles, missions, and functions are a crucial aspect of this problem. Which service carries out which tasks on the battlefield determines how this over-arching tension manifests itself in operational terms—"roles and missions" is where the rubber meets the road in US defense organization. To allow for the most efficient use of forces as a joint team, the allocation of functions must satisfy both the services' organizational needs and the demands of effective joint management and battlefield command.

From the Key West conference until now, roles and missions issues have generally been decided in favor of the services' interests at the expense of the goals of "jointness" and integration. Defense reform in the 1980s has helped redress this imbalance at the highest levels of Pentagon management. The recommendations below seek to advance this process to the next step. They aim to achieve fuller, more efficient integration of US forces in combat through greater specialization in the services' combat functions.

Organization of the Department of Defense

The key components of the Defense Department should remain the secretary of defense and his or her immediate staff, the chairman of the Joint Chiefs of Staff and the Joint Staff, the unified commands and their subordinate commands, and the individual military services. We do not believe that significant changes are necessary or desirable in the roles of the civilian secretary and his or her office, or in the roles of the chairman and the Joint Staff. Both institutions have evolved over the years in very favorable directions. We do recommend important changes, however, in the priorities and, to some degree, in the mandate of both the unified commands and the individual military services.

Unified Command Plan. The actual conduct of military operations should continue to be planned, organized, and directed by unified commands, under the direction of the chairman of the Joint Chiefs of Staff and, ultimately, the secretary of defense and the president. To make possible the most efficient conduct of military operations, we suggest that the Unified Command Plan be modified somewhat to include the following key components.

Strategic Command. Strategic Command should be given charge of all deterrent and homeland defense forces, including land-based and sea-based offensive forces, all forces utilized for the defense of US territory, all space-based assets intended primarily for strategic purposes, and the forces used to monitor US territory, airspace, and sea margins to prevent unwanted incursions. The command of both space assets and continental defense forces might fall to subordinated commands, under the aegis of Strategic Command.

- A specified Air Force Space Command would be responsible for launching all satellites and operating most of them most of the time; command of some operational space assets might sometimes be transferred to geographic commands when used for tactical purposes.
- The unified Continental Defense Command would direct all airborne and ground-based assets used to defend against attacks by aircraft and missiles, as

well as Air Force and Navy aircraft, ships, and aerostats used for surveillance of the country's borders and territorial waters. Because the long-range interceptors that would be used for missile defenses would have an implicit antisatellite capability, the Continental Defense Command should be given operational responsibility for this mission, as well.

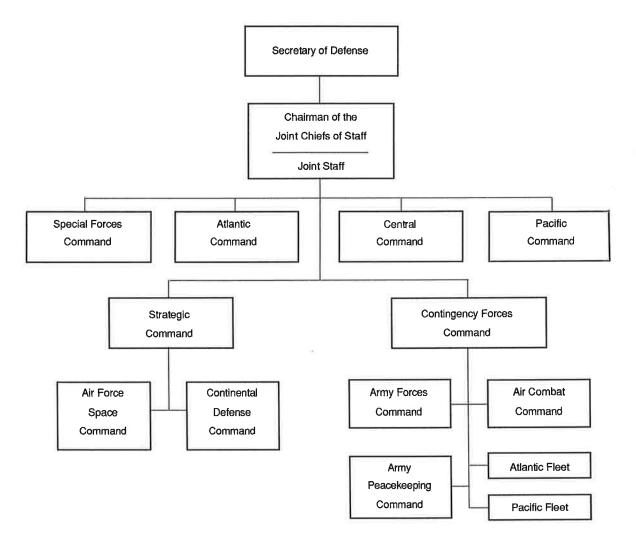


Figure 1. Proposed Unified Command Plan

The Strategic Command also should be assigned special theater nuclear forces intended for deployment overseas, when necessary, to deter attacks on US contingency forces by weapons of mass destruction. A nuclear-armed, specially trained and equipped, but not dedicated, wing of advanced strike aircraft, like the F-117, should be sufficient for this purpose. When not needed for this theater nuclear deterrent role, these aircraft could also be used for conventional operations as part of US contingency forces. Isolating

all US nuclear forces within Strategic Command would further de-emphasize the role of these weapons in US military planning.

Special Operations Command. There should continue to be a unified command over all forces especially trained and equipped for commando-type operations anywhere in the world. The needs of these forces are unique enough to merit a special command. We have not been able to examine US requirements for special forces in any detail, and accept current plans for them as a given in our recommendations.

Contingency Forces Command. A single unified command should be created to ensure the compatibility and interoperability of all US ground, sea, and air forces—both active and reserve. Service commands would continue to recruit, organize, train, and equip the forces, and maintain those deployed in the United States in peacetime. The Contingency Forces Command, however, would be responsible for developing joint doctrine, for ensuring the compatibility of equipment, and for planning and carrying out joint training and integrated exercises in the United States.⁵

Geographic commands. When contingency forces are deployed overseas, in peacetime, for exercises, or for the conduct of military operations, command of these forces would pass to one of three geographic commands: Atlantic, Pacific, or Central. Geographic commands now have subordinated component commands, representing each of the services; these should be greatly reduced in size and their functions diminished. The service component commands needlessly multiply support and administrative costs and interfere with the true integration of service efforts on the operational level.

Peacekeeping Command. The Army should be tasked with creating a specified command for peacekeeping, which would be subordinated to the Contingency Forces Command. This new command would be given special responsibility for planning, developing doctrine, training, and equipping US forces for multilateral peacekeeping operations. The Peacekeeping Command also would maintain the specialized peacekeeping units previously described. When conducting unilateral peacekeeping operations, US peacekeeping forces would come under the command of the relevant geographic command. When participating in multilateral peacekeeping operations, they would come under the command of the operation's overall UN commander. In such cases, however, the appropriate geographic command would maintain liaison with the UN commander and be prepared to reinforce or extract the peacekeeping forces if they were threatened with overwhelming force.

Transportation command. Thought should be given to the need for this unified command. An alternative would be to maintain specified Air Force and Navy commands for airlift and sealift, respectively, as part of the Contingency Forces Command. The

^{5.} The functions envisioned for the Contingency Forces Command are similar to those that General Powell, in his recent roles and missions report, suggested be given to the Atlantic Command. Chairman of the Joint Chiefs of Staff, Report on the Roles, Missions, and Functions of the Armed Forces of the United States (February 1993), III-3-III-5.)

^{6.} Once US forces leave Panama, there will no longer be a need for a command for Latin America; any operations in that region could be handled by the Atlantic Command.

integrating function now performed by Transportation Command could be accomplished by an element of the Contingency Forces Command headquarters.

Role of the Unified Commands in Budget Planning. In addition to their roles in the planning and conduct of military operations, all the unified commands should be given a larger role in budget planning and programming. Currently, only the Special Operations Command has a meaningful role in the budget process. As a result of the 1986 Defense Reorganization Act, the unified commanders are given several opportunities to present their views on budgetary needs and to comment on the services' budgets but, with the exception of the Special Operations Command, ultimately rely on the individual services to provide them with budgetary support. The defense budget is put together primarily on the basis of Program Objective Memoranda (POMs) prepared by each of the services. The unified commands (with the exception of Special Operations) do not prepare such memoranda. This dependence on the services for budgetary support has unduly elevated the power of the services' component commands within each unified command, and colors the relationships between the services and the unified commands as a whole.

It would be possible for the unified commands to be given the responsibility for preparing POMs for certain categories of military activities, such as military personnel, operations and maintenance, and the procurement of consumables for the forces under their command, as well as military construction within their theaters of operation, just as the services now do for the budget as a whole. If each of the services and each command prepared a POM, the chairman and the Joint Staff could be charged with arbitrating among competing command and service priorities, and with preparing comprehensive budgets for alternative resource levels, to be presented to the secretary of defense for his or her review and consideration. Identifying the budgetary elements that should come under the jurisdiction of the unified commanders, and those that should remain within service purview, will be difficult and, in the end, the allocations will be somewhat arbitrary, but the task is not impossible. A shift of staff allocations and dollars from the service component commands to the unified commanders would be a necessary concomitant of such a change in budgetary procedures. The result, however, would be a major shift in relative power from the service chiefs to the unified commanders, continuing a trend that has been in train since the 1950s.

Roles and Functions of the Individual Armed Services

The Army, Navy, and Air Force are essential national institutions, as well as vital prerequisites for effective US military capabilities, and should be retained as autonomous components of the military establishment. The Marine Corps should remain an autonomous part of the Navy, with special responsibility for ground warfare launched from the seas. However, the long-standing trend toward more narrowly defined roles for the individual services and more broadly defined roles for joint military institutions and civilian defense agencies should be extended to ensure more effective military capabilities at lower cost.

The key jobs of the Army, Navy, and Air Force—within the broad guidance of the Office of the Secretary of Defense—are to develop doctrine for the types of warfare under their respective purview, to recruit personnel and provide basic and advanced individual training, to organize, maintain in peacetime, and train relevant types of fighting and

support units, and to contribute to the design and procurement of necessary equipment for warfare on land, at sea, and in the air.

Given the enormous fiscal pressures now bearing on the defense budget, it is evident that certain administrative, logistical, and support functions now performed by each service individually should be consolidated to save money and to improve the services' ability to operate with one another. A single service should be given responsibility for each of the functions so consolidated. Such steps have been suggested repeatedly but resisted in the past by the services, as each prefers to remain as independent, and thus as self-reliant, as possible. The resulting redundancy, however, can no longer be afforded at the levels of spending now contemplated for the Defense Department without sacrificing needed combat capabilities. The previously mentioned report by Chairman Colin Powell recommends several such steps, indicating that the services are beginning to recognize the inevitability of such consolidations.

Detailed studies are necessary to determine cost/benefit trade-offs and the precise segments of each function that might be consolidated, and to identify the service best equipped to carry out the consolidated function, but there is certainly good reason to consider consolidation of at least the following functions: medical, legal, and chaplain services; various types of specialized training, such as basic pilot training, as well as many types of technicians' training; weapons program management; and the management of various types of repair depots and industrial facilities.

Moreover, each service should adjust the priorities it accords to different combat functions to adapt to a changing security environment and to exploit the capabilities afforded by continuing technological developments. These changes should clarify the special contribution of each of the services to US security. Thus, the essence of the reforms we propose is to integrate and consolidate support functions but to bring about greater specialization among the services in combat functions.

Army Functions. The Army is now, and should remain, the primary US armed force for seizing and holding territory. The vast preponderance of Army forces should be based in the United States to ensure global flexibility and to reduce domestic and international political strains. Some Army forces should be retained in Europe and East Asia, however, so long as allied nations believe such deployments to be useful tokens of US security commitments and so long as they are willing to help defray the costs of overseas basing. Army units could be used more often in diplomatic missions, moreover, substituting, at times, for the Navy, when a "show the flag" operation is desired.

In structuring its forces, the Army needs to shift further than now planned from its past emphasis on heavily armored forces to lighter types of capabilities that can be deployed more rapidly for the initial defense of US overseas interests. Demise of the Soviet Army reduces the need for heavily armored US Army divisions intended for maneuver warfare. Advanced technologies make it possible to lighten Army forces, moreover, while actually augmenting their capabilities.

Army functions in the future should include the following:

Maneuver warfare. Heavy divisions will still be required for offensive operations against heavily armored opponents in maneuver warfare. The Army should therefore

continue to preposition equipment for heavy divisions in Europe, as well as station heavy division equipment sets on ships deployed near the Persian Gulf and Korea, so as to reduce the time necessary for armored divisions to respond to possible contingencies in those regions. In addition, however, the Army should give more emphasis to long-range fire support and to operations against enemy maneuver units before they can close with US units on the ground, utilizing airborne systems, such as the Joint Surveillance and Targeting Radar System (JSTARS), combined with long-range missiles armed with autonomous munitions, such as the new Tri-Service Stand-off Attack Missile (TSSAM) or the Extended-range Army Tactical Missile System (ATACMS), armed with the Brilliant Antitank Munition (BAT). In the midterm, remotely piloted vehicles also could be used to supplement JSTARS in the surveillance/targeting task. Advanced technologies are making it possible for the Army to find and greatly attrit enemy maneuver forces in any weather, at any time of the day or night, long before they are able to threaten US positions and forces.

The greater range and accuracy of ground-based fire support, moreover, makes it possible for the Army to assume primary responsibility for the close air support function, replacing the Air Force in this role. The Army would not have to start flying high-performance, fixed-wing aircraft to carry out the close air support function successfully, and should continue to avoid acquiring such aircraft so as not to incur greater support costs. With real-time targeting systems, precision location systems, extended-range fire support systems, and precision antitank and antipersonnel munitions, helicopters and ground-based forces can do the job more efficiently. Although the Air Force would retain close air support as a secondary function, the shift would free Air Force resources for other functions and eliminate a long-standing conflict over service roles and functions that previously had been resolved in a way that pleased neither service.

Hit-and-run warfare. Army light forces would be most useful to counter hit-and-run warfare, which is necessarily labor intensive and politically sensitive. A number of promising technologies could enable US forces to carry out these kinds of operations more effectively and should be developed further, including advanced electronic surveillance systems, sophisticated mines, and precision antipersonnel munitions fired by artillery and extended-range missiles.

Light forces engaged in hit-and-run warfare also should have access to networks of remote sensors that can make the opponent visible and cue rapid response teams to attack them.

Fundamentally, these forces need to concentrate on isolating opposing forces from the population under attack, a task in which modern surveillance technologies could be very helpful, and on providing a level of security and services to the local population so that it remains loyal to the government being defended—a problem sometimes more easily solved in theory than in practice. Indeed, a hardheaded assessment of such prospects should be a prerequisite for any decision to intervene again in a hit-and-run type of conflict.

Air and missile defenses. The Army should relinquish its role in the air and missile defense of the United States but should remain responsible for the development and deployment of ground-based defenses intended for tactical or theater-wide missions

abroad. This is also a long-standing roles and functions argument, and there is no clearly superior solution to it. Some have argued that it would be more effective to consolidate all aspects of ground-based, airborne, and space-based defenses, whether tactical, theater, or strategic, under a single service, with the Air Force usually recommended to take over these functions. We believe, however, that such a shift would inevitably lead to a bias toward airborne theater defenses in US strategy that might undercut the potentially effective role of ground-based defenses deployed with contingency forces.

Because the defense of the United States will remain highly specialized, owing to treaty restrictions and special operational needs, and highly dependent on space-based and airborne assets in any event, we would suggest assigning this homeland defense function to the Air Force. We would retain the Army's lead role in ground-based theater defenses, however, including defense against tactical ballistic missiles, and defense of ground forces from air attack. Separating clearly the development of ground-based theater and strategic missile defense systems, as would be implied by giving the Air Force the homeland defense function completely, would also help to preserve the ABM Treaty by making it easier to define the particular types of defenses covered by the agreement. Both Air Force and Army missile defense programs should receive a high priority.

Regardless of these service assignments, the actual operation of missile defenses would come under the control of the Strategic Command for the defense of US territory, and the relevant geographic command, for defenses abroad. The latter, indeed, might incorporate naval systems, such as the Aegis air and missile defense system deployed on cruisers and destroyers, along with airborne and ground-based systems.

Peacekeeping. Army planners also should pay more attention to the special needs of peacekeeping missions. As has been described previously, specially configured light infantry divisions, trained and equipped for participation in UN peacekeeping operations, should be organized, as should specialized battalions incorporating surveillance capabilities for use in observation and monitoring missions. These forces should be considered as supplemental to, and not substitutes for, the forces deemed necessary for use in the kinds of unilateral military operations previously discussed.

Navy Functions. The Navy has essential roles to play in the new structure of US forces that we propose, although they are quite different from those that had been required when the USSR's naval and air forces posed a serious threat to US dominance of the seas. In the future the Navy should concentrate on the following functions:

Strategic deterrence and seaward defense of the United States. The force of 18 *Ohio*-class submarines completing construction is more than adequate for the deterrent task now, and the number needed will decline, it is to be hoped, as START I and II and additional agreements are implemented.

The Navy should continue to monitor the seaward approaches to the United States for undersea traffic, using an upgraded Sound Surveillance System and the recently deployed T-AGOS surveillance ships. The Navy should be prepared to establish a submarine keep-out zone should a serious crisis emerge in which an antagonist had missile-armed submarines. It should also be prepared to deploy aircraft equipped with missiles capable of intercepting long-range cruise missiles, should such a threat arise.

These might be good tasks for the Navy Reserve, paralleling the air defense responsibilities of the Air Guard and Air Force Reserve.

The Navy should also continue to contribute to airborne surveillance of waters adjoining the United States in support of anti-drug operations. It does not appear to be possible to inspect all seaborne cargoes and platforms approaching the United States on a routine basis, as the volume is so large that the cost and disruption of commerce and ordinary uses of the seas would be too great. Intelligence is the key for the effective protection of US territory from drugs, terrorist weapons of mass destruction, and any other contraband, and, therefore, the human and technical systems that contribute to good intelligence should receive a high priority in US funding allocations.

The Navy should be prepared to interdict and, with Coast Guard law enforcement detachments, to board any surface vessel approaching US territorial waters when intelligence suggests it may contain contraband, especially nuclear or biological weapons, components, or materials. Timely and accurate intelligence is crucial in carrying out such missions effectively. In addition, however, the Navy should be allocated sufficient funds to develop and deploy more effective cargo scanning technologies and to have them prepared for rapid deployment. The use of remotely piloted vehicles, equipped with sensor packages designed to detect nuclear or biological materials, might be considered for this purpose.

Air and sea superiority in support of interventions abroad. Achieving and maintaining total dominance of the sea margin adjacent to points of intervention abroad, and of the airspace above it, is a prerequisite for any sea-based effort to protect US interests overseas. The United States already has impressive capabilities in this for such purposes, particularly with regard to dominance of the sea surface and airspace. Areas that apparently need additional work include anti-mine capabilities, the ability to detect and destroy submarines in shallow waters, and defenses against missile attacks, especially those that might be armed with nuclear, biological, or chemical warheads. Improving the fleets' ballistic missile defense capabilities should be a particular priority, so that the United States is not deterred from intervening abroad to protect its vital interests if local adversaries threaten to use weapons of mass destruction against US contingency forces and supporting naval forces. To the degree that fleet missile defense capabilities were attained, the US Navy could participate in theater-wide missile defenses coordinated by the relevant geographic command.

Ground and air power projection. The use of sea-based forces in the early, or "containment," phase of a conflict is advantageous for political and logistical reasons. Sea-based forces can be made ready for intervention, and can be kept ready in international waters for a substantial period of time as a crisis unfolds, without compelling a premature decision to intervene or necessarily representing an inalterable commitment to do so. The use of sea-based forces, in other words, preserves the greatest flexibility for

^{7.} Insofar as many narcotics seem to enter the country on legitimate cargo carriers, especially container ships, a good investment in terms of protecting the United States would be the development of specialized sensing systems that would permit the Customs Service to inspect a much larger proportion of containers without imposing long delays at US ports. This should not be a function of the armed forces, however.

US decision makers as political developments unfold and other relevant US military capabilities are readied for deployment to the region of trouble.

There are also logistical advantages in the use of sea-based forces: Naval forces bring their own air bases, repair capabilities, fuel depots, and large quantities of munitions and supplies with them, simplifying logistical problems tremendously and reducing dependence on foreign nations for assistance. This means that the Marines and naval air power are often the best way of responding to situations that are located near the seas and that require only the amounts of military power that can be provided aboard naval task forces.

In addition, cruise missiles armed with conventional warheads, deployed on attack submarines or warships, may be the perfect weapon in certain types of contingencies in which the destruction of a few key facilities, either in isolated instances or as part of a broader air campaign, may be required. The attack on the industrial facility outside of Baghdad in January 1993 was the first real-world demonstration of this capability and illustrated both the potential effectiveness of these weapons and the risk of collateral damage resulting from missiles that are shot down or otherwise fall off course. These risks can be reduced by continuing to develop advanced cruise missiles with faster speeds and stealth characteristics, and, when possible, by plotting attack routes that avoid densely populated regions.

Because aircraft carriers and amphibious task forces can project only limited amounts of power, however, sea-based forces are not particularly useful beyond the earliest phases of contingencies that require large quantities of military capabilities over sustained periods of time. In the Gulf War, for example, naval air power accounted for about only 20 percent of the offensive combat missions flown by allied air forces. Naval forces are best suited for small contingencies and for the opening phases of larger conflicts, providing the initial strike capability essential to create opportunities for the deployment of larger, land-based capabilities.

If one accepts this specialization in the Navy's projection role, it implies that certain changes are desirable in the Navy's force structure, including the following:

- Equipping the Marine Corps with more long-range fire support armed with precision munitions. The recent decision not to equip the Marines with the Multiple Launch Rocket System (MLRS) was a step in the wrong direction.
- Altering the distribution of aircraft on carriers to emphasize multipurpose fighter/strike aircraft. Naval air power also should be well supplied with precision munitions, an area in which it has lagged. Additional aircraft crews might be provided on carriers, as well, to maximize close-in strike capabilities for limited periods of time.
- Acquiring "fire support" ships, special vessels equipped with large numbers of
 advanced rocket systems (MLRS, ATACMS, and TSSAM) that carry precision
 antitank munitions and other specialized weapons, to maximize the amount of
 firepower that could be poured into a region in the opening phases of a conflict.
- Integrating Navy command, control, and communications systems more closely with those of the other services, and increasing all services' capabilities to

receive and transmit high volumes of communications, including images and other types of data, to make possible the sharing of targeting information on a real-time basis.

Diplomatic and political missions. The Navy is also the principal service for "show the flag" type of missions. The Navy has long been the service used most extensively to support US diplomacy in peacetime and during crises. Naval forces can be present in a region without being based on foreign territory or being placed directly in harm's way on the ground in a conflict zone, features that increase the flexibility of US policy and the political acceptability of such operations at home and abroad. As ground-based forces have become more mobile, and as the Army and Air Force have come to accept political tasks as central to their roles, they have come to be used more often for these purposes, as well. Neither ground-based service will ever replace the Navy as the predominant service in diplomatic roles, however, for obvious reasons.

So long as the United States perceives itself as a global power engaged, in its own self-interest, in security matters around the world, the need to maintain naval forces in distant regions will have to be factored into decisions on the naval force structure. The Navy argues, in particular, that the plan for a 12-carrier Base Force is driven by the need to maintain a frequent and highly visible presence in the Pacific, Indian Ocean/Arabian Sea, and Atlantic/Mediterranean regions and by the unfortunate fact that it requires at least 3 carriers in the force to maintain each 1 deployed abroad, unless the latter is home-based in a foreign port.

The United States currently home-ports only one carrier overseas—the conventionally powered *Independence* in Japan. While both the United States and Japan would like to retain this arrangement, it is probably unrealistic to imagine any additional home-porting arrangements being initiated. Still, there are a number of options for reducing the impact of forward deployments on the overall size of the Navy. These include: (i) utilizing other types of forces, such as amphibious task forces or cruisers armed with Aegis air and missile defense systems, in lieu of carriers, to show the American flag, and (ii) keeping carriers on station overseas longer, but rotating their crews by air to reduce the detrimental effects of long deployments on personnel recruitment and retention.

Even with changes such as these, however, the desirability of maintaining a visible US military presence in distant parts of the world puts limitations on the size of cuts in naval forces that do not pertain as directly to ground and air forces.

Fast sealift. The Navy should buy more roll-on, roll-off sealift ships and ships to preposition the equipment for Army heavy divisions near potential combat theaters. With most ground forces based in the United States, US military power can remain relevant in world affairs only if the nation maintains a credible capability to deploy its formidable capabilities in a timely and effective fashion. In the illustrative force posture described below, we propose 36 fast sealift ships, as compared with 8 envisioned in the Bush administration's Base Force, and 21 prepositioning ships, the same as the Base Force, but with fewer heavy divisions to support.

Multilateral peacekeeping and enforcement operations. Multilateral peacekeeping and enforcement missions might entail the US Navy's participation in multilateral naval forces to enforce blockades, quarantines, and similar efforts to isolate

conflict regions from sources of arms and other supplies. The current operation in the Adriatic to enforce UN sanctions on the sale of arms and other strategic goods to the former Yugoslavia demonstrates the failure of the United States and other UN members to establish the basis for multilateral cooperation to enforce collective security on a global basis. In this case, a NATO task force is patrolling in the Adriatic Sea, while a force from the Western European Union is patrolling in the Strait of Otranto, between the Adriatic and the Mediterranean. The two forces coordinate their operations only in an ad hoc manner, warship to warship. Meanwhile, shipments to Serbia move relatively unencumbered along the Danube River to the east. Clearly, more integrated operations, reflecting a new US attitude toward participation in, and support of, multilateral collective security operations, would be more effective.

In addition, the Navy, like the other services, could provide greater support for UN peacekeeping. Among other functions, naval intelligence, surveillance, and lift forces could be useful to the United Nations in peacekeeping situations.

Functions that should be downgraded. At the same time, the Navy can downgrade certain functions that currently receive a substantial portion of naval resources. While it is usually better to have more, rather than fewer, military capabilities, today's fiscal realities dictate that cuts be made in the range of functions emphasized by the Navy—that it step back from certain functions for which it now duplicates capabilities maintained by other services, or which are simply no longer necessary given the changes in world politics. They include the following:

- Strategic antisubmarine warfare: This function, rarely acknowledged officially, has long been an important part of Navy planning. The development of advanced, nuclear-powered attack submarines able to operate under the Arctic ice pack, and fixed sonar arrays covering huge expanses of the world's oceans, were motivated largely by the Navy's determination to find, track, and, in the event of war, destroy Soviet ballistic missile submarines. This conclusion is evidenced by the immediate termination of relevant programs upon the demise of the USSR and the disarray of its armed forces. Clearly, the Navy is already downgrading this function.
- Defense of the sea lanes: This mission is also far less challenging a task than when the Soviet force of modern submarines and long-range strike aircraft was growing and improving in quality. Although the nation clearly must remain watchful that current trends are not reversed, it will not be too long before the assets of the Russian successor to the Soviet Navy will have deteriorated so greatly that the United States can be assured that no significant threat to the sea-lanes could be mounted for many years in the future. Downgrading this mission means less emphasis on attack submarines and on carrier-based and land-based aircraft designed for antisubmarine warfare.

^{8.} Theresa Hitchens, "Experts: Adriatic Fleet Sets Dangerous Precedent," *Defense News* (July 20–26, 1992): 1, 52.

• Specialized aircraft for deep strikes: Carrier-based naval aviation can make unique contributions to many missions in many parts of the world, especially for the protection of sea-based forces and for the projection of relatively small quantities of US air power in a timely manner when crises occur. The continued maintenance by the Navy of specialized aircraft designed for strategic strikes deep in enemy territory can no longer be afforded, however, in view of the many alternatives available, including highly accurate, long-range, cruise missiles deployed on attack submarines and warships, long-range bombers based in the United States, and rapidly deployable, specialized, land-based, tactical aircraft like the F-117.

Multipurpose naval aircraft would still require strike capabilities for battlefield interdiction, and substantial ranges to allow the carriers to standoff, when necessary, from threatening forces. But eliminating aircraft specialized for deep strikes would save a substantial amount of money by making it possible to cancel the proposed new medium-range naval bomber, and would enable the Navy to deploy larger quantities of its unique air capabilities, whatever the number of carriers that remain in the force. Elimination of the Navy's piloted deep-strike function would remove the greatest duplication in service functions that resulted from the Key West agreement.

Air Force Functions. The Air Force should concentrate primarily on the forces necessary to gain air superiority over the combat theater as rapidly as possible; on the forces used to destroy enemy weapons and supporting facilities as quickly as possible; on offensive and defensive forces intended to protect US territory and airspace; and on long-range airlift. The greater deployability that has now been achieved for ground-based tactical air units makes it possible to base fewer Air Force units abroad, although some should be retained in Europe and Asia so long as political circumstances allow. Like the Army, the Air Force should pay more attention to the demonstrative use of its forces for political and diplomatic purposes. Visits of tactical squadrons to foreign nations on ceremonial occasions, joint training exercises, the use of US lift capabilities for humanitarian and other high-visibility purposes, and exchanges of officers are only a few of the many ways in which the US Air Force can, and does, contribute to the goals of US foreign policy.

Key Air Force functions for the future will include the following:

Air superiority. The Gulf War demonstrated once again the extraordinary importance of air superiority. Gaining control of the skies over the battlefield and adjoining regions, both by destroying an enemy's air forces and facilities on the ground at an early stage of a conflict, and by having sufficient numbers of qualitatively superior fighters to defeat any forces that survive long enough to challenge US Air Force or Navy aircraft in the air, is a prerequisite for the successful defense of US interests abroad in the decades ahead, whatever the challenge. The achievement of air superiority should always be the first priority of the US Air Force. The task is important enough that sufficient resources should be allocated to the function for the United States to achieve air superiority

unilaterally, against any foe, or realistic combination of foes, with a comfortable margin of error.

Battlefield interdiction. Once air superiority is achieved, it becomes possible to devote increasing resources to strikes against targets on the ground. The most useful objective of air strikes is the destruction of enemy units, whether maneuvering toward the battlefield or deployed in defensive positions, as well as the destruction of supporting units and facilities necessary to carry out modern warfare. As demonstrated during the Gulf War, such strikes can decimate formidable enemy formations, making the ground forces' task much easier.

A special type of interdiction mission that rightfully is being accorded a very high priority at present is the identification and destruction of enemy aircraft and missiles capable of being armed with weapons of mass destruction. Together with effective defenses, the achievement of these capabilities would make it less likely that the United States would be unable to defend its vital interests overseas because of the threat of use of nuclear or chemical weapons.

Airlift. The Air Force should expand its already substantial lift capabilities so that it is able to deploy its own tactical forces, as well as Army light divisions, overseas in a timely manner. In calculating airlift needs, moreover, the Air Force should consider the potential requirements for peacekeeping and other multilateral operations, as well as those of US contingency forces. One could certainly foresee the United States supporting one or more UN peacekeeping or enforcement operations at the same time that a crisis requiring a unilateral intervention boiled over.

The currently planned force of C-130s and C-141s, C-5s, and C-17s, along with associated tanker aircraft, will not be sufficient, in our view, for US airlift needs in the future. The illustrative force posture described below includes 100 additional large transport aircraft to speed overseas deployments of Army forces, to move the equipment and matériel needed to support ground-based tactical air forces, and to support UN peacekeeping and peace enforcement missions. In addition, it is necessary to continue programs now under way to modernize the force of KC-135 tanker aircraft.

Functions that should be downgraded. Certain Air Force functions no longer require as much attention, and as many resources, as they once did.

• Close air support: Over the years, the Air Force has fought successfully to retain responsibility for direct fire support of ground units engaged in combat, which is known as close air support. Accordingly, it has fought successfully to restrict the types of aircraft that the Army was allowed to acquire. In practice, however, the Air Force gives close air support relatively low priority in procurement and decisions on force structure, as demonstrated by the planned retirement of the specialized close air support aircraft, the A-10, without replacements, over the next few years. As previously mentioned, we believe that the Army should provide its own close air support with helicopters and long-range ground-based fire support combined with airborne surveillance/targeting systems. The Army need not acquire high-performance, fixed-wing aircraft for this purpose. The Marine Corps could similarly assume responsibility for its own

close air support, utilizing helicopters, long-range ground-based fire support, and, so long as current models remain operable, vertical and short takeoff and landing aircraft. The Air Force should retain close air support as a secondary role, to be performed by aircraft purchased primarily for other purposes, when needed.

- Nuclear warfare: The Air Force has already de-emphasized the attention it pays to strategic warfare. While the Air Force should play the primary role in the Strategic Command, only a small force of strategic bombers should be retained for deterrence, along with a separate dedicated force of strategic bombers for use with conventional weapons in specialized operations and a wing of aircraft especially equipped for theater nuclear weapons but not strictly dedicated to that purpose. Currently planned forces are more than adequate for these tasks for the foreseeable future. No new long-range bomber is necessary. As previously noted, the Air Force also should maintain the surveillance aircraft and other assets necessary to identify and track attempts to penetrate US airspace, as well as a small dedicated force of Guard and Reserve fighters to intercept any penetrators that are so identified.
- Strategic Bombing: Air Force doctrine puts a very high emphasis on the "strategic air campaign"; we believe this emphasis is misplaced. Some strategic targets, for example, command facilities, and the nodes of communications systems between higher-level authorities and units in the field are clearly essential and worth attacking, but the extensive strategic bombing campaigns carried out by the Air Force in all wars involving the United States since World War I have never been shown to be effective in achieving their purposes. Studies such as the Strategic Bombing Survey after World War II have shown repeatedly that these campaigns neither fulfill their stated purposes of crippling the enemy's ability to wage war nor, as the Air Force maintains, demoralize the enemy's population such that they no longer are willing to support the war effort. Indeed, such air campaigns often appear to have counterproductive results, prompting populations to greater resentment and sacrifice and rallying world opinion against the United States because of the civilian deaths and destruction that inevitably result. During the Gulf War, for example, it was only the strategic campaign against military and industrial targets far from the battlefield that caused any criticism of the US role in the conflict. 9 An extensive strategic air campaign, moreover, diverts resources that could have more direct

^{9.} Franklin D'Olier, Chairman, The United States Strategic Bombing Survey, Summary and Over-all Report: European War (September 30, 1945); M.J. Armitage and R.A. Mason, Air Power in the Nuclear Age (Urbana: University of Chicago Press, 1983), see chapter two and four on air campaigns in Korea and Southeast Asia; Michael S. Sherry, The Rise of American Airpower: The Creation of Armageddon (New Haven: Yale University Press, 1987); Les Aspin and William Dickinson, Defense for a New Era: Lesson of the Persian Gulf War (Washington, DC: US Government Printing Office, 1992): 8; R. Jeffrey Smith, "US Military Is Pressed About Civilian Casualties," Washington Post, February 3, 1991, A23; and David Hoffman, "Bomb Strike Kills Scores of Civilians...: Air War's Political Risks Dramatized," Washington Post, February 14, 1991, A1.

impact on the battlefield, either by misallocating budgetary resources to excessive numbers of specialized deep-penetration aircraft or by misallocating operational multipurpose aircraft in the combat theater that could have been used for other purposes.

The United States clearly requires some number of very long-range strategic bombers based in the United States for use with conventional weapons in special types of operations, and to play a nuclear deterrent role. The United States also requires relatively small numbers of tactical aircraft designed for deep-penetration missions that would be assigned to the Contingency Forces Command for use abroad. These aircraft, like the F-117, should be stealthy and equipped with specialized targeting systems and munitions for use against high-value targets as part of the overall air campaign. The bulk of the Air Force, however, should consist of specialized air superiority fighters and multipurpose aircraft designed both for air superiority and for strike missions within the combat theater.

Implications for the Size and Structure of US Forces

To illustrate and summarize the implications of the changes in US forces proposed in the preceding section, we describe in Table 2 a force posture incorporating our recommendations that could be fielded early in the next century, which we call "Force 2004." The table also compares the illustrative force with both the "Base Force" planned by the Bush administration and "Option C" outlined in 1992 by Les Aspin, Chairman of the House Armed Services Committee before his appointment as secretary of defense. 10

The table is more instructive in terms of the relative emphasis and de-emphasis in our force, than in the specific numbers of the different types of forces. As already mentioned, our analysis was carried out at too high a level of aggregation to place much value on the precise numbers of forces illustrated in the force posture.

While the strategic forces we list for Force 2004 would reflect the START II agreement, just as the Base Force would, we believe it possible to eventually make deeper reductions in strategic offensive forces and to eliminate an entire category of these weapons—land-based missiles. Such a step would mean savings in infrastructure costs as well as operational and modernization expenses. We would deploy a limited missile defense force and maintain, as would the Base Force, modest air defense interceptor capabilities, but with greater specialization against cruise missiles. Unlike the others, we would add a wing of specialized strike aircraft to be used for the deterrence of nuclear, chemical, or biological attacks on US forces overseas. When not needed in this capacity, the aircraft also could be used for deep strikes with conventional munitions.

The ground forces we list are slightly smaller than those proposed for the Base Force, and slightly larger than those envisioned in Aspin's Option C, but distributed differently

^{10. &}quot;Option C" was one of four alternatives outlined by the chairman, but Aspin indicated at the time that he preferred this option. Les Aspin, An Approach to Sizing American Conventional Forces for the Post-Soviet Era: Four Illustrative Options (House Armed Services Committee), February 25, 1992; Pat Towell, "Planning the Nation's Defense," Congressional Quarterly, February 29, 1992, 479.

among the various types of divisions than in either of the alternatives. Eight of the 15 total Army active and reserve divisions we list would be heavily armored; the remainder should be lighter divisions and therefore more easily transportable. The capabilities of the light divisions we envision, however, would be enhanced by improved battlefield surveillance and fire support, increased use of smart mines to create barriers, and improved training through the use of simulation and instrumented training ranges. Two of the Army's light divisions in our force posture, moreover, would be specially configured and equipped for peacekeeping duties. The smaller number of reserve divisions in the force reflects our greater skepticism about the potential effectiveness of reserve ground forces, except after long periods of mobilization. We suggest no change in the number of Marine Corps divisions, given their special role in projecting US military power in the early days of any conflict abroad.

The land-based tactical air forces we propose are considerably smaller than those envisioned in the Base Force but somewhat larger than those in Aspin's Option C. Improved aircraft and the further exploitation of technologies contributing to precise, autonomously guided munitions, stealth, precision positioning, and comprehensive air battle management will greatly advance the overall capabilities of even smaller tactical air forces and enable them to contribute even more to the land campaign. Reductions are further justified by our suggestion that the Air Force no longer purchase and maintain aircraft specialized for close air support and that it put less emphasis on deep strategic strikes. Our force puts greater stress on reserve tactical air forces because they are perhaps 30 percent less expensive to operate but can be activated at a high level of performance fairly quickly.

The naval forces we propose reflect the disappearance of the high seas challenge once presented by the Soviet Navy and the assumption that no comparable challenge can emerge in the time period we are examining. Naval forces in our proposal are structured to emphasize their capabilities to maintain a deterrent and diplomatic presence around the world and to project effective ground and air power rapidly in the opening stages of any conflict. We thus suggest maintaining a 12-carrier Navy, as does the Base Force. Elimination of the Soviet Navy threat, however, permits substantial reductions in submarines and escort ships. Although only 40 submarines are maintained in our illustrative force, as in Aspin's Option C, the United States would still have the world's most effective submarine force, which could be used for a variety of missions, including the launching of cruise missiles for strikes on highly defended targets deep in enemy territory.

Our illustrative force puts far greater emphasis on airlift and sealift than does the Base Force and more on airlift than Option C, as we consider the timeliness of US responses to be a vital element in an effective military strategy. We suggest 36 fast sealift ships and 21 ships for prepositioning, numbers intended to make possible the storage and rapid deployment and support of all four of the active heavy divisions in Force 2004. While the capital cost of these ships would be substantial, being able to execute a maneuver warfare campaign more rapidly should more than pay back the investment. The proposal also provides roughly 100 more large airlift aircraft than either of the alternatives in order to deploy US light and peacekeeping divisions, as well as the equipment and supplies needed by land-based tactical air wings, more rapidly.

Table 2 Alternative Force Structures^a

	Force 2004	Option C	Base Force
Strategic Forces Land-based missiles Long-range bombers Submarine-launched missiles Missile defense interceptors Interceptor aircraft squadrons (ANG/AFR) Cruise missile interceptor aircraft Surveillance aircraft	500 67/96 432 c.300 5-10 72		550 208 432 c. 1500 10
Air Force Navy Theater nuclear wings	34 36 1		34 N/A 0
Peacekeeping Forces Surveillance/monitoring bns Peacekeeping divisions	6 2	0	0
Contingency Forces Light Army divisions Active Reserves	5 0	2 1	4 1
Heavy Army divisions Active Reserves	4 4	7 5	8 5
Marine Corps divisions Active Reserves	2 1	2 1	2 1
Total Navy ships Large aircraft carriers ^d Attack submarines Amphibious ships Fast sealift ships Prepositioning ships	325 12 40 50 36 21	340 11 40 50 24 37	450 12 80 50 8 21
Land-based ASW squadrons Active Reserve	9	9 9	18 9
Air Force tactical wings Active Reserve	10 10	10 8	15 11
Airlift aircraft Large Mid-size	500 400	410 400	396 416

a. Special Operations Forces would be retained but were not analyzed in detail for this report.

b. Force 2004 includes 17 B-2s and 50 B-52Hs accountable as strategic nuclear delivery vehicles under the

START agreements and 96 B-1Bs dedicated to conventional roles.

c. Base Force number represents the Limited Defense System component of GPALS (Global Protection Against Limited Strikes).

d. Excludes one training carrier.

Implications for Defense Budgets

In aggregate terms, the force posture chosen to illustrate the changes in US military planning that we propose should not be very different than the cost of Option C. The latter, in turn, was estimated by then-Chairman Aspin to cost \$64 billion less than the Base Force over the initial five years. By the year 2000, the Base Force might cost around \$230 billion, while Option C might cost around \$200 billion; both figures are given in 1993 dollars.

No matter how rigorous one's analysis of force structure might be, however, there is no hard-and-fast way to translate such a postulation into a determination of how much defense spending might be necessary in the future. Much will depend on the implementation of steps that have been proposed to reduce the unit cost of defense. For example, the consolidation of support functions could mean that many fewer people would be needed and much less money would be consumed by the defense infrastructure. Politics, however, both bureaucratic and congressional, will have a major impact on how much the defense infrastructure shrinks.

It is hard to say how much savings additional base closings, Draconian consolidations of duplicative support functions, and major improvements in management and logistical processes could generate, but a cut of 10 to 15 percent would seem to be a conservative estimate. Many have argued that far greater savings are possible, but, among other things, political considerations in America's democracy impose a certain minimum quota of inefficiency.

Other potential cost-reducing steps are matters of judgment and political choice. The degree of readiness established for operational forces can vary, for example. In the absence of clear and immediate threats to US interests, it may be possible to save some additional monies by reducing the readiness of some part of the force structure. More forces could be assigned to the reserves, and training and maintenance schedules could be altered to lower cost. However, there are limits below which forces lose their edge, and below which the US armed forces might approach the dysfunctional state that appears to have characterized them in the mid- and late-1970s. The amount spent on readiness has an effect on personnel morale, as well. All three factors constrain the amount of savings possible from operating accounts.

Forces also can be modernized at varying rates; there are really no set rules concerning when existing equipment needs to be replaced. The average age of Air Force tactical aircraft declined from eleven years in 1989 to nine years in 1992; under current plans, it would reach fifteen years in 2004. Average age has more to do with the urgency with which the nation believes it is necessary to replace older weapons than with the physical condition of the aircraft.

With the demise of the USSR, many have suggested that the United States has a sufficient technological lead over any potential enemy to greatly reduce expenditures for the modernization of weapon systems. How far such reductions might proceed is not evident, but these kinds of cuts also would be limited by politics and, more important, by the need to maintain viable defense industries and a viable defense technology base.

The planned cutback in the defense industrial sector is already substantial. Deeper reductions would make it more difficult to hedge against the emergence of new threats to US interests. Maintaining an adequate industrial base, after all, is the heart of the reconstitution strategy, as previously discussed.

Investment in advanced technologies, moreover, is the key to maintaining effective US military capabilities despite reductions in the size of forces. The "force multipliers" described in this report are really just now emerging and need to be integrated into the force. Given the lead times between conceptual breakthroughs and the fielding of new weapons, continued research and technology development is essential to maintain US advantages in the years to come. Many legislators and decision makers also see investments in certain kinds of defense research and development as important for stimulating the advance of technologies considered critical to the commercial competitiveness of US industry, as well.

As a result of considerations like these, so long as the United States wishes to remain a global military power and field a force near the size of the one described in Table 2, the potential for deeper budgetary reductions will be limited. Annual costs for the illustrative force posture we have described are unlikely to drop, even after the turn of the century, below \$200 billion in 1993 dollars. This represents, in our way of thinking, a realistic minimum if the US is to maintain the forces necessary for its national security.

Assuming modest real growth in the nation's economy, the budget for our illustrative force posture would represent around 2.7 percent of the nation's resources. This level has not been seen since the 1930s, and obviously would be affordable. As compared with the Reagan years, the peace dividend would be huge. At its peak in 1986, defense spending accounted for 6.3 percent of Gross Domestic Product, and the Defense Department projected budgets exceeding \$450 billion. The end of the cold war is thus leading to annual defense expenditures some \$250 billion below the levels that might have been seen to be necessary had the Soviet Union continued to threaten the United States.

In effect, given the relatively permissive international environment projected for the years ahead, the United States has the luxury of deciding, within broad limits, how much defense it wants to maintain—how much, in effect, insurance to buy against future contingencies. Annual budgets around \$200 billion can be readily afforded by this country and would provide ample forces for the challenges to US interests likely to be confronted in the years ahead.

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