

Reforging the Sword

FORCES FOR A 21ST CENTURY SECURITY STRATEGY

diplomacy



training

doctrine



allies

leadership



weaponry



FULL REPORT

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SECURITY STRATEGY

FULL REPORT

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Executive Summary

This report proposes an alternative U.S. military force for the first quarter of the 21st century. The force is designed to execute a new international security strategy that attempts to respond to the challenges of a changing world and also shape what that world will look like in 2025. Principal findings and recommendations of the report include:

- The U.S. military will face new military scenarios and new forms of warfare in the next quarter century, yet change in strategy and forces has been slow. Reshaping of the military to respond to the changing face of warfare needs to be accelerated.
- Intervening in complex civil wars, internal violence, peacekeeping operations – “smaller-scale contingencies” – has become a frequent mission for the military. These missions are increasingly likely to feature asymmetric warfare that bypasses the U.S. military’s current strength – industrial age warfare of destructive attrition on the battlefield – and attacks its weaknesses.
- The dominant diplomatic and military role that the United States will continue to play in world affairs will generate resentment and resistance as well as support, which the United States must nurture and expand. This approach presupposes restraint on the unilateral use of force by the United States in its pursuit of global stability and other national interests, and elevates the principle of multinational response.
- This study takes the approach of trying to *produce* a more desirable world by 2025 rather than trying to *predict* what it will be. The approach suggests that shaping the future requires building a more flex-

ible and agile military. The study looks at what strategies might help reach a desired 2025 world, and proposes forces to execute the strategies. The study rests on several assumptions about the world, which, if unrealized, would lead to different recommendations.

- A key to a 2025 world in which American values predominate and in which America remains a leader is the rebalancing of the application of the elements of national power. Military power, which over the last 60 years has been the dominant element in U.S. international relations, must be recast into its essentially supporting role as a complement and backup to the political, economic, social, and informational components of national security. Broad national security strategy should pay more attention to foreign perceptions and political views of the United States – and explore threat reduction by using all the components of national power to deal with those perceptions.
- The report supports conducting military operations in carefully selected humanitarian or peace enforcement cases even where the United States may not have a clear vital national interest. The United States can and should play a useful role in ameliorating the worst cases of violence, destruction, and abuse in civil wars, “failed states,” and similar situations.
- The study calls for a strategy that will:
 - *Broaden* national security tools to include stronger political, economic, and social components.
 - *Integrate* with allies and partners to improve multinational military capabilities, collectively engage with areas of conflict – heading off conflict if possible and jointly intervening in selected cases if not.
 - *Quicken* military forces and refocus some of them on smaller-scale contingencies – in which they are likely to face challenging asymmetric or “fourth-generation” warfare – by improving their mobility, agility, flexibility, and strategy and decision-making speed.
- The study proposes making U.S. forces more “expeditionary,” on the assumption that expanding bilateral and multinational training, exercises, rotational deployments to “show the flag,” and other military-to-military contacts will credibly indicate continued U.S. engagement in a similar way to permanent forward stationing of large, heavy U.S. forces.
- In contrast to trends in the Defense Department, this report emphasizes: preparation for the new challenges the military faces right now;

fixing personnel issues and doctrine before buying new hardware; and seizing the opportunity for expanded multinational action. Although the results of Defense Secretary Donald Rumsfeld's strategy reviews are coming out slowly, the Defense Department has tended to focus on: future challenges from a superpower competitor; high-tech hardware; and U.S. capabilities to act unilaterally.

- The report suggests that choosing specific weapon programs is the least important component of a defense review. The most important thing is to ensure that personnel policies create a force of cohesive units with agile, initiative-taking leaders. Some key reforms to personnel policies are outlined in the report.
- The report also proposes a force structure that, over time, is:
 - smaller, with reductions in the active forces of three Army divisions, three aircraft carrier battle groups, and close to four fighter wings;
 - partly refocused on smaller-scale contingencies, peacekeeping, and peace enforcement operations;
 - composed of more transformed, lighter, smaller, higher mobility units;
 - oriented towards broader jointness in developing force requirements and in operations with allies, friends, civilian agencies, and non-governmental organizations; and
 - prepared to handle potential larger challenges in the future with a robust heavy reserve force and, in the longer run, a healthier defense industrial base.
- The report also calls for accelerated efforts to:
 - Transform some of the active heavy armored forces into "expeditionary" forces more suited to smaller-scale contingencies. Prepare to work more with other nations and non-governmental or international organizations in such contingencies. Deal with chronic transnational problems such as drug trafficking, illegal migration, and crime by integrating operations better with U.S. civilian agencies whose primary missions and core competencies are in these areas.
 - Boost the human intelligence capabilities that improve knowledge and understanding of foreign cultures and governments.
 - Focus transformation and funding on agile forces such as: light- and medium-weight Army, Marine Corps, Special Operations; littoral Navy; lift, close air support, and interdiction Air Force; and defen-

sive nuclear, biological, and chemical forces and equipment. Help fund the re-orientation with moderate reductions in the forces that are already overwhelmingly dominant in force-on-force combat such as: heavy active Army, open-ocean Navy, nuclear and air superiority Air Force, and offensive nuclear forces.

- Improve ability to conduct new “asymmetric,” “maneuver,” or “third/fourth-generation” warfare by creating agile and flexible forces. Strengthen joint capabilities by expanding the role of war-fighting commanders and the Joint Staff in planning, budgeting, and procurement.

I. Introduction

T*his volume is the full version of the report. A condensed version is also available. In addition to the full report, several background papers on specific topics were prepared and are mentioned in the text. All of the reports are available from the Center for Defense Information in hard copy or through its website, www.cdi.org.*

To develop a U.S. military force structure for the first quarter of the 21st century, this report took the classic approach of looking at potential U.S. goals, developing strategies to reach those goals, and then proposing forces to execute the strategies. Although the report concludes that moderate force reductions – and hence moderate military spending reductions after a transition period – are possible, its methodology did not start with lower spending as a goal in and of itself.

The study attempts to serve as a discussion catalyst rather than as a detailed blueprint of future military forces. Several issues, strategies, and recommendations are raised that point to areas for more detailed exploration. Although this effort is similar in concept to the Defense Department's official Quadrennial Defense Review, the absence of several hundred comparable staffers and officers to perform detailed analysis in this effort has limited its scope. The goal was to contribute concepts and perspectives to the debate, rather than produce the last word in analysis. Hopefully, the study makes up in conceptual unity and freshness of view what it lacks in detail.

The proposed strategy takes the approach of outlining a *desired* 2025 world, rather than a *predicted* one. It suggests that to reach such a desired world, there is a need to broaden the non-military components of national security – political, economic, informational, and social – by giving them a greater role

and allocating more resources to improve their effectiveness. The report finds that the best way to win conflicts is to head off potential threats before they even develop and suggests that non-military components can contribute substantially to such threat reduction.

The strategy rests on several assumptions about what conditions in the world will be. These foundational assumptions likely lead to different conclusions than other studies in this area. Although there are several hedges in this proposal, if the assumptions turn out to be too far from reality, the recommendations would need revision. For example, a pivotal element of the strategy is a much-expanded role for allies, friends, and partners in future military operations, both to take advantage of their potential capabilities, and to share the responsibilities and liabilities of global leadership. U.S. forces would better integrate with allied and coalition forces to collectively engage with areas of conflict. This rests on an assumption or assessment that the *conditions exist* for others to increase their military capabilities and activities. The paper then makes a *prescription* for this potential to be realized in the future – rather than a *description* that it will be. But if the appropriate conditions do not even exist, nothing the United States does in its revised strategy will be able to bring about greater international effort.

II. The Future

UNPRECEDENTED CHANGE

“To know the future would be a blessing and a curse”

The last 10 years have been a decade of change unprecedented in modern Western history. The structure of international relations has changed from dueling political-military blocs dominated by superpowers to a single, multitier alliance dominated by the United States. Economically, the 1980s Asian powerhouses have either fallen on hard times or have fallen behind the United States and Europe in developing and exploiting new technologies. These same technologies have revolutionized (and continue to transform) the way in which individuals and societies acquire and share information, albeit the pace of converting information into knowledge and subsequent action remains dependent on the human brain.

At the same time, most of the world's inhabitants have been only marginally affected by these rapid changes. Even where political oppression has been lifted and new economic systems installed, the age-old problems remain: getting enough to eat, having clean water to drink, being protected against infectious but curable disease, and being reasonably assured that life can be lived free of fear.

Another reality affecting the modern national security environment of developed countries is the interdependence among the elements of society. In its Phase I Report, the United States Commission on National Security/21st Century states that “the international system will be so fluid and complex that even to think intelligently about military issues will mean taking an integrated view of political, social, technological, and economic developments.”¹

The Commission believes that “only a broad definition of national security is appropriate” in an age in which “the fundamental assumptions that steered us through the chilly waters of the Cold War require rethinking.”

Despite the socio-political-military changes of the past decade, the one unchanged, overarching reality is the ability of a few countries – and the apparent willingness of Russia and the United States among the nuclear powers – to employ nuclear weapons. In this instance, the first and best line of defense remains diplomacy in the form of verifiable arms control/arms reduction and nonproliferation regimes. At the same time, diplomacy can make headway in the realm of conventional arms by advocating greater transparency in military affairs and a general rollback in worldwide military expenditures and forces to levels that allow for deterrence and self-defense. The ultimate goal of diplomacy ought to be to promote and strengthen a consensus that peace, not war, is the norm of international relations.

Traditional Military Approaches

The military dimension of national security remains a core requirement in the early 21st century. The administration of President George W. Bush inherited a tripartite National Military Strategy (NMS) that envisions “shaping the international environment...responding to the full spectrum of crises...[and] preparing now for an uncertain future.”² More succinctly, the Pentagon’s 1997 Concept for Future Joint Operations states that the objectives of the NMS are to “promote stability and to thwart aggression” through “peacetime engagement, deterrence and conflict prevention, and [being prepared to] fight and win.”³

One way to shape the environment is through presence – permanently stationing and rotationally deploying forces around the world, conducting exercises, and providing “defense cooperation” in the form of arms sales and educating foreign military personnel. Being there as opposed to having to get there is an effective way of deterring aggression and providing reassurance to friends. Shaping the environment was singled out by Adm. Dennis Blair, commander in chief Pacific Command, in March 7, 2000 congressional testimony, as his most effective tool. In December 2000, forward presence accounted for the stationing of some 113,000 U.S. military personnel in Europe (with an additional 4,000 afloat), 77,000 in Asia (plus 33,000 afloat), and 13,000 in the Middle East/Persian Gulf (with 5,000 more afloat).⁴

Pentagon doctrine, organizations, and weapon purchases are ostensibly aimed at meeting the third element of current military strategy: “preparing now for an uncertain future.” But moving from Cold War patterns has progressed slowly. “Mass” still predominates in doctrine even though the lessons of the 1991 Persian Gulf War were not lost on U.S. adversaries, such as Slobodan Milosevic in Kosovo in 1999. Army divisions with large logistics tails of fuel, food, and ammunition remain the organizational bedrock of land warfare as the carrier battle group and amphibious ready group are for the Navy and the wing for the Air Force. Despite the proliferation of improved land- and air-launched anti-ship cruise missiles and a shift in emphasis from deep oceans to shallow littoral seas, the Navy continues to build 90,000-ton nuclear-powered aircraft carriers. The Air Force continues to prioritize manned bombers and fighters even as better air defenses are being developed and the ability of “stealthy” aircraft to operate undetected has been called into question. Similarly, the Army has been slow off the mark to examine alternatives to heavy armor and artillery which strain rapid lift capacity. As difficult as it is to change equipment, it is even more difficult to transform mindsets about doctrine and strategy. As the Army’s deputy commanding general for transformation, Maj. Gen. James Dubik noted, “The materiel part is hard, but human change and cultural change are a lot harder.”⁵

Fourteen years after the Goldwater-Nichols Act gave the chairman of the Joint Chiefs of Staff new powers of coordination and budget formulation, the greatest impediment to change in the Pentagon continues to be service rivalry for missions and the money (and therefore influence) that goes with new endeavors. A recent case in point is the Navy’s full court press to become an equal player in missile defense even though, by the terms of the 1972 Anti-Ballistic Missile Treaty, the United States and Russia agreed not to develop sea-based national missile defenses.

Effective shaping, responding, and preparing require a strategic framework that weaves into a seamless whole the capabilities of each service in a fashion that the strengths of one offset the weaknesses of the others. But to the extent that the services and the Pentagon are slow to adapt 20th century assumptions, modes of thought, and preparations to the more integrated world of the 21st century or develop a culture that rewards innovation and risk-taking, adversaries may well find where weakness reinforces weakness in an effort to exploit military deficiencies.

It is not feasible, prudent, or necessary to try to transform all of the force from current doctrine, organization, or equipment. But it is necessary and prudent in this time of “strategic pause” to undertake a clear, time-phased re-evaluation of foreseeable likely military threats to U.S. interests. This should be followed by moves to research and develop a range of complementary, joint military capabilities that will allow the United States to effectively deter and, if necessary, defeat an aggressive nation or sub-national group.

CONTINUING NEED, NEW CHALLENGES

“Philosophers dream worlds, politicians try to organize them, the military confronts them”

The Challenge of Violent Conflict to Global Stability

Along with other nations, the United States wants sufficient stability (and therefore predictability) in global affairs to ensure the continued prosperity of the nation. America’s experience, as short as it is, inclines it strongly to the belief that global stability is best achieved through a world in which nations recognize and adhere to democratic ideals and protect the basic human rights of all their citizens. On this basis, global stability can be enhanced through a growing global economy whose benefits extend to all nations. This in turn implies a community of states able to create new sources of wealth; to allocate, when necessary, scarce resources equitably among claimants; and to deal early and effectively with nations or sub-national groups who refuse to recognize, let alone cooperate in upholding, mutual interests and values.

This last reality justifies the creation and maintenance of military forces by nations, even in an era of relative cooperation. Even so, two significant, mutually reinforcing changes have emerged in the last decade of the 20th century that are altering war-fighting and the preparations for war-fighting.

New Ways of War

The first is a significant shift from predominantly inter-state to intra-state conflict – even considering that some intra-state conflicts lead to interventions by coalitions or individual neighboring states intent on ending widespread human rights violations, or containing the violence and refugee flows.

By its very nature, this shift has lessened the relevance of defending the territorial integrity of the state – the traditional justification for large military forces – in deciding on the nature and structure of modern military forces. The overall decline in world military expenditures (from \$1.2 trillion in 1985 to \$785 billion in 1998) and the reduction in the size of standing military forces reflect this change in emphasis. Moreover, the widespread dissolution of monetary, trade, and communications barriers, along with the stability produced by growing political/security integration in some regions, has made territorial boundaries less significant than at any time since the 17th century.

In turn, a reduction in military force size that has taken place around the globe reflects a belief that traditional force-on-force engagements – whether armies, navies, or air forces – are largely an anachronism. Among the more technologically advanced nations, the military principle of mass – whether in personnel or firepower – is giving way to better-informed, faster, more mobile, self-sustaining, and lethal small units or groups of forces that can operate semi-autonomously over greater distances. Speed (including rapid massing for a specific mission and equally rapid dispersal when the objective is attained), precision, and rapid adaptability in an inherently more fluid environment assume greater relevance. In turn, this places a greater premium on highly trained, well-equipped personnel able to evaluate situations and make tactically and technically sound decisions while reducing risks. In this regard, the small unit operations of U.S. forces in the Balkans is an apt laboratory for assessing and developing the skills that key elements of the future force will require to be successful over the next quarter century.

Adapting the U.S. Military

In certain other ways, militarily and non-militarily, the 21st century will be like the 20th. The United States, given its human and natural resources, its power and size, will continue to play a dominant diplomatic and military role in world affairs when it chooses to become involved. This, in turn, will generate resentment and resistance from many countries and sub-national groups. This rancor and opposition will lead to instances of violence. It will also, however, generate support, which the United States must nurture and expand whenever and wherever possible. This tack presupposes restraint on the unilateral use of force by the United States in its pursuit of global stability and other national interests,

and elevates the principle of multinational response to preclude, or at least control, instances of inter-state, intra-state, and terrorist violence.

These world conditions and the changing rationale for the use of military force lie behind what some may regard as a radical proposal for restructuring U.S. military forces over the course of the next quarter century. But all recommendations are premised on continued U.S. engagement with other nations diplomatically, economically, environmentally, socially, and militarily (in *ad hoc* coalitions or supporting international organizations). And all are based on the premise that how the United States chooses to exert its power and prestige over the next quarter century will be a significant, if not the determining, factor in the world's progress toward greater understanding, greater harmony, and greater prosperity for all nations for the remainder of the century and beyond.

RECENT DEFENSE REVIEWS

In 1997, the Pentagon conducted the first congressionally mandated Quadrennial Defense Review (QDR). This was not the first inventory of military policies and programs in the 1990s: between 1989 and 1991, the Pentagon conducted the Base Force Review and, in 1993, the Bottom-Up Review.

All three reviews made some adjustments to the force structure and the end-strengths of the services. While these changes were important, particularly in light of the American public's perception of reduced military dangers, none of the reviews questioned the underlying basis for the traditional (Cold War-era) military responses and strategy in light of the vastly altered international military climate and the burgeoning reality of globalization. Even the independent National Defense Panel established by Congress to review the 1997 QDR was unable to influence the Pentagon's determination to retain a strategy and the necessary forces to fight and win two nearly simultaneous major theater wars (MTWs). The result was a force structure and command system essentially unchanged from the Cold War; the only difference was its smaller size, which has left it unbalanced for the 21st century challenges.

The military services, which had been preparing for the second QDR for some months, received a jolt in February 2001 when the Bush administration announced it would conduct a separate top-down review of military policy and programs. This "outside" review, involving top Defense Department ci-

vilians, retired officers, and defense contractors, is to shape the QDR by re-ordering service-specific, as well as overall Pentagon, priorities.

Before the Bush review was announced, two foundational studies dealing with national and military security issues were completed. The first, also congressionally mandated but conducted under the aegis of the Office of the Secretary of Defense, was the United States Commission on National Security/21st Century (also known as the Hart-Rudman Commission after its two co-chairs, former Senators Gary Hart and Warren Rudman). The Commission's mandate was to look at all aspects of national and international affairs that might influence, for better or worse, the national security of the United States in the first quarter of the new century. In its third and final report, the Commission made 49 specific recommendations grouped under five broad headings, of which only the first and third are military in nature:

- Securing the National Homeland
- Recapitalizing America's Strengths in Science and Education
- Institutional Redesign
- The Human Requirements for National Security
- The Role of Congress

The second study was done by a quasi-independent committee, the "NDU QDR 2001 Working Group," based at the National Defense University (NDU) in Washington. The working group analyzed the implications for force structure of four approaches to national security: the "shape-respond-prepare" policy of the Clinton administration; more selective engagement; eliminating perceived war-fighting shortfalls and reducing operations tempo; and even greater engagement to shape international events.

Both the Commission on National Security/21st Century and the NDU QDR Working Group had similar constraints: their constituents ultimately are the Department of Defense and the Congress. Thus, as was the case with the 1997 QDR, while the analysis of the existing and projected military climate might point to more than one set of very reasonable missions, force strengths, and force structures, the inherent cautiousness of the Pentagon leads to a resistance to significant change. A *status quo* approach increasingly threatens to undermine the military security of the United States because it may result in U.S. forces being improperly structured to meet the threats likely to evolve during the first quarter of the century.

THE STRATEGIC CHALLENGE TO DEVELOPING A NEW FORCE STRUCTURE

One of the fundamental questions about force size and structure is what drives their formation. In modern times there seem to be three approaches: threats, budgets, and strategy.

Identifying and countering threats to vital (and sometimes only important) national interests is the traditional rationale for determining force structure and size. But since the fall of the Soviet Union, and in the absence as yet of any truly significant regional military power able and willing to challenge the military prowess of the United States, this method as the primary basis for determining forces has much less relevance today. This is because the nature of potential challenges is less predictable and their possible effects less catastrophic.

Budgets have become the practical determinant of forces and force structures even when the traditional threat-based analysis is proclaimed as the driving rationale behind the annual Pentagon spending proposal. This has manifestly been the case since the 1950s, when the Eisenhower “New Look” strategy was inaugurated to offset the conventional war-fighting advantage enjoyed in Europe by the Soviet Union and, in Asia, by the People’s Republic of China. During the Vietnam War, President Lyndon Johnson’s determination not to undercut the financing of the “Great Society” was as significant a restraint on the way that war was fought, as was Johnson’s need to avoid congressional opposition and large-scale anti-war protests on the streets of America. And although budgets ballooned during the Reagan years, before the end of his second term and throughout the elder Bush administration, military spending encountered practical limits embodied in the quadrupling of the national debt. Indeed, it was almost a condition of the 1990-91 Persian Gulf War that the lion’s share of the costs be paid by the Gulf coalition allies, including nations that did not contribute armed forces.

That leaves strategy. Strategy defines the means to be employed to achieve identified goals. As the generic process of determining the most effective application of available instruments, strategy traditionally exists at the “grand” (involving national interests), the operational (involving large geographical areas), and the tactical (local) levels.

In simplified terms, the dominant national strategy for the first 150 years of America’s history was what, in retrospect, is called “Manifest Destiny.”

Together with the Monroe Doctrine's declaration that the American continents were not open to further European colonization – a declaration whose efficacy depended on the power of the British Navy in most of the 19th century – the concept that Americans were “entitled” to expand westward influenced decisions for war and peace.

Once America reached the Pacific, Manifest Destiny was implemented operationally by a policy of maritime dominance which rested on the premise that the territorial integrity and long-term growth and prosperity of the American “island-nation” could best be guaranteed through free trade and freedom of navigation. America's post-Civil War economic expansion led many (including President Theodore Roosevelt) to the conclusion that the United States should not rely on any other nation to protect America's interests.

Despite the gradual development of air power as a new aspect of warfare, maritime considerations remained dominant in the formulation of national strategy. America's dominance of the seas made inevitable the defeat of Japan and Germany in World War II.

After the war, hoped for internationalism under the U.N. banner quickly gave way to containment as the guiding principle of national strategy. At the operational level, maritime strategy was challenged (unsuccessfully) first by air power theorists and then (successfully) by atomic/nuclear weapons whose destructive power added a major new dimension to war-fighting. Eisenhower's “New Look” policy relied on “the bomb” to offset the heavy conventional forces fielded by the Soviet Union and the People's Republic of China.

The domino theory augmented containment, bringing with it an operational strategy of “flexible response,” running the war-fighting spectrum from guerrilla/insurgency/counterinsurgency to nuclear holocaust.

The 1970s augmentation to containment was détente, a “time out” period in the superpower rivalry. But just as the Monroe Doctrine's efficacy rested on the British Navy, the efficacy of détente depended on the Soviets acting “responsibly.” The 1979 invasion of Afghanistan by the Soviet Union was the final nail in the coffin of détente. Thus in the early to mid-1980s, containment again was the order of the day for the United States, one that changed slowly over the latter days of the Reagan administration and the early Bush years as superpower relations warmed.

But containment of the Soviet Union became obsolete when the Soviet Empire disintegrated, and with it the strategic and operational focus. What

emerged was a construct of rogue nations credited with a commonality of overlapping interests, intentions, and capabilities to orchestrate two anti-American “major theater wars nearly simultaneously.” The reaction carried containment – and its supporting offensively-oriented maritime, strategic air, and heavy forward deployment concepts – into the 1990s.

Furthermore, the role of nuclear weapons was expanded to include the possibility that they might be used to retaliate for the use of chemical or biological weapons against U.S. forces or the territory of the United States.

But actual experience since the 1991 Persian Gulf War – the last time any one of the rogue states attempted to contravene militarily the international community – suggests that another form of containment has emerged – that of precluding or mitigating conflicts. American forces have been used primarily to preclude or mitigate human and natural disasters or in support of the theory in international affairs that draws limits on unrestricted internal state sovereignty (as in Kosovo).

The implications of the globalization of information and financial flows for nation-states are further eroding the freedom of states to act with little or no regard for others. The Clinton administration’s bent toward “engagement and enlargement” is a recognition on economic grounds of the growing interdependence of nations. These changes suggest a requirement for a strategic mindset and an effective force structure capable of functioning within changed international parameters, while retaining the ability to defend vital national interests.

III. A New Strategy

A DESIRED 2025 WORLD

Rather than rely heavily on predictions of what the world will be like in 2025 and what the specific threats will be, another approach to strategy is to outline what world the United States might *like* to see in 2025, and shape strategy and forces so as to encourage the realization of that world instead of other, less attractive, scenarios. Such a strategy attempts to *produce* a world instead of *predicting* it. This study attempts to suggest such a strategy, and emphasizes the importance of improving strategic, operational, and tactical flexibility in the military so as to be as ready as possible for unpredicted situations and challenges.

Because in 2001 the predominate component of U.S. national security is the military, this element will be the most affected by any transformations needed to achieve the end-state world of 2025. Thus, this study's emphasis falls on military policy, programs, strategy, and forces.

The world of 2025 envisioned here as being the most promising for U.S. national security is one characterized by:

- recognition that a nation's social, political, economic, military, informational, and environmental strengths contribute equally to national security;
- a major reduction (to no more than 500 each) in nuclear warheads and delivery means in the arsenals of Russia and the United States, no significant increase from current levels in China, and progress towards the elimination of all nuclear weapons;
- implementation of more vigorous verification regimes (and their enforcement) for chemical and biological weapons and agents, and for nuclear weapons;

- greater use of targeted diplomatic and economic means to avert and mitigate crises that develop by addressing their root causes, and to reverse the consequences of violations of international norms and standards;
- general reductions in spending for conventional national military forces, made possible by strengthening the capacity of regional organizations (and possibly the United Nations) to respond to intra-state and inter-state violence and to humanitarian emergencies and natural disasters;
- more equitable economic development via open markets, free trade, and economic development and assistance from developed countries; and
- equitable use of the world's diminishing natural resources, including fresh water, arable land and food, forests, and energy sources.

If this (or something close to this) is a desirable outcome, are there actions or avenues the United States can pursue that will help bring this world closer to reality? Can the United States sufficiently influence other states so that this promising world – or a better one – can be sustained?

For the United States to retain its moral, diplomatic, economic, and military leadership over the next 25 years, it will have to:

- increase participation in shaping international legal, economic, environmental, and natural resource agreements and treaties that affect vital and important national interests;
- maintain strong ties to allies (North Atlantic Treaty Organization (NATO), European Union (EU), the Organization for Security and Cooperation in Europe (OSCE), the Organization of American States (OAS), and with key states in the Far East, Middle East, Asia, and Africa;
- encourage the evolution of new security relationships founded on common interests with Russia, China, India, Brazil, and other emerging regional power centers;
- develop military structures capable of efficiently responding to remaining threats or emergencies that are susceptible to military power and capabilities;
- move from dependence on fossil fuels to renewable energy sources.

Internally, the executive branch must improve the interagency process. As the distinctions between domestic and international issues, and between military and political/economic issues continue to blur, “improvement” may well mean broadening participation by agencies and offices and distributing in-

formation more widely to ensure that second- and third-order effects of a proposed policy reach consideration. Since the military is only one component of national security, there likely is a need to have other civilian agencies play an equal or greater role (and a role better funded than it is now) at certain points in U.S. engagement and interventions abroad. At the same time, streamlined analysis of the real-world effects of national policy decisions will be required to preclude unacceptable delays in subsequent decision-making.

Within the U.S. military, programs and policies of the individual services need to be reviewed for their impact on joint operations. This is particularly true for communications and intelligence analysis and dissemination. In a very real sense, these areas are no longer mere force enablers. They are central elements in the joint commander's ability to assess reactions – desired, undesired, even unanticipated – and adapt peacetime planning or wartime operations to the changed environment.

Another key to a 2025 world in which American values predominate and America remains a leader is the rebalancing of the application of the elements of national power. Diplomacy is the first line of both offense and defense of U.S. interests, the realm in which the nation signals its intention to involve itself or abstain from participation in world affairs. Supporting diplomacy are economic actions, positive (reducing tariffs, expanding trade agreements) and negative (sanctions). Military power – another supporting capability but one which, over the last 60 years has been the dominant element in U.S. international relations – must be recast into its essentially supporting role. Above all, the United States must avoid even the perception of threatening military force unilaterally in pursuit of narrowly defined “national interests” at the expense of international equity.

WHAT IF WE'RE WRONG?

Underlying this proposal are a number of assumptions which, if not fulfilled, would require adjustments to various conclusions. The main assumptions are:

- Classic cross-border aggression will be less frequent and of more restricted intensity and duration than in the 20th century.
- The need to posit and prepare for two nearly simultaneous major theater wars is unnecessary, given the increasing integration of interests among major powers, the conventional military overmatch against lesser

powers, and the potential for greater allied contributions to winning such wars should they occur.

- Major allies and friends of the United States are politically and financially *able* to continue to move toward acquiring the capacity (sometimes unilaterally, more often multinationally) to provide for their own defense and security needs and to build intervention forces. A reorientation of U.S. strategy as proposed here, and hence strong U.S. encouragement for allied transformation, might help allies to do so.
- Expanding bilateral and multinational training exercises, rotational deployments to “show the flag,” and other military-to-military contacts will credibly indicate continued U.S. engagement in a similar way to permanent forward stationing of large, heavy U.S. forces.
- Projected technology advances necessary to support strategy and tactics driving the transformation efforts of the military services will materialize.
- Improved and expanded transformation of national-level information collection, analysis, and dissemination by intelligence agencies will be able to rectify existing shortfalls in these activities; be able to keep abreast of the intentions and capabilities of allies, friends, possible and identified adversaries; and identify potential internal upheavals in other nations that might affect peace or stability in a region.⁶
- Overall, a Depression-type collapse of the global economy will not occur, and nations will prefer accommodation to war with regard to the distribution of scarce resources such as energy and water.

There are measures – hedges – against the failure of one or more of these assumptions to materialize. They fall into three main categories: organizational (people, ideas, and transformational processes); alliances and multilateral approaches to security challenges; and the industrial base. All are underpinned by the same critical ability – first-rate, comprehensive analysis of information about the intentions and military capabilities of others, both friends and potential adversaries.

Organization

The most important hedge against unexpectedly large security challenges that may arise is strengthening the military’s capability for strategic flexibility. This requires attracting the right people and giving them the infrastructure

support and doctrinal flexibility to prepare for potential remobilization should this become necessary.

As this paper repeatedly stresses, people are the central core of military organizations. They must have competent leadership, both civilian and military. Officers and senior non-commissioned officers, especially in the active force, must be given time to be with their troops so as to understand and resolve problems and conduct relevant training to keep skills honed. However, Army and Air Force National Guard and Reserve units of all four services that constitute part of the Ready Reserve also must be provided opportunities for solid individual and unit training to meet the demands of the Pentagon's "Total Force" policy which is designed to fully integrate the various components into a single fighting force.⁷

Should general mobilization on the scale of 20th century world wars be required again, the greatest burden of reconstituting forces would fall on the Army as the service responsible for sustained land combat. The task of organizing and training individuals and units would fall to the Army Reserve, which currently has seven institutional training divisions and five exercise divisions. These would form the bases for receiving and organizing recruits needed to expand the Army.

A second requirement for mobilization is to have space and facilities that can be pressed into service. As early deploying active units are relocated abroad (or to critical areas in the United States), it may be possible to rapidly back-fill installations that have been vacated. But it will also be necessary to have separate, existing space on active duty military bases and separate installations that can be used as mobilization reception and training facilities. Thus an important consideration in any future base realignment and closing decisions ought to be the number and siting of facilities that could be pressed into service for general mobilizing activities.

To carry out these responsibilities, trainers and training units must remain well informed and trained themselves in the doctrine, strategy, and organizational concepts of their services. The responsibility for ensuring such education and "training of trainers" rests with the senior leadership of each service. Budgets must be allocated and time and opportunities made available for familiarization with new organizations and equipment, as these are implemented or fielded. The extent of such "transformational training" will depend in part on the speed at which the new concepts are introduced and the

expected roles that newly mobilized units will assume. In all cases, the goal should be what it is for active duty units: to train as they will fight.

A related issue is the requirement to maintain agreements with friendly nations that could be activated in times of emergencies. Two significant sets of agreements are Status-of-Forces, which “defines the legal position of a visiting military force deployed in the territory of a friendly state,”⁸ and basing rights, particularly for aircraft.⁹

Multilateralism

The second set of assumptions that must be hedged are those involving alliances and multilateral approaches to security issues. Although an “ideal” security world from Washington’s perspective is one in which the United States dominates diplomatically, economically, militarily, and environmentally, such a unidirectional order would inevitably lead to a coalition of rebellious, lesser powers. Globalization, because it forms interlocking webs that can exist only if the webs have multiple anchor points, is predicated on cooperative efforts to embrace as many interests of as many states as possible. While not all states are equal, those whose power allows them to assume the mantle of leadership must be perceived as willing to – and at least occasionally to gracefully – incorporate the positions of others.

Properly woven, the webs will reflect a convergence of interests and the recognition that all have rights and responsibilities in a global world. And it is with the responsibilities that problems may first manifest themselves because political will, left to itself, can disintegrate all too rapidly as competition for human, fiscal, and even natural resources rise. For example, two years after NATO’s Defense Capabilities Initiative (DCI) was agreed, concerns are being voiced as to whether the European NATO countries will meet the objectives of the plan.¹⁰ In that these initiatives parallel requirements for the European Union’s efforts to raise and sustain a 60,000 strong rapid reaction force, failure in implementing the Defense Capabilities Initiative will adversely affect the EU effort.¹¹ And success in the EU effort is the basis for some of the U.S. force structure changes proposed by this paper.¹² Hence the phased nature of the changes in U.S. force structure provides a hedge against delays in meeting expectations of improvements in allied military forces. Moreover, a phased change permits more extended use of diplomatic, economic, and environmental tools to influence trends and shape events affecting bilateral and

multinational relations. It also keeps the anticipated transformation of the U.S. military on a steady course.¹³

Industrial Base

The third arena is the industrial base. In a world driven more and more by rapid advances in technology in general and information in particular, change is so pervasive and quick that past methods of trying to maintain military industrial capacity are no longer useful.¹⁴

The predominant change of the last decade is the shrinking of the defense industrial base to the point that it is dominated by a handful of companies. This immediately suggests that an important hedge lies in improving the vitality and regenerative ability of this smaller and much more concentrated defense industrial base. This is perhaps best done by improving the competitiveness of this new, leaner defense industrial base (see discussion at p. 135).

In some respects, change is not coming fast. The increasing longevity of major weapons platforms (e.g., aircraft carriers are expected to last as long as 50 years; the average age of aerial tankers is more than 39 years; and B-52H bombers, first flown in 1961, are projected to be in service until 2040) means associated maintenance costs are rising. At the same time, new, much more expensive systems are projected to enter production and provide thousands of jobs. One way to control rising maintenance costs and sustain jobs is to produce replacements of current platforms – still the best in the world – enhanced with the latest upgrades in communications, situational awareness capabilities, and weapons. This would provide work for industries that rely on the Defense Department while sustaining at least a minimum hardware production capability for future defense needs.

Perhaps more serious is the question of keeping new ideas and new, competitive designs flowing. This has become more of an issue as the defense industry has been swept by mergers and other consolidations.¹⁵ Maintaining the interest of weapon design teams generally will require a concentration on recycling lessons derived from prototype testing – either of one or two products or, in cases where operational concepts need to be evaluated because of significant advances, more substantial production runs – and simulations. As with actual production facilities, the Pentagon may have to assume more of the direct costs of research and development in order to keep highly specialized design teams employed.

Intelligence

The hedges outlined above rely heavily on creating and maintaining the ability to discern the intentions of other nations and their leaders. This is a long-term, human-intensive occupation that inherently has the potential for high error rates. For this reason it cannot be undertaken haphazardly or lightly. It also cannot be confined to targeting officials and other elites of foreign nations. The recent record of U.S. intelligence agencies suggests that too much attention has been devoted to weapons system numbers and capabilities while what a country's rulers might or might not do with these capabilities has not been as readily discerned.¹⁶

The lesson embodied in this inversion of priorities goes back to the ancient strategist Sun Tzu – it is better to win without having to fight one's enemies. Winning without fighting requires much improved knowledge and understanding of opponents. As Sun Tzu wrote,

So what enables an intelligent government and wise military leadership to overcome others and achieve extraordinary accomplishment is foreknowledge. Foreknowledge cannot be gotten from ghosts and spirits, cannot be had by analogy, cannot be found out by calculation. It must be obtained from people, people who know the conditions of the enemy.¹⁷

IDENTIFYING NATIONAL INTERESTS

To reach a desired world in 2025, the United States must identify and pursue a set of national security interests. Protection and enhancement of such interests will help shape the characteristics and events of international security that in turn will create either fertile or hostile ground for the gestation of a desired world.

Although national interests can be hard to define precisely – and specific interests can change quickly in ways that only become clear *after* major international events have occurred¹⁸ – it is still useful to clarify the interests that a strategy is intended to serve.

In the post-Cold War world it is especially important to define interests since they are less clear than they used to be and they determine what role the military is to play in foreign policy. A prominent debate now occurs over the importance of interests arising from U.S. “values,” such as limiting genocide

or massacres and promoting democracy and human rights. Is it a vital interest – or not an interest at all, or something in between – for the United States to intervene militarily in ethnocidal situations or failed states? Should the United States step in when its vital interests are not at stake, but humanitarian interests are? Are these interests related? Some see interests that appear at first to be solely value-related as crucial to the long run security of the United States – if chaos and violence are allowed to go unchecked now, sooner or later they will reach the United States or its vital interests. For them, preparing to conduct “humanitarian” or peacekeeping operations, and equipping forces to do so, would occupy a higher priority than for those who view such interests as minor or completely discretionary. The answers to these questions help determine what the military should do – and hence what it should look like.

Types of U.S. National Security Interests

A key function of assessing national security interests as a basis for strategy is to provide a *ranking* of interests. Strategy-making is a matter of choosing among competing options for action, and having ranked interests is a prerequisite for making good choices. If interests are not clearly ranked, in practice the outcome of each event or the situation in each area tends to become a “vital” interest to the United States.¹⁹

However, the ranking does not crudely translate into the areas of highest and lowest priority for action. The low ranking of an interest, for example, does not necessarily mean that it does not need the most attention in military transformation. For one thing, a low-ranked interest may be far more likely to occur than a higher-ranked interest. Similarly, military capabilities to respond to threats against higher-ranked interests may already be in good shape.

This report takes a broad approach to “interests,” keeping the focus at a higher level than specific cases, countries, and policy tools or options. This helps avoid overvaluation of specific existing tools and inflexibility in changing them when necessary. The specifics are more suited to the succeeding steps of strategy-making – assessing “threats to interests” and “how to defend interests.”

This study suggests the following as a ranking of broad U.S. national interests:

Vital

- Survival, territorial integrity, and independence of the United States
- Security of citizens in the United States from foreign attacks

Very Important

- Stability and strength of international economic, political, legal, energy, and environmental systems
- Security and prosperity of allies, friends, and neighbors

Important

- Limitation of armed conflicts, genocide, massacres, ethnic and other violence, and civil disturbance
- Solving transnational problems such as drug trafficking; illegal migration; environmental damage and conflict over water supplies; disease and epidemics; and international crime and corruption

As noted above, such categorizations provide an indication of the consequences of failing to protect an interest, they *do not* indicate where the military needs to transform the most or provide the most additional resources. For example, the ability of the military to protect the survival of the United States against a large-scale nuclear attack (a vital interest) through its large nuclear deterrent force is quite robust, yet its ability to intervene successfully in complex intra-state conflicts (a less-than-vital interest) needs a lot of work.

Survival and territorial integrity of the United States

This most fundamental interest is probably the least endangered it has been in the last 50 years – except in the nuclear realm. The destruction of fascist Germany, militarist Japan, and finally the communist Soviet Union have eliminated any serious conventional military challenge to the integrity of the United States for the immediate future. Unfortunately, the danger of major nuclear war did not disappear along with the Cold War. Indeed, as relations with China deteriorate and nuclear weapons potentially proliferate, the danger of limited, but still catastrophic, nuclear attack may be increasing. Given U.S. offensive nuclear might, more attention needs to be focused on other cost-effective means of furthering this interest, such as increased funding for safeguarding and destruction of nuclear weapons and material abroad.

Security of citizens in the United States from foreign (and domestic) terrorist attacks

The possibility of foreign terrorist attack on the homeland has been aggravated by the potential for use of weapons of mass destruction – chemical,

biological, nuclear, and radiological weapons. As the United States intervenes with its military forces more frequently around the world, the motives for foreign parties to strike back increase. To date, however, there has been little activity against the U.S. homeland, despite the numerous U.S. deployments and interventions in the 1990s. U.S. diplomatic, economic, and military sites or personnel abroad appear to be easier targets than the U.S. homeland.

Stability and strength of international economic political legal energy and environmental systems

A substantial new strength that adds to the national security of the United States is the broad web of international systems that are increasingly weaving nations together, including democratic institutions, trade, international and regional organizations, and international treaties on environmental and other global concerns. To threaten such a robust web of interlocking relationships and systems takes a superpower alliance on the scale of the former Soviet Union and its bloc of allies. Although no such challenger to the democratic, free-market order exists today, some fear the rise of a “peer competitor” in the future, with China as the most readily-imagined candidate.

Security and prosperity of allies friends and neighbors

One threat to this interest is the possibility of a major theater war against an ally or friend. As noted previously, classic cross-border invasions of one country by another have become quite rare, but the danger has not vanished entirely. Closely associated with the previous interest, this interest points more directly to the military function and component of national security that is still required for international order in today’s world.

Limitation of armed conflicts genocide massacres and ethnic violence

This interest is the largely – but certainly not solely – humanitarian one of trying to contain and halt the worst cases of violence, destruction, and abuse in civil wars or in “failed states.” This category includes protection or evacuation of U.S. citizens or others endangered by violence in foreign areas. Pure disaster relief where there is no organized violence is also accommodated in this category.

This study takes the approach that United States does have an interest in stopping genocide, massacres, and ethnic violence. If conceived better than they have been to date and executed with more appropriately-tuned military forces, carefully selected interventions in such cases could contribute substantially to amelioration of conflicts without excessive backlash against the United States or undue cost. This does not mean that the United States should intervene in every case, or in the same way when it does intervene. Pursuing any interest, especially a lower-ranking one, must be balanced carefully against a host of considerations and costs.

Solving transnational problems

The chronic problems of international drug trafficking, illegal migration, and crime have been joined by emerging issues such as cross-border environmental damage, conflict over access to water, and growing international disease transmission. These issues frequently are prominent in zones of conflict – the places where U.S. forces may be called upon to intervene. The U.S. military has indeed been given missions to work on these problems – most notably in anti-drug smuggling operations – and is positioned to engage with foreign governments on these and related issues through the headquarters of regional commanders in chief.

Noting that U.S. forces have, and will be, tasked with operations in these areas and that the issues will only grow in importance, some have called for the military to prepare now to handle these issues better. One way to do so, in effect, is for the military to more effectively integrate and act jointly with U.S. civilian agencies whose primary missions and core competencies are in these areas. While these complex issues are *national security* interests, it is not clear that they are primarily *military* interests. Rather than have U.S. military forces become a dominant player in such new missions, it may be more effective to focus on improving the ability of military units to work jointly with teams from civilian agencies, particularly in peacekeeping operations.

In recent years, non-military missions have often fallen by default to the Defense Department because of resource shortages at other agencies. If, however, these non-military components of national security were better resourced, they could take some of the load off the military.

Having identified some national security interests that need to be promoted in pursuit of a desired 2025 world, what are some strategies to advance those interests?

THREATS, CAPABILITIES, AND STRATEGIES

Assuming the Enemy Will Fight “Our Way”

None of the post-Cold War reviews or blue ribbon commissions has yet succeeded in changing (as opposed to reducing the size of) the basic United States military force structure. This fact alone is enough to suggest that the defense establishment – including the Congress and defense industries – has failed to sufficiently adapt to what has been termed the “changing face of war.”

Some preliminary changes have been made. The Air Force has reorganized its combat squadrons into 10 Air Expeditionary Wings, but a driving force behind this was the attempt to make deployments more predictable, thereby enhancing family stability. The Marines developed the “three block war” concept that prepares Marines to undertake peacekeeping, medium-intensity combat, and support to humanitarian relief operations in a theoretical 24 hour period. The Army, having learned that many of its forces are too heavy to be moved quickly while others lack the combat power to stand up to armored forces, is experimenting with a “medium weight” brigade that it hopes will be more agile and more transportable without losing lethality.

“Generations” of Warfare

What remain to be changed are ideas of how to fight and, from that, with what to fight – the people and the equipment. At root, the “American way of war” remains focused on a paradigm variously known as attrition, second-generation, or Industrial Age warfare. This style of war-fighting tends to be linear and slow moving, relying on masses of men and material to physically crush (albeit not necessarily through frontal assaults) or threatening to crush an opponent. Industrially, second-generation warfare emulates and relies on mass production techniques to mobilize, train and equip, and deploy military forces.

Of course there are exceptions; the high speed (for then) attacks of the U.S. Third Army under Gen. George Patton in World War II and Gen. Douglas MacArthur’s daring strike at Inchon in the Korea War come to mind as American examples of maneuver or third-generation warfare within the more ponderous methods of their contemporaries. But even these exceptions relied on massed manpower, massed firepower, and massed supplies.

Real third-generation war-fighting breaks battlefield linearity by seeking and exploiting a combination of “spaces and timing” vis-a-vis an enemy – that is, creating or at least finding weak points or gaps in enemy thinking and

dispositions and taking advantage of these openings before the opponent can rectify them. The objective of this kind of warfare is to collapse the opponent's will to fight early (ideally, even before becoming decisively engaged) by introducing chaos into his intelligence/surveillance-evaluation/command-action/reaction processes.²⁰ This can be done by anticipating the actions of the opponent and preempting his intentions via unexpected thrusts and parries by highly agile, dispersed friendly forces brought together quickly for the mission and just as quickly dispersed when the action is finished.²¹ This type of warfare also may free forces from the ponderous support structure characteristic of Industrial Age warfare.

Just as second- and third-generation warfare intermingle, they are both interpenetrated by what some call fourth-generation warfare. This primarily involves land forces (although targets can be naval vessels and air assets) – irregular or guerilla warfare carried out by groups motivated by ideology, revenge, lust for power, ethnicity, religion or some other unifying bond. Such irregulars often are associated with or supported by regular military forces, but in the late 20th century this was less often the case. In fact there are countervailing trends. There are more small groups or very loosely knit organizations which employ terror by threatening to or actually attacking civilian populations and infrastructure – the so-called asymmetric style of warfare. Some receive support, safe harbor, or encouragement from nations while others seem to operate with little support. Conversely, regular military forces are trying to reconfigure and redirect themselves toward more rapid force projection. They are responding – albeit at a seemingly slow pace – to the perception that the preponderance of future missions will be low intensity, “stability” ones – peace monitoring, peacekeeping, humanitarian relief support, nation building, and peace enforcement. In one sense, this change in orientation seeks to make the asymmetrical symmetrical by confronting wherever possible the irregular forces on their own terms.

An indication of the focus on symmetrical warfare is the attention devoted to how many major theater wars (MTWs) the U.S. military should be prepared to fight at one time. The “nearly simultaneous” two-war plan of the Clinton administration was used to justify a large portion of existing military forces. Then-Secretary of Defense Les Aspin tried and conspicuously failed to move from fighting two MTWs concurrently to a “win-hold-win” approach in the 1993 Bottom-Up Review. Deciding a number of MTWs to

fight at once, however, is to answer the wrong question, because it encourages thinking in terms of rigid force packages.

Defense Secretary Donald Rumsfeld's strategy review appears ready to move from a two MTW approach to one MTW.²² If this is ultimately implemented, it will be an improvement, but more important than merely changing the number of MTWs is dropping the concept of defining rigid "MTW forces" and using them to drive force size. In line with this study's promotion of more agile strategy-making, what is needed is more flexible force-sizing concepts.

A number-of-MTWs approach is a somewhat arbitrary force-sizing device. Calculations of forces needed to fight MTWs actually depend on a wide variety of background assumptions about the shape of possible future interventions and combat. Examples of assumptions and planning estimates used in developing an MTW yardstick include: acceptable levels of friendly casualties; size and capabilities of enemy forces; the combat model used; acceptable duration of the fighting; ability to trade space for time on the battlefield; number and size of operations underway elsewhere in the world; acceptable level of strategic reserves; the level of destruction and civilian casualties that may be inflicted on the enemy; and acceptable overall "risk" in conducting the war. Varying these and other assumptions can produce widely different results in calculating service "requirements" and ultimately the types and numbers of forces available to joint force commanders.

Rather than focus on fixed MTW forces, the ability to put together and jointly operate varying force packages tailored to specific circumstances should be improved and quickened.

Directions for Transformation

The end of the Cold War reduced the requirement to permanently forward deploy heavy military forces and their supporting structures. It also removed the always loose discipline over international relations that was part of the bipolar world, allowing the re-emergence of global societal ills such as poverty, sickness, urbanization, environmental degradation, competition for natural resources, and cultural divisions that spawn conflict. The first line of offense against these problems is economic development and diplomacy. The military's contribution, which should be reflected in unit structure, training,

and doctrine, is to provide forces that can establish (or re-establish) general security in a region so that non-military international and even U.S. national agencies can aid indigenous governments to reclaim legitimate power.

To effectively provide such forces for the disordered new world, the military should more fully assume the transformation initiative. This means improving the ability of U.S. forces to act and, when necessary, to fight employing a combination of advanced third- and fourth-generation warfare against opponents who are structured and trained primarily for second- or early third-generation warfare.

Structuring and training itself for advanced third- and fourth-generation warfare does not mean that the U.S. military will be unable to defend the nation against more substantial military forces. The whole point of the transformation is a realignment and reorientation of combat power that is more readily adaptable to unfolding scenarios but with emphasis on disrupting evolving scenarios early in their development – perhaps even before hostilities begin. With this as a principal focus, the unduly narrow definition of the military's *raison d'être* – “to fight and win the nation's wars” – assumes an inherently broader range of capabilities than in the 20th century.

An alternative strategy that tries to respond to new generations of warfare, including political and economic considerations, is discussed next.

A Proposed 21st Century Security Strategy

The strategy proposed here consists of several different but related elements that apply to specific types of threats. The common themes that run through the different elements are brought together here to suggest a cohesive overall strategy. Since actual threat scenarios are unlikely to feature a single clearly defined threat, it is appropriate that the varied elements of strategy are indeed mutually reinforcing. In combination they should help reduce the growth of threats, assist in defeating those that become realized, and help move the world toward a more desirable state in 2025. The following chart lists the overarching elements of the strategy.

The proposed strategy echoes the “Shape” element of the recent official “Shape, Respond, Prepare” approach in strongly endorsing military engagement around the world, but emphasizes more the potential contributions of non-military national security tools and of allied or partner forces *if and when*

their capabilities are improved. The proposed strategy also calls for “Preparing” for the possibility of a future superpower challenge, but emphasizes the strategic breathing space the United States is likely to enjoy in the medium term and the need to improve capabilities for the operations the military is and should be called upon to perform in the immediate future.

More detail on common elements of the proposed strategy follows. “National security strategy” includes the diplomatic, economic, informational,

“BROADEN, INTEGRATE, QUICKEN”: A PROPOSED STRATEGY

- Broaden national security tools to include stronger political, economic, informational, and social components. Recognize the second- and third-order consequences of military actions in political and grand strategic arenas.
- Integrate with allies and partners to collectively engage with areas of conflict, head off conflict if possible, and jointly intervene if not. Work with them to transform their militaries and to improve joint, multinational capabilities.
- Quicken military forces in order to refocus them on smaller-scale contingencies in which they are likely to face asymmetric or fourth-generation warfare. Improve their mobility, agility, flexibility, and strategy and decision-making cycles.

and social components of security as well as the military component. Military strategy focuses on the military component of national security.

Elements of a National Security Strategy

- Increase use of the diplomatic, economic, informational, and social components of national security to identify and prevent conflicts before they explode into violence.
- Avoid generating major threats. Potential threats against the United States are not fixed – U.S. actions can increase or decrease them.

- Focus on preserving positive relations with Russia and China, paying particular attention to how U.S. actions affect politics in those countries.
- Recognize and respond to a perception in the Islamic world of conflict with the United States. Avoid “drive-by” cruise missile or bombing attacks. Be aware of the potential political costs of basing U.S. forces in the Middle East.
- Recognize the foreign perception of the United States as a global bully, and then shape foreign and military policy so as to minimize that perception.
- Work more with allies and other nations on common problems and in military interventions, giving them substantial and, in some cases, leading roles.
- Act to correct the foreign perception of hypocrisy on the issue of weapons of mass destruction, which arises out of U.S. maintenance of a vast nuclear arsenal of its own while striving to halt proliferation of nuclear, biological, chemical, and radiological weapons elsewhere. Re-energize serious nuclear arms reduction efforts to help delegitimize proliferation.
- Conduct military operations in carefully selected humanitarian or peace enforcement cases even where the United States may not have a vital national interest. The United States can and should play a useful role in ameliorating the worst cases of violence, destruction, and abuse in civil wars, “failed states,” and similar situations.

Elements of a Military Strategy

- To replace the ongoing Cold War threat-based force structure model, use a tripartite model: a “threat-based” approach to force sizing and structure for certain military challenges; a “capabilities-based” approach for others; and an “industrial-based” approach for long-term challenges. For militarily-quantifiable challenges – nuclear war and conventional theater war – size the force according to the threat. For hard-to-quantify challenges – terrorism at home and abroad and smaller-scale contingencies such as peacekeeping – create a range of capabilities that enable flexible responses. For a potential future peer challenge, preserve robust industrial and technological capabilities.
- Make use of, and improve, allied military capabilities and conduct military operations multinationally.
- Make U.S. forces more “expeditionary.” Adjust forward deployment by reducing Cold War heavy, permanently-deployed forces and increasing

short-term deployments, exercises, training, military-to-military contacts, and engagement with foreign militaries.

- Prepare to conduct the equivalent of one major theater war at a time along with smaller-scale contingencies, but prepare to use adjustable force packages so as to maintain flexibility and options.
- Transform some of the active heavy armored forces into forces more suited to smaller-scale contingencies. Prepare to work more with other nations and non-governmental or international organizations in such contingencies. Deal with chronic transnational problems such as drug trafficking, illegal migration, and crime by integrating operations better with U.S. civilian agencies whose primary missions and core competencies are in these areas. Preserve a heavy capability primarily in the reserves.
- Boost the human intelligence capabilities that improve knowledge and understanding of foreign cultures and governments.
- Improve ability to conduct new asymmetric, maneuver, or third/fourth-generation warfare by creating agile and flexible forces. Reform personnel and promotion policies to better support agile and flexible leaders. Establish doctrine suitable for maneuver warfare and train with it. Strengthen joint capabilities by expanding the role of war-fighting commanders and the Joint Staff in planning, budgeting, and procurement.
- Focus transformation and funding on agile forces such as: light- and medium-weight Army, Marine Corps, Special Operations; littoral Navy; lift, close air support, and interdiction Air Force; and defensive nuclear, biological, and chemical forces and equipment. Help fund the re-orientation with moderate reductions in the forces that are already overwhelmingly dominant in force-on-force combat such as: heavy active Army, open-ocean Navy, nuclear and air superiority Air Force, and offensive nuclear forces.
- Fund cooperative destruction or safeguarding of Russian nuclear weapons and materials.
- Maintain a long-term ability to respond to the potential emergence of a superpower challenge by preserving a robust defense industrial base. Restore competition to the industry. Continue research and development on complex weapons, but favor prototyping over large production runs. Where possible, upgrade existing weapon platforms with new software, avionics, electronics, and other subsystems rather than produce entirely new platforms.

Two elements of the strategy deserve special discussion – the proposed role of partners and allies, and forward engagement.

Allies – Can't Live With Them, Can't Live Without Them

A Prescription for Greater Allied Cooperation

A pivotal component of the strategy proposed here is to join more with partners and allies in concerted military, political, and economic action. For this to happen in the military sphere, allies will have to improve their military capabilities and be more politically ready to intervene than they were in the second half of the 20th century. (And the United States will have to alter its equipment and doctrine to allow for greater interoperability with allies.) One of the key assumptions (p. 28) underlying the strategy is *that the conditions exist* that would allow allies to increase their military capabilities and political will to take action. Whether or not it *will* happen is a more open question.

Early signs have been both positive and negative. As discussed below, Europe is moving ahead with plans to create a capable intervention force. Progress is uneven, but is perhaps all the more revealing given that the U.S. response ranged from distinctly unenthusiastic to actively hostile.

Whether allied defense budgets are going up or down has also been taken as a measure of prospects for increased allied efforts. But budgets do not indicate the capabilities of transformed militaries – it is possible, and it is expected by this report, that transformed forces will cost *less*, at least in the near term, than legacy Cold War forces such as the large conscript armies of Europe designed to repel a Warsaw Pact attack. More important than budget level is what the money is being spent on, and it is clear that numerous allies are allocating resources to boost their intervention or self-defense capabilities.

Regardless of today's forecasts on allies, this report's call for allies and the United States to develop the military capabilities and political will to conduct joint operations more effectively is not descriptive of the future as it looks now, but prescriptive. The proposal is that the United States embrace a new strategy featuring increased allied and coalition cooperation. With such a re-orientation, and hence strong U.S. encouragement for, and participation in, military transformation among allies and at home, it becomes more imaginable that allies and partners will undertake substantially greater responsibilities. The challenges will be great, the task is ambitious, and it may take the

entire quarter century covered by this report, but that is why a high level of focus and attention is proposed here for U.S. strategy in this key area.

Increased cooperation does not always mean the commitment of U.S. troops. In many cases it will be desirable for the United States *not* to jointly conduct military operations with other nations, but to help improve partners' capabilities so that they can act by themselves. The potential for other nations to act or intervene in their own regions so that the United States does not have to is still insufficiently tapped. A problem with several recent multinational or U.N. interventions is that the military forces have not been adequately prepared for the task and procedures for operating jointly have not been smooth.

A much greater U.S. effort in training, equipping, and supporting of regional peacekeeping forces, and in helping establish effective joint procedures, could go a long way towards improving their success rate. If, for example, the regional troops that intervened after conflict broke out in Sierra Leone again in 1999 had been better trained, the results might have been much better. The small African Crisis Response Initiative (see p. 98) is a first step towards what an greatly expanded program might look like.

If, for whatever reasons, allies or partners are politically, financially, or militarily unable or unwilling to play a greater role, then the approach taken here would have to be substantially revised.

Gaining or Losing Allies?

George Washington, in his Farewell Address at the end of his second term as President, cautioned the nation against entangling alliances.²³

Yet today the United States is party to six collective defense treaties, all of which were signed between 1947 and 1960.²⁴

The departure from America's 170-year tradition was prompted by the vastly changed circumstances following World War II. Alone among the major powers, the United States was the only one to have escaped territorial, population, and economic devastation. And although the mighty military machine constructed for the war was quickly disassembled, the United States remained a potent military force by virtue of its (initially) sole possession of atomic weapons.

Firmly anchored economically and militarily, America nonetheless confronted a hostile and militarily potent Soviet Union which quickly brought

East European nations under its dominion. To prevent all of continental Europe from being swallowed, the United States developed a massive economic assistance package complemented by its first defensive military alliance outside the Western hemisphere. With containment of communistic totalitarianism as the guiding principle of American foreign policy, other multinational and bilateral pacts followed. Together they formed a loose ring around the USSR and – after 1949 – the People’s Republic of China.

In 1989-1991 the world changed again with the collapse of the USSR and the formation of 16 independent states from its ashes. With the conventional military threat gone, underlying but previously muted divergent interests and perceptions of how to deal with emerging crises became apparent. In Europe, what in 1966 had been written off as French pique over America’s political and military dominance of NATO, resurfaced in European resistance to American pressure to assume more of the cost of defense (burdensharing) without a concomitant increased voice in decision-making. Indeed, it could be argued that Europeans, drawing on their post-World War II experience, see economic development and assistance rather than political-military power as the primary avenue for ameliorating the causes of conflict.

Moreover, the Europeans declined to fall in line with the U.S. view of “rogue states.” Europeans had gone to war in the Gulf with the Americans, but they do not see themselves as threatened by “Islamic fundamentalist terrorists” as does the United States.²⁵

If a fundamental element of grand strategy is to attract allies to one’s side while limiting allies that an opponent might have, the U.S. effort could use improvement. As noted earlier, the divergence in non-European threat perceptions was offset initially by Europe’s concern about events in the former Yugoslavia, on NATO’s doorstep. When diplomacy failed and military intervention became necessary first in Bosnia and then in Kosovo, Europe was embarrassed by its glaring inadequacies. Hence its dual response, the Defense Capabilities Initiative within NATO, supported by the United States; and the Common European Security and Defense Policy, centered on the European Union and the European Rapid Reaction Force.

Europe’s interest in taking on a greater role may find greater receptivity by the Bush administration which wants to scale back long-term U.S. military contingency deployments.²⁶ But the Bush administration appears unenthusiastic, as was the Clinton administration, about the EU initiative. Yet if the

Europeans can establish the proposed force, it would allow the Pentagon to remove another division from Europe²⁷ in addition to the division and corps headquarters that are no longer needed there with the end of the heavy force-on-force threat. Although the European force has less armor than the U.S. divisions currently in Europe, those divisions have only engaged in peace-keeping and SSCs since the end of the Gulf War. In terms of naval forces, the four larger European aircraft carriers (Britain will have two and France and Italy one each) should be sufficient to relieve the U.S. Navy of any need to station a carrier in the Mediterranean Sea.

Elsewhere the United States is encountering subtle – and sometimes not so subtle – resistance to its policies and pronouncements. The sanctions regime against Iraq has been crumbling for years, and even the new proposal by Secretary of State Colin Powell to redirect the main effort to stopping illegal oil exports and military-related imports has gained only lukewarm support. Most of the GCC states have also re-established diplomatic ties with Iran, which the United States still refuses to do – although it is not certain that Iran is ready for a new bilateral relationship either.

In Asia, the other area where the United States has numerous interests, America's allies were unsettled by the handling of the standoff over the return of the U.S. Navy EP-3E crew and plane involved in the April 1, 2001 collision with the Chinese F-8 fighter. Just three weeks earlier, President Bush had opened a policy gap with South Korea over President Kim Dae Jung's "sunshine" policy toward the North, prompting the European Union to announce a mission of its own to sustain the momentum toward peace between the two Koreas.²⁸ Whether and to what extent the policy gap with South Korea will affect U.S.-South Korean military relations remains to be seen. Even Japan seems to be wearying of the U.S. presence (47,000 personnel) and the money it pays to support the American bases.²⁹

One major impediment that stands in the way of more cooperation is the profound reluctance of presidents and congresses to permit operational control (as opposed to command) of U.S. forces to non-American military commanders. This threatens to become another divisive issue in future multinational operations particularly when allied nations provide the bulk of the forces involved.

One premise that the United States should avoid with respect to its allies and friends is "exceptionalism," which implies a right to lead. Leadership is a status that must be earned and re-earned; it cannot come solely from military

preponderance or stationing the most troops in a region. No nation, especially one that eschews military conquest, can retain its leadership unless it engages the rest of the world across the spectrum of diplomatic, economic, and environmental activities. In this regard, U.S. positions of the last few years – rejection of the Comprehensive Test Ban Treaty by the Senate, opposition to creation of an International Criminal Court (Rome Statute), disavowal of the Kyoto Agreement on the environment, opposition to a proposed convention regulating the international small arms trade – suggest a growing disposition for the United States to disengage from efforts by nations collectively to create a more stable and predictable world in which the rule of law prevails. As the most powerful nation in the world, the United States may well lay claim to a leadership role, but unless others are willing to follow consistently, such “leadership” ends up an aggregate of one.

Forward Engagement and Forward Deployment

An Expeditionary Military

“One if by land, two if by sea.”

When the signal came, Paul Revere, William Dawes, and Dr. Samuel Prescott rode to Concord to alert the militia to gather to oppose the British.³⁰ This rallying to the colors, which epitomized the tradition of colonial times, also began the American tradition of structuring the military services as reactive, mobilization-based expeditionary forces that were “to get there” rather than “be there” when the nation was threatened.

In the years immediately following the end of the War for Independence, the Army was reduced to less than a hundred men. The state militias were expected to deal with Native Americans who caused “trouble” on the frontier. Two years after the end of the war, with the sale of the *Alliance*, the Continental Navy ceased to exist – a condition that lasted for nine years until the depredations of the Barbary pirates and rekindled war in Europe prompted the new federal government to build six heavy frigates.³¹

Indeed, other than the War of 1812, virtually all threats to the United States in its first one hundred years originated in North America itself. The only “expeditionary” efforts by the Americans were the abortive thrust into Canada during the War of 1812 and the Mexican War some 30 years later.

For the most part, the Navy existed to protect American commerce, not to take on the major European powers. The slowness of ocean transit and the distances to be traversed to reach the Americas provided the necessary space-time for mobilization and movement to meet any threat.

The sciences of propulsion and flight changed the calculus. As the 20th century opened and the United States assumed a more central role in world politics, it became apparent that military defense would increasingly have to include an ability to deploy credible combat power beyond the nation's shores if circumstances warranted. Because of the lingering distrust of a large standing army, this mission fell to the Navy, which in any event would have to keep open the sea lines of communication and move a land force to any theater of war. Such had been the case during the Spanish-American War and would be the case in the wars of the 20th century. Confederate Maj.-Gen. Nathan Bedford Forrest's dictum – "Get there first with the most" – ruled.

But in an age when space-time has been compressed to hours (even minutes for intercontinental ballistic missiles), are large, permanently forward-stationed forces and clockwork deployment of military power the best and most cost-effective responses if and when threats to U.S. and world interests arise?

Adjusting Forward Deployment to Serve Forward Engagement

Stationing U.S. forces permanently in foreign areas serves the goals of providing opportunities for peacetime military engagement with other nations, of demonstrating a willingness to fight for them, and of providing additional options for deploying forces to conflicts. Among other benefits, military engagement provides valuable interaction, training, and relationship-building with potential partners; indicates U.S. willingness to be involved in a region (including to fight there); and provides an additional channel of access to leaders.

The strategy proposed in this report strongly endorses U.S. military engagement with other like-minded nations. The multilateral approach to deterring and responding to conflicts proposed here greatly benefits from prior training with, exposure to, and contacts in other militaries. This approach rejects isolationism and recognizes that an important component of U.S. engagement with the world is military engagement, alongside political, economic, and social interaction. Some level of military deployment provides an irreplaceable signal of U.S. interest in a region, partnership with it, and willingness to expend resources and even blood in support of it.

There are, however, some drawbacks to forward deployment of large, permanent forces, so the nature and size of today's forward deployment may need adjustment. Being there "first with the most" firepower is a valid option, but it can have diplomatic and political costs as well as economic ones. In some countries, particularly in Asia, residents of towns and communities near U.S. bases are pressing their national governments to cut back on military training activities if not the entire U.S. presence. Permanently stationed forces also can be tempting targets for terrorists; at the very least, forward stationing requires additional force protection measures.³²

More broadly, a heavy military presence can feed the negative perception of the United States as a global policeman or worse, a global bully, building up popular resentment and opposition to the United States and its policies. The issue is particularly salient in the Middle East where it is easy to inflame opinion against the United States and to add to the perception of a U.S. conflict with Islam.

Can engagement, which this paper fully supports, be accomplished through modified deployment and other, more cost-effective means that minimize the political and social problems and allow better use of available funds? Forward deployment can take many shapes and forms. It is possible that the benefits of engagement can be gained with a less heavy footprint.

The strategy of this paper suggests phasing out the permanent deployment of much of the remaining large, heavy ground forces in Europe, Japan, and possibly Korea depending on events, and being ready to adjust other deployments that have outlived their usefulness. It does not call for a withdrawal of all forces from foreign countries nor for a termination of military engagement, exercises, training, and cooperation with other nations. And it does not propose closing access to bases in foreign countries. Rather it calls for beefing up facilities where necessary to improve U.S. ability to deploy forces. If it becomes necessary to redeploy large permanent forces in the future, these facilities could again serve as the infrastructure foundation for a long-term presence. Regional U.S. commanders in chief (CINCs) have appropriately suggested that the theoretical commitment in national security strategy to military engagement and "Shaping" has not been matched by a corresponding commitment of resources. This report endorses the suggestion that the full potential for engagement can only be realized with better strategic planning and funding to support it.

This paper takes the view that short-term, rotational deployments, plus increased military-to-military contacts and training can serve many of the same goals as large permanent forces in an extensive base infrastructure, and that irregular, as opposed to rote, exercises can establish effective military-to-military relationships. It holds that a more flexible and agile form of forward deployment can reduce the political and other costs of the old version.

Precipitous withdrawal is neither called for nor being called for by allies – yet. Any contemplated reductions should be coordinated with allies before actions are initiated, and usually phased withdrawals – unless other demands are made by host nations – should be the rule. Bringing selected forces back to the United States, coupled with regular combined force exercises and aperiodic deployments of military units, will allow the United States to more centrally position forces to respond to emerging contingencies without being seen as isolationist.

An alternative view is that adjusting forward deployment and pulling back some forces would send the wrong signals about U.S. involvement in a region, would reduce U.S. influence and leadership, and would excessively limit deployment options. This view holds that rotational deployments cannot be equivalent to permanent deployments, and that smart enemies will find “anti-access” means to prevent deployment and keep the United States out, to the extent that it is not there already. It also suggests that more and more countries will want U.S. forces to be stationed there, as a signal that the United States intends to defend them.

Although this report does not propose ending forward engagement and deployment, rather adjusting it, the study’s willingness to reduce permanent forward deployment can be traced to a greater sensitivity to the potential for negative second- and third-order effects of military policies in the broader national security arena – particularly on global perceptions of the United States as a hegemon, which may affect willingness to act in concert with the United States in a multitude of fora. This must be balanced with positive perceptions of the United States as a stabilizing force, but the report assesses a dangerous potential for popular anti-U.S. feelings, catalyzed by a large and high-profile presence, to explode in damaging ways.

This assessment is concerned that enthusiasm in governments of foreign nations for major U.S. deployments and implied defense commitment may not be as widely shared by their people. The lack of consensus on the threats

to the interests of the United States and its allies, together with growing awareness of indigenous populations to pollution, crimes, and costs associated with the American presence, suggests that the welcome for U.S. forces may be uncertain in the years ahead. In addition, this strategy suggests that while engagement is valuable, the United States must be careful about implied defense commitments and not signal a willingness to conduct a war where the nation is really not willing to do so, nor overcommit to too many contingencies in too many places.

Being There or Being Able to Get There

Some also argue that large forward deployments of heavy forces improves ability to intervene in a region. Being deployed already might seem the ultimate way to reduce deployment delays (the space-time interval) to zero. But forces permanently deployed forward seem rarely to be in the right place to counter a rapidly emerging conflict or, after lengthy bed-down, be agile enough to respond quickly.

The issue of “deployed” versus “deployable” recently came up concretely in the debate between the director of the strategy panel for Secretary Rumsfeld’s defense review, Andrew Marshall, and the CINC of the U.S. Pacific Command, Adm. Dennis Blair. Marshall reportedly has argued that forward deployed forces in Asia may be increasingly vulnerable, particularly to Chinese ballistic missiles, weapons of mass destruction, and other forces. Hence long-range weapons and forces should substitute to some extent for the forward deployed forces.³³ Adm. Blair denies that China has a robust ability to attack or scare off forward deployed U.S. forces, and puts more value on the relationships facilitated by forward basing and deployment.³⁴

The disagreement over vulnerability may be explained in part by the time frame – Marshall may be looking far ahead, as he is known to do. Still, the strategy advocated in this study attempts to use elements of each approach, since it both encourages working with friends or potential friends in a region and favors moderate reductions in permanent forward-basing. Basing forces in the United States can provide strategic flexibility, lower political costs in host nations, and, whether the level of exposure is potentially crippling or not, reduce vulnerability to terrorist attacks in case of a war. “Being able to get there” as opposed to “being there” also introduces an added opportunity to reflect before committing forces or firing shots. It also allows time for con-

sultation with allies and friendly nations whose interests parallel those of the United States and whose participation would add international legitimacy to any contemplated military action. But this study acknowledges Adm. Blair's assessment of the benefits, for alliance building and positive relations with China and other countries, of military engagement with countries in the region, and certainly does not endorse the concept of winning primarily through long-range air power or other stand-off high-tech weaponry.

An option that needs serious consideration, given the changed post-Cold War world, is whether more forces ought to be centrally stationed so they can swing east or west as necessary. In response to Saddam Hussein's invasion of Kuwait and threat to Saudi Arabia, troops were taken from Europe, but the bulk came from the United States. After the fighting ended, a corps headquarters and two divisions were withdrawn from Europe (a similar sized force remained). The Army found it very difficult to deploy heavy forces to the Balkans from Europe for the Kosovo campaign against forces of the former Yugoslavia and the Army forces were not used in combat. Forward deployment might be judged as not providing any benefit in the latter case.

Increasing U.S. Capability to Deploy Forces

Credible, deployable forces can deter a potential adversary from initiating conflict. Naval forces have an inherent credibility as they are always armed. Credibility in terms of ground and air forces includes at least four elements: a well-trained, balanced combat force in-being; a responsive combination of rapid sea and air transport that can move or accompany the combat force; adequate resources to sustain the force (personnel, supplies and equipment, intelligence, transport); and the understanding that the United States, with allies or ad hoc coalitions whenever possible, is willing to act. In some cases, smaller sized units can provide a similar deterrent as larger units to would-be aggressors – the leaders are deterred by the presence of U.S. forces, rather than by the specific size of the units in question.

Naval vessels carry their combat load with them. The reach of modern aircraft permits round-trip flights from and back to the continental United States if necessary, although *en route* (and in-theater or even in-country) access is desirable. The re-organization of armored land forces into lighter-weight, more agile units with less oversized equipment lessens the strain on

air transport engaged in deploying units to and sustaining them in the area of potential combat.³⁵

But real transformation goes well beyond new or different equipment that makes deployment more timely. The key is to take the capabilities each service possesses and successfully integrate them to produce a joint structure that, by capitalizing on service strengths, accentuates the first part of Forrest's admonition by diminishing the space-time interval necessary to take effective military action.

Keyed by intelligence, air forces originating from the United States and transiting naval groups can contribute responses to unfolding events. With adequate fast sea- and airlift, ground forces centrally stationed in the United States can be deployed to reinforce the capabilities of the other services to preclude a "one-dimensional" response such as that in Kosovo.

If U.S. forces are to increase their deployment capabilities from the United States, an issue that will need much more examination is the possibility of "anti-access" attacks within the United States to prevent or hinder deployment, such as sabotage of rail lines serving military bases. An analysis of the level of vulnerability and threat is beyond the scope of this paper, but the strategy acknowledges that, as part of an effort to increase and improve U.S. deployment capabilities, domestic anti-access attacks will have to be addressed.

Shaping the Force

During the Cold War, the size and shape of U.S. forces were determined by a calculation of the threat – embodied in the nuclear and conventional forces of the Soviet Union – and what was necessary to counter the threat with an acceptable degree of risk of miscalculation. In theory, the process was iterative, beginning with a force size and force structure that were essentially unconstrained by budget or other resource caps.

Of course, the real world is hardly ever unconstrained, and as caps on available personnel, installations, industrial and natural resources, and budgets were applied, trade-offs became necessary. But the lack of strong centralized military authority at the Joint Staff level – most critically budget authority – meant that each of the services constantly strove to limit the loss of any of its missions (and therefore its share of the budget), with seemingly little regard for the capabilities of the other services to contribute to mission accomplishment

Threat as the Force-Shaper

Threat is a combination of perceived capabilities and intentions. Capabilities are generally measurable. The capabilities part of threat determination is often referred to as bean-counting – counting a potential opponent’s people and equipment, noting where units are located, how good the supporting transport system is (which could limit the speed of movement of units and their resupply rate), etc. The United States traditionally has used a threat-based strategy. Under this strategy, calculations of the capabilities of the “threat” force – the Soviet Union primarily during the Cold War – form the baseline for calculations about the size and structure requirements for the U.S. forces.

The need to respond to a perceived threat drives the evolution of friendly force capabilities. In terms of the development of weapons systems, these can be either a “symmetrical” mirror-image – e.g., tank against tank – or asymmetrical – e.g., an anti-tank missile against a tank. Whichever response is selected, its effectiveness will depend on the level of training and experience of the operators with the equipment and the ability of commanders to employ forces (people and equipment) effectively against an opponent.

Even when not measurable, capabilities may be estimated. Traditionally U.S. Air Force officials talk about “generations” when evaluating the performance characteristics of airplanes. (For example, the F-15 Eagle might be classified as a fourth-generation fighter.) But the equipment’s real capability can only be estimated because effectiveness is also dependent on such factors as the training proficiency of the operator and the manner in which a weapon system contributes (or fails to contribute) to achieving the overall military objective.

The length and the relative stability of the Cold War permitted U.S. intelligence agencies to focus on the Soviets and to develop detailed assessments of the strength, organization, tactics, deployment patterns, and readiness condition of the U.S.S.R.’s nuclear and conventional forces. But with the collapse of the Soviet Union this sharp focus was lost, as was the rationale for the then-existing U.S. force structure, although the Pentagon did not yet trust that the Russian threat had gone away, as they continued to judge the threat on perceived capabilities such as the size of the force rather than intentions.

Other potential threats – the “rogue” nations – that the Pentagon increasingly focused on were not on the same military scale as the Soviet Union. Even in combination they were spending far less on their militaries than the United

States, which had been rebuilding and modernizing its armed forces in the traditional Cold War posture. Thus, in the 1990-91 Persian Gulf War, when the Iraqis attempted to oppose U.S. strength head-on, they were overmatched. Psychologically, the overwhelming U.S. victory reinforced pre-war Pentagon projections of the size and shape of the force that would be needed to ensure a decisive win in a classic, symmetrical force-on-force confrontation.³⁶

Capabilities as the Force-Shaper

Another approach to developing and sizing forces and force structure is to concentrate on required (and desired) friendly force capabilities regardless – and in some instances even in the absence – of a perceived direct threat. This approach is illustrated by the “flexible response” or “spectrum of conflict” concept, which holds that the United States must be capable of dealing with any military challenge from low-level guerrilla/insurgency action through high-intensity/ high technology conventional warfare, to nuclear war.

Most often, this approach reflects a hedging or “insurance policy” approach to force structuring. The two MTW construct that has prevailed since the Cold War is an example.³⁷ But developing capabilities across the full spectrum of conflict is costly. On the other hand, selected capabilities that provide a distinct advantage and are useful across many scenarios (e.g., special operations units) might well be cost-effective, particularly if pursued in conjunction with allied contributions in more traditional units.

Besides the potential for high costs, another weakness of the capabilities-based structure is that it will always be subject to counteraction. Inherently, this force-shaping approach attempts to be prophetic: to look ahead at what others might do and then pre-empt them by developing the capability first or on a larger scale. Obviously, however, this can lead to a vicious circle: U.S. predictions about a potential enemy lead to development of certain U.S. capabilities, which in turn lead opponents to choose other approaches or new developments to counter U.S. plans. Opponents will adapt their actions to counter the changed world presented to them, which in turn will demand new prophecies and new procurement by the Pentagon.

A Tripartite Approach to 21st Century Military Force Structure

As the world has changed over the last 10 years, some challenges to U.S. security have faded, new types and sources have emerged from the shadows, and some old

ones remain. Where military considerations are in play, this new amalgam presents the opportunity to re-examine and reformulate the U.S. response. In the view of this study, the nature and extent of actual and probable threats in themselves are insufficient to justify the current force size and force structure. Similarly, the continuous development spiral engendered by sole reliance on a force-capability approach is too costly. A possible resolution is to more selectively target threat-based and capabilities-based responses against actual or probable threats in the near (Future Years Defense Plan) and medium (out to 2015) time frame, and to orient the long-term (out to 2025-2030) response to a continued evolution of the defense industrial base. (See p. 135 for a discussion of industry issues.)

Military challenges in the 21st century can be grouped into five areas: nuclear war, major conventional theater war, terrorism at home and abroad, smaller-scale contingencies ranging from peacekeeping to non-combatant evacuation and humanitarian relief support, and a new peer challenge. The first two are prominent legacies of the Cold War. Their scope is largely quantifiable in terms of numbers and effectiveness of weapons involved. The third and fourth are much less predictable, demanding different responses and different intensity of response. The fifth at this stage is unpredictable but considered inevitable by many analysts. In addition, in the course of responding to these challenges, particularly in smaller-scale contingencies, the military will be faced with transnational issues that are not clearly military challenges, such as the drug trade, crime, immigration, and environmental conflicts.

The proposed alternative to solely relying on a threat-based or a capabilities-based approach is to use each selectively depending on the type of threat and warfare in question.

- For militarily-quantifiable challenges – nuclear war and conventional theater war – use a “threat-based” approach to force structure and size the force according to the threat.
- For hard-to-quantify challenges – terrorism at home and abroad and smaller-scale contingencies such as peacekeeping – use a “capabilities-based” approach and create a range of force capabilities that enable flexible responses.
- For a potential future peer challenge, preserve robust industrial and technological capabilities.

What these approaches would look like are explored in more detail next.

Strategies for Military Challenges

Threat-Based Responses for Nuclear War

Without question, the most dire threat to the survival of the United States and its way of life remains nuclear war, particularly with a weakened and chaotic Russia. In the near term, however, the threat of deliberate nuclear war, as opposed to an accident, is not very high.

The various strategic arms control agreements negotiated over the course of the Cold War cut the number of strategic arsenals of each superpower to approximately 6,000 warheads. Stricter limits are in place in the still unratified START II agreement to bring warheads down to 3,000-3,500 each and eliminate Multiple Independent Re-entry Vehicles (MIRVs).³⁸ Even lower totals have been proposed for START III (2,000-2,500 warheads) and the Russians, beset by economic woes, have proposed going down to as few as 1,000 strategic warheads. Even at that level, each side would have more than enough weapons to preserve the stability of deterrence.

How often this process can be implemented is a policy question (as is the question of no-first use). However, there is undoubtedly a minimum number below which one or both military establishments would not wish to go without engaging the other six nuclear weapons states in reductions. Equally challenging are questions surrounding the nuclear posture – whether any of the force should be on hair-trigger alert, and the distribution of warheads among bombers, land-based missiles, and submarines. (Obviously, the best of all possible worlds is one with no nuclear weapons, including tactical weapons.)

But whatever the size and complexion of nuclear arsenals, the threat level is calculable – as is the distribution and costs of today's U.S. nuclear force. Therefore, a threat-based response is an appropriate approach for devising a future U.S. nuclear strategy, and force structure.

Strategies to Reduce the Threat of Nuclear War

In large measure, the actual threat level over the mid-term will depend on what the United States does vis-a-vis its strategic relations with Russia (regarding the Anti-Ballistic Missile Treaty and National Missile Defense), China, (National Missile Defense), and North Korea (continuation of the Clinton administration engagement policy).³⁹ Over the long-term the size of the nuclear threat will depend on the implementation by the original five

nuclear weapon states of their unconditional promises under the Non-Proliferation Treaty to reduce nuclear weapon stockpiles. A strategy of reviving moribund nuclear arms control negotiations or pursuing new agreements could reduce the number of nuclear weapons, as well as help sustain or revive a more positive international climate of cooperation and trust.

An obvious broad U.S. national security strategy to reduce the threat of a non-accidental nuclear attack is to maintain positive relations with Russia and China to the extent possible. Part of this includes developing a more sophisticated understanding of how U.S. actions can be used by the more hostile political factions within Russia and China to damage good relations. Many observers and actors in Russia and China perceive U.S. policies at best as humiliating and meddling, and at worst as aggressive and expansionist. This also is the case in many of the so-called rogue states and among non-state actors – although it is arguable that some states pursuing nuclear and other weapons of mass destruction are driven more by regional concerns than by U.S. policies. In any event, a broad strategy would pay more attention to how U.S. actions are perceived abroad.

Actions that must be considered carefully include expanding NATO, building National Missile Defense (NMD), and arming Taiwan with high-technology weapons. Other U.S. actions that raise hackles in Russia and China are continuing Cold War-type intelligence gathering operations, such as shadowing Russian naval vessels with U.S. submarines (which was happening when the *Kursk* sank), and frequent intelligence-gathering flights close to Chinese borders (which was the mission of the U.S. EP-3E that collided with a Chinese F-8 and had to land in China in April 2001). While all of these may be ultimately justified as in U.S. interests, more high-level thought needs to go into how to shape the best possible response from Russia and China – especially as regards their nuclear arsenals.

Another key strategy to reduce the threat of nuclear war would be to continue and expand U.S. funding of Russian nuclear weapon and nuclear material destruction, disposal, and safeguarding. Funds spent on such programs have a more direct effect on reducing numbers of potentially opposing nuclear weapons, and hence nuclear weapon threats, than funds put into either U.S. offensive nuclear weapons-building or missile defenses. Despite the recommendations of a blue ribbon commission to triple such funding, in March 2001 the Bush administration proposed to cut the programs.⁴⁰

Threat-Based Responses for Major Conventional Theater War

The threat of a major conventional war is also quantifiable to a great degree by the straightforward process of counting people, equipment, and stocks of materiel held by allies and friends and by potential opponents. Therefore, a threat-based strategy is an applicable response.

It is important when defining the threat that the quantitative measure of counting “enemy” military assets is complemented by a qualitative overlay that factors into the equation morale, training, interoperability, and the level of technology in equipment. At the same time, this assessment must be careful to avoid the danger that the qualitative factors are accorded too much weight. This happened in 1994 when the Joint Chiefs of Staff evaluated a North Korean soldier as equally proficient in combat to an American and 25 percent more effective than a South Korean soldier.⁴¹ The same error was made in the 1990-1991 Persian Gulf War in estimates of the level of discipline and fighting capabilities of Iraq’s conscripts.

The basis for the current MTW force structure is the Bottom-Up Review (BUR) conducted at the beginning of the Clinton administration (March-August 1993). In terms of strategy, the BUR eliminated the European-based global war scenario of the Cold War and substituted the idea of regional conflicts that would not, in the absence of a rival superpower, evolve into a world-wide conflagration.⁴² Reflecting this strategy change, the BUR took the 1990-91 Base Force and made some additional adjustments. What it did not change was the way the forces were organized and equipped (see U.S. Force Structures chart on p. 62 for comparative figures).

But unlike the Base Force, the BUR could use an actual MTW as a template to size U.S. forces – the 1991 war against Iraq.⁴³ In fact, “The Report on the Bottom-Up Review” posited an aggressor force that, except for tanks, equaled or surpassed the forces of Saddam Hussein in 1990 (see Iraq Forces chart on p. 63). But the MTW package that resulted as the goal of U.S. forces exceeded the actual U.S. contribution to the Gulf War (see MTW Packages chart on p. 63), because it overestimated the conventional “symmetric” forces of potential adversaries. A more realistic appraisal of the threat would significantly reduce this MTW force.

Strategies to Deal with Major Conventional Theater Wars

A key national security strategy to improve U.S. preparation for MTWs is better alliance building and utilization of allied capabilities. These need not

be formal alliances – flexible “coalitions of the willing” and other informal partnerships are just as useful. This strategy would have diplomatic and economic applications (building coalitions, deterring aggressors, and establishing well-supported sanctions regimes), as well as military (making full use of allied military capabilities).

Coalitions. A fundamental element of grand strategy should be to attract allies to one’s own side and to limit the ability of an opponent to gain allies. As a legacy of the Cold War, the United States still takes a dominant – some would say hegemonic – role in confronting troublesome nations. This global police work can be perceived as domineering by friends and highly threatening by countries that are not yet opponents.

Greater attention to coalition-building through diplomacy can reduce the chance of MTWs breaking out in the first place. The abandonment of the United States’ sanctions policy against Iraq by friends and neutrals in late 2000 illustrates how not to become isolated from partners.

Allied Capabilities. The military side of a strategy of utilizing allies should be enhanced. On the Korean peninsula, for example, the United States still plans to use a large force to defend the South. A Korean war is one of the pillars of the current two MTW force structure. Yet booming South Korea has an economy many times the size and quality of the North, which has had difficulty even feeding its people, and the South has twice the population. Clearly, a willingness to utilize allied South Korean capabilities more fully would permit a reduction in demands on U.S. forces. If the strategy of attracting friends to one’s side were pursued fully, it would even be possible to imagine bringing in the forces of other nations to assist in deterring an attack on South Korea.

Number of MTWs. A strategy emphasizing flexibility – the ability to be unpredictable, keep options open, and pursue lines of least resistance – suggests the current adherence to fixed MTW-fighting forces should be replaced with plans to use a variety of different force sizes and compositions in an MTW. This would provide some hedge in case of a second simultaneous MTW, since a second opponent could not be sure that a whole “MTW force” would be tied up in the first MTW. More flexible packages would also provide less telegraphing of U.S. plans to opponents, and would increase options for using forces in smaller-scale contingencies.

U.S. FORCE STRUTURES					
		Cold War Force	1991 Base Force	1993 BUR Force (Projected 1999)	1997 QDR Force
ARMY FORCES	Active Divisions	18	12	10	10
	Active ACR			3	2
	Reserve Divisions	10	6+2	8	8
	Reserve Brigades	20		15	15
NAVAL FORCES	Aircraft carriers	15	13 (12 A/C)	12 (11 A/C)	12 (11 A/C)
	Attack Subs	93		45-55	50
	Surface Ships	530	450	346	approx. 311
AIR FORCES	Active Fighter Wings	34	15+	13	12+
	Reserve Fighter Wings		11+	7	8
	Conventional Bombers			90	96
MARINE CORPS	Active MEF	3	2.5	3	3
	Reserve Divisions	1	1	1	1
STRATEGIC NUCLEAR FORCES	Bombers			94 B-52; 20 B-2	71 B-52; 21 B-2
	ICBMs	1,000	550	500	500
	Ballistic Missile Subs	34	18	18	18
ACRONYMS: A/C: ACtive Component BUR: Bottom-Up Review. QDR: Quadrennial Defense Review. ACR: Armored Cavalry Regiment. MEF: Marine Expeditionary Force. SOURCES: <i>National Security Strategy of the United States</i> , 1991. 1992 <i>Joint Military Net Assessment</i> , DOD. Secretary of Defense Les Aspin, <i>Report on the Bottom Up Review</i> , October 1993, p. 28. <i>Report of the QDR</i> , May 1997 pp. 29-32. Annual Reports of the Secretary of Defense.					

IRAQ FORCES (1990) VS. PROJECTED ENEMY MTW FORCES IN BUR		
Major Equipment	1990 Iraq force	BUR MTW Enemy Force
Tanks	5,000	up to 4,000
Armored Fighting Vehicles	5,000	up to 5,000
Combat aircraft	700	up to 1,000
Artillery	3,000	up to 3,000
Ballistic Missiles (theater)	600	up to 1,000
Ships	60	up to 200
ACRONYMS: MTW: Major Theater War. BUR: Bottom-Up Review. SOURCES: <i>The Military Balance</i> , 1990-1991 (pp. 90-91, 105-106). <i>Report on the Bottom-Up Review</i> , p. 13. <i>Conduct of the Persian Gulf War</i> , Department of Defense, April 1992 (pp. 9, 11, 97).		

MTW PACKAGE VS. US GULF WAR DEPLOYED FORCE				
		One MTW Force	Two MTW Force	U.S. Gulf War Force
ARMY	Active Divisions	8	10	7
	Reserve Division Equivalents	6		
	Enhanced Reserve Brigades		15	
	Special Forces Groups			2
	Armored Cavalry Regiments			2
NAVY	Carrier battlegroups	8	12	6
	Battleship battlegroups			2
AIR FORCE	Active Fighter Wings	10	13	10 (total 28 Squadrons)
	Reserve Fighter Wings	6	7	
	Bombers			3 Squadrons
MARINE CORPS	Active Brigades	5	5	6
	Reserve Divisions	1	1	
ACRONYMS: MTW: Major Theater War. SOURCES: 1992 <i>Joint Military Net Assessment</i> , August 21, 1992 p. 3-3. <i>Report on the Bottom Up Review</i> , p. 30. <i>Secretary of Defense Report to the President and Congress</i> , 1992.				

Type of Forces. In addition to being more strategically mobile, forces should be made more operationally and tactically mobile for MTW-type combat. Rather than relying as much on mass for combat power, advances in information/communications technology and in stand-off weapon effectiveness should allow U.S. forces to be more mobile, more dispersed, smaller, more lethal, and faster. Testing and evaluation will need to be expanded and improved within the services and the Department of Defense to ensure that, to the extent this redesign relies on complex technology, the hardware actually works and performs the role desired.

Capabilities-Based Responses for Smaller-Scale Contingencies

Complementing the forces offsetting the quantifiable threats are forces that would constitute the U.S. reaction/preventive forces for smaller-scale contingencies (SSCs), which include humanitarian, peacekeeping, peace enforcement, non-combatant evacuation, and presence operations. As it is difficult to predict not only the threat that will arise in such contingencies, but also their nature, a capabilities-based response is the best strategic approach.

This study takes the approach that the United States does have an interest in intervening in largely – but certainly not solely – humanitarian SSCs in situations such as civil wars, “failed states,” genocide, massacres, and ethnic violence. This does not mean that the United States should intervene in *every* situation, only in carefully selected and weighed cases. Some generic “capabilities” that the United States might want to maintain include:

- Halt the outbreak of civil violence in a foreign country early on.
- In combination with allies, establish civil security in a conflict-torn country.
- In combination with allies, end an outbreak of genocide, halt ethnic cleansing, or establish peace.

Examples of military capabilities to achieve such aims include:

- Deploy an airborne battalion within one day and a brigade within two days to halt an outbreak of civil violence.
- Deploy a light division equivalent within four days to enforce peace in a semi-hostile situation as part of a multinational force, and support transportation of allied forces.
- Deploy a medium division equivalent in five days in a hostile forced-

entry environment to halt a civil war, followed by two more U.S. divisions and substantial allied forces.

These are just a few examples of a variety of capabilities and forces that are deliberately not tailored to specific threats, but are kept flexible to be able to respond quickly to unforeseen situations.

Strategies to Deal with Smaller-Scale Contingencies

The chief national security strategy to handle SSCs would do more to prevent them in the first place. Most broadly, this means assisting economic development, promoting democracy, and conducting institution-building in pre-conflict situations. This would be helped by a substantial increase in economic assistance funding. Since the United States often does not have the strongest grasp of the political, social, and economic realities in areas of unrest, this again calls for making better use of the knowledge and skills of local partners or other countries that may have more experience in particular areas.

When prevention fails and an SSC is undertaken, more needs to be done to make the case for the operation to the U.S. public. An administration has considerable leeway to initiate interventions, but if the operation does not go well and casualties are taken, the political backlash can be swift and severe, necessitating the cancelation of the SSC. The most prominent example is the intervention in Somalia in 1992-93, when, after a firefight and deaths in U.S. forces, the operation was hastily terminated and Secretary of Defense Les Aspin resigned not long after.

If the case for an intervention has not been made and accepted by the public, successful conclusion of an SSC is also likely to be questionable if terrorist attacks on the U.S. homeland occur. The solution is clearly to make the case to the public for an intervention early on. The danger, which presumably motivated White House reluctance to do so in the 1990s, is that the public may not accept the argument. This, however, is a good litmus test for the intervention – if, with all the powers of persuasion and the leeway the presidency enjoys, the public still is doubtful about an intervention, it should be taken as a sign that the intervention may not be soundly conceived, and should be modified or not undertaken at all.

A New Focus for the Military. The Defense Department primarily has viewed the forces to conduct humanitarian and peacekeeping operations as “lesser included” elements of the forces to fight major conventional theater wars. The large number and variety of these smaller operations, however, call for a new focus on these operations as primary missions for the military in their own right, and suggest reshaping a portion of the force away from intense force-on-force combat and towards these more complex expeditionary missions.

Some suggest that these forces should constitute a special constabulary organization structured along military lines. Such units would not have the military’s heavy armament but would be more heavily armed than police. (Alternatively, others suggest enlarging regular military police units.)

The experience of units in SSC interventions in Panama, Haiti, Bosnia, Rwanda-Congo, and Kosovo suggests that creating separate quasi-military units may not be the best course. The very unpredictability of SSCs, which can turn from traditional peacekeeping to peace maintenance and even peace enforcement, argue for forces that are trained to operate across most of the spectrum of conflict. The Marine Corps’ “three-block war” unit training regimen that includes scenarios for mid-intensity war-fighting, peacekeeping, and humanitarian relief support seems to be appropriate for the majority of situations that U.S. ground forces actually will face in the foreseeable future. While the Army’s transformation into a medium-weight force will facilitate its participation in these missions, it will retain for the mid-term elements of heavy striking power in armored/mechanized units.

“Multinational Jointness.” In addition to providing improved understanding of foreign conflict situations, there is substantial untapped potential for improved collaboration with allied or friendly forces in SSC operations. Operating more equally with foreign forces not only can reduce foreign resentment of the United States as a sole global policeman, but also could improve popular support for such operations domestically. The public is likely to look more favorably on operations with other countries where the United States is not bearing almost all of the burden (of cost, casualties, and responsibility).

The Defense Department has worked hard to make the services “joint,” in terms of common – or at least compatible – communications, headquarters, equipment, and doctrine.⁴⁴ A parallel opportunity may exist for integration of allied forces in SSCs along the lines of what the Defense Department has done for the U.S. services – expanding the concept of “jointness” to include

foreign military services. If U.S. and a broad range of other nations' forces train units to be integrated into multinational command structures, a force package with a variety of types of units and nationalities could be assembled quickly for specific operations. Clearly, for this to work, much would need to be done in training, doctrine, and equipping to make allied forces more "interoperable" with U.S. forces. Decades of experience in NATO with this issue should provide a solid base to develop improved joint capability in the age of sophisticated electronics.

"Civilian Jointness." The definition of "Joint and Combined Forces" may also usefully be broadened to include civilian non-governmental organizations (NGOs), such as relief agencies, and non-military Other Government Agencies (OGAs), including international organizations. These groups often have been operating in an area before intervention forces arrive, and can provide essential understanding of the situation and culture where they are located.

U.S. forces have cooperated with such organizations during interventions, but these ad hoc efforts could be substantially improved with development and institutionalization of structures and procedures for cooperation and joint tasking beforehand. While experience has shown that personnel in the field will quickly establish informal structures and methods for coordinating and communicating with non-military actors, relying on this combination of luck and personal history and experience is very risky. Planners should determine definitions of relevant "mission essential tasks," which NGOs/OGAs are best organized to perform them, and how best to allocate them among the non-military actors.⁴⁵

Intelligence. Apart from taking advantage of external sources of information like NGOs, the Defense Department needs to substantially improve its organic intelligence capabilities and better develop and integrate foreign area knowledge and understanding into deployed units. Intelligence capabilities for SSCs need to focus as much on understanding the society and politics of an area as on targeting hostile weapons.

In sum, the relative unpredictability of SSCs enhances the appeal of flexible units able to operate easily across the range of these contingencies. It also points to the dual need for increased intelligence collection via human agents "on the ground" supplemented by increased diplomatic activity to prevent, or at least mitigate, outbreaks of violence. The key points for structuring and training units able to discharge this mission are flexibility and mobility.

Force Protection and Operational Risk. A growing concern for the Pentagon is force protection and managing operational risks. This concern extends to both permanent forward garrisons and to forces – land, sea, and air – deployed for exercises or specific missions that fall short of “war.” It is an issue because of the perceived need to detail forces for force protection missions – thus increasing the number of troops needed for each deployment. Some also believe that the emphasis on force protection plays a role in decisions on where, when, and to what extent U.S. forces will be engaged in world hot spots.⁴⁶ Force protection has played a considerable role in *how* U.S. forces engage – shaping operational decision-making to the extent that some officers have decried its influence. As one general recently noted, “You don’t deploy somewhere to protect yourself. If you want to do that you stay in Kansas. You deploy somewhere to accomplish a mission.”⁴⁷

Obviously, such risks can be avoided by complete withdrawal into a fortress America. Just as obviously, this is no solution at all for a nation with broad interests and allies in the world.

The conventional wisdom is that the public is “casualty averse” and hence that deployments of U.S. personnel to hotspots are highly operationally risky for domestic political reasons. This view has been hotly debated, and in any case, risks can probably be reduced by improving communication with the public and Congress before deployments are undertaken.

However, risks can be managed in part through a combination of means, the first of which is a well-funded, active diplomatic effort to promote democratic ideals and adherence to international norms and agreements, both multilateral and bilateral. A second factor contributing to risk mitigation is improved information sharing with allies and targeted intelligence dissemination to U.S. diplomatic missions and combatant commanders. Operational security is a third factor. Use of specialized units in high risk areas or on high risk missions, such as U.S. Navy port security units, is a fourth.

When combat is expected, how a military task force is put together and how it controls the time, place, and tempo in which armed conflict occurs influences the degree of risk it faces. Highly trained joint forces able to concentrate power – personnel, fires, computer/cyber – swiftly against an opposing force and disperse quickly once a mission is over engender, by their very activity, lower risk than a more “conventional” task force.

Capabilities-Based Responses for Terrorism and Homeland Defense

As with SSCs, that there will be future terrorism attempts on U.S. soil is agreed by many observers, but when and exactly where are unpredictable. The assumption, endorsed by virtually every recent special commission or blue-ribbon panel, is that within the first quarter of the 21st century the American homeland will suffer a significant deliberate attack involving biological, chemical, nuclear, or radiological sources.⁴⁸ Such a prediction moves fourth-generation warfare into the first rank of threats and elevates “homeland defense” to a national priority.⁴⁹ Further, it reinforces the “worst case” mentality of international relations with its emphasis on response to, rather than shaping of, events.⁵⁰

Perhaps the fundamental question is whether the United States risks creating a self-fulfilling prophecy. As a global power, America’s diplomatic, financial, social, and in some cases, military presence is inescapable but not always welcome. If the country’s leaders interpret opposition to American influence as threatening, they would seek information through all available means (military and non-military) to clarify the extent and nature of the resistance. The conundrum, however, is doing so quickly but not in an obvious or heavy-handed manner that easily could intensify existing opposition and create new anti-American centers willing to take “direct action” against U.S. citizens and interests, both abroad and even within America’s borders. The cycle then repeats until what is feared, no matter how unlikely, becomes the governing paradigm. This in fact is the road on which the United States finds itself today even though the most serious threat to the nation remains what it was during the Cold War – the Russian nuclear arsenal.

However likely or unlikely a terrorist attack, it is not clear that the military component of national security is well equipped to do much about it. National missile defense is the foremost military option, but it has never been satisfactorily explained why an opponent would choose the expensive, technically difficult, and suicidal method of delivering a weapon of mass destruction via missile rather than via truck, boat, or plane. Some scenarios in which it would be useful to have a working missile defense can always be described, but the program becomes a matter of priorities. The strategy proposed here puts other military needs – not least of which is fully funding personnel, training, and spare parts to ensure that today’s forces are fully ready – at a higher priority than a missile defense system of high cost, of unknowable reliability in actual use, and that will likely be politically costly in relations with allies and with Russia and China.

Essentially, the active duty military's role is in intelligence and logistical support (equipment and transport) to local authorities after an incident of physical terrorism (bomb, chemical or biological agent release). In keeping with their long-standing role in domestic emergencies, National Guard units have been designated to form rapid response assistance teams to help local "first responders" identify and deal with biological and chemical agent attacks. However, the formation of these special units is behind schedule, training has been insufficient, and the program itself has been criticized on the basis that the National Guard teams will not be able to respond fast enough to be helpful.

In the unlikely event that it is well known where and how a weapon of mass destruction attack against the United States is being prepared in a foreign country, U.S. forces can of course conduct pre-emptive attacks. U.S. military strategy should ensure that Special Operations and other forces have a capability for long-range raids to attack weapon development, deployment, or launch sites and command structures if necessary to prevent weapons of mass destruction (WMD) attacks.

The "other" terrorism – cyberterrorism – again largely falls outside DoD's responsibilities except for the protection of its own systems. The lead coordinating agency for anti-cyberterrorism is the Department of Justice, which has established a central data clearing house designed to monitor and assess attempted and actual incursions into government and private critical infrastructure systems. Protection of government systems is proceeding more rapidly than in the commercial private sector.⁵¹

National Security Strategies to Prevent Terrorist Attacks

Despite the limited role for military strategies and for the Defense Department in defense against terrorism, there is more that the United States can do in its broader national security strategies. The government has tended to focus on stopping or limiting damage from a terrorist attack rather than focusing on the cause – why would foreign people *want* to rain destruction on a U.S. city? What is the United States doing in its foreign and military policy that creates the perception in the United States that it is such a target?

The easy, dangerous answer is that putative attackers are at best irrational fanatics, at worst actual madmen. This is to ignore the broad current of resentment and suspicion of the United States found in far too many places

around the world. The individuals at the helm of the boat that blew a hole in the *USS Cole* may have been fanatics, but the tens of thousands who demonstrate against the United States in the cities of the Muslim world are not. The United States is often credited in the developing world with having far more power and influence in the affairs of other countries than it actually does. Although this is somewhat flattering, it means that America gets easily blamed for political and economic woes in other regions.

U.S. “drive-by” attacks using cruise missiles or bombing raids have demonstrated the long reach of U.S. military might, but not U.S. willingness to truly engage over the long haul with the causes of conflicts. The attacks deal with the symptoms, usually in an ineffective way, while instilling fear and resentment in populations that perceive themselves as targets.

National security strategy should focus on three approaches to attempt to mitigate the incentive and desire for attacks on the United States or its overseas posts. The first is to recognize and then shape foreign and military policy so as to minimize the foreign perception of the United States as a global bully. As former Secretary of Defense Robert McNamara recently noted, many other countries “consider we’re arrogantly unilateralist, that we insist on our own way. ... We should develop an empathy – empathy is not sympathy, empathy means trying to understand the way your potential opponent looks at you.”⁵²

The primary solution to the problem of being perceived as a hegemon is to work more with allies and other nations both in leading the world and in specific interventions. This means not just including token diplomatic or military participation by other nations, but actually giving other nations substantial, and in some cases leading, roles. It will be much harder to demonize the United States if it is not perceived as trying to run the world by itself.

Reducing the perception of U.S. hubris means careful balancing of the need for humanitarian interventions with the inevitable backlash generated in one group or another. In a specific peacekeeping operation, the United States does not necessarily need to be *neutral*, but it does need to be perceived as fair and operating under clearly defined rules.

Second, the United States should recognize and respond to a perception of conflict with Islam and Islamic peoples. America does not need to be in a “clash of civilizations” with the Muslim world. The United States’ foreign policy should undertake an initiative to explore how to reduce tensions and avoid needless friction that contribute to a perception of inherent conflict.

HOW TO WIN IN ASYMMETRIC WARFARE

“Asymmetric” warfare cuts across different challenges outlined above. It can be used with telling effect in major theater wars, in smaller-scale contingencies, and in terrorist attacks. This sidebar briefly notes advanced strategies to conduct, and thus counter, asymmetric warfare.

U.S. military thinking and planning remains excessively focused on second-generation, industrial age warfare of bloody and destructive attrition, based in part on the works of 19th century strategist Carl von Clausewitz. Because of U.S. dominance in this type of warfare, however, opponents instead are likely to fight “asymmetrically” – avoiding U.S. strengths and attacking its vulnerabilities. They are likely to use either third-generation maneuver warfare (with regular armed forces) or, more likely, fourth-generation irregular warfare (with irregular attacks on vulnerable military units, population, infrastructure, culture, and institutions).

Two great military strategists – an ancient one, Sun Tzu, and a 20th century one, the late John Boyd – provide an answer.⁵³ They explain how to fight and win such warfare. Broadly, these strategists focused on how to win by outmaneuvering an enemy *mentally*, so as to limit the need for actual combat. Greatly simplified, their ideas suggest that to win asymmetric war:

- Understand that military force is not the only, or necessarily the best, means of achieving national goals – excessive or inappropriate use of force breeds resentment and plants the seeds of future conflict.
- Attract allies to one’s own side, and subtract them from an opponent’s side.
- Focus on two major and complementary elements: create “harmony” and cohesion on one’s own side, and foster chaos and paralysis on the other side
- Surround the opponent with sustained ambiguity, deception, surprise, isolation, and menace; pursue multiple approaches and attacks, then switch between them and develop new thrusts *faster*

than the opponent can cope; alternate unpredictably between the expected and unexpected, the orthodox and unorthodox, distracting moves and decisive moves, or in Sun Tzu's terminology, *cheng* and *ch'i*.

- Understand that success in conflict depends most upon *people*, then *ideas*, and least upon *hardware*.
- Fix fraying leadership and cohesion in the military, in part by ending constant personnel rotation among units, halting the system of premature discharging of mid-level officers, and training and empowering officers to exercise more initiative.
- End a fixation on complex hardware, which is not only unreliable and expensive, but also creates complex bureaucracies to build, deploy, operate, supply, and fix it – bureaucracies that are unsuited to exercising the most important components of third- and fourth-generation warfare strategy: agility, quickness, flexibility, responsiveness, creativity, initiative.
- Structure and equip U.S. forces so that they: are agile and flexible; provide commanders with multiple options; can switch between different thrusts quickly; continuously reshape themselves through experimentation and training; and most importantly, are well-led.

On the military side, permanent basing of substantial U.S. forces in the Middle East and Persian Gulf is a specific, prominent irritant for cultural and religious reasons. When other problems arise, such as Israeli-Palestinian clashes, hostile elements can use U.S. forces as a figurative and literal target, whipping up resentment. Ways to adjust U.S. deployments and reduce the perception of permanent U.S. presence should be examined so as limit the drawbacks of stationing U.S. forces in the area.

Third, the United States should recognize and correct the perception that it is hypocritical on the issue of weapons of mass destruction. It is striving to prevent others from obtaining nuclear weapons or other weapons of mass destruction, but has done relatively little in the last decade to reduce its own massive nuclear arsenal. The U.S. nuclear arsenal is relevant to biological,

chemical, and radiological terrorist weapons because these can be seen as “poor man’s bombs.” Conducting serious nuclear arms reduction efforts again would help delegitimize nuclear and other proliferation.

As mentioned above regarding SSCs, a key strategy to deal with the emotional and political effect – as opposed to physical damage – of small-scale attacks on the homeland is to prepare the U.S. public for them in advance, largely by making the case for whatever U.S. actions or interventions sparked the attack in the first place.

Industrial-Based Responses for a Peer Challenge

Virtually all forecasts out to 2020-2025 hedge on the possibility of the rise of a peer or near-peer. The chief candidate for this role is the People’s Republic of China, a choice seemingly confirmed by the March 2001 announcement of a 17 percent increase in the budget for the People’s Liberation Army. However, much of this increase is going for higher salaries, additional training exercises, resettling those cut from the force structure (500,000 troops), modernizing missile forces, and compensating the PLA’s loss of income from the many commercial enterprises it developed in the 1980s and early 1990s to supplement its official budget.⁵⁴ In fact, China seems to be portraying the U.S. as its chief antagonist at least partly to justify a slow but steady ship and aircraft modernization program.⁵⁵

Strategies to Prepare for a Peer Challenge

The broad national security strategy to head off a peer competitor would work to maintain positive relations with China and Russia, paying particular attention to how U.S. acts will play out in the domestic politics of the relevant countries (as was discussed above in strategies to reduce the likelihood of nuclear war). Another broad strategy would increase support for economic development in less industrialized areas of the world to provide a potential challenger with less fertile ground for a hostile alliance against the wealthy United States. U.S. economic assistance in Fiscal Year 2000 was \$7.3 billion, which amounted to only 2.5% of the defense budget and less than one half of one percent of overall government spending.⁵⁶

The military strategy to handle a peer challenge if one does arise would preserve the U.S. economic and technological strength that backstops mili-

tary hardware dominance. The key to remaining technologically dominant lies in preserving cutting-edge research in basic and applied science and technology. Personnel with critical engineering design skills in fields such as aerodynamics, propulsion, weapons effects, sensors, electronic warfare, stealth, precision guidance, and associated fields have to be retained. On the other hand, the military must recognize where the commercial sector is in the lead and adapt its products to military use. This is particularly true in terms of computing power and the use of highly complex simulations. Advances in these fields enable much design work and virtual testing to be performed without actually producing pieces of equipment. Eventually, fabrication of a plane or ship prototype may be necessary to ensure the models and simulations work, and in other cases an advanced weapon system may be produced in limited quantities to test the doctrine and tactics envisioned for it. Lessons learned from such experiments would then be integrated back into models and simulations for the next generation of equipment. Only when (and if) intelligence concludes that a peer power is emerging would a major production run of the most recent prototypes be undertaken.

Maintaining this design-prototype-limited production/testing-cycle would require the Pentagon to spend more on research and development, but the costs incurred would be offset by cuts in procurement made possible by not having to recapitalize the entire force. (Similarly, there may be excess infrastructure both in weapons production facilities and in research and development activities that could be pared for savings.) Production lines for existing aircraft, ships, and tanks, still the world's best, would be updated to produce the very latest iterations of proven systems such as the F-16 Block 60 which has been sold to Oman but is not in the U.S. Air Force (USAF) inventory.

Joint Agency-Based Responses for Transnational Challenges

Transnational problems such as international drug trafficking, illegal migration, crime, environmental conflict or damage, access to water, and health are often tied together in conflict zones. For example, drugs, crime, the environment, and economic issues are deeply intertwined in the conflict in Colombia. If U.S. forces are present in such conflict zones, it is likely they will be exposed to these issues and may have to deal with them. The approach suggested here is that procedures be improved for military units to collaborate

more with the civilian agencies that focus on these issues. Current *ad hoc* arrangements can be made more effective if a high-level effort is undertaken to assess how military, non-military, international (and non-government) organizations can best work together to address these complex issues.

The next section explores regional issues and how some of these “thematic” strategies might apply to specific nations and regions of the world and to non-state actors.

REGIONAL ISSUES

The Arc of Crisis – Geography and Military Forces

The area stretching from Southeastern Europe through the Middle East and the Persian Gulf to the Indian subcontinent and up to the Koreas constitutes what some commentators term an “arc of crisis.” Since World War II and the retreat from empire of European powers, the United States has become more involved diplomatically and militarily in selected areas along this arc. Some involvements, as in Korea and Taiwan, have spanned virtually the entire period since 1945 and seem set to continue for some time. Other involvements have been less direct, as in the case of Pakistan during the Soviet occupation of Afghanistan and Pakistan and India as nuclear weapons states. In still other parts of this arc, the perception that vital U.S. interests have been (Vietnam and Southeast Asia) or are (Persian Gulf) at risk have influenced military engagement, presence, and support for indigenous governments.

Some of these areas remain important to the United States and its allies. But the United States must not become so focused on this arc of potential flashpoints that other important areas fall below the cognitive diplomatic and, where appropriate, military horizons. Central America was a major concern in the 1980s. As already noted, growing economic disparities, drugs, transnational crime, and environmental degradation severely challenge the all-too fragile democratic institutions in many countries. A growing area of interest and concern to the United States is Central Asia stretching on either side of the Caspian Sea from Turkey on the west to Russia and China on the east. Not only is this an area rich in energy resources, it is flanked by Russia, China, Iran, and Turkey (a NATO nation), making it susceptible to varying outside pressures. Moreover, with no modern democratic tradition on which to draw, any economic benefits that accrue from energy resource development may not be widespread.

The inherent diplomatic, economic, military, and environmental uncertainties of the future call for well-considered, coordinated, selective “shaping” activities by the United States that will contribute to the goal of reducing armed conflict in the world. A truly “internationalist” diplomacy, one that seeks to engage allies and international organizations, remains the first line of offense and defense in this endeavor. For their part, U.S. military forces must be capable of rapid response, with allies or in ad hoc coalitions, to support diplomacy or, when diplomacy fails, to ameliorate or localize conflict. Choices will have to be made. But simply because we cannot be present everywhere does not mean we should be present nowhere.

Issues in Assessing Threats

The Department of Defense defines strategy as “the art and science of developing and using political, economic, psychological, and military forces as necessary during peace and war, to afford the maximum support to policies, in order to increase the probabilities and favorable consequences of victory and to lessen the chances of defeat.”⁵⁷

Short-term military strategies – essentially responses to contingencies – call for rapid assessment of an evolving crisis and a determination of an appropriate, proportional, effective course of action when military power is warranted. The greatest danger in these situations lies in generating unwanted, unanticipated second and third order consequences that cannot easily be mitigated even by intense diplomatic effort.⁵⁸ This danger can be offset to some degree by the formation of deployable joint headquarters support packages (e.g., command and control, communications, intelligence) geared to augment the joint response forces under the control of the regional commanders in chief. When no crisis looms, responses to hypothetical, very possible contingencies – selected based on history, the state of current inter-regional or bilateral relations, and armament levels – can be war-gamed repetitively to develop the optimum range of possible combinations of land, air, and sea assets that would be effective in an actual crisis.⁵⁹

Regardless of whether the analysis of changing international events is deliberate or crisis-driven, the response will be highly dependent on two factors: the countries subject to the analysis, including an assessment of the quantitative strengths and operational concepts of potentially opposing militaries

(military “science”), and the synergistic effect of the human dimension that can enable one force, even if numerically or technologically inferior, to prevail (the military “art”).

Quantitative elements involve, first, the number of people under arms, for without people there is no military force.⁶⁰ Quantity also refers to the number of war-making (tanks, infantry fighting vehicles, artillery, fighter/attack airplanes and bombers, attack helicopters, naval warships and submarines) and war-supporting (trucks, fixed- and rotary-winged transport aircraft, replenishment ships) machines.

Technological sophistication in the form of the “generation” of a weapons system can be included in this “quantitative” realm for comparative purposes. In doing so, however, it is important to remember that technology is neutral; it is beneficial only when it helps rather than hinders individuals to accomplish human tasks. Combined with other factors such as well-trained and motivated people, a coherent doctrine, and sound tactics, technology can enhance the war-fighter’s capabilities. Conversely, as equipment becomes more sophisticated, it becomes more difficult to repair “forward” in the battle arena. Packed into “black boxes,” highly complex elements have to be shipped to depots in the United States, creating a maintenance “tail” that is often longer in time and distance.⁶¹

Complexity also increases costs, which impose their own iron discipline. In human terms, as complexity increases, operator stress can increase because of the number of functions that must be performed or monitored.

Then there is the financial cost. For example, the total target acquisition of the USAF F-22, a fifth-generation American warplane conceived to counter fourth- and fifth-generation Soviet fighter aircraft expected to enter service in the 1990s,⁶² was 750 aircraft – essentially a one-for-one replacement of the F-15C. Because the F-22 has become so expensive – \$180 million each – the current expected procurement is 341 aircraft, assuming the Bush administration does not scale back the program further. (Some in the Air Force are again calling for an F-22 buy of over 750 aircraft.)

What is done with the technology available – the operational concepts and tactics – is often more relevant than the technology. In 1940, the French and British forces opposing the Germans had better armor but inferior doctrine and tactics. In 2000- 2001 weapons technology available to the Palestinians is vastly inferior to what the Israelis possess, yet the latter seem bereft of a mili-

tary doctrine to thwart the “asymmetric” actions and determination of the former short of attempting to re-occupy Palestinian areas.⁶³

Ideally, from a single starting point (doctrine), the optimum case involves the ability to advance far down multiple paths of endeavor (tactics) before having to commit to a main effort. Such flexibility applies to conflict prevention, mitigation, and resolution as well as to war-fighting in all its dimensions. Moreover, the military establishment that encourages bold action and rewards experimentation and risk-taking in peacetime will find itself better able to adapt in war – to turn the tables on even an “asymmetric” opponent by initiating an unexpected response that is itself “asymmetric” in terms of the opponent’s strength.

Anyone can count the number of war machines an opponent has. No one can count on “a” military response if innovation is prized.

Recommendations:

- In assessing regional threats and allied and U.S. military capabilities, evaluate qualitative factors (the human dimension, well-trained and motivated people, coherent doctrine and tactics, military “art”) as equal or more important than quantitative factors (“bean counts” of numbers of weapons, military “science”).
- Take into consideration that technology is neutral – if overcomplex, too demanding to operate, and too expensive, high technology can hurt rather than help. What is done with the technology available – the operational concepts and tactics – is often more relevant than the technology.
- To turn the tables on an opponent that uses “asymmetric” attacks on U.S. forces, improve the military’s ability to be flexible, pursue multiple approaches simultaneously, experiment, develop scenarios involving multi-disciplinary second and third-order effects, and take risks.

The following sections briefly examine the diplomatic and political background to conflicts in regions of the world. They suggest actions and strategies for the United States to pursue in the broader national security arena, including diplomatic and economic components, as well as in the military arena.

Europe

In the aftermath of World War II, Europe became the first battleground between communism and capitalism, oppression and democracy. While the United States, in the first few years the only atomic power in the world, held at bay the armies of the Soviet Union, strong diplomatic and massive economic aid enabled Western Europe to regain its balance. In 1949, the North Atlantic Treaty Organization was formed, eventually reaching 16 nations during the Cold War.

Although the Cold War ended a decade ago, only in the last few years have NATO forces begun to shake the Cold War mentality that emphasized organization for territorial defense. Russia, though still possessing a nuclear arsenal, is suffering economically. Its conventional military forces are in shambles. And while Europeans still want continued U.S. interest in the continent, many are less enamored now of the American presence than 50 years ago.

Ironically, the main aim of many today is to bring a politically reformed and economically viable Russia into European structures beyond the 55-member Organization for Cooperation and Security in Europe (OSCE). Just as the OSCE provides a diplomatic forum for nations whose territory stretches from Vancouver to Vladivostok, the ideal outcome of enmeshing Russia in a web of military and economic cooperative ventures (an expanded NATO and World Trade Organization) would keep America (and Canada) fully “in” as well.⁶⁴

NATO itself recognized that, with the Soviet threat gone, its principal *raison d'être* had disappeared. Thus, at the 50th anniversary NATO summit held in Washington in April 1999, the allies agreed to a change in NATO's formal missions to include crisis management, out-of-area security missions such as peacekeeping and peace enforcement, training non-NATO militaries (under the Partnership for Peace), countering terrorism and fighting international crime.⁶⁵ Most of the missions are far different from those for which NATO was formed, with some even being more law enforcement or cooperative para-police activities. To this extent, while these new missions involve continued alliance cooperation, they do not require a large permanent U.S. military forward presence on the continent. In addition, in 1998 NATO added three new members from the former Warsaw Pact – Poland, Hungary, and the Czech Republic.

The splintering of Yugoslavia during the 1990s seems to have been decisive for Europe. The mayhem in Bosnia and Croatia left European countries cha-

grined at their inability to move out of America's shadow and prevent or intervene in the conflict. In response to this embarrassment, NATO launched the European Security and Defense Identity (ESDI) as a means to strengthen European military capabilities and raise Europe's profile in NATO operations.

But ESDI never got off the ground. Most European countries balked when it came to committing money to defense and reforming their Cold War-era militaries. Thus when NATO launched its air war against what was left of the former Yugoslavia in 1999, the United States again led the military operations and contributed most of the materiel.⁶⁶

After Kosovo, Europeans renewed their efforts to add military muscle to their economic prowess.⁶⁷ This time, however, the responsibility was handed to the European Union (EU). With continental military affairs now in a non-NATO forum, the Europeans anticipated that EU members would have an increased incentive to invest in their militaries.

At the heart of Europe's defense plans is a proposal to build an autonomous military force supported by the necessary political and military apparatus. The plan envisioned three types of missions for this force: humanitarian and rescue, peacekeeping, and crisis management, including peacemaking. The sinews of the plan, as laid out in the Helsinki communiqué, are:

- Creating by 2003 a rapid reaction force of 50,000-60,000 troops (15 brigades) capable of fully deploying within 60 days and sustainable for a year;
- Establishing a standing Political and Security Committee to provide political control and strategic direction, a Military Committee composed of the EU chiefs of defense to give military advice, and a Military Staff to provide military expertise; and
- Developing a non-military crisis management mechanism to coordinate the civilian resources at the disposal of the member states.

Interim political and military bodies were quickly created, and on June 11, 2001 the EU Military Staff became operational.⁶⁹ The EU also laid down basic guidelines for the future non-military crisis management force. It will consist of police, customs officers, judges, and other non-military personnel who will preserve or reestablish civic structures in a crisis area.

Evolution of the CESDP and formation of the 60,000 rapid reaction force (with sustainment for 12 months) will allow Europeans to handle smaller-

scale contingencies on and near the continent out to an anticipated action radius of some 2,000 miles from Brussels.⁷⁰ If this force matures, NATO could gradually cede primacy to Europeans.

The most obvious benefit to the United States of the proposed EU defense organization is a decrease in the burdens that the United States now carries for its permanent presence in Europe.⁷¹ (Conversely, in the NATO-led operations in Bosnia and Kosovo, the United States, as the leading member of the alliance, was expected to contribute forces commensurate with its capabilities.) Should the European Union develop an effective, responsive force capable of assuming overall responsibility for future peacekeeping in Europe, the United States would not automatically be expected to participate or could do so at a lower level of contribution.

The jury is still out on the question of the political steadfastness of EU members to make the required major reforms of their respective militaries to enable Europe's force contributions to balance a reduced U.S. commitment. The expected costs of such development, at a time when a number of European defense budgets are falling, not rising, is a key obstacle.

There is reason for optimism, however. In its last annual Report to the United States Congress on Allied Contributions to the Common Defense (March 2001), the Pentagon noted that NATO allies "perform very well" in the areas of multinational reaction forces and peace operations personnel, key elements also for any EU-based force. The report also notes that eleven allies increased the percentage of their defense spending devoted to modernization. This complements the March 2000 report which noted that European countries were developing forces able to (1) be rapidly transported to remote theaters; (2) function without pre-established lines of communication and host nation support; and (3) fight effectively in multinational formations at the corps and even division level. The trend to all-volunteer structures (or reducing the number of short-term conscripts) continues.

The Europeans recognize their shortcomings. A 1999 audit determined that their militaries need more transportation aircraft, stronger logistical units, improved satellite surveillance, and more coordination to make nationally-based military systems compatible with each other and interoperable with U.S. forces. The gaps were clearly visible in Kosovo, where U.S. and allied pilots were forced to communicate on non-secure frequencies – thus jeopardizing their safety and the effectiveness of missions – because U.S. coded

REPORTED COMMITMENTS TO EUROPEAN RAPID REACTION FORCE		
The European Rapid Reaction Force will draw on a pool of 100,000 troops available to perform humanitarian relief, evacuations of non-combatants, conflict prevention, and even separation of warring parties – what are known as the “Petersberg Tasks” from the German city where they were discussed. Major contributions are: ⁶⁸		
PERSONNEL (TOTAL)	Italy	19,000
	Germany	18,000
	Great Britain	12,500
	France	12,000
	Spain	6,000
	Turkey	6,000
	The Netherlands	5,000
	Greece	3,500
	Belgium	3,000
	Austria	2,000
	Finland	2,000
	Sweden	1,500
	Portugal	1,000
	Ireland	850
	Luxembourg	100
LAND FORCES	Italy	14,000 in-theater plus carabinieri
	Germany	14,000 combat troops
	Great Britain	Four brigades
	Belgium	One brigade
NAVAL FORCES	Italy	One aircraft carrier, 18 other ships; naval infantry
	Germany	15 warships
	Great Britain	One aircraft carrier, two attack submarines, four surface warships, 11 other ships; Royal Marine commandos
	France	One aircraft carrier, two amphibious ships, nine other warships
	Belgium	Nine ships
AIR FORCES	Italy	69 fixed/ rotary wing aircraft, 18 transport aircraft, 2 aerial tankers
	Germany	Seven combat squadrons, 31 transports, 1 tanker
	Great Britain	72 combat aircraft, 72 transports (for UK forces), 15 tankers, 3 airborne early warning
	France	75 combat aircraft, reconnaissance aircraft, 40 transport, 8 tankers, 4 airborne early warning, battlefield surveillance system
	Belgium	One combat squadron, 8 transports
SPACE FORCES	France	Helios imaging satellites
	EU	Galileo GPS satellite network

communications systems were incompatible with those of some NATO allies. Similarly, the lack of military lift aircraft in Europe slowed the deployment of peacekeeping units. A lone British submarine was the only European vessel around Kosovo capable of launching guided cruise missiles.

Does the potential emergence of a viable CESDP mean the end of NATO? Hardly. CESDP only aims to create a lightly-armed, rapid reaction force for crises such as Bosnia and Kosovo. More importantly, the European Union is not likely, at least in the near and medium-term, to acquire the capabilities needed to guarantee its members' security in the same way NATO's charter does.

Replacing the web of multinational military land, air, and sea formations by CESDP units also would be a daunting task.⁷³

NATO provides a structured framework within which new member states can exercise, have troop exchanges, and plan activities such as modernizing their armed forces in a way that balances contributions to the common defense while restraining costs. This same framework provides opportunities for future defense industrial cooperation via spreading the costs of research and development and procurement while reducing competition for arms sales to non-NATO nations that could easily spark regional arms races. Finally, in cases such as the 1991 Persian Gulf War and the Kosovo air campaign in which the United States participates, NATO countries provide transient and forward deployment bases for American forces responding to out-of-area emergencies.

But nothing will come of CESDP if the European Union and NATO fail to develop formal relations and agree on terms of cooperation on the European continent. Among the questions that must be resolved is the critical one of who decides whether a particular crisis is an EU or NATO responsibility. If and when such an eventuality happens, it would be an appropriate time to reconsider current arrangements which always have an American as head of NATO military forces (Supreme Allied Commander Europe) and a European as NATO Secretary-General.

A viable CESDP would mark the end of U.S. control over European security affairs through NATO – a prospect sure to be opposed by many in Congress and the defense establishment. For Europe, once the European Union is tasked with concrete military responsibilities, CESDP would move from theory into the world of real budgets and real forces.

Many question whether the United States will give the CESDP the chance to flourish on its own. Perhaps more important questions are whether the indi-

vidual nations of the European Union can muster the budgetary resources for CESDP and are willing to create mechanisms (which means ceding national control over foreign policy) able to implement an effective EU foreign policy.

Recommendations:

- The United States and Europe should discuss and agree on the future terms of cooperation on the European continent, and formally develop relations between new EU foreign policy and military institutions such as those of the CESDP and NATO.
- Support the development of a CESDP light Rapid Reaction Force to help handle smaller-scale contingencies in Europe and hence permit the United States to reduce its contribution to and costs for joint endeavors.
- Preserve NATO as a useful structured framework in which to conduct joint exercises and troop exchanges, plan modernization activities, share costs, increase defense industrial cooperation, provide transient bases for U.S. forces, and, most broadly, continue to guarantee its members' security.
- As the European Rapid Reaction Force takes shape, the United States should draw down its permanently stationed forces but maintain its participation in ongoing peace maintenance operations and be ready to contribute to similar operations under NATO.

Asia

Asia will loom ever larger in U.S. national security strategy in the 21st century. Thirty-five percent of U.S. trade is within the region, amounting to more than \$548 billion in 1998.⁷⁴ Asia-Pacific nations, not including the United States, account for about 34 percent of the Gross World Product (the U.S. accounts for 21 percent).⁷⁵

In terms of the viability of multilateral security alliances, Asia is far behind Europe. The ill-fated Southeast Asia Treaty Organization (SEATO) and the ANZUS Treaty (Australia, New Zealand, United States) remain the only attempts to create formal multinational arrangements in the operational theater.⁷⁶ Over the last three years, five nations among the original 21 that comprised the Korean War-era United Nations Command have resumed partici-

pation at the staff officer level, but essentially Republic of Korea and U.S. forces constitute the present-day U.N. Command.⁷⁷

The other salient points are the presence along the Asia-Pacific Rim of the world's six largest armed forces (People's Republic of China, United States, Russia, India, North Korea, and South Korea⁷⁸), the volatility of relationships among key players, and the vast distance separating the United States from the other countries of the region.

Contributing to volatility are territorial disputes, particularly over the status of Taiwan, the Spratly Islands in the South China Sea, the return of Japan's Northern Territories seized by the then Soviet Union at the end of World War II, and the disposition of Kashmir. Other countries, especially Indonesia and the Philippines, are beset by secessionist movements.

World War II era memories/antagonisms remain: Korea-Japan, China-Japan, Japan-Vietnam, Japan-Indonesia. These are supplemented by Cold War era disputes that pitted North Korea against the South, Vietnam against the United States and later against China, and China against India.

Given the inevitable distrust and sensitivities that these conflicts engender, the system of bilateral relationships instituted by the United States was probably the only feasible approach to security issues. But the combination of regional volatility and the vast distances between the United States and the countries party to these bilateral agreements dictated a more visible U.S. presence than in Europe. In turn, this higher visibility risked fueling anti-American sentiment as cultures clashed and human and other resources were diverted to support the American presence. Indeed, since the Cold War ended, both Japanese (especially Okinawans) and South Koreans have increasingly questioned the costs of the U.S. presence, suggesting the re-alignment of permanent forward bases may soon be required.⁷⁹ In monetary terms alone, the worsening Japanese economy may increase pressure for reducing or eliminating Japanese host-nation payments/concessions for U.S. bases.

Today the major military players remain Russia and China, with India rising rapidly by virtue of its military expansion and development of nuclear weapons and missile delivery systems. Pakistan's entry onto the list of nuclear weapons/missile nations warrants increased attention towards it.

Even if the United States were not a superpower, as a Pacific power it must be active in regional affairs. By virtue of the size of its nuclear arsenal, Russia's

reactions to U.S. policies in Asia cannot be ignored. Engagement in Asia should be seen as a complement to engagement in Europe.

The regional stand-off drawing the most attention recently is China-Taiwan. At the heart of the issue as it involves the United States is the question of reunification under the “one-China” formula, to which all parties (China, Taiwan, and the United States) are committed. In 1997 China regained Hong Kong and in 1999 Macao, but these had been “leased” under binding agreements a century earlier by European powers.

The Clinton administration referred to China as a strategic partner; that rhetoric has changed with the change of administrations. China is now a “strategic competitor,” a rising regional power in the western Pacific which sometimes finds its interests conflicting with Washington’s. The picture across the Taiwan Strait is further complicated by a widespread U.S. moral commitment to prevent a “roll-back” of democracy in Taiwan. This moral stance underlies the calls for the United States to be ready to use military force to protect Taiwan in the event of an “unprovoked” attack – the Clinton policy – and for some, even in the event of a “provocation” such as a declaration of independence.

China does not have the military forces to successfully invade Taiwan (the main island) and defeat Taiwan’s forces, even without U.S. military participation.⁸⁰ Nevertheless, other strategies such as a naval blockade of Taiwan by Chinese submarines could pose serious challenges. U.S. sales of weapons such as P-3 anti-submarine aircraft, frigates, and minesweepers could further increase Taiwan’s ability to defend itself without outside forces. These sales can be made without excessively provoking China if weapons that Beijing perceives as more offensive – such as Aegis destroyers and attack submarines – are not provided.

In terms of potential consequences, the next most troublesome conflict is between India and Pakistan over the status of Kashmir. Since May 1998, when each conducted a series of nuclear explosions, the magnitude of consequences from a war between these two sub-continent nations has broadened from purely regional to international. Unlike China-Taiwan, there are no calls for U.S. military action in this dispute. The United States faces a diplomatic challenge in trying to induce both nations to limit their nuclear arsenals, refrain from periodic fighting across the Line of Demarcation in Kashmir, and rein in ballistic missile developments. Driven by their intertwined history, India and Pakistan seem largely resistant to what few diplomatic “sticks” the United States can wield.

The third, still unpredictable relationship is that between the two Koreas. Since the election of Kim Dae Jung as South Korea's president, the two nations have been moving cautiously toward a new paradigm. Road and rail links are scheduled to be restored across the Demilitarized Zone (DMZ) and some families, separated by the Korean War, have been able to visit. Still, the North maintains some 70 percent of its mobilized forces within 100 kilometers of the DMZ. It has also threatened to withdraw from the 1994 "Agreed Framework" with the United States (in which it committed to stop running its "heavy water" nuclear reactors in exchange for two "light water" reactors and supplies of fuel oil) and cancel its self-declared moratorium on further long-range missile tests.⁸¹

The United States' position in Northeast Asia will be significantly altered should a sustainable accommodation be reached between the Koreas and if North Korea stands by its commitments on nuclear power plants and missiles. The main justification for the nearly 100,000 forward-deployed U.S. forces has long been to deter a repeat of North Korea's 1950s assault on the South.

But whether or not the North Korean regime transforms itself, crumbles, or reunifies, South Korea – with a population twice as large and a high-tech economy 27 times as large as the North – should not need a full U.S. MTW force to defend it. A more open, less militarized, and economically developing North may well lead to more pressure for the United States to reduce its permanent forward presence in Japan/Okinawa if not in South Korea itself. Complying with such requests but still remaining west of Hawaii would entail shifting more force to Diego Garcia or to the U.S. territory of Guam, which the Navy is already considering as a home base for as many as five attack submarines.⁸² But Diego Garcia itself may soon be under siege as the native Ilois inhabitants, moved by the British in 1967-73 to accommodate U.S. demands for operational security on the island, won a decision from the British High Court in November 2000 that declares the U.K. government had "acted unlawfully" in the forced removal of the islanders. The ruling opens the way for the islanders and their descendants to return to their homeland.⁸³

Recommendations:

- **Overall.** Continue military exercises with all regional allies, emphasize more multilateral exercises and initiatives, employ rotational presence and periodic visits in anticipation of a reduction in forward permanent presence of U.S. troops, and maintain support infrastructure as needed

(e.g., new pier at Singapore, which like the one at Port Klang, Malaysia, is able to accommodate an aircraft carrier).⁸⁴

- **China-Taiwan.** Continue process of engaging China in diplomatic and economic spheres while maintaining a “one-China” policy, warning Taipei against declaring independence and warning China that an unprovoked attack on Taiwan will trigger unspecified assistance to Taipei; sustain Taiwan’s current defensive capability. Maintain and, if possible, expand military-to-military ties with China; monitor China’s military modernization program and priorities to preclude surprise.
- **India-Pakistan.** Induce both nations to sign and adhere to the Non-Proliferation and Comprehensive Test Ban treaties and the Missile Technology Control Regime. Encourage resolution of the Kashmir dispute. Work for a restoration of civilian government in Pakistan.
- **Korean Peninsula.** With the concurrence of Seoul, initially reduce land forces to one mechanized brigade and preposition equipment for two more mechanized brigades. Depending on the pace and nature of reconciliation, reductions of the North Korean military, and increased South Korean capabilities, be prepared to withdraw the remaining brigade from South Korea in five years.
- **Japan.** Forces on Main Islands: retain until the end of the current Status of Forces Agreement (SOFA) period one aircraft carrier home port and U.S. Air Force squadrons; remove all land forces. After the end of SOFA, reduce U.S. presence to supply, maintenance, and infrastructure activities that would allow rapid resumption of home porting for an aircraft carrier.
- **Okinawa.** maintain forward supplies, equipment, and infrastructure for a major forward staging base, phase out land forces back to Guam and Hawaii.
- **Philippines.** Investigate emerging opportunity to redevelop a major maintenance, service, and supply base at Subic Bay.

Middle East/Gulf

As a region, the Middle East/Persian Gulf arguably is consistently the most volatile. From the Defense Department’s perspective, most of the geographic area encompassed by this broad designation is the responsibility of the U.S. Central Command.⁸⁵

Yet diplomatically, religiously, and practically, the eastern rim of the Mediterranean Sea is inexorably linked to the Gulf. It has been most apparent

since 1948 with the creation of Israel and the numerous wars with its neighbors. The 1973 “oil shock” was a sharp reminder of the linkage. As recently as March 6, 2001, in answering a question about views of Arab leaders on Iraqi sanctions and the ongoing Israel-Palestine armed conflict, Secretary of State Colin Powell said: “[T]his is now a regional situation; you have to look at it regionally; the issues are linked.”⁸⁶

Ten years after the end of the Persian Gulf War, only the United States and Britain, of the original military coalition that defeated Iraq, remain militarily engaged. The principal manifestation of this engagement is the routine patrolling of “no-fly zones” over southern and northern Iraq and attacks on Iraqi air-defense sites. This activity has become so ritualized that the press usually does not report any occurrences unless a raid is particularly heavy or sustained, as in February 2001.⁸⁷ Syria, an ally in the Gulf War coalition, and Saudi Arabia, which allows U.S. forces on its soil, “expressed feelings of denunciation and anxiety” over the attack.⁸⁸ In May, the two commanders in chief in charge of the no-fly zones, Gens. Tommy Franks of Central Command and Joseph Ralston of European Command, reportedly recommended reducing or ending the air patrols, ostensibly because of the danger of a shoot-down of a U.S. aircraft.⁸⁹

Diplomatically, the Bush administration is seeking to revise and revive the U.N. sanctions regime against Iraq. More and more nations, even the Gulf Cooperation Council (GCC)⁹⁰ states other than Kuwait, hold the United States responsible for the continued depressed condition of the Iraqi population’s health and welfare despite the creation and expansion of the “oil-for-food” program. But so much oil – estimated to be as much as 450,000 barrels a day – is escaping U.N. oversight that it is difficult to control.⁹¹ Nor is the Iraqi National Congress, an opposition group that is in line for as much as \$97 million in U.S. aid, likely to have any success in its plans to overthrow Saddam Hussein.

In addition to aircraft based in the region (principally in Saudi Arabia and Kuwait), the United States has facility access agreements (e.g., with Oman, first negotiated in 1979), maintains prepositioned equipment in Qatar (enough for a division) and Kuwait (enough for a brigade), and regularly rotates troop units in Kuwait on a 90 day training and exercise tour. The United States also routinely has a carrier battle group in the Persian Gulf from which planes fly over southern Iraq. All told, America spends more than \$2 billion a year to maintain forces in the Gulf – half of which is paid by the GCC.⁹²

Arab revulsion at the plight of Iraqi citizens finds a counterpart in the struggle of the Palestinians in the Gaza Strip and the West Bank. The collapse of the August 2000 Camp David talks led to the autumn 2000 resurgence of the intifada (still continuing) and the election of Ariel Sharon, a man hated by many Arabs, as Israel's prime minister. The continuing violence on the part of Palestinians and other Arab-based groups against Israeli forces and civilians and the Israeli economic and military response destroyed the fundamental principle of all peace negotiations – trust. Under such circumstances, the reduction in fighting and the restoration of some semblance of peace and stability, the prerequisites for economic and social development that the region so desperately needs, remain only a hope for all sides.

The Gulf-Eastern Mediterranean rim is also the “home” of four states (a fifth, Sudan, borders the Red Sea) often referred to as “rogues,” a shorthand designation for minor states and their leaders who are seen as implacably opposed to U.S. interests.⁹³ Saddam Hussein “set the standard” in the post-Desert Storm 1990s when nations like Iraq that supported terrorism and were developing weapons of mass destruction took center stage in the thinking of American policy makers.

Rep. Les Aspin, then chairman of the House Armed Services Committee and soon to be Clinton's first defense secretary, identified “regional” aggressors as the main threat to international peace. Aspin created a four point “threat yardstick” by which all regional renegades could be measured:

- willing to commit aggression;
- pursuing nuclear weapons development;
- using or supporting the use of terrorism; and
- employing a totalitarian system of governance.

The term came to be applied to seven countries – Iran, Iraq, Libya, Syria, North Korea, Sudan, and Cuba. The first six were tied to terrorism, with North Korea also being involved in proliferation of missile and nuclear technology.

Together, the military spending of these countries is about four percent of what the United States spends on its military. The hold they exert on the American psyche is the “asymmetric” or terrorist action against U.S. citizens, military forces, or business interests abroad and even at home. But just as such acts never happen in a vacuum – there is a perceived cause – so too preventive measures and multilateral cooperative and punitive actions can

reduce the opportunities for attacks. Again, in large measure, these require diplomatic initiatives supported, where necessary, with military power.

In the Gulf, the GCC states are becoming more open to Iran even as they remain uneasy about the prospects for continued Iranian liberalization.⁹⁴ They are also uneasy about the large cohort of unemployed youths in the region who have taken to the streets in opposition to U.S. military action against Iraq and to Israeli actions against the Palestinians and Israel's chief supporter, the United States. This conflict, together with the continued uncertainty surrounding events in Iran and Iraq's status under even a reformed sanctions regime, will keep roiling events with no clear political, let alone military, resolution for these confrontations on the horizon.

In terms of military involvement in the region, the United States could lower its profile by phasing in a withdrawal of U.S. combat forces from the Multinational Force of Observers (MFO) in the Sinai Desert between Israel and Egypt in consultation with Jerusalem and Cairo.⁹⁵ These troops could be replaced by smaller U.S. detachments operating day/night capable unmanned aerial vehicles to carry out the monitoring mission of the MFO. Furthermore, the United States should end all military subsidies to Egypt and Israel, replacing these with economic assistance. This would eliminate one element of the U.S.-Israeli relationship that can be used to inflame opposition groups.⁹⁶ United States participation in non-NATO multilateral exercises (and even bilateral ones) in the Mediterranean together with increased military-to-military exchanges at command and small unit levels, would maintain America's profile in the region.⁹⁷

The southern "no-fly zone," which does not have any basis in U.N. resolutions, should be terminated as should the bombing of Iraq which, after 10 years, serves no purpose. Under the United Nations, sanctions should be revised and then enforced through interdiction and checkpoints.

Finally, as long as Saddam Hussein refuses to comply with the terms ending the Gulf War, the United States should maintain a low-profile presence in the Gulf. As anti-ship cruise missiles proliferate and increase in range, aircraft carriers in confined spaces such as the Gulf become more vulnerable. Even smaller vessels such as Arleigh Burke-class destroyers may be more vulnerable in littoral areas to fast patrol boats and other surface and subsurface craft.⁹⁸ What will remain a critical consideration is what forces and force levels will be enough to demonstrate continued U.S. commitment to allies in the region without providing extremists a cause around which to rally.

Such dangers can be mitigated in the Gulf. Should Iran resume liberalization, the United States ought to consider resuming normal diplomatic relations. Such a step would recognize Iran's security interests in the region without sacrificing those of the United States, the GCC, and our allies who are more dependent on Gulf petroleum than is the United States.

Recommendations:

- Recognize the effects of the unease among even friendly Muslim nations in the Middle East about the plight of Iraqi citizens, sanctions, no-fly zones, and routine bombing of Iraq; about the basing of U.S. forces in the region; and about the U.S. role in the Israeli-Palestinian conflict.
- Lower the U.S. profile by phasing in a withdrawal from the Sinai observer force in consultation with Egypt and Israel, and ending their military subsidies, replacing the subsidies with economic assistance. Continue multilateral or bilateral exercises in the region.
- Terminate the southern "no-fly zone," and the bombing of Iraq. Re-vise sanctions on Iraq through the United Nations. Use high altitude unmanned aerial vehicles to monitor Iraqi activities in the south and randomly intersperse unmanned aerial vehicles with manned overflights in the northern no-fly zone.
- Maintain a low-profile military presence in the Persian Gulf.
- Consider improving relations with Iran.

Latin America/Caribbean

The predominant international treaty governing the Americas is the Organization of American States (OAS).⁹⁹ Now consisting of 35 members¹⁰⁰ and 47 observers, its purpose is "to strengthen peace and security in the hemisphere; promote representative democracy; ensure the peaceful settlement of disputes among members; provide for common action in the event of aggression; and promote economic, social, and cultural development."

Currently, the United States sees its contribution to achieving these goals largely in terms of one problem – drugs, most of which are produced in Colombia, that find their way into the United States. This orientation toward the source of production and away from the source of the problem – domes-

tic demand for illegal drugs – also justifies expending diplomatic, legal, and military resources in the drug-growing regions of the hemisphere.

Hence, the Clinton administration invested \$1.3 billion in support of Plan Colombia, the effort to eradicate cocaine and heroin production areas; help the Colombian government reassert control of its territory from guerrillas, para-militaries, and drug lords; and aid in redevelopment. Most of this aid is in the form of helicopters and military training by as many as 500 U.S. military personnel.¹⁰¹ President George W. Bush reaffirmed this commitment when Colombian President Andres Pastrana visited Washington Feb. 27, 2001.

Pastrana had hoped for \$2 billion from European nations for social and development programs, but so far the Europeans have contributed only \$280 million. But in a reversal of roles, Europeans were among representatives from 25 nations who monitored a March 8 peace discussion between the main Colombian guerrilla group, the Revolutionary Armed Forces of Colombia (FARC), and Pastrana – a meeting in which the United States did not participate.

In its FY2002 budget, the Bush administration proposes to spend \$731 million for an “Andean Regional Initiative.”¹⁰² This is an extension of Plan Colombia that seeks to address the spill-over into neighboring nations of the anti-guerrilla, anti-narcotics effort in Colombia. This regionalized approach acknowledges that the drug trade, when pressured in one area by crop spraying (which adversely affects the environment and even some legitimate crops) or military sweeps, simply shifts its activities to another. The policy is also a tacit acknowledgment that some Andean democracies remain fragile and susceptible to being undermined by growing transnational criminality, problems that require concerted diplomatic, economic, and law-enforcement aid as well as some military assistance.

Given the intermixing of political insurgencies and drug trafficking in some Latin American nations, U.S. military aid must be measured, appropriate, and carefully directed to conform to limitations set by U.S. law. This at times can be a challenge as the clear distinctions drawn in legislation can become less clear in the field. Insurgents and para-militaries both are involved in aspects of the drug trade and use profits from this trade to finance their operations. Thus military units that have received U.S. equipment and training so they can provide needed security for national police in attacking drug operations may find themselves fighting insurgents or para-militaries. In such cases, as a former commander of U.S. South-

ern Command remarked, ultimately a group is defined by what they do, and what they do will determine in part the extent of military-to-military exchanges between the U.S. and Latin American militaries.

The other significant issue is illegal immigration. Like the drug trade, this falls outside the missions ascribed to military forces (nuclear or conventional war-fighting, peace operations, homeland defense). This fact is acknowledged by the pre-eminent role of the Coast Guard on the high seas and the Border Patrol and Immigration and Naturalization Service on land. The government has established inter-agency task forces which include military personnel operating or maintaining radar facilities (although these are chiefly directed against suspected drug smuggling operations) and at one time dispatched small units to overwatch the border with Mexico. The inappropriate diversion of troops for such a mission was tragically highlighted by the death of a young American boy who was killed by a shot from a Marine patrol on May 20, 1997.¹⁰³

Almost off the Pentagon's radar scope with regard to Latin America and the Caribbean is one of the seven "rogue" states, Cuba. In congressional testimony, Adm. Thomas Wilson, director of the Defense Intelligence Agency, said: "Cuba is...not a strong conventional military threat. But their ability to employ asymmetric tactics...would be significant. They have strong intelligence apparatus, good security, and the potential to disrupt our military through asymmetric tactics [such as] information warfare or computer network attack."¹⁰⁴

This response is noteworthy on two points. Cuba's "potential" for asymmetric attacks is the same as most other nations and can be countered by defensive measures being developed by DoD. Second, there is in Wilson's response no hint of Cuba as an exporter of revolution or as a threat to any other country in the Americas. Indeed, the likelihood of armed conflict with Cuba is considered so low that all the landmines that used to protect the U.S. enclave at Guantanamo Bay have been removed.

The U.S. military strategy for Latin America and the Caribbean should emphasize training and exercises with other military forces. International Military Education and Training should be sustained, including the revamped "School of the Americas."¹⁰⁵ To dampen any tendency towards a renewed arms race in the region, provision of new military weapons and equipment should not involve a significant increase in the level of technological sophistication of one nation over its regional neighbors (current U.S. arms export policy).

Indeed, the greatest demand for U.S. military involvement in the Americas over the foreseeable future may well be support for humanitarian relief efforts in the wake of recurrent natural disasters, particularly in Central America.

Recommendations:

- Fighting the drug trade is not primarily a military mission. Increasing real security and sustainable development in drug-producing countries and cutting demand in the consuming countries is likely to be more effective than a U.S. military role. Similarly, dealing with illegal immigration is also primarily a civilian agency mission.
- Cooperate with, do not ostracize, Cuba. Cuba is not a substantial military threat.
- Emphasize training and exercises with other Latin American and Caribbean military forces.
- Continue to exercise restraint in the arms trade; provide only weapons that do not significantly increase the level of technology of one nation over its regional neighbors.
- Support humanitarian relief efforts, particularly in Central America.
- In the broader hemispheric security arena, increase diplomatic and economic ties with the objective of strengthening respect for democratic institutions in Central and South America, minimizing environmental destruction throughout the region, and helping nations help themselves in reducing poverty.

Africa

Africa is a region that draws the least attention from and has the least influence on the policies of the United States.¹⁰⁶ Few see any traditional U.S. interests at stake on this continent other than its strategic position along the western access route (Suez Canal-Red Sea-Gulf of Aden) to the Indian Ocean and the Persian Gulf from the Mediterranean Sea.

Even the fact that the United States now draws a significant part of its oil from Africa¹⁰⁷ does not seem to raise Africa's relative position in U.S. national security thinking and therefore in U.S. military strategy.¹⁰⁸

Yet since the end of the Cold War, the U.S. military has been deployed more often to Africa than to any other region. It is also in Africa that military

forces have confronted forms of “asymmetric” threats, albeit low-tech ones, that together validate experientially the Marine Corps concept of the “three block war.” The 1992-93 peacekeeping and humanitarian relief support mission in Somalia became, for a few hours in mid-October 1993, a mid-intensity fight for Army Rangers who lost 18 killed.

Africa is a testing ground of another sort, for it challenges the idea that democracy (and free markets) can flourish among a people who, constantly struggling with deadly diseases and starvation, cannot spare time and energy to exercise basic human and political rights that are taken for granted by Western democracies.

In the last half of the 1990s the United States, scarred by events in Somalia, first abstained (as did other nations) from involving itself in Africa’s turmoil and then, after the Rwandan genocide, restricted its activities to short term support of international relief efforts. In fact, Africa has become the region in which the United States seems content to let multinational organizations such as the United Nations, the Economic Community of West African States (ECOWAS), and the South African Development Community (SADC) carry the burden of peace enforcement and peacekeeping.¹⁰⁹

The United States did undertake two initiatives in Africa in the late 1990s. In an effort to minimize U.S. involvement in peace operations (and thereby minimize the risk of U.S. casualties), the Clinton administration in 1997 initiated the African Crisis Response Initiative (ACRI). This program provides training and equipment to troops from selected sub-Saharan African states. The criteria for participation are that governments must be democracies, observe human rights, and be governed by civilians. Some of the countries chosen, which include Nigeria, Senegal, Uganda, Ghana, and Côte d’Ivoire, have very uneven records with regard to these criteria, but they have not been dropped from the program. ACRI has the encouragement of the United Nations insofar as African nations currently provide over 25 percent of the nearly 29,000 military personnel employed on U.N. peacekeeping duty.

The second initiative is the founding in 1999 of the African Center for Strategic Studies. Modeled after other DoD regional schools, it serves as “a forum for African military and civilian leaders to discuss national security policy development, defense economics, and civil-military relations.”¹¹⁰ It has so far held two sessions for African officials whose countries are judged to meet the same criteria as for ACRI.

Recommendations:

- Pay more diplomatic, economic, intelligence, and military attention to Africa, given the number of past deployments there and the likelihood of future conflicts and conflict-related disasters potentially calling for U.S. or other intervention.
- Recognize that a relatively minor intervention can turn into a fiasco if an understanding of the politics and culture of the area are ignored (as in Somalia), but that there *are* opportunities for a small force to provide a disproportionately large benefit in pre-empting low-tech massacres (as in Rwanda).
- Increase support for development of regional capabilities to conduct peace enforcement and peacekeeping.

Non-State Actors

Every piece of land and a good portion of the 70 percent of the Earth's surface that is water is claimed by sovereign nation-states. As in the rest of Nature, nations are prepared to fight for what they regard as their territory.

In Nature and among nations there are ways to fight that are not lethal. Animals mark territories or posture to warn off challengers. Nations deter other nations by credibly holding an opponent at risk of losing something valuable should conflict ensue.

Nature and nations also witness a similar phenomena in the outcast, a young male (usually) driven from the pack or herd to wander alone, trying to survive among the cracks in the territorial claims of its species.¹¹¹ In Nature the outcast tends to avoid confrontation, hunting and only fighting for survival. Among nations, however, the "non-state actor" has other goals. Whether an individual or a group, the non-state actor frequently will lash out at one or more "oppressors" with the intent to wreak as much damage as possible, to call attention to perceived grievances, or to be killed as a "martyr" to a cause.

Another difference between Nature and nations is that the non-state actor (unless a "common" criminal) often is tolerated, if not actively supported, by a nation-state. In such cases, absent establishing material support that is or leads to violations of international law by the country giving refuge, it is difficult for a second nation (often the target) to justify taking military action against the country harboring the outcast without bring on itself international condemnation.¹¹²

In fact, military action against nations in such cases, while perhaps cathartic, is more often counterproductive to efforts to bring to justice the perpetrators of atrocities. Perhaps recognizing this, the U.S. government has made attempts to strengthen international norms against terrorism.¹¹³

- On July 30, 1996 in Paris, ministers of the Group of Eight (the United States, Britain, Canada, France, Germany, Italy, Japan, and Russia) met to endorse 25 explicit ways to enhance cooperation in the fight against terrorism and transnational crime.
- Terrorism and international crime were subjects taken up at the May 1998 U.S.-EU Summit in the United Kingdom and at the April 1999 50th Anniversary of NATO celebration in Washington.
- In October 1999 the United Nations unanimously passed resolution 1267, requiring the Taliban to turn over Osama bin Ladin to a country where he will be arrested and brought to justice. This resolution imposed international sanctions against the Taliban which continue to this day. In the same month, the United States released its bi-annual list of terrorist organizations. The 1999 report listed 27 groups, down from 30 in 1997.
- Between January and August 2000, the United States held formal bilateral counterterrorism discussions with India, Spain, Russia, and Canada.

Moreover, according to the State Department, the United States has ratified all 10 counterterrorism conventions in force at the end of 1997¹¹⁴ and signed the International Convention for the Suppression of Terrorist Bombing on Jan.12, 1998 – the day it opened for signature. Finally, on the diplomatic front, the United States has negotiated mutual legal assistance treaties with a number of governments as a basis for faster and more effective legal cooperation, and is expanding extradition arrangements with other nations.

In addition to working within multilateral fora, the United States needs to continue its informal yet very significant bilateral efforts to control proliferation, particularly of nuclear material and knowledge. This point was forcefully argued as recently as Mar. 28, 2001 by former Sen. Howard Baker, co-chair of the Department of Energy's Nonproliferation Program Russian Task Force. Baker told the Senate Foreign Relations Committee: "[T]here aren't any issues of national defense that are more important in my view, short of ultimate survival of the nation, than seeing that we reduce the threat of

proliferation; and the greatest threat of proliferation is...existing sources of nuclear material.”¹¹⁵

Perhaps most significantly, U.S. counterterrorism policy¹¹⁶ pointedly omits any mention of military action. “Justice” is a law enforcement, not a military concept, although in some circumstances (as in aircraft or ship hijackings) elite military forces might be used to gain control of a situation.

Recommendations:

- Military action against nations, while perhaps cathartic, is more often counterproductive to efforts to root out and bring to justice the perpetrators of atrocities. Absent proof of wrongdoing, it is difficult for a target nation to justify initiating military action against a country harboring a terrorist without bring international condemnation on itself.
- In addition to working within multilateral fora, the United States needs to continue its informal yet very significant bilateral efforts to control proliferation, particularly of nuclear material and knowledge.

IV. A Responsive, Balanced Force

FORCE STRUCTURE PRIORITIES

In recent years, defense strategy debates have often degenerated into arguments over which new weapons are needed most. This has been encouraged by the popularity of the “revolution in military affairs” (RMA) concept in defense circles. The RMA view holds that unprecedented change in the capabilities of high-tech hardware, computers, and electronics can change the dynamics of warfare itself – that the United States can develop a slate of new hardware able to see, identify, and destroy all the opposing vehicles, vessels, missiles, and aircraft it needs to, anywhere on the battlefield, often from long distances.

As noted earlier, the Pentagon’s doctrinal direction has been changing along RMA lines, but much more slowly in terms of overall strategy. In doctrine, the Air Force has been emphasizing long-range strike capabilities. And while it has long used the term aerospace, the interrelationship between air power and space power has been receiving increased emphasis,¹¹⁷ spurred in part by missile defense testing and the January 2001 report of the congressionally-created Commission to Assess United States National Security Space Management and Organization, chaired, until December 2000, by now Defense Secretary Donald Rumsfeld. The Navy emphasizes its role in fighting along and controlling the littoral areas (as opposed to deep water ocean areas) and supporting the Marine Corps who envision striking much deeper inland than in the past. For its part, the Army is trying to reshape its force structure, in part for faster deployability, to give substance to its long-standing contention that it is truly a strategic force.

Media reports concerning the “Rumsfeld review” and the 2001 Quadrennial Defense Review point to a drive by the Bush administration to push the Pentagon faster into “transformation.” This is reflected in the intense effort

to move more fully into space: protecting U.S. assets while being able to deny others the use of their space capabilities and developing missile defense against long-range threats.

The RMA model of war is most relevant to high-tech global war and to major theater wars. It is not very useful for SSCs such as complex peacekeeping interventions where the opponents may not have many vehicles at which to shoot, where it may not even be clear who the opponents are, and where an adversary is likely to fight back with asymmetric warfare.

In accordance with its emphasis on improving preparations for SSCs, the strategy and forces proposed here focus on elements – people and doctrine – most relevant to the numerous messy conflicts that will be fought by humans rather than machines. The discussion does not delve extensively into the merits of the various new high-tech weapons and equipment that are the focus of much attention in the defense establishment and reportedly in Secretary Rumsfeld’s defense review, such as satellite and space hardware, communications gear, unmanned aerial vehicles, and precision-guided munitions. This strategy emphasizes that the United States already has overwhelmingly dominant military capabilities on the battlefields of the major theater wars for which the new hardware is most relevant. (The United States may not be “dominant” in missile wars in the short- or medium-term future. For reasons discussed previously (p.69), this strategy does not prioritize national missile defense.) The strategy also assesses that warning time is such that the United States can keep its technological lead with a moderate effort until a new hostile superpower appears on the horizon.

The strategy prioritizes new efforts on the conflicts where the United States certainly does not have overwhelming dominance – smaller-scale contingencies. For such operations, some high-tech hardware can even be a hindrance.¹¹⁸ For example, ever-faster communications equipment is increasingly able to put ever-higher levels of authority “in the picture” with visual imagery from the scene of a deployment. But in a hypothetical tense stand-off between ethnic mobs, would it be best for a U.S. soldier on the ground to have bureaucrats from Washington telling him what to do through an earphone in real time? The Marine Corps has instead focused on the human element – training Marines to be “strategic corporals” able to handle complex situations by themselves when necessary. As Gen. Charles Krulak put it:

The inescapable lesson of Somalia and of other recent operations, whether humanitarian assistance, peacekeeping, or traditional warfighting, is that their outcome may hinge on decisions made by small unit leaders, and by actions taken at the lowest level. . . . Most importantly, these missions will require them to confidently make well-reasoned and independent decisions under extreme stress – decisions that will likely be subject to the harsh scrutiny of both the media and the court of public opinion. In many cases, the individual Marine will be the most conspicuous symbol of American foreign policy and will potentially influence not only the immediate tactical situation, but the operational and strategic levels as well. His actions, therefore, will directly impact the outcome of the larger operation; and he will become, as the title of this article suggests – the Strategic Corporal.¹¹⁹

PRIORITIES FOR THE FORCE

- *People*: fix personnel problems, adequately fund military readiness and “quality of life.”
- *Doctrine and training*: adequately fund training and refine doctrine for third- and fourth-generation warfare and for joint operations with other nations, civilian agencies, international bodies, and non-governmental organizations.
- *Hardware*: improve mobility with airlift, sealift, overseas facility infrastructure, and force transformation; develop equipment for interoperability with allies; prioritize development of human intelligence capabilities (and ability to process data into “understanding”) over new satellite or other technical data collection and communication systems.
- *Other national security tools*: adequately fund other components of national security, including the State Department, economic aid programs, and agencies that deal with transnational issues.

The United States is already the world leader in collection and communication of raw data and information. The area that needs attention is moving from data to “knowledge” and then to “understanding.”

This is not to suggest that new technology has no role to play – research, development, and selected procurement should continue at a moderate pace – merely that people and doctrine issues need attention and resourcing more urgently. The chart on the preceding page summarizes some of the higher priority areas proposed for this strategy and force structure.

The following sections look at each of the components of an overall “force structure” – people, units, weapons, command structures, and industry.

PEOPLE

This report emphasizes the importance of “people” over “units” and “hardware.” A force structure cannot be complete without attention to the people that make it up and to the fundamental reforms needed in organization and personnel procedures. This section begins not with lists of units, but with a brief discussion of some of the key issues affecting people in the force. These address the core of force effectiveness – why people fight, why they polish their fighting skills, why they refuse to quit until they have won.

The focus on people characterizes a school of military thought that reaches back 2,500 years to Sun Tzu.¹²⁰ More recently, John Boyd expanded the discussion. In his extensive strategic analyses, Boyd considered military *forces*, that is, combinations of people, ideas, and hardware. In this scheme, “people” includes all the normal personnel issues of selection, retention, and promotion, as well as the various “moral” forces that hold units together during the stress of combat. “Ideas” include both doctrine and those concepts that are widely shared but are not written down.

Not that weapons are unimportant. But Boyd’s historical studies have shown that time and again, the smaller or less technologically advanced force could win, whereas there are relatively few instances in which technology or size alone was able to overcome deficiencies in people or ideas. Thus Boyd would insist on “People, ideas, and hardware – *in that order!*”¹²¹

Neither Sun Tzu nor Boyd (even though he spent the majority of his Air Force career either flying or developing fighter aircraft) rated technology highly. The likely reason is that it is very difficult to find historical support for holding technology in such esteem. There are simply too many cases where the

side with the higher technology lost. Apart from the recent case of Vietnam, it often surprises people to learn that in World War II, the Germans tended to win when their technology lagged behind the Allies (as during the 1940 blitzkrieg against France) and lose during the era of their wonder weapons. German V-2s rained down on London as Allied tanks were rolling across Europe. Fifty years later, Somali tribesmen blasted high-tech U.S. Blackhawks out of the Mogadishu skies with weapons that would have been quite familiar to the Germans of the blitzkrieg.¹²²

To place technology in its proper place under this approach, one must stay with the concept of a military force – people, ideas, hardware, in that order. Technology can make a difference only if it is integrated into this scheme. That is, given a well-trained, cohesive, motivated force, technology appropriately tested and evolved can provide them with better tools to do the job. Neither Sun Tzu nor Boyd denigrated the role of technology, but neither would they have given it the primary role in determining the effectiveness of a military force.¹²³ Even if the U.S. military were to leave its current hardware plans intact and just implemented reforms with people and strategy, it would likely make major improvements in the effectiveness of forces.

Although people issues are not as glamorous as new ships and fighters, and do not provide the opportunities for the political engineering and simple pork-barreling inherent in large weapons programs, no credible strategist argues that they are not the heart and soul of an effective military force.¹²⁴ While all the services have problems, the Army's have been reported most widely, probably because the current Army personnel system, which was created in the late 1940s to mobilize massive armies to fight a war with the Soviet Union, has not responded rapidly enough to deal with flare-ups like Kosovo. Personnel are shuffled constantly so that cohesion (the single largest component of force effectiveness) is difficult. When forces do reach the field, they lack the cohesion that would come from years of training together and the trust this engenders.¹²⁵ These virtues are the foundation of success for any military force.

The Army is by no means alone in suffering personnel and leadership problems. The discussion below merely cites it as one example among the various services – a particularly important one if land forces are called upon to be involved in complex intra-state conflicts and peacekeeping operations.

Comments from Army top-performing junior officers reinforce an impression of increasing mistrust and lack of cohesion:

- “The Army’s senior leadership has a definite credibility problem. There is a lack of trust.”
- “Until an officer corps that possesses impeccable character and leads by inspiration is developed, you will continue to see a mass departure of junior officers.”
- “Even though we have completed the drawdown, I still feel that many officers are so worried about their careers that they still back stab. Again, I think this is what many did to get through the drawdown. It is now ingrained in these officers.”
- “Senior officers are willing to throw us under a bus if it would advance their careers.”
- “We talk about initiative and agility, but we reward officers who follow a rigidly prescribed path to success; being innovative will get you fired unless your results are so outstanding that your boss can’t slam you. Forget about taking risk; we don’t reward risk takers.”¹²⁶

Perhaps the best single indicator of problems in the personnel system is the rate at which the Army’s high-achievers are turning down chances for a general’s star. By the time they qualify for retirement, at 20 years service, many of the Army’s best are declining the opportunity for the command slots that would qualify them for senior rank. As the chart below shows, these declinations have escalated to unprecedented levels. The numbers are revealing because these officers have devoted their entire working lives to the Army, and by virtue of their selection to this level of command, had a legitimate opportunity to achieve the pinnacle of their profession, general officer rank, in due course.

Throughout history, cohesion/trust is the one constant among successful, highly effective units. It has been called the “lubricant for friction” in military operations.¹²⁸ As ancient a strategist as Sun Tzu noted that the way to effective military operations winds through unit cohesion:

Those whose upper and lower ranks have the same desire are victorious.

COMMAND DECLINATIONS IN THE ARMY ¹²⁷										
	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001 year-to-date
Colonel	1	1	?	1	9	4	14	12	23	7
Lt. Colonel	?	?	1	2	1	15	22	39	32	26

Therefore good warriors seek effectiveness in battle from the force of momentum, not from individual people.¹²⁹

Cohesion works because it creates and in turn depends on *trust*.¹³⁰ The first item in any defense review should be to stop doing those things that erode cohesion and mutual trust. In his epochal study, *The Revolution in Human Affairs*,¹³¹ U.S. Army Maj. Donald Vandergriff describes specific changes that could be made, paraphrased in the following chart.

PERSONNEL REFORMS

- Pass a new Defense Officer Personnel Management Act.
 - Replace the “up-or-out” promotion system with an “up-or-stay” system.
 - Reduce the size of the officer corps in the land forces to 5 percent over 10 years.
 - Replace the “all or nothing” retirement system with a “Vest at 10, Collect at 55” approach.
- Design the land forces structure around a regimental system (for cohesion). Replace the individual personnel system with a unit personnel system. Revolve personnel policies around a unit system, and move to an Army force structure that can be supported by a unit replacement system.
 - Flatten the force structure, eliminating many headquarters above brigade.
 - Integrate reserve and active components into each regiment.
- Empower leaders to exercise more initiative without excessive fear of hurting their careers.
- Change the personnel management system.
 - Reform accessions and entry.
 - Revise the education system, where mid-level education is conducted earlier in an officer’s career, as well as moving to an education system that emphasizes the art of war, including the study of military history.
 - Decentralize management and promotion policies. Revise the officer evaluation system to involve a narrative officer evaluation report on character.

The current dysfunctional military personnel policies have long roots in U.S. history and society. Although they may have been suitable to U.S. security challenges in the past, including the Cold War and preparations for global war against another superpower, they are no longer well adapted to the situation the nation faces in the early 21st century. Three closely related practices are at the heart of the current personnel problems: the mobilization system, the individual replacement system, and the “up-or-out” officer system.¹³²

The Mobilization System

Origins

The mobilization system, developed in the early 19th century under Secretary of War John Calhoun, had earlier roots in the Minuteman system of the colonial and revolutionary periods. The Calhoun strategy envisioned mobilization of militia to supplement a small regular force if land forces were even needed behind the defense provided by the Navy. In the early 20th century, Secretary of War Elihu Root slightly revised the concept to use conscripts in place of militia, but as Maj. Vandergriff notes, “the basic idea has underlain U.S. military policy for more than 180 years.”¹³³ In parallel with the enlisted ranks, in times of war the officer corps would be greatly expanded with non-professionals.

It was recognized that this system would not produce an initially tactically effective force. The gap in capability would have to be filled by hardware – massive production of war material by industry similarly converted from peacetime occupations. In this way, an amateur force buttressed by technology would be able to match a more professional force.

This approach helped shape the doctrine of winning by attrition – gradually wearing down the enemy through application of overwhelming numbers of personnel and weapons. This was exactly the method used to defeat the tactically more effective German Army in World War II. The U.S. military applied this approach so fully in the U.S. Civil War, World Wars I and II, Korea, Vietnam, and even Operation Desert Storm that it has become known as “The American Way of War.”

Problems

- Although it produced victory in cases such as World War II, this second-generation warfare strategy tends to be extremely destructive and

relatively costly in casualties. Notably, the strategy produced failure in Vietnam, which was a guerrilla war during the key phases of U.S. involvement. It is ill-suited to the smaller-scale, rapidly-arising operations likely to occur in the next few decades.

- The complexity of modern weapons means they cannot be operated well with little training nor be produced in large numbers rapidly. Wars and smaller-scale operations are more likely to be “come as you are” affairs that do not leave time for a long mobilization build-up.
- Relying on hardware to make up for other deficiencies engenders technological arms races, and pursuit of ever more complex weapons and equipment. Complex weapons engender high costs, equipment shortages, low readiness, and extensive logistical and support tails. For example, the Defense Department now has nearly 300,000 people working in acquisition, compared to 42,000 in combat arms battalions.¹³⁴
- The mobilization system encourages ponderous forces, as illustrated by the Gulf War and Army operations in the war with Serbia over Kosovo. The 200 year-old focus on a corps/division structure now promotes excessive layers of bureaucracy and provides make-work for the excessively large officer corps.¹³⁵

Reforms

The approach of mobilizing the nation, including large numbers of civilians for the enlisted ranks and the officer corps, can safely be replaced with a “come as you are” plan until such time as a challenge from a new global superpower or alliance arises. If the mobilization system, which drives other personnel policies, is changed, the way will be paved for transformation of the professional military to fight third- and fourth-generation warfare, which relies less on sheer numbers, mass, and destructive power and more on agility and maneuver.

Individual Replacement System

Origins

The Individual Replacement System (IRS) shuttles individuals in and out of units (whether as peacetime rotations or as casualties in war) rather than keeping a group together in a unit. Established in 1912, the system fit with two prominent elements of American society and economy – the long-held aversion to standing, professional armies that were more traditional in Europe,

and the rise of assembly-line industry. Relying on a large conscript army rather than a smaller professional force encouraged the development of the individual replacement system – more flexibility, from a personnel management perspective, is available to handle large influxes of conscripts using individual replacement. Individual replacement also paralleled the application of assembly-line techniques in industry, in which workers performing one function could easily be replaced, as could machines on the assembly line, or for that matter, parts on the product.

Problems

- The familiar drawbacks of frequent personnel turnover – “churning” – for organizations and group activities are particularly crippling in the complex, life-or-death operations of military units, which require rapid and flexible action. As Maj. Vandergriff notes, the Individual Replacement System “disregards the power of unit cohesion, the strength of teams, and trust built up through shared, common experiences.”¹³⁶ Notably, the once-in-vogue derogatory views of assembly-line workers have been replaced in more successful businesses with systems that empower and value the individual worker and often use less-specialized team systems.¹³⁷

Reforms

The Individual Replacement System should be replaced by a regimental “unit replacement” system in which regimental headquarters would manage battalions whose personnel stayed together to a much higher degree, rotating through training and missions as a group. Although in high-casualty combat the size of a unit in a unit replacement model decreases more than a unit in an individual replacement system, superior cohesion usually produces a more effective unit. The phenomenon has been noted as far back as the American Civil War: “During the war, units at 30 percent of their original strength of 1000 officers and men were very effective, even more so with their wealth of experience.”¹³⁸ The “maneuver warfare” required to win in third- and fourth-generation warfare, and the particularly difficult urban combat that is more likely in the future, will require an especially high degree of unit cohesion. Maneuver warfare has been characterized as:

... high tempo war; fluid war that has no defined fronts or formations; decentralized armies where troops act on their own with high initiative as opposed to centralized command structures where troops ask permission and wait for orders; ... war where soldiers act on judgment not on rules; war without rules; war that seeks to penetrate the enemy rather than push opposing lines backwards and forwards; war waged by a cohesive team that is like a family or tribe with a common culture and common outlook.¹³⁹

Benefits of a unit replacement system would include:

- greater cohesion from working together longer as a unit;
- greater ability to conduct urban combat and maneuver warfare using agility and high tempo instead of mass;
- reduced problems from high personnel turnover; and
- net increase in ready units available for immediate deployment.

Up-or-Out

Origins

The “up-or-out” policy forces officers out of the active services if they are not continually promoted. This policy again fit with the mobilization scheme of bringing in large numbers of lightly trained personnel to be officers in time of major war. The up-or-out system sends more individuals through the military, at the cost of greater experience. Again the system has democratic overtones in allowing larger numbers to enter the officer corps and compete for promotion longer. The system was codified in the 1947 Officer Personnel Act under the influence of George Marshall, but it had antecedents in the Navy as early as World War I.

Problems

- The obvious drawback is that an officer may be very good at one rank, but his or her talents at that occupation are lost as soon as the officer (appropriately) is not promoted and is forced out. Similarly, officers may seek and be granted promotion higher than their interests or capabilities warrant in order to continue their military careers.

- The system encourages a bloated officer corps to provide a large pool for promotion. Even after the end of the Cold War, the share of officers in the force has been rising and is far higher than the officer ratio in other effective military forces. For example, in 1945, the number of Army generals per active Army division was 14. In 1986, during the Cold War, the Army had 24 generals per division. In 1998, there were 30 generals per division. In the Navy, there were 130 Navy ships per admiral at the end of WWII. In 1998, there was an average of only three ships for every two admirals.¹⁴⁰
- In combination with the “all or nothing” retirement system which provided no benefits unless 20 years’ service was achieved, the up-or-out system created a cut throat competition, and a “zero defect” mentality that has discouraged initiative and corroded cohesion.¹⁴¹

Reforms

The officer promotion system should no longer force out competent officers solely because they have not been or do not wish to be promoted on a rigid schedule.¹⁴² To reduce career anxiety and excessive competition, partial retirement benefits should be available prior to the end of a service career, rather than “all-or-nothing” at 20 years. Without the need to shuttle through large numbers of officers, the officer corps can be substantially reduced in size. Complex new combat and non-combat missions require new emphases in selection and preparation of officers:

Making military education relevant to future war, with its myriad of changes and challenges, will not be easy. Already, the missions of military operations other than war (MOOTW) and its equally difficult adjunct, peacekeeping, demand an officer who understands the political and strategic implications of his actions (particularly in light of the impact of real-time media). With rules of engagement (ROE) that impose limitations on his operational and tactical capabilities, the officer of the next century faces unique challenges.¹⁴³

Promotion and training should be revised to focus less on centralized reviews of checked boxes on evaluation forms and more on first-hand supervisor evaluations and force-on-force “free-play” exercises.¹⁴⁴ The Marine Corps has led the way with its revision of officer education and training in the late 1980s.

Benefits of the changes would include:

- more time in jobs, enabling officers to establish better cohesion and trust with subordinates, gain more experience in particular roles, and have more time to learn the art of war;
- reduction of cutthroat career competition, allowing officers to focus more on war-fighting and less on career advancement;
- improved development of officers suited to maneuver warfare;
- increased support for innovators and warrior leaders;
- improved morale, less career anxiety; and
- reduced make-work, less centralization, smaller staffs, and smaller support bureaucracies as the result of a smaller officer corps.

In addition to these systemic problems, frustration with poor readiness, quality of life problems, and lack of confidence in the leadership has led to well-publicized difficulties with retention of personnel, and presumably recruitment. These morale-affecting issues are examined at greater length in a background paper, *Assessment of Key Military Personnel and Mobility Issues*.¹⁴⁵

Transforming the personnel system in ways such as these so that it improves unit cohesion and promotes officers best able to conduct new, more complex and subtle operations will best prepare the military to meet the third- and fourth-generation warfare challenges of the 21st century.

Having put personnel issues at the forefront of the proposed force structure, what forces – types and numbers of units and weaponry – might be the best tools for a force composed of such cohesive, bold, and innovative personnel?

UNITS

Forces for the Future

The following chart indicates directions for transformation for types of forces. **The “Current” column does *not* indicate that a type of unit or its capabilities listed there would be eliminated from the force, merely that some portion of the units would be transformed.** These capabilities continue to deter would-be aggressors. The suggestion is that the United States enjoys such “overmatch” in these areas, and the potential exists for increased allied effort, that deterrence can continue with moderately lower levels of force in these strong suits and a slower pace of technology development. “Current” and “Future”

PRIORITIES FOR FORCE TRANSFORMATION		
Strategic Principle or Threat Assessment	Current Strengths	Future Emphases
Low incidence of intense combat threat. Potential for increased use of allies. Improved mobility.	heavy ground forces	medium ground forces
Low open-ocean threat. Interventions likely close to coasts. Provides access without relying on bases.	blue-water sea forces	littoral sea forces
Focus on lower-intensity operations, peace enforcement, humanitarian missions.	heavy ground forces	medium and light ground forces, special operations forces
Improved mobility. Trimmed forward deployment. Reduced nuclear threat from Russia.	nuclear bomber air forces	airlift air forces
Higher threat to ground troops than to U.S. air supremacy. Existing U.S. air superiority capabilities greatly overmatch others.	air superiority air forces	close air support and interdiction air forces
Increased warning time for “traditional conventional threat” after end of Cold War.	heavy active forces at states of very high readiness	reserve forces
Greater threat from use of weapons of mass destruction against U.S. troops intervening overseas than from deliberate major nuclear attack against the United States.	offensive nuclear forces	defensive units against weapons of mass destruction (WMD)
Threats more likely to be asymmetrical than high-tech. End of the arms race means full fielding of new weapons not required. Smaller force structure reduces numbers of weapons needed.	high-volume production of new high-end weapons	R&D of new high-end weapons
Absence of high-tech arms race. Advances in commercial electronics, software, etc. far faster than in military hardware (aircraft, vehicle, ship “platforms”). U.S. forces still have “overmatch” with potential opponents in symmetric war.	high-volume production of new high-end weapons	production of existing weapons, with upgrades
Improve joint capabilities.	services’ decision-making powers	Joint Staff & commander in chief (CINC) decision-making powers

are meant as a broad guide to forces and programs that would receive more, or less, *priority* in attention, transformation, and usually, funding.

Force Enumeration

The following chart presents the proposed alterations to the force structure of the four services. As noted earlier, these changes envision a corresponding change in war-fighting doctrine that moves away from the ponderous and logistics-heavy formations of the 20th century to a more mobile, agile, responsive force. Such a force is made possible by incorporating lighter-weight equipment; better command, control, and communications networks; and improved intelligence, surveillance, and reconnaissance – all designed to allow U.S. commanders to get inside an opponent’s observation-orientation-decision-action (OODA) cycle.¹⁴⁶

Jointness. Another critical change required for these force structure changes is less inter-service parochialism and more true jointness in thinking, planning, and executing missions, whether forward presence or contingency response. For example, carrier battle groups and air expeditionary forces should be regarded as essentially interchangeable for contingencies requiring air power. Carrier battle groups or amphibious ready groups – or even naval surface action groups – would suffice for the proposed irregularly conducted presence missions. With proper air transport, Army units could sometimes perform non-combatant evacuations in lieu of always attempting to position amphibious ready groups for this mission.

The Pentagon is relatively skilled at the basic task of creating joint task forces and force packaging – creating the right mix of units to perform a given mission. The proposed force structure changes would make this skill an even greater asset by emphasizing the need to think more creatively and evaluate better the capabilities each service contributes to joint operations.

A “Full-Spectrum” Force. The force proposed below maintains a U.S. capability to conduct the full spectrum of military operations.

- It maintains a substantial capability at the low end of the spectrum with ground forces and Special Operations Forces able to conduct a range of missions starting with peacetime training and presence. Special Operations Forces would also strengthen their ability to supplement long-range airpower in attacks on weapon development, deployment, or launch sites,

and command structures if necessary to prevent weapons of mass destruction (WMD) **attacks on the homeland** or abroad.

- Somewhat heavier forces, including the mix of ground, air, and sea capabilities in the Marine Corps, would cover **smaller-scale contingencies** including humanitarian, peacekeeping, and peace enforcement operations.
- The proposed force continues the Army trend of moving toward medium-weight forces and away from light and heavy forces. Smaller but still very powerful medium-weight forces for **major theater wars** would remain, and a robust heavy capability would be maintained in a “strategic reserve” comprised of forces in the active and reserve components. These forces would preserve combat skills in case of possible **future peer challenges** from a superpower able to conduct large force-on-force armored combat operations. In addition, research and development of new weapon and equipment technology would continue, in order to preserve a long-run defense industrial base capable of matching future challenges.
- The proposed force would maintain nuclear forces sufficient to deter a **nuclear war** in the invulnerable sea-based leg of the nuclear triad, in combination with renewed efforts to reduce stockpiles of nuclear weapons around the world.

The proposed reduction in ground forces in the Army is based not on a preference for airpower as the chief tool of intervention – there is often no substitute for “boots on the ground” – but primarily on an assessment of reduced need for heavy force-on-force units. (Note the proposed force preserves most of the Marine Corps’ extensive ground forces, and also calls for reduction in air forces.) The proposed force does not abandon ground force engagement or intervention in favor of long-range bombing or cruise missile attacks.

The stress and strain on the force in executing today’s missions and deployments is not uniform across types of units, but is concentrated on certain types of forces, such as the reserve units that are called on to repeatedly deploy to peacekeeping operations. This force proposal addresses readiness problems in part by reducing and transforming heavy units, which consume resources that could be used for training, parts, fuel, and other components of readiness in more frequently-used units.

SUMMARY OF PROPOSED FORCE STRUCTURE				
		Existing Force (end of Fiscal Year 2001)	Proposed Change	Proposed Force
ARMY	Active Corps	4	-1	3
	Divisions (Active)	10	-3	7
	active heavy divisions*	6	-2	4
	active light divisions*	4	-1	3
	Active Armored Cavalry Regiments	2	-2	0
	Attack Aviation brigades	14	-4	10
	National Guard Divisions			
	heavy	5	-3	2
	light	1	-1	0
	support	2	-2	0
	Enhanced Separate	15	-7	8
	Brigades (National Guard)			
	heavy	8	-0	8
	light	7	-7	0
	Separate Brigades (National Guard)	3	-0	3
NAVY	Aircraft Carriers	12	-3	9
	Air Wings (Active/Reserve)	10/1	-3/-0	7/1
	Amphibious Ready Groups	12	-2	10
	Attack Submarines	55	-6	49
	Surface Combatants (Active/Reserve)	108/8	-9/-0	99/8
AIR FORCE	Active Fighter Wings	12.6	-3.6	9
	Reserve Component Fighter Wings	7+	-0	7+
	Reserve Component Air Defense Squadrons	4 [0.8 wings]	-4	0
	Bombers (Total Inventory)	208 † (94 B-52, 93 B-1, 21 B-2)	-12 B-52	196
MARINE CORPS	Marine Expeditionary Forces	3	-0	3
	Divisions (Active/Reserve)	3/1	-0	3/1
	Air Wings (Active/Reserve)	3/1	-0	3/1
NUCLEAR	Land-based ICBMs	550	-550	0
	Ballistic Missile Submarines/ Sub-launched Missiles	18/432	-8/-192	10/240
	Nuclear Bombers	97 †	-12 B-52††	0††
<p>* These active divisions (except for the airborne / air assault) would eventually convert to medium-weight.</p> <p>† The 208 heavy bomber figure includes the 97 nuclear bombers.</p> <p>†† 12 nuclear B-52s dropped, all others converted to conventional role.</p>				

The strategy focuses on flexibility and joint international action, so the proposed force is deliberately not described as being able to fight X number of major theater wars and Y number of SSCs by itself. The point is to create flexible force packages according to circumstances, such that with the proposed increase in allied capabilities, a U.S. and multilateral force could conduct and win several engagements and deployments at once. If necessary, with increased mobility, forces could be redeployed from lower-priority contingencies to higher-priority conflicts.

Rationales for Selected Forces

Aside from the strategic rationales outlined previously, other specific factors affect some of the force proposals discussed below.

Corps and Divisions

The strategy envisions eventually pulling the remaining two divisions out of Europe and dropping them from the force, on the grounds of the disappearance of the heavy force-on-force threat in Europe and a future improvement in the capabilities of NATO allies (see chart on European Rapid Reaction Force plans, (p. 84). When the heavy divisions are gone, the corps headquarters and associated units that support the divisions can be dropped.

If the situation on the Korean peninsula continues to improve and South Korea takes on a greater role in its own defense, withdrawing the division from Korea can be pursued in consultation with the South Korean government.

The reduction of the light division comes from merging the capabilities of the airborne and air assault divisions. The full division (three brigades) of airborne parachutists is currently based on a three-for-one rotation to keep one brigade ready for rapid deployment at any one time. However, the need for parachute drops in brigade strength is forecast as quite unlikely for peacekeeping operations. More importantly, parachute drops in higher-intensity combat scenarios on well-defended positions are far too vulnerable and casualties would likely be at unacceptable levels.¹⁴⁷ Airborne capability would not be eliminated, however. One brigade of airborne parachutists in the airborne division, plus the airborne brigade that will absorb the battalion that is part of the Southern European Task Force (SETAF), plus the parachute-capable Rangers, would be preserved. The airborne brigade would combine with the air assault (helicopter-mobile infantry and attack helicopters) to provide a flexible, mixed force.

Currently divisions are regarded as the smallest units that include all the different elements of a “combined arms” force. Combat support (e.g., artillery) and combat service support (e.g., logistics) units are integral to a division to support its brigades. The proposed force endorses the view that divisions are too large and inflexible for modern war. Developments in technology for weapons, communication, and intelligence equipment should permit a move to more mobile, agile, smaller forces that can concentrate and disperse more rapidly than before. A new brigade-centered force would permit support units to be moved up to corps headquarters and allocated more flexibly in support of brigades.

Given the greater distances over which combat service and especially combat service support must be provided, it may well be necessary to move some support units back into the active force structure. However, with greater reliance on through-put to the maneuver units and a reduction in the need to move and stockpile large quantities of ammunition, fuel, and other supplies, an opportunity exists to restructure and redirect active force support units to correspond with the changes envisioned for the maneuver units.

Armored Cavalry Regiments (ACRs)

These brigades were tasked in the Cold War with armored combat reconnaissance. The planned medium-weight Army divisions, however, are designed to handle more reconnaissance themselves. The Armored Cavalry Regiments include a heavy armored component with M-1 tanks, which they would be losing anyway as the Army moves to medium forces.

Attack Aviation Brigades

One each of these formations of attack helicopters were attached to divisions and corps in Europe. The removal of the two divisions and corps from Europe allows dropping three aviation brigades. An additional brigade is dropped in accord with the other reductions to the heavy forces.

National Guard Divisions

These reserve forces are not integrated into the major war-fighting plans, so several of the heavy divisions can safely be dropped. The force would retain two National Guard divisions (that would eventually convert to medium-weight forces) and the eight heavy Enhanced Separate Brigades in a “strategic reserve.”

The long duration of many peacekeeping operations and their occasional rapid start suggests that light forces are better located in the active component. Following the Vietnam War, reserve forces were deliberately integrated into deployment plans with a goal of making it more difficult to enter a major war without mobilizing the reserves and hence winning (or losing) the approval of the U.S. public. This model is no longer appropriate for the numerous smaller peacekeeping and humanitarian operations the military is being called on to perform.

Aircraft Carrier Battle Groups (CVBGs)

European allies are developing a more robust carrier capability. Britain plans two new mid-size carriers, France has one nuclear-powered carrier with an option on another, and Italy has a mid-size carrier under construction. (Italy also has a smaller carrier, as does Spain.)¹⁴⁸ Although not as capable as U.S. supercarriers, these carriers would be able to handle a variety of smaller-scale operations in the Mediterranean, which would allow dropping the current U.S. plans to always have a carrier operational there. The United States would therefore not always have the capability to act unilaterally, but an emphasis of this strategy is acting multilaterally and reducing divergence of interests with close allies so that the United States is forced to act alone as little as possible. With the rotation used by the Navy to keep one carrier on station, this means that a total of three carriers would no longer be needed. A reduction of three carrier battle groups enables a concordant reduction of three air wings, nine surface combatants (cruisers, destroyers), and six attack submarines.

Amphibious Ready Groups (ARGs)

European allies are also developing an improved amphibious operation capability. The British and Dutch have worked particularly closely in this area, and France, Italy, and Spain intend to increase their participation.¹⁴⁹ This would permit a reduction in the current requirement for one amphibious ready group, and with rotation a total of two. (A drop of three might be feasible but is not called for due to the general utility of these forces for likely contingencies. For the same reason, no reduction in the number of Marine divisions or expeditionary forces is called for.)

Fighter Wings

In accord with the reduction in divisions, the number of active fighter wings is cut from 12.6 equivalents to 9, with two removed from the force in Europe. Fighter units are particularly well suited to reserve forces – many reserve pilots are commercial pilots who can maintain the additional skills needed for combat proficiency through reserve training, so all the reserve wings would be preserved.

Bombers

The 12 B-52s held ready for nuclear missions would be retired from the force.

Marine Corps

The Marine Corps maintains combined arms forces including infantry, heavy armor, fixed-wing and helicopter attack aviation, transport helicopters, artillery, and the ships in the Navy to deploy, supply, and provide combat support for them. These flexible capabilities, in combination with the advanced state of their doctrine and thinking about new forms of warfare, make them well-suited for smaller-scale contingencies.

They are less appropriate for their former mission of assaulting defended beaches. The proliferation of precision-guided munitions has made large amphibious assault ships crammed with fuel, explosives, and Marines vulnerable when close to shore. With a few hits, an assault ship could be knocked out of a landing operation. Landing craft and helicopters up against modern firepower are similarly vulnerable in an assault against well-defended positions.

Although the stereotypical across-the-beach Marine mission is less relevant today, no reductions in Marine divisions are called for because of their utility for the more prevalent smaller-scale contingencies.

Nuclear Forces

As the most invulnerable leg of the nuclear triad, a force of ballistic missile submarines, albeit at lower levels than today's force, is all that is preserved of nuclear forces. The large remaining force of nuclear warheads atop sub-launched missiles is judged sufficient to preserve nuclear deterrence against a major nuclear attack. Once the United States and Russia reach levels of nuclear weapons in the low hundreds, further reductions may be possible after bringing in the other major nuclear powers, Britain, France, and China.

Can The Forces Get There? – Assessing Lift Requirements

New studies will need to be conducted to assess lift requirements for a much-transformed military, particularly the Army. Reducing forward deployment will require close attention to lift to make sure that U.S. – and allied – military forces can get to where the action is – or better, where it might be before hostilities commence – with enough speed and power to influence the course of events.

The most recent test of this ability came in 1999 with Operation Allied Force, the NATO air assault against the former Yugoslavia. In July 1999, just after Operation Allied Force ended, the U.S. Air Force Mobility Command said it was “confident that [its] forces remain adequate to meet the demands of two theater wars.”¹⁵⁰

One year later, Gen. Michael Ryan, Air Force Chief of Staff, was saying his service “will never have enough lift, ever to do two simultaneous major theater wars. We can’t afford to go there.”¹⁵¹ At the time, a massive study of airlift requirements was winding up and was expected to outline inter- and intra-theater air- and sealift requirements to move the forces designated for major theater wars. Indeed, Gen. Ryan’s statement seemed to be confirmed by a General Accounting Office report, which estimated that the Pentagon’s shortage in airlift capacity was 29 percent of the total requirement and its shortfall for refueling aircraft was 19 percent.¹⁵²

Not until late January 2001 did the Defense Department release its long awaited (and by then much leaked) Mobility Requirements Study 2005 (MRS-05).¹⁵³ The study determined that to meet the requirement to support two MTWs being fought nearly simultaneously, plus move high priority assets such as special forces and theater missile defenses to support regional commanders in chief, the Air Force would have to be able to move 54.5 million ton-miles per day (MTM/D), and increase of nearly five MTM/D over the existing requirement. Moreover, MRS-05 concluded that “other” airlift requirements could run the total requirement to 67 MTM/D.¹⁵⁴ Shortages were identified in transportation capacity within the United States (especially rail cars for moving units to ports), in strategic lift, and in intra-theater lift to transport prepositioned equipment and to relocate forces as needed once units arrive on foreign shores.¹⁵⁵

The study also reviewed sealift capacity. In general, sealift assets were deemed sufficient as long as initiatives to increase the use of containers remained on course.

However, a deficit in heavy-shipping capability (for transporting Coast Guard cutters and mine countermeasure ships to a war theater) was identified.¹⁵⁶ MRS-05 also highlighted the importance of host-nation support and warned that the use of chemical agents by an opponent at air and sea ports of entry would disrupt operations and slow the delivery of personnel and equipment.

Unfortunately, MRS-05 was out of date well before it was published. First, it did not take into account the Army's plan, announced in October 1999, to transform itself into a predominantly "medium-weight force" by gradually replacing the equipment in its heavy armor units with lighter, more mobile weapons and transportation platforms.¹⁵⁷ Such a change will not only dramatically reduce the weight of the force (an M-1 tank weighs 70 tons whereas the target weight for the proposed future combat system is 20 tons) but will decrease the amount of over-sized and out-sized cargo that must be moved.

Conversely, the Army's new vision proposes the ability to deploy one brigade anywhere in the world within 96 hours, one division in five days, and five divisions in 30 days. This goal will place a premium on strategic lift assets in the early days of a crisis.

The study's findings will be even more dated if, as expected, the two war scenario that has been the main justification for the current Pentagon force structure is jettisoned as a result of the ongoing top-down review ordered by Secretary of Defense Rumsfeld. However, since current two war plans rely on the use of civilian aircraft and ships to move forces and equipment, the actual capability of the Air Force and Navy may be closer to a one major war scenario.¹⁵⁸

In effect, another study that incorporates the Army's changing structure and any changes in national military strategy is needed before the Pentagon can be sure it can meet mobility time line requirements.

WEAPONS

The following chart provides brief indications of which types of weapons and equipment would be most suited to the strategy and threat assessment suggested here. The substantial technical problems and cost overruns that many of the complex weapon systems initially conceived during the Cold War have suffered are not the primary focus here. For extensive information on the testing problems of forthcoming weapon systems, see the excellent Annual Reports from the DoD Operational Test and Evaluation Office.¹⁵⁹

FACTORS FOR PRIORITIZING WEAPONS		
Equipment	Factors	Recommendation
<i>Light Armored Vehicle (LAV)</i>	Improves mobility. Suitable for lower intensity operations.	Continue planned Army purchase.
<i>Crusader howitzer</i> ²⁸	Overweight; not very strategically mobile. Less suitable for SSCs.	Cancel. Apply subsystem technology to existing platforms.
<i>V-22 Osprey</i> -like fixed+rotary wing aircraft ²⁹	Useful for special operations including long-range insertion/extraction/evacuation. Improves mobility.	Continue (if current technical problems can be solved, otherwise develop a new program or upgraded helicopter).
<i>RAH-66 Comanche</i> scout/attack helicopter	Threat to helicopters is not primarily the radar-guided weapons that Comanche is designed to elude. Lower-tech threats common in SSCs. Capability overlap with Longbow Apache.	Cancel. Upgrade Apaches.
C-5, C-17, commercial, or new airlifter	Improves strategic mobility.	Increase airlift purchases.
B-2 <i>Spirit</i> bombers	Improved ground, close air support, air interdiction, and transport capabilities would have higher priority than costly B-2s.	Do not restart production.
Communications and other equipment for better interoperability with allies and partners	Improves multinational operations capabilities.	Expand programs.
More numerous, smaller vessels	Improves littoral, SSC capabilities.	Expand programs.
Large new carrier (CVX); new destroyer (DD-21) ³⁰	CVX vulnerable in littoral SSC operations. DD-21 not fully transformational.	“Skip a generation.”
“Low-density, high-demand” aircraft and tanker aircraft	Frequent deployments are overtaxing existing suppression of enemy air defenses (SEAD) and electronic warfare (EW) assets (e.g., EA-6B). Tanker fleet is aging.	Increase purchases of replacement platforms.

Equipment	Factors	Recommendation
<i>Virginia</i> -class New Attack Submarine (NSSN)	Open-ocean Russian threat is gone.	Continue research.
Existing weapon procurement (e.g. F-16, F/A-18C/D) and upgrades (e.g. electronics, avionics) to existing weapons ³¹	Procurement of existing/upgraded platforms would address the problem of aging aircraft and vehicle fleets.	Increase purchases to prevent an increased average age of the fleets.
F/A-18E/F <i>Super Hornet</i>	Marginal additional capabilities of E/F version over upgraded C/D version, for the cost.	Purchase upgraded C/D versions.
F-22 <i>Raptor</i> ³²	High threat in SSCs is not enemy air-to-air capabilities, permitting a smaller purchase.	Continue but reduce the purchase.
Joint Strike Fighter	Vertical/short takeoff version may improve tactical flexibility.	Continue research and development.
National Missile Defense	Ballistic missiles are least likely delivery device for weapons of mass destruction. Higher priority for NBC defensive equipment (e.g. improved soldier protective gear) and theater ballistic missile defense for troops in SSCs.	Continue research.
Existing & new nuclear weapons (e.g. <i>Trident II</i> ballistic missile)	Nuclear reductions help preserve good relations with Russia & China. Destruction & safeguarding of Russian nuclear weapons and materials higher priority than additional/new U.S. weapons.	Fund nuclear threat reduction in Russia.

Unfolding Technologies

As noted repeatedly in this study, what people do with technologies is more important than the technologies themselves. In this regard, the ability to visualize the uses of new systems – including the ability to visualize current capabilities and platforms as “systems of systems” – broadens the range of possible applications of scientific advances.

Two technologies that are opening new dimensions are unmanned vehicles and space-based assets. While unattended sensors (of vehicles, ships, personnel) have been used for decades, unmanned vehicles are just now proliferating in terms of capabilities and endurance. Aerial unmanned vehicles that were developed initially for reconnaissance and surveillance are mutating into unmanned combat aerial vehicles. Ground and underwater unmanned vehicles are under development. Micro- and nano-technologies are being developed for dangerous missions such as searching rooms and whole buildings. While often directed to military applications, such technologies have uses in law enforcement, fire, and general search and rescue scenarios.

Space will continue to be used for a range of new sensors and communications purposes. This is one area in which the United States will endeavor to maintain and, if possible, extend its lead. This will become more and more challenging as other nations develop the ability to devise and launch (or have launched) their own satellites. In particular, the sharing of the available communications spectrum looms as a significant issue for the international community to resolve not just among nations but between military and civilian applications.

Acquisition Reform

The frustration associated with trying to solve the problem of enhancing the effectiveness of the commander’s decision cycle almost pales by comparison to the Pentagon’s inability to streamline the equipment acquisition process. The Bush administration’s approach to this problem is the creation of two high-level committees. A Senior Executive Committee would consist of the secretary and deputy secretary of defense, the under secretary for Acquisition, and the three service secretaries. The latter four individuals will also comprise the Business Initiative Council. The thrust of the new approach mirrors what is occurring in the force components – decentralize processes. In this instance, the anticipated outcome is not greater lethality with lower

risk but greater efficiency through better business practices. The Pentagon hopes eventually to reap between \$15-\$30 billion through improved contracting and related business practices¹⁶⁸ and another \$15-\$30 billion from a new financial management system¹⁶⁹ that goes in the other direction by consolidating all DoD financial operations into one system.

STRUCTURE

The Joint Inter-Service Imperative

Underpinning any analysis of national security are the identification of the U.S. vital interests that must be preserved and the part in safeguarding those interests the American public wants the military to play (the “ready for what?” question). The latter consideration leads directly to the 50 year-old, inside-the-Pentagon wrangling about which service will provide what capabilities so that the force is “ready for whatever” – the roles and missions debate.¹⁷⁰

Military roles and missions for the modern military were allocated among the four services by the March 1948 Key West Agreement, a “truce” ending a bitter feud among the three service Chiefs. (The Chiefs had earlier won a battle against President Harry Truman who wanted a unified military establishment.) What emerged was a division of roles and missions into what was unique to each service – such as sailing ships on the open oceans – and what was (or could be) a shared function – flying machines – but was a claimed prerogative of one service.

To this day Key West still dominates the Pentagon’s make-up and is the source of continued inter-service rivalry. For example:

- each service has its own air arm with the Air Force and Navy having multirole aircraft with essentially the same missions;
- both the Air Force and Navy operate nuclear-tipped intercontinental ballistic missiles as well as conventional warhead cruise missiles;
- each service has its own maintenance depots, schools, laboratories, weapons testing organizations, ranges, chaplains, medics, lawyers, public affairs and congressional liaison offices;
- the Army, Navy, and Air Force are vying for the upper hand in theater missile defense and, increasingly, in national missile defense. Each also has a “space” organization to ensure its interests in the exploitation of space assets are not overlooked;

- the problem extends to cutting-edge technology development: “In what several military and defence officials cite as evidence that the uniformed services in the US Department of Defence still do not adequately cooperate, the US Air Force and US Navy are each independently developing new surveillance and reconnaissance systems’ architectures, despite large degrees of similarity.”¹⁷¹

The last 50 years have seen huge changes in the technology for warfare but not much change in developing modern approaches to a very basic military question: “What should each service be able to do separately and in conjunction with other armed services, and within what time frame, to provide usable combat power?” Answering this question for the forces of the 21st century should involve reviewing both the current allocation of responsibilities, and revisions and additions to roles, missions, and functions. New roles that need to be reviewed include redefining “homeland defense,” determining the uses of space, and defining in whose domain protection of cyberspace falls. Missions that might need to be revised include ensuring freedom of the seas and commerce thereon, assisting allies in resisting aggression or intimidation by “presence,” and evacuating Americans abroad who become caught in civil disturbances/wars. Functions to look at include close air support, deep strike, sustained land combat, air and space defense, and power projection.¹⁷²

The process for allocating and rationalizing roles, missions, and functions has to be centralized under strong leadership. It must also be developed in a manner that makes military advice from the field and Joint Staff paramount – as opposed to service parochialism. Four key guidelines should shape decisions over roles and missions:

1. The allocation should be considered an on-going process, to preclude locking the services into a new “Key West” system of rigid and often mutually exclusive roles and functions that persist for the next 50 years.
2. Some duplication of capabilities and roles among the services is desirable, as is healthy competition to perform specific roles.
3. More important than establishing ahead of time which service should do what is making sure that different services, roles, and functions operate *jointly* and in harmony to achieve broader goals.
4. The universe of possibilities is opened up greatly if the concept of “services” is broadened to include those of close allies.

If strategy is, above all, to adapt as the environment evolves, as called for by Sun Tzu and John Boyd, it is important to decrease rigidity in service roles. Similarly, if the strategy used in conflicts is to rely more on flexibility, then a measured amount of duplication provides more options. Boyd suggested that strategy should:

- Establish the focus of the main effort together with other efforts and pursue directions that permit many happenings, offer many branches, and threaten alternative objectives.
- Move along paths of least resistance (to reinforce and exploit success).
- Employ a variety of measures that interweave menace-uncertainty-mistrust with tangles of ambiguity-deception-novelty as a basis to sever the adversary's moral ties and disorient him.¹⁷³

Sun Tzu's strategic insight has been described as:

*True war-winning effectiveness comes from the force's ability to play the cheng/ch'i game, that is, to set up the opponent, then quickly shift to something he does not anticipate, and then to exploit to the fullest the resulting confusion.*¹⁷⁴

Hence, the important concept in allocating roles and missions is to make sure that forces offer variety, present a wide range of options to commanders, permit rapid shifts in focus when required, and operate in harmony with each other.¹⁷⁵

The Unified Command Plan

In undertaking to revisit service roles and missions, careful consideration ought to be given to the Unified Command Plan and the role that the regional CINCs play (or don't play) in setting requirements and defining capabilities for their theaters. Moreover, the increasing importance of efficient and effective joint war-fighting, with its need to integrate better the capabilities of the U.S. military services with each other and with allies, suggests the wisdom of further realignment of the allocation of geographical responsibilities of the five war-fighting CINCs. In short, the Joint Forces Command should be totally oriented toward joint training and multi-service matters, and its remaining geographical responsibilities (most of the North Atlantic) be divided between U.S. Southern Command and U.S. European Command. This would leave four geographically oriented joint commands – European, Pacific, Central,

and Southern – and five functional unified commands: Transportation, Strategic, Space, Special Operations, and Joint Forces.

Jointness in Planning and Budgeting

At the same time, efficient allocation of resources suggests the need to reallocate budgetary power within the Pentagon. Currently, the vast bulk of the defense budget is still controlled by the individual services. The CINCs do get some funds directly, and through the Chairman of the Joint Chiefs of Staff they can influence the overall budget formulation process. But the real key to improving equipment compatibility (“interoperability”) while minimizing unnecessary redundancy is a strengthened role for the Joint Requirements Oversight Council (JROC) in setting joint priorities and evaluating cost, schedule, and performance criteria for major weapons programs. (The JROC, normally consisting of the deputy chiefs of staff of the services and the vice-chairman of the Joint Chiefs, was originally charged with validating the need for and monitoring “big ticket” procurement programs.¹⁷⁶) The commander in chief of Joint Forces Command should also be designated a full member of the JROC so that his insights are reflected in JROC deliberations and decisions. The new missions the military faces also suggest that the role of the CINCs in joint planning should be strengthened in additional ways, as discussed at length in a background paper, *An Assessment of Joint Doctrine*.¹⁷⁷

Current “Joint Doctrine” has proven effective and reliable in planning and managing major force projections for own-force combined, allied, and coalition operations wherever called for.¹⁷⁸ But it has also proven to be inflexible and inefficient in planning and managing the kinds of military missions that are likely to be the principal job of the U.S. military for at least the next two decades.

As the last remaining military superpower, the United States will certainly be moved to protect the assets and interests of its citizens and friends in conflicts and controversies that were not anticipated by the framers of the body of treaties, domestic laws, doctrine, and practices that constitute the received structure for conducting military operations.¹⁷⁹ Humanitarian interventions, responses to natural and man-made disasters, limiting civil strife in other nations, and controlling armed conflicts not legally constituting acts of aggression¹⁸⁰ are different in kind and character from the tasks the United States traditionally has assigned as primarily military concerns. These missions have been considered secondary or “special,” and were dealt with either as a diversion from the main

purposes of manning, training, and equipping the armed forces, or by assignment to units with limited resources and range of potential action.

Efforts underway aimed at modern joint doctrines for Special Operations and Operations Other Than War may provide mechanisms for mounting and managing such missions. However, fundamental changes remain necessary in how the “Joint Establishment”¹⁸¹ works with the other agencies charged with developing and prosecuting U.S. security policy to ensure a higher probability of success.

Insufficient Joint Staff and CINC Input

In Goldwater-Nichols, Congress properly included language intended to clarify the command relationship among the members of the National Command Authority (NCA).¹⁸² That language has, however, been interpreted in a way that marginalizes the role of the Joint Chiefs and Joint Staff in acting on behalf of the war-fighters in the unified theater and area combatant commands to affect the organization, training and equipping of forces.

The combatant commanders in chief (CINCs) are clearly responsible for the performance of their assigned missions, and they are given all the necessary operational authority and control over forces assigned pursuant to those missions. Their ability to affect how those forces are trained and equipped is truncated, however, because the Joint Establishment has little real authority to direct how funding for force generation will be allocated and spent. Various “Joint Publications” and other guidance documents express the intent that the development of an objective force be a collaborative process among all interested parties. The process of “Planning, Programming, and Budgeting,” used by the Pentagon to develop its annual and six-year budget proposals, offers the CINCs only one chance to affect the design and capabilities of the forces that will be assigned to them. This “once or never” process creates problems for force structure development, among other areas.¹⁸³

The services assign the forces that support the CINCs. The size of the total force is limited, and many service-component units are assigned to more than one CINC. As this support to a CINC must compete with other service objectives, there may not be an exact fit between the mission and the capabilities of the forces assigned. (The structure of units within each service is the prerogative of the individual service chief.) Programmatic and institutional loyalty may drive service decision-making as to force structure in a direction

not supportive of Joint objectives. Battles over air superiority vs. airlift, sea-based fires vs. land-based artillery, strategic vs. tactical capabilities, and the importance of technical intelligence capabilities versus human intelligence capabilities are an inevitable consequence of limiting the voice of the war-fighters in force design and development.

Boosting the CINCs Roles

It is essential, therefore, that new effective mechanisms be created that will ensure that the best collective thinking among members of the Joint Establishment will prevail over the inter-service politics about roles and missions, which currently are the ultimate drivers of decisions about budgets and expenditures. Success in meeting and overcoming the threats to U.S. national interests in the next two decades requires redesigning that role, and empowering the Joint Establishment to act promptly on behalf of the war-fighters.

While the Joint Chiefs have no direct command authority to direct the preparation or assignment of forces, experience has proven that only the Joint Establishment can effectively function as the cross-service arbiter in the development of national strategy, and the corollary service roles and missions to implement that strategy. It is this role that must be extended and expanded to enable the military to adequately prepare for, and prosecute, the missions that it will be expected to assume in the next two decades. This is no mere organizational task. Developing the most effective and efficient solution will require changing attitudes, not just titles.

The needs of the war-fighters must dominate budgetary, procurement, and manpower discussions. Also, the Joint Establishment must be actively involved in designing, establishing, and helping manage alliances and other mechanisms for ensuring that the U.S. military can act surely and swiftly with allies and partners.

The desired modifications in the planning process utilized to arrive at available forces do not require scrapping the entire existing structure. What is needed is a greater role for the CINCs in the Joint planning process, so that the actors most likely to be in a position to recognize an emerging threat or opportunity can better affect the definition of the force likely to be available to respond. The necessary changes include creation of an additional process in the existing cycle of estimates, budgeting, and force development. This

additional process would be focused on the immediate short-term and on eliciting a statement of capabilities required to prosecute non-traditional missions unique to each of the areas of concern of the combatant CINCs. Proposed modifications to the complex Joint planning process are spelled out in the background paper *An Assessment of Joint Doctrine*.

INDUSTRY

From the perspective of soldiers on the front lines and the taxpayer, the defense industry is not performing well.¹⁸⁴ Weapon systems are taking a human generation to develop. Each new weapon is doubling or tripling the cost of its predecessor, and many are beset by performance and reliability issues. It is difficult to change or stop programs once they get started, regardless of what has happened elsewhere in the world. To cite one example, just to bring the F-22 program in under congressional cost ceilings, contractors must identify and successfully implement cost reductions that are greater on a per-unit basis than the total cost of the aircraft it replaces.¹⁸⁵ And even if the U.S. Air Force tactical air modernization plan is executed perfectly – no cost increases and Congress provides 100 percent of the planned funding every year – the average age of all USAF aircraft will increase roughly 60 percent over the next 15 years.¹⁸⁶

It is especially critical to improve the health, and performance, of the defense industry because it serves as a key hedge against the possibility of the emergence of a new military superpower challenge to the United States in the next 25 years. A robust, competitive defense industry – one that is able to rapidly adopt successful commercial technology where possible – will be the key underlying capability needed to respond to such a challenge. Since defense contractors and commercial industry have evolved along different paths since the World War II, the key to restoring defense industry health will be to restore, to the extent possible, some of the competitive dynamics of the commercial sector.

Defense contractors have developed a variety of “power games” and political strategies – such as “front-loading,” “political engineering,” and the “revolving door” – to survive in the defense sector. In contrast, many successful commercial companies have focused on what is called “lean production” to foster innovation, reduce costs, and improve quality.¹⁸⁷ The different evolu-

tionary paths of the defense and commercial industries will make it difficult to apply lean production fully to weapon production. Nevertheless, there are some reforms that can improve the competitiveness, health, and performance of the defense industry, and make it more like the commercial sector again.

It is important, when considering ways to improve the development and production of major weapon systems, to keep in mind that the strongest influences on the current system, that is, the factors that most account for the stability of the present military-industrial-congressional complex (MICC), are:

- Lack of market forces to spur innovation and control costs; and equally important,
- The fact that the United States funds major weapons programs as much on their political utility (via “power games”) as for their effectiveness on the battlefield.

In the commercial world, the marketplace appears to be the most effective mechanism for fostering evolution in the direction of better products and services for the consumer. In the defense sector, market forces are limited, but it may still be possible to inject them to a larger degree than is the case today, especially if the government establishes clear policies to do so. That is, when making decisions, the policy should be to move towards the direction of increased competition and market forces, rather than directly towards some other goal, such as “efficiency,” regardless of how desirable that goal might appear. Some recommendations along these lines follow. The issue of preserving a healthy defense industry is explored at greater length in the background paper *Reforming the Marketplace – The Industrial Component of National Defense*.¹⁸⁸

Keep More Competition

For any particular program, having a *large* number of competitors does not appear to be the most important factor, although this is an area that could benefit from careful research, but having more than one competitor is key.

In the retail marketplace the answer does appear to be “the more the better.” Japan, for example, during its period of greatest inroad into the United States, harbored *nine* companies that exported automobiles to the United States. The commercial marketplace, however, represents an aggregate of millions

of customers and so can benefit from a multiplicity of competitors. In the U.S. defense marketplace, there is only one primary customer capable of paying for the development of major weapon systems. In this environment, it is important to keep at least two real competitors.

Foster New Entrants

A more important factor in shaping the evolution of the defense industry is preserving the possibility of new entrants to the defense marketplace. If the defense industry should evolve into something different than it is, the Pentagon must reinforce incentives for new companies to form, perhaps virtually, for established companies in other sectors to enter the defense marketplace, and for poor performers to be selected out. This mechanism cannot work in the current defense environment where each of the two major primes is too big to fail.

Although it is unlikely that a totally brand new aircraft, armored vehicle, or ship building company will form over the next few years, new entrants could come from companies in related commercial fields. The notion of new entrants is not as far fetched as it may sound. Until its design was selected as one of the two finalists for the Advanced Tactical Fighter (ATF), Lockheed Martin Corp. had been out of the fighter business for more than 30 years. McDonnell Douglas Corp., which had built the two previous Air Force fighters, was on the team that eventually lost.

Keep Competition Open Longer

It does no good to have a vigorous competition for weapon design and development, and then revert to monopoly status for spending the real money on actual production. All this practice (which characterizes the majority of U.S. weapon programs) does is reward the more convincing bureaucratic game-player. At the minimum, competition should be maintained up to the point where the government and the contractors are comfortable with commercial-type (i.e., fixed-price / guaranteed performance) contracts. This point is certainly through preparation for production and perhaps even to initial operating capability.

However, given the magnitude of savings that competition often produces, most weapon systems would benefit from preserving it throughout the life of the program. These benefits often include costs reduced by 25 percent, defect

rates lowered by 90 percent, and much more rapid incorporation of new features, technologies, and upgrades. It does not take a very large production run for these advantages to amortize the cost of developing a competitor system. The more rapid delivery of effective and supportable combat systems to troops in the field could be considered a bonus.

Investigate Whether There Are Ways to Close the Revolving Door

The three most common political power games used by the defense industry are front-loading (to get programs started), political engineering (to keep them funded, independent of changing requirements), and the revolving door (to weaken the resolve of government employees to make difficult decisions). “Front-loading” is giving a rosy picture of a future program, such as providing unrealistically low cost estimates. “Political engineering” is working the political system to build strong support for a program among elected leaders, for example by spreading subcontracts on a program to numerous Congressional districts. The “revolving door” is the legal but ripe-for-abuse practice of individuals leaving government service to work in the defense industry

Since front-loading hides in the legitimate uncertainty inherent in any new program, and since political engineering dwells at the heart of the U.S. representative democratic system, these two power tools will likely always be available in some form.¹⁸⁹ It might be possible, however, to reduce the most pernicious effects of the revolving door – such as confronting serving officials with great temptation to avoid playing hardball with contractors.

The U.S. government needs to find some way to close, or at least slow, the revolving door. This gets into an area of individual liberties and runs into the problem of defining “defense contractor.” But the fact is that so long as large defense contractors can influence the actions of government officials through the hope or expectation of lucrative future employment, then the United States truly is basing its national security around the convenience of the contractors, not the troops in the field or the people.

Ultimately, Industry Will Mirror Weapon Systems

To be realistic, as long as the services insist on weapons to counter Cold War-era threats, the government will be buying ever more complex and expensive aircraft, ships, and fighting vehicles. Developing and building such behemoths

will probably require contractors in its own image, that is, organizations capable of managing multi-year, multi-billion dollar contracts. Such organizations will employ the same tools of lobbying, front-loading, and political engineering available to all companies whose primary customer is the government.

So the problem of fostering competition and new entrants may be simplified if the weapons themselves are simplified. If, in fact, the world is moving towards an asymmetric “fourth-generation of warfare,” as typified by Vietnam, Somalia, the recent Middle East (excluding Desert Storm), terrorism, and counter-narcotics, then perhaps the era of the mega-prime will naturally come to an end.

BUDGET RAMIFICATIONS

The approach taken in this study was to develop a strategy and force proposal independent of budget considerations. The strategy proposed here suggests a smaller, albeit transformed, U.S. military force. As a result, after a period of transformation that would require additional funding, military spending would be somewhat lower than today. The report calls for additional funding in areas such as airlift, equipping the Navy with some smaller, more numerous vessels and supporting Army transformation. Such programs would partially offset the reduced spending on a force with fewer units, personnel, and curtailed production of selected weapons and national missile defense.

This report has also suggested that non-military components of national security could use additional attention, so all of the funds would not necessarily be returned to the Treasury. Some of the freed resources could be transferred to other national security programs, such as economic assistance, if so desired.

Transformation from the current force structure to that proposed here – or any other transformed force, for that matter – would not be without cost. Significant short term expenditures would be involved. Yet the national security strategy and military force structure presented here would result in considerable savings in the long term.

Although a detailed budget analysis and breakdown is beyond the scope of this report, estimated savings, once a steady-state budget were achieved, would be a minimum of 15-20 percent below Fiscal Year 2001 levels, adjusted for inflation. Hence the estimated steady-state budget range for the proposed force is \$250-265 billion per year in Fiscal Year 2001 dollars.

Additional savings might be achieved through implementation of a broad range of initiatives not directly related to the proposed strategy or force structure, many of which are already under consideration by the Defense Department. Additional military base closures, greater privatization of non-combat functions, and adoption of a “just in time” logistical support system are examples of such initiatives.

V. Next Steps

This report has attempted to point the way towards new directions for military strategy, personnel, equipment, and organizations. It has raised a variety of salient issues but did not have the space to explore them at the length and detail they deserve. The strategy and force structure approach taken in this report suggests that the following topics are worthy of reports themselves.

- How can other U.S. government agencies and non-government organizations be better integrated into military interventions and operations? What modifications need to be made to the interagency process? Can U.S. military engagement produce even better results if it is undertaken with regular strategic forethought, planning, and funding rather than on an *ad hoc* basis as it is now?
- What are the concepts, thought processes, procedures, and hardware that will provide the United States with “decision superiority” – the ability to win by making strategic decisions in quicker and more veiled cycles than an opponent? How can extensive U.S. *information* gathering and production be turned more effectively into *knowledge* and *understanding*?
- Is jointness no longer adequately served by the current structure of the Joint Chiefs of Staff, composed primarily of service heads? How can joint structures, thinking, and processes move beyond integration of services and of components (e.g. land forces, space forces) to integration of functions and effects (e.g. fires, sustainment, operational and information security)?
- What will fourth-generation warfare really look like in the future and how can the U.S. military – and U.S. society – transform its vulnerabil-

ity to fourth-generation threats into dominance? How can deploying forces be protected from anti-access attacks on infrastructure *within* the United States? Can asymmetric threats be channeled and transformed into symmetric threats? How can intelligence operations and organizations be structured to keep abreast of ever-changing threats and opportunities in the future?

Many of these topics are beginning to be studied in greater depth, but much more needs to be done to assist and accelerate U.S. military transformation so that change is brought on not by disaster, but by forethought.

ENDNOTES

- 1 *New World Coming: American Security in the 21st Century – Supporting Research & Analysis*, The United States Commission on National Security/21st Century, September 15, 1999, p. 57.
- 2 *Annual Report to the President and the Congress*, William S. Cohen, Secretary of Defense, 2000, pp. 5-9.
- 3 *Concept for Future Joint Operations*, Department of Defense, May 1997, p. 1.
- 4 *Active Duty Military Personnel Strengths by Regional Area and by Country*, December 31, 2000, DOD Directorate for Information Operations and Reports.
- 5 Maj. Gen. James Dubik, deputy commanding general for transformation, U.S. Army Training and Doctrine Command, in “Army Transformation: Soldiering Outside the Box,” *Army Magazine*, September 2000, p. 22.
- 6 Homeland defense, of growing concern in many circles, is not mentioned because the Pentagon’s involvement would be largely in support of other federal agencies. However, it has a role in collecting information (outside the United States) on potential threats. Moreover, military planners must take into account the diversion of resources to support non-military agencies in the event of an incident.
- 7 The reserve components are divided into three categories: Ready Reserves (those liable for recall to active duty to augment the active force in wartime or national emergency), Standby Reserve (a pool of individuals who could be mobilized to fill personnel needs in specific skills), and the Retired Reserve (some of whom are considered mobilization assets who could be recalled to augment support and training facilities and relieve active component or Ready Reserve members from routine duties. As has been noted, the Air Force integrates the Air Guard and Reserve into many of its ongoing operations, which keeps these units well trained. The Army National Guard’s Enhanced Brigades and “Round-out” units also meet more advanced training requirements than other National Guard units.
- 8 Department of Defense *Dictionary of Military Terms*, at <www.dtic.mil/doc-trine/jel/doddict>
- 9 Operation Allied Force illustrated the need to develop and maintain detailed agreements for basing rights. At the start of 1999, the U.S. Air Force had six active bases with 174 aircraft in four European nations. In the lead-up to the Kosovo air campaign, these numbers increased to ten bases with 207 planes in five nations. By the end of the war, over 500 fixed-winged aircraft were at 22 bases in eight European countries. See “Kosovo Air Operations: Combat Aircraft Basing Plans Are Needed in Advance of Future Conflicts,” United States General Accounting Office (GAO-01-461), May 2001.
- 10 Five areas for improvement were highlighted: deployability/mobility, sustainability/logistics, effective engagement, force and infrastructure survivability, and command/control/consultation.
- 11 Conversely, NATO countries not part of the EU can hold back EU force development. Turkey, one of these countries, holds a virtual veto over EU-NATO

relations because the EU depends, at least for the moment, on “assured access” to NATO planning resources. See Luke Hill’s “Turkey slows build-up of EU defence,” *Jane’s Defence Weekly*, May 30, 2001, p. 21.

- 12 For example, the reduction in aircraft carriers presupposes four European carriers rotating in the Mediterranean. But unofficial projections of the British defense budget suggest that not enough money is available for the projected two aircraft carriers. See *Aerospace Daily*, June 5, 2001, p. 5. More generally, a recent internal NATO review determined that less than half of the force goals will be achieved if currently projected military defense spending is not increased. See Michael Gordon’s “Armies of Europe Failing to Meet Goals, Sapping NATO,” *New York Times*, June 7, 2001.
- 13 Another aspect of multinationalism, one which feeds into industrial base as well as operational issues, is the willingness to foster a real “two-way street” in terms of military policy, doctrine, interoperability, and purchase of foreign-built equipment. As already noted, the U.S. Navy has shown interest in a British trimaran. It is also interested in a Norwegian-built air cushion fast attack catamaran for special forces.
- 14 Preserving manufacturing facilities and mothballing machine tools on production lines are examples. In today’s world of “just-in-time” production methods and software-dependent automated production lines, the break point at which it becomes more cost-effective to shed such facilities and be prepared to build new ones at some point in the future comes much more rapidly. One way to compensate for this problem is to build the basic weapon or support platform so that it can “mature” via upgrades to software and other electronics without having to “bend metal” as often for large numbers of new platforms.
- 15 See, for example, Robert Holzer’s “Engineering Contest May Be Key to Newport News Sale,” *Defense News*, May 14, 2000, p. 6, and Mike McCarthy’s “Potential Savings From Shipyard Mergers: A Closer Look,” *Defense Week*, May 21, 2001, p. 5. A full analysis of the outcome of shipyard mergers, past and proposed, is in an April 26, 2001 Congressional Research Service report, “Navy Ship-building: General Dynamics’ Proposed Acquisition of Newport News Shipbuilding – Issues for Congress,” by Ronald O’Rourke.
- 16 In this regard, President Bush has asked for a comprehensive review of U.S. intelligence capabilities, including an assessment of how well or poorly the thirteen agencies cooperate as a community. At his confirmation hearing in January 2001, Secretary of Defense Rumsfeld said that the intelligence community “is not a community...[but] a set of organizations.” He also said he would focus on “improving our intelligence capabilities so that we know more about what people think, how they behave, and how their behavior can be altered, and what the capabilities are in this world.”
- 17 Cleary, p. 168.
- 18 The classic example is the redefinition of U.S. interests in South Korea after the North Korean invasion in 1950.

- 19 An ever-present difficulty with defining interests is the fine line between fundamental interests and ways or means to defend those interests. The danger is that the means can end up being seen as interests themselves, which obscures the real interests; leads to an ever-growing list of “interests”; and makes it harder to switch to alternative means to pursue the same interests. For example, the nation may have a fundamental interest in having cooperative relationships or alliances with other powerful nations. That does not necessarily mean that preserving the North Atlantic Treaty Organization is an “interest” of the nation. The Commission on America’s National Interests, an independent group that issued a report in July 2000, was very clear about the ranking of interests, but viewed interests broadly to include “means.” For example, the report cited as a “vital interest” that “European allies survive as free and independent states.” Fair enough, but the report next listed as a “vital interest” that “the North Atlantic Alliance remain a powerful and effective political-military alliance linking Europe and North America, with increasing geographic scope and mission beyond Europe.” Rather than being a clear vital interest, NATO (and particularly its out-of-area capabilities) are better viewed as tools to protect fundamental interests. *America’s National Interests*, Commission on America’s National Interests, July 2000, p. 29.
- 20 A more elegant formulation of this sequence is Col. John Boyd’s OODA – Observation-Orientation-Decision-Action – Loop. The key to the OODA is executing the sequence more rapidly and more deceptively than the opponent on the battlefield, thereby keeping him off-balance. Interestingly, the same sequence could be applied quite usefully to the weapons acquisition process, a point made by Adm. Vernon Clark, Chief of Naval Operations, during his April 12, 2001 address to the Navy League’s 2001 Sea Air Space Exposition: “The whole process of thought and concept development and simulation and experimentation and production takes far too long today....We need a quicker, more agile, and simpler way to move forward....”
- 21 In a real if limited sense, the military rationale for force dispersal emerged in the closing days of World War II with the advent of the atomic bomb. While initial development was directed toward strategic use, the evolution of tactical or battlefield nuclear weapons focused attention on the need to move away from reliance on massed formations that offered lucrative targets.
- 22 “QDR 2001: The Battle Begins,” Andrew Koch, Michael Sirak, Kim Burger, *Jane’s Defence Weekly*, May 16, 2001. “The Defense Comfort Blanket,” William Arkin, washingtonpost.com, May 21, 2001.
- 23 “‘Tis our true policy to steer clear of permanent alliances, with any portion of the foreign world.” Farewell Address, September 17, 1796.
- 24 The six extant treaties are: Rio Treaty, signed September 2, 1947; North Atlantic (NATO) Treaty, signed April 4, 1949; U.S.-Philippines Mutual Defense Treaty, signed August 30, 1951; ANZUS Treaty, signed September 1, 1951; U.S.-Korea Mutual Defense Treaty, signed October 1, 1953; and U.S.-Japan Mutual Cooperation and Security Treaty, signed January 19, 1960. The South

East Asia collective defense treaty (SEATO), signed December 8, 1954, remains in force even though the Organization ceased to exist June 30, 1977. However, the Declaration relating to the Baghdad Pact, also known as the Central Treaty Organization, (CENTO), signed July 28, 1958, was dissolved in 1979.

- 25 In various articles over the last two years the BBC noted that Russia has some 20 million Muslims, Britain two million, and France four million, while some two million of Germany's immigrant population are of Turkish descent. A 2000 law automatically gives full citizenship to children of "guest workers" born in Germany. The United States Muslim population is approximately six million. The minaret of a prominent London mosque provides direct line of sight to the backyard of the American ambassador's residence in London.
- 26 This is the rhetoric. However, except for withdrawing 750 troops from Bosnia as part of a larger agreed drawdown, the Bush administration has not reduced commitments anywhere.
- 27 European countries have or have programs to buy the following major pieces of military hardware that will enable them to carry out the tasks mentioned: 317 attack helicopters, 508 utility helicopters, and over 1300 wheeled combat vehicles. Naval forces, in addition to the carriers, call for 28 surface combatants, 11 submarines, and 34 mine-counter mine vessels. The plan for air forces includes 50 carrier-based and 430 land-based combat aircraft. Remedies for the shortfalls identified by the Bosnia and Kosovo operations still largely remain unfilled. *Military Technology*, Issue 2, 2001, pp. 58-72.
- 28 William Drozdiak, "EU Seeks to Fill U.S. Role in Korea," *Washington Post*, March 25, 2001, p. 1.
- 29 In fact, the Washington Times reported on September 29, 2000 that the Marines were looking at the possibilities of a new base in Australia. Richard Halloran, "Ground Forces in Japan, S. Korea Under Review," p. 1.
- 30 Boston Freedom Trail: <www.vboston.com/VBoston/Content/FreedomTrail/ft-15/index.cfm>
- 31 Michael Palmer, "History of the U.S. Navy: The Continental Period, 1775-1890" at <www.history.navy.mil/history/history2.htm> and "USS Constitution, The History" at <www.chinfo.navy.mil/navpalib/allhands/ah0697/jun-pg30.html>
- 32 As an example, the Navy announced in late April a major increase in its Master-at-Arms armed security force to protect its ships and crews in port, both in the U.S. and abroad. Jack Dorsey, "Navy Expands Armed Security Force," *Norfolk Virginian-Pilot*, April 21, 2001.
- 33 See Michael Gordon, "Pentagon Review Puts Emphasis on Long-Range Arms in Pacific," *New York Times*, May 17, 2001.
- 34 Michael Gordon, "Rumsfeld Limiting Military Contacts with the Chinese," *New York Times*, June 4, 2001.
- 35 The Army's stated transformation goal is to be able to move a combat brigade overseas in 96 hours, a division in 120 hours, and five divisions in 30 days.

- 36 9+ USA/USMC ground division equivalents were deployed in Desert Storm, 10 USAF fighter wings, and six USN carrier battle groups. The projected "major theater war" package developed by the Pentagon calls for 16+ ground division equivalents, 16 USAF fighter wings, and eight USN carrier battle groups. *Joint Military Net Assessment*, August 21, 1992. *Report on the Bottom Up Review*, Department of Defense. *Secretary of Defense Report to the President and Congress*, 1992.
- 37 The imperative of the two MTW concept, which posits that U.S. military engagement in one part of the world might tempt a second adversary to act militarily against U.S. interests or allies, is questionable. While occupied in Korea (1950-53) and Vietnam (1962-73), no other war involving the U.S. began. And starting with Richard Nixon's presidency, the Pentagon's official position was to be ready for one and one-half wars.
- 38 Former Defense Secretary William Perry estimated that START II, once implemented, could save the U.S. almost \$5 billion over seven years.
- 39 In a press conference March 6, 2001, on the eve of a visit by South Korean President Kim Dae Jung, Secretary of State Colin Powell affirmed that the Bush administration planned to "pick up where President Clinton and his administration left off." Steven Mufson, *Washington Post*, March 7, 2001, p. A20.
- 40 "Bushwhacked: Nonproliferation Aid To Russia," George Lobsenz, *Defense Week*, March 19, 2001, p. 7.
- 41 Tom Philpot, "The New Bill Crowe Voices Doubts," *Naval Institute Proceedings*, Vol. 120, No. 11, October 1994, p. 90.
- 42 *Strategic Assessment 1997*, National Defense University, p. 260.
- 43 Steven Metz, "American Strategy: Issues and Alternatives for the Quadrennial Defense Review," U.S. Army War College, September 2000, p. 15.
- 44 Nonetheless, in a report released May 14, 2001, the Pentagon's Inspector General noted that 90 percent – 39 of 43 – equipment acquisition managers were not using in their planning documents the 1999 Department of Defense joint architecture for command, control, communications, and intelligence systems.
- 45 For more detail on how to make better use of the capabilities of non-military organizations, see *An Assessment of Joint Doctrine* by Thomas Baines, a background paper prepared for the Center for Defense Information, March 2001.
- 46 As an example, NATO is planning to send 3,000 troops into Macedonia to collect weapons that are expected to be turned in by ethnic Albanian rebels. The United States is not planning to send forces to join this mission.
- 47 Gen. Daniel Kaufman, Dean of West Point Military Academy, quoted in "For Tomorrow's Army Cadets Full of Questions," Serge Schmemmann, *New York Times*, July 8, 2001, Section 4, p. 1.
- 48 Blithely accepting – and repeating – this assumption overlooks a number of constraints even for nations that might contemplate such an attack. To produce mass casualties using chemicals would require a significant amount of agent, an effective

dispersal mechanism, and weather conducive to use. A nuclear assault requires a large infrastructure to develop an atomic device as well as access to sufficient quantities of plutonium or highly-enriched uranium – a drawback also to radiological attacks. A biological “attack” might in fact be a naturally occurring disease (such as the hoof-and-mouth outbreak in Europe which, of course, does not affect humans) or could be partially masked as such a disease. But for efficient employment, biological agents must also have ideal weather and a good dispersal means. For example, germs introduced into large water reservoirs would be diluted by the volume of water and chlorine would kill the agent. Routine sanitation measures reduce risks from agents introduced into food supplies. Unpredictable winds would disperse concentrations. Direct sunlight kills most germs in under an hour. “Wet” or liquid media for biological agents tend to coalesce into droplets that quickly fall to earth while “dry” or powdery agents are very difficult to produce. Perhaps the best defense against these possibilities that is not an overreaction is to improve the overall national public health surveillance system. As Dr. James Hughes, Director of the National Center for Infectious Disease of the Center for Disease Control observed in 1999, to halt biological warfare and natural diseases, “the steps you have to take are the same.” See Sydney Freedberg and Marilyn Serafini’s “Be Afraid, Be Moderately Afraid,” *National Journal*, March 27, 1999, pp. 806-817.

- 49 But it cannot be a military priority under the U.S. system of government which, even with the recent modifications to the 1874 Posse Comitatus Act, still restricts the activities of active duty military forces within the nation’s borders. The Pentagon itself is wary of becoming too involved in trying to combat – as distinct from being prepared to react to – attacks within the United States other than providing intelligence about movements and actions of international actors suspected of planning attacks.
- 50 This mindset is also reflected in the heavy emphasis today on “force protection” as a distinct mission, particularly one that now requires separate units dedicated to this role. Formerly, combat units employed self-protection measures that partially relied on friendly “lines” (flank units) or on maneuver. Fixed or semi-fixed installations were “protected” by assigning relevant guard and reaction force duties as secondary missions to rear area support troops or military police. In some instances geographic separation from combat areas ensured force protection under virtually all circumstances.
- 51 Known incidents of cyberterrorism (as opposed to cybercrime) are few, according to Professor Michael Stohl of Purdue University’s Center for Education and Research in Information Assurance and Security (CERIAS). Like other forms of terrorism, however, at some point an adversary may attempt to induce widespread panic in the U.S. via cyberspace.
- 52 “Former Defense Secretary Talks About Ways to Avoid World War III,” *Today*, NBC TV, June 4, 2001.

- 53 The profound strategies of Sun Tzu and Boyd are discussed at the greater length they deserve in a background paper *A Swift, Elusive Sword* by Col. Chester Richards (Ret.), Center for Defense Information, May 2001.
- 54 Craig Smith, "China Sends Its Army Money, and Taiwan a Signal," *New York Times*, March 11, 2001, Weekend in Review, p. 4.
- 55 Tellingly, at a March 6, 2001 Pentagon news briefing, Deputy Assistant Secretary of Defense for Public Affairs, Rear Adm. Craig Quigley, addressed the issue of the announced increase in Chinese military spending. "Is it something that we pay attention to? You bet. Is it all by itself going to have a profound impact on U.S. defense policy and defense spending? I don't think so. I think that's too strong a description." On line at <www.defenselink.mil/news/Mar2001/t03062001_t306dasd.html>
- 56 *Budget of The United States Government, Fiscal Year 2001, Historical Tables*, 2000, pp. 54, 64.
- 57 Joint Publication 1-02, *DoD Dictionary of Military Terms*. The word "strategic" is part of twenty-seven definitions in the on-line version of JP 1-02. On line at <www.dtic.mil/doctrine/jel/doddict/data/s/index.html>
- 58 One example is the U.S. response to the eruption of Mount Pinatubo in the Philippines in 1991. U.S. forces at Clark Air Base were evacuated when it became clear that an eruption was imminent. After the eruption, which covered the base with thick ash, the United States decided to abandon Clark, a devastating economic blow to nearby communities. At the same time, following tough negotiations, a 10 year lease agreement allowing the United States to use Subic Bay came before the Philippine Senate. Reportedly, long-standing Filipino grievances plus the abandonment of Clark were sufficient reasons for the Philippine Senate to reject the base agreement by a vote of 12-11.
- 59 William Arkin, a former Army intelligence officer, states that the Pentagon has only three full-scale war plans: one for the Persian Gulf, one for the Korean peninsula, and the nuclear Single Integrated Operational Plan. But the Pentagon also has 69 contingency plans in differing states of detail.
- 60 The military generally classifies jobs (and therefore people) as combat, combat support, and combat service support. Combat jobs are those in which individuals are subject to close, sustained enemy contact, such as submariners, tactical aviation, infantry, armor, and artillery. Combat support are "units or organizations whose primary mission is to furnish operational assistance for the combat elements." These units (e.g., intelligence, communications, combat engineers) normally do not become involve in close, sustained contact with the enemy. Combat service support are the sustainers – those who provide "supply, maintenance, transportation, health services, and other services required by aviation and ground combat troops to permit those units to accomplish their missions in combat." Joint Publication 1-02, *DoD Dictionary of Military Terms*.

- 61 One effort to overcome this problem has been “contractors forward.” During the Persian Gulf War, the Army Materiel Command alone had 3,000 civilian contractors in the theater supporting operations (Harry Summers, Jr., *Persian Gulf War Almanac*, Facts on File, 1995, p. 97).
- 62 Third-generation front line Soviet fighters are the Su-27 and MiG-29. Development on their replacement, “Article 1.42,” began in the early 1980s, but it did not fly until February 2000 (*Jane’s All the World’s Aircraft 2000-2001*, p. 410). In December 2000, the Russian government reportedly selected the Sukhoi group to take the lead in developing a fifth-generation fighter, presumably incorporating features from its own S.37 test bed and even from the MiG Article 1.44. (Simon Saradzhyan, “Sukhoi Wins Design Role for Russian Fighter,” *Defense News*, February 19, 2001, p. 3.)
The disarray caused by the collapse of the Soviet Union slowed development in all branches of its military, and Russia’s economic woes continue to restrict development. More significantly for the near-term, Russian armed forces cannot plan on large-scale production of conventional weapons. The Russian Ministry of Defense hoped to get 30 of the new T-90S main battle tanks and 100 armored personnel carriers against an annual “requirement” of 350 tanks, 400 personnel carriers, and 950 artillery pieces. (Nikolai Novchikov, “Russia’s rearmament proposals,” *Jane’s Defence Weekly*, June 14, 200, p. 3).
- 63 The Israel-Palestinian case is instructive. Other than achieving an end to hostilities in the short-term and security for the nation in the long-term, the specific tasks to be accomplished by the Israeli Defense Force and the options for completing the tasks seem to be absent. Hence the application of Israel’s available technology, while it kills people and destroys things, does not move events closer to either the short- or long-term goals. The Israelis, in effect, have locked themselves into a single, predictable pattern of response.
- 64 Although “security” is part of the OSCE charter, the organization has no military arm. Russia remains suspicious of NATO which was, after all, specifically an anti-Soviet alliance. In 1997, NATO and the Russian Federation signed the NATO-Russian Founding Act as a first step toward drawing Russia into greater military cooperation and transparency with the rest of Europe. But while Russia’s Soviet-era Warsaw Pact allies and some of its Republics embraced the NATO Partnership for Peace program and vied for full NATO membership, Russia was unwilling to travel this path. As the Partnership for Peace gained momentum and NATO set about selecting the first countries to become full NATO members, some suggested that eventual Russian membership in NATO should be left open as a possibility.
- 65 Ironically, on March 24, 1999, NATO began the air war against Yugoslavia in an effort to stop the mass internal displacement and international refugee flows of ethnic Albanian Kosovars.

- 66 Of the 1,058 NATO aircraft fighting in Yugoslavia, over two-thirds – 731 planes – were American. The subsequent peacekeeping operation was a more international affair with about 10-15 percent of troops coming from the United States and the rest from Canada, European NATO allies, and countries from as far away as Azerbaijan and Argentina.
- 67 The first signs of a change actually came before the Kosovo air campaign when, in December 1998, Britain and France signed the St.-Malo Accord in which they pledged to work for the creation of a European military force.
- 68 Sources: Joseph Fitchett, "EU Force Takes Shape With Pledge of troops," *International Herald Tribune*, November 20, 2000, p. 1. "EU Rapid Reaction Force gets go-ahead," RTE News On line, November 20, 2000. At <www.radio1.ie/news/2000/1120/eu.html>. Robin Oakley, "Europe Moves into the Defence Business," CNN.com, November 20, 2000. At <europe.cnn.com/SPECIALS/2000/euounion/story/defence/>. John Keegan, "Euro Force Must Stay Under Our Control, Says NATO," *London Daily Telegraph*, November 28, 2000, p. 1. Massimo Annati, "Shaping the Requirements for the European Rapid Reaction Force," *Military Technology*, 2./2001, pp. 58-72. Luke Hill, "Turkey slows build-up of EU defense," *Jane's Defence Weekly*, May 30, 2001, p. 21.
- 69 Luke Hill, "EU military staff goes operational," *Jane's Defence Weekly*, June 20, 2001, p. 2.
- 70 "EU army-to-be lacks transport ships and aircraft," Reuters, May 14, 2001.
- 71 The United States spends some \$2 billion annually for Bosnia operations. The Kosovo air operations cost \$5.5 billion.
- 72 Available on line at <www.defenselink.mil/pubs/allied_contrib2001>
- 73 In terms of reaction forces, NATO's main multinational land forces commands are the Allied Command Europe (ACE) Mobile Force (Land) and the ACE Rapid Reaction Corps (ARRC). The Annual Report notes that with the exception of Iceland (which has no armed forces) and France (which is not part of NATO's integrated military structure), all NATO nations not contributing to the ARRC provide forces for the ACE Mobile Force – Land. This latter is a 5,000-strong brigade-sized Immediate Reaction Forces formation. These have their air counterpart in the Immediate and Rapid Reaction Forces (Air). NATO also maintains three standing maritime Immediate Reaction Forces: the Standing Naval Force Atlantic (STANAVFORLANT), the Standing Naval Force Mediterranean (STANAVFORMED), and the Standing Naval Force Channel (STANAVFORCHAN). STANAVFORLANT and STANAVFORMED each consist of 6-10 destroyers and frigates, while STANAVFORCHAN is a multinational minesweeping force.
- 74 In contrast, 19 percent of U.S. trade is with the European Union, 20 percent is with Canada, and 18 percent is with Latin America. U.S. Pacific Command, <www.pacom.mil/about/pacom.htm>
- 75 *Ibid.*

- 76 The United States has bilateral Mutual Defense Treaties with three Asian nations: Japan, South Korea, and the Republic of the Philippines. The latter was rendered moot in 1992 when the United States was required to return 23 military facilities and leave the Philippines. A new "Visiting Forces Agreement" was signed in 1999. In addition, there are two "agreements" governing U.S. relationships with Thailand (Rusk-Thanat Agreement) and with Taiwan (Taiwan Relations Act).
- 77 *Jane's Defense Weekly*, March 7, 2001, p. 35. Other countries that contributed combat or support units (mainly medical) in the Korean War were Australia, Belgium, Canada, Colombia, Denmark, Ethiopia, France, Greece, India, Italy, Luxembourg, the Netherlands, New Zealand, Norway, the Philippines, Sweden, Thailand, Turkey, and The Union of South Africa. History of the United Nations Command, <www.korea.army.mil/unc.htm>
- 78 U.S. Pacific Command, <www.pacom.mil/about/pacom.htm>
- 79 U.S. military strength in Japan is about 47,000 ashore and 12,000 afloat. U.S. Forces Japan's (USFJ) 90 locations range in size from a single antenna site to a several-thousand-acre training area. Several facilities are joint-use bases where Japan Self Defense Forces and U.S. forces share the use of installation facilities. Of the total USFJ forces, approximately 27,000 are stationed on Okinawa. U.S. Forces Korea includes more than 85 active installations in the Republic of Korea and has about 37,500 U.S. military personnel assigned in Korea. U.S. Pacific Command, <www.pacom.mil/about/pacom.htm>
- 80 *Defense Policy Choices for the Bush Administration 2001-05*, Michael O'Hanlon, Brookings Institution, 2001, p. 213 *inter alia*. The excellent chapter on Taiwan assesses the China-Taiwan-U.S. military balance across the Strait.
- 81 Doug Struck, "North Korea Warns It May Test Missiles," *Washington Post*, February 23, 2001, p. A18. On May 3, 2001, however, Kim Jong Il stated that North Korea would extend its missile launch moratorium until at least 2003. Doug Struck, "N. Korea Extends Missile Test Halt," *Washington Post*, May 4, 2001, p. 1.
- 82 John Donnelly, "Navy Considers Basing Attack Subs in Guam," *Defense Week*, July 31, 2000, p. 6.
- 83 "Evicted islanders allowed home," "The Chagos Islands: A sordid tale," and "Chagos islanders: 30 years of suffering," BBC News On Line, November 3, 2000. At <http://news.bbc.co.uk/hi/english/uk/newsid_1005000/1005736.stm>, <http://news.bbc.co.uk/hi/english/uk_politics/newsid_1005000/1005064.stm>, and <http://news.bbc.co.uk/hi/english/world/africa/newsid_1005000/1005130.stm> respectively.
- 84 "First US Carrier to Moor Pierside in Singapore," DoD News Release 118-01, March 20, 2001.
- 85 The three exceptions are Syria, Lebanon, and Israel. These fall within the U.S. European Command's purview along with all but seven African nations and all of Europe.

- 86 Press Conference with Secretary of State Colin Powell and EU Officials, March 6, 2001. Former Representative Lee Hamilton, who headed the House International Relations Committee, holds the same view. In speaking of the Bush administration's effort to establish distance from the Israeli-Palestinian peace process while simultaneously bearing down on Iraq, Hamilton said: "As is so often the case in foreign policy, you quickly learn in the Middle East that every issue is connected to some other issue." James Kitfield, "In Foreign Policy, Bush II is Like Reagan I," *National Journal*, March 31, 2001, p. 964.
- 87 The most recent sustained raid occurred on February 16 when five communications or command and control facilities were struck. U.S. Central Command News Release 01-02-03 dated February 16, 2001. On February 13 USCENTCOM noted there had been 700 separate incidents of Iraqi surface-to-air missile (SAM) and anti-aircraft artillery (AAA) fire directed against coalition aircraft and more than 150 intrusions into the southern no-fly zone by Iraqi aircraft since December 1998 (when the four-day long Operation Desert Fox took place). USCENTCOM News Release 10-02-02.
- 88 "Saudis Condemn Airstrikes," *Washington Post*, February 22, 2001, p. A16.
- 89 "Cuts Urged in Patrols over Iraq," Thomas Ricks and Alan Sipress, *Washington Post*, May 9, 2001, p. A1.
- 90 Gulf Cooperation Council states are Saudi Arabia, Kuwait, Bahrain, Qatar, Oman, and the United Arab Emirates.
- 91 "Powell Defends Sanctions Policy," Ben Barber, *The Washington Times*, March 7, 2001, p. 1.
- 92 "Kuwait boosts spending to cover allied operations," Ed Blanche, *Jane's Defence Weekly*, May 17, 2000, p. 16.
- 93 It really wasn't very long ago that "rogue" became linked with nations or states in the parlance of international relations and national politics. The term is a natural evolution from Colin Powell's 1991 statement in which he characterized Fidel Castro of Cuba and Kim Il Sung of North Korea as "demons." Secretary of State Madeleine Albright used the term "rogue state" as a description of countries whose "sole purpose" is to "destroy the [international] system."
- 94 The most recent example is a July 2001 agreement between Kuwait and Iran to cooperate on curbing drug trading and smuggling.
- 95 Foreign Ministers of the Group of Eight unanimously endorsed the concept of "third party" monitors of an Israeli-Palestinian cease fire that could end the current intifada in accordance with the Mitchell report recommendations. U.S. participants in the MFO would be a logical source of people for the U.S. contingent in a larger monitoring force. See William Drozdiak, "U.S. Backs Call for 'Third-Party' Monitors in Mideast," *Washington Post*, July 20, 2001, p. A21.
- 96 Exactly the opposite is happening. Under a Clinton administration agreement concluded with Israel, economic aid will be gradually reduced while military aid increases by \$60 million per year through FY2008 when it will reach \$2.4 bil-

lion. Currently Israel gets approximately \$2 billion annually in military assistance from the United States. But in late 2000, when President Clinton asked Congress for a Middle East supplemental authorization (\$450 million for Israel, \$225 million for Egypt, and \$25 million for Jordan), Congress refused. Department of State Press Briefing, January 19, 2001 at <<http://secretary.state.gov/www/briefings/0101/010119db.html>>

- 97 An example of using exercises to establish new military-to-military links is the participation, for the first time, of a U.S. naval ship (USS Radford) in an exercise with units from the Algerian armed forces. *Surface Warfare*, Vol. 25, No. 1, January/February 2001, p. 39.
- 98 This point was raised in *FY2000 Annual Report for the Office of the Director, Operational Test and Evaluation*, January 2001. "[T]he DDG-51 class is still at a disadvantage in a one on one encounter with a submarine." Working against "a single high-speed, maneuvering surface target simulating the patrol boat threat...15 percent of the projectiles fired by the ship's 5-inch gun mount were considered target hits and another 24 percent were counted as near misses. Since the crew was fully alerted in this event, we are unable to assess whether comparable results could be achieved in a tactically realistic scenario." (Navy Programs, Arleigh Burke (DDG-51) Class Guided Missile Destroyer with the AN/SPY-1D Radar, p. 5.)
- 99 The OAS was first called the International Union of American Republics when it was founded Apr. 14, 1890.
- 100 Cuba is a member, although its present government has been excluded from participation since 1962 for incompatibility with the principles of the OAS Charter.
- 101 Separately, the Pentagon is spending \$62 million refurbishing the facilities at the Ecuadorian town of Manta to provide a launching pad for surveillance flights over Colombia's cocaine and heroin-producing areas. When fully operational, up to 400 Americans will be on site. "Ecuador Air Base Becomes Key to U.S. Drug Surveillance Flights," *Wall Street Journal*, March 15, 2001 (WSJ.com). According to the Pentagon, costs to establish facilities at Manta and the other three anti-drug patrol bases in El Salvador and on the Dutch-owned islands of Aruba and Curaçao will come to \$116-122 million with annual operating costs of between \$16-22 million.
- 102 "Hearing of the Senate Budget Committee on the Fiscal Year 2002 International Affairs Budget proposal," March 14, 2001. This initiative should not be confused with the Andean Trade Preference Act, passed in 1991, which is about to expire. Congress wants to expand it to match the provisions of the Caribbean Basin Initiative's "Trade and Development Act of 2000." *Congressional Record*, Vol. 147, No. 33, March 13, 2001, pp. S2225-2228.
- 103 "Report of the Oversight Investigation of the Death of Esequiel Hernandez," Subcommittee on Immigration and Claims, House Committee on the Judiciary, November 1998.

- 104 Testimony before the Senate Select Committee on Intelligence, February 7, 2001.
- 105 A major vehicle for transformation has been the School of the Americas. Now called the Western Hemisphere Institute for Security Cooperation, the school has been remodeled along the lines of five other DoD regionally-oriented schools whose students include civilians as well as military representatives from the targeted region.
- 106 Indeed, of three late 2000 or early 2001 reports on the future National or Military Security environment – “Taking Charge: A Bipartisan Report to the President Elect on Foreign Policy and National Security – Transition 2001” (Rand), “A Strategy for a Long Peace” (Center for Strategic and Budgetary Assessments), and “Global Trends 2015: A Dialogue About the Future With Nongovernmental Experts (National Intelligence Council) – only the latter specifically addressed Africa. The 2001 *Annual Report to the President by the Secretary of Defense* had two paragraphs on Sub-Saharan Africa.
- 107 For 2000, total U.S. crude oil imports were 3.27 billion barrels. Of this amount, 15 percent originated in Africa, compared to 27 percent from the Persian Gulf and 20 percent (35 percent if Mexico is included) from Latin America/Caribbean. Table 40, Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin, January - December 2000. At <www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/petroleum_supply_monthly/current/txt/table_40.txt>
- 108 “U.S. regional defense resources for sub-Saharan Africa are limited....[DoD] prioritizes programs and activities in relation to African partners’ stability and relative importance to U.S. national interests.” *Secretary of Defense Annual Report to the President*, 2001, p. 18.
- 109 Of the six U.N. peacekeeping missions initiated since January 1996, three have been in Africa: U.N. Mission in Sierra Leone (UNAMSIL – 1999), U.N. Organization Mission in the Democratic Republic of the Congo (MONUC – 1999), and U.N. Mission in Ethiopia and Eritrea (UNMEE – 2000). ECOWAS, dominated by Nigeria, has been active in Western Africa trying to quell civil wars.
- 110 *Secretary of Defense Annual Report to the President*, 2001, p. 30.
- 111 In the context of this discussion, “outcast” does not refer to anyone who for any reason becomes a displaced person or refugee from oppression.
- 112 For instance, although the international community generally was appalled by the attacks on the U.S. embassies in Dar es Salaam and Nairobi, many states objected to the subsequent U.S. attacks on a site in Afghanistan used by the accused mastermind of the attacks, Usama bin Ladin, and on a pharmaceutical plant in Sudan that subsequently was deemed to have no connection with the bombings or with bin Ladin.
- 113 The following information is derived from the U.S. State Department web site at <www.state.gov/www/global/terrorism/index.html>

- 114 The January 1, 2000 listing of Treaties in Force shows only three conventions under the category “terrorism”: the convention dealing with crimes against persons and related extortion that are of international significance; the convention on the prevention and punishment of crimes against internationally protected persons; and the convention against the taking of hostages. Other terrorist-related conventions fall under topics such as aviation – convention on the suppression of unlawful seizure of aircraft and the convention on the marking of plastic explosives. At <www.state.gov/www/global/legal_affairs/tifindex.html>
- 115 Panel I of a “Hearing of the Senate Foreign Relations Committee, Subject: Department of Energy Nonproliferation Programs With Russia.” Federal News Service at <www.fnsg.com/>
 Senator Baker also referred to a strong statement by Senator Pete Domenici (R-NM) when the Task Force report was issued: “The report envisions an eight to ten year time frame at a cost of \$30 billion. In my view, the national security benefits to United States citizens from securing 800,000 nuclear weapons worth of fissile materials is a good investment. We have a simple choice: we can either spend the money, reduce the threat, or spend more money in the future to defend ourselves. And I am a strong believer that threat reduction is the first, best approach in this case.”
- 116 U.S. counterterrorism policy has four parts: (1) make no concessions to terrorists and strike no deals; (2) bring terrorists to justice for their crimes; (3) isolate and apply pressure on states that sponsor terrorism to force them to change their behavior; and (4) bolster the counterterrorism capabilities of those countries that work with the U.S. and require assistance. At <www.state.gov/www/global/terrorism/index.html>
- 117 As if to emphasize this point, U.S. Space Command commander Gen. Ralph Eberhart earlier this year expressed interest in taking over NASA’s canceled X-33 Venture Star program with a view to converting it into a sub-orbital “space bomber” that could strike targets virtually anywhere in the world and return to its base within 90 minutes of initial launch. See Ed Vulliamy’s “Bush plans ‘space bomber,’” *The Observer* (London), July 29, 2001.
- 118 For the thoughts of strategists Sun Tzu and Col. John Boyd on delegating authority and initiative versus micromanagement, see background paper *A Swift, Elusive Sword*, especially pp. 36-37, 51-55.
- 119 Gen. Charles C. Krulak, “The Strategic Corporal: Leadership in the Three Block War,” *Marines Magazine*, January 1999.
- 120 This section borrows heavily from *A Swift, Elusive Sword: What If Sun Tzu and John Boyd Did a National Defense Review* by Chester W. Richards, a background study prepared for the Center for Defense Information, May 2001.
- 121 Richards, *A Swift, Elusive Sword*, p. 36 ff.
- 122 Mark Bowden, *Blackhawk Down*, Atlantic Mon. Pr., 1999. See Richards, *A Swift, Elusive Sword*, p. 41.

- 123 Richards, *A Swift, Elusive Sword*, p. 41.
- 124 This section leans heavily on the pioneering analysis of Maj. Donald Vandergriff, USA, particularly the excellent summaries in "Culture Wars," in Robert Bateman, editor, *Digital Wars: A View from the Frontline*, (Novato, CA: Presidio Press, August 1999), and the introduction to *Spirit, Blood, and Treasure*, Maj. Donald Vandergriff, USA., editor, Presidio, 2001. The text borrows from discussion of these ideas in Richards, *A Swift, Elusive Sword*, p. 45 ff.
- 125 Maj. Donald Vandergriff, USA., *The Revolution in Human Affairs*, briefing available at Defense and the National Interest, <www.d-n-i.net>.
- 126 Comments taken from the Chief of Staff of the Army's "Leadership Survey," Ft. Leavenworth KS, 2000. Available at <www.d-n-i.net>.
- 127 Briefing by Lt. Gen. Timothy Maude, Deputy Chief of Staff of the Army for Personnel, October 19, 2000, Chart 25.
- 128 This is the title of an excellent paper by Dr. Jonathan Shay, at <www.belisarius.com>. Marine Corps Doctrine Publication 1, *Warfighting*, also addresses this topic.
- 129 *The Art of War*, Sun Tzu, Thomas Cleary transl., (Boston: Shambhala, 1988), pp. 81, 98.
- 130 See, for example, Dr. Jonathan Shay, *Achilles in Vietnam: Combat Trauma and the Undoing of Character*, Touchstone, 1995. Several papers by Dr. Shay on trust and cohesion are available at <www.belisarius.com>.
- 131 Available at Defense and the National Interest, <www.d-n-i.net>.
- 132 For more on problems with officer career pressures, incentives, promotion and selection, see William C. Duesbury, *An Assessment of Key Military Personnel and Mobility Issues*, a background study prepared for the Center for Defense Information, January 2001, pp. 12-21.
- 133 Vandergriff, *Spirit, Blood, and Treasure*.
- 134 Maj. Don Vandergriff, USA, personal communication, March 2001. The size of the defense acquisition workforce comes from Bill Landaeur, "Pentagon Devises Plan To Bolster Procurement Ranks," *Defense Week*, October 2, 2000.
- 135 Vandergriff, "Culture Wars."
- 136 Vandergriff, *Spirit, Blood, and Treasure*.
- 137 Rapid turnover can affect even the highest ranks. See Holtzer, Robert, "Stability At Top Is Critical To JFC's Pentagon Clout," *Defense News*, 4 September 2000.
- 138 Vandergriff, "Culture Wars."
- 139 Col. Michael D. Wyly, USMC (Ret.), "Thinking Like Marines," 1991, unpublished paper available at <www.belisarius.com>. Col. Wyly was the founding Vice-President of the Marine Corps University and one of the prime originators of maneuver warfare in the Marine Corps.
- 140 See *More Brass, More Bucks . . . Officer Inflation in Today's Military*, Project On Government Oversight, March 1998.

- 141 See for example, Sarkesian, Sam C., *The Professional Army Officer in a Changing Society*, Chicago, IL: Nelson-Hall, 1975, page 67, and Eckhardt, G.S., MG, USA, *Study on Military Professionalism*, Carlisle Barracks, PA: U.S. Army War College, 30 June 1970.
- 142 See also Beach, Edward L., "Up-or-out, a Financial Disaster," *U.S. Naval Institute Proceedings*, June 1987, pages 54-57.
- 143 Vandergriff, "Culture Wars."
- 144 For more on promotion procedures see Duesbury background paper, *An Assessment of Key Military Personnel and Mobility Issues*, pp. 15-20.
- 145 William C. Duesbury, *An Assessment of Key Military Personnel and Mobility Issues*, a background study prepared for the Center for Defense Information, January 2001.
- 146 The OODA cycle was developed by John Boyd. See endnote 20.
- 147 The last significant employment of parachute units in that mode was Operation Just Cause against a very ill-prepared Panama Defense Force in 1989. In that operation, Rangers and a composite brigade of the 82nd Airborne Division – a total of some 4,000 men – were parachuted into Panama 15 minutes after Special Operations Forces began the fight. Five years later, airborne forces were already *en route* to Haiti as part of a force meant to restore Jean Bertrand Aristide as that country's president. The aircraft returned to base when the ruling junta agreed to vacate their power.
- 148 See <www.royal-navy.mod.uk/static/pages/148.html> for Britain. Warships Forecast – Luigi Einaudi, *Forecast International*, January 2001 for Italy. Jane's *Fighting Ships* 2000 for France.
- 149 "Five European Nations Agree to Amphibious Warfare Initiative," *Aerospace Daily*, December 6, 2000, p. 361.
- 150 *Aerospace Daily*, July 12, 1999, p. 51.
- 151 *Ibid.*, June 22, 2000, p. 457.
- 152 General Accounting Office, "Military Readiness: Air Transport Capability Falls Short of Requirements," GAO/NSIAD-00-135, June 22, 2000, p. 5. The average age of refueling aircraft is approximately 39 years.
- 153 In fact, in mid-December 2000, Gen. Charles Robertson, commander in chief of the U.S. Transportation Command, briefed the details of the Study except for the specific increase in the airlift requirement, expressed in million ton miles per day (MTM/D). At the time of the briefing, the Air Force estimated it could move 44.5 MTM/D against a requirement of 49.7 MTM/D.
- 154 The 54.5 MTM/D airlift capacity was called "the minimum moderate-risk capability to support the National Military Strategy." *MRS-05 Executive Summary*, p. 4.
- 155 In Appendix II of its June 22, 2000 report (see endnote above), the GAO attributed 8.6 MTM/D of the military's intertheater shortfall to lower than expected mission capable rates of C-5, C-141, and KC-10 aircraft and slower than ex-

pected replacement of C-141s by C-17s. The shortfall for the C-5, attributed in large part to age and shortages of spare parts, was especially troubling. See “Air Force Supply: Management Actions Create Spare Parts Shortages and Operation Problems,” GAO/NSIAD/AIMD-99-77, April 29, 1999.

- 156 MRS-05 Executive Summary, p. 7.
- 157 The Army plan also calls for increasing the lethality and mobility of its light divisions by giving them the same equipment platforms that are transforming the heavy units.
- 158 In his December 2000 presentation, Gen. Robertson noted that the Civil Reserve Air Fleet (CRAF) would supply 20.5 MTM/D for a major theater war requirement. He also described the need to “swing” mobility assets to support the projected second major theater war, a “high risk” proposition. The Navy’s counterpart to CRAF is VISA – Voluntary Intermodal Sealift Agreement.
- 159 Available at <www.dote.osd.mil/>.
- 160 Crusader could be a good long-range weapon for intense armored combat scenarios, but difficulties continue with integration of software and hardware and testing remains insufficient.
- 161 The V-22 is not meeting its troop-carrying requirements.
- 162 Navy progress in improving littoral capabilities (which typically suggests more numerous, smaller ships) is slow, as the General Accounting Office has noted: “The Navy has acknowledged that it currently lacks a number of key war-fighting capabilities it needs for operations in littoral environs. For example, it does not have a means for effectively breaching enemy sea mines in the surf zone; detecting and neutralizing enemy submarines in shallow water; defending its ships against cruise missiles; or providing adequate fire support for Marine Corps amphibious landings and combat operations ashore.... Unless current efforts can be accelerated or alternatives developed, it will be another 10 to 20 years before the Navy and Marine Corps will have the capabilities needed to successfully execute littoral warfare operations against competent enemy forces.” (*Navy Acquisitions: Improved Littoral War-Fighting Capabilities Needed*, General Accounting Office (GAO-01-493), May 18, 2001, p. 2.)
Vice Adm. Arthur Cebrowski, president of the Naval War College, has war-gamed a variety of promising new ideas for using more numerous networked “platforms” more suitable for littoral operations versus a few larger platforms – for example, using numerous hypothetical 4,000-ton carriers instead of a single supercarrier.
- 163 (See, for example, “U.S. Navy Takes Look At Miniature Aircraft Carriers,” Robert Holzer, *Defense News*, September 18, 2000, p. 3.) Indeed, the Navy is already looking at new designs for future surface ships. In June 2001 a two-thirds scale British “trimaran” or three-hulled research vessel visited Washington. The U.S. Navy has invested \$2 million in equipment as part of risk reduction tests for the

trimaran which it sees as a possible candidate for smaller, faster ships to operate in the littoral regions as part of the Navy's "streetfighter" warship concept.

164 (*Aerospace Daily*, June 5, 2001, pp. 1,3.)

The defense transformation study group for Defense Secretary Rumsfeld's review noted, regarding both DD-21 and CVX, "We were not persuaded they were truly transformational ... We didn't see a substantial difference in operational capability in the DD-21 compared to the other systems."

165 (DoD News Briefing on Defense Transformation, Gen. James P. McCarthy, USAF, Retired, June 12, 2001.)

166 The importance of systems vs. platforms was alluded to by Vice Adm. Dennis McGinn, head of Navy Warfare Requirements and Programs, in Senate testimony on June 7, 2001: "Our emerging priorities for investment by which I believe the Navy can best improve our war-fighting capability for every dollar invested are networks, sensors, weapons and platforms. Platforms, our ships, submarines and aircraft, have long been viewed as the principal symbols for any discussions about naval warfare capabilities. But ... these platforms in and of themselves don't deliver combat capability we need in the future unless and until they are networked to the rest of the fleet and to other services' capabilities." (Hearings before the Subcommittee on Seapower, Senate Armed Services Committee, June 7, 2001.)

167 Congress has made clear it would like to see unmanned aircraft take over a substantial share of the manned aircraft role. In the Fiscal Year 2001 Defense Authorization Act, Congress established the goal that one-third of all operational deep strike aircraft would be unmanned by 2010. ("Enactment of Provisions of H.R. 5408, The Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, Conference Report to Accompany H.R. 4205," House Report 106-945, Section 220, p. 46 ff.)

168 Secretary Rumsfeld has stated that he has "never seen an organization that couldn't operate at something like five percent more efficiency if it had the freedom to do so." Testimony before the Senate Armed Services Committee, June 28, 2001.

169 The Pentagon study group on Financial Management did not arrive at this estimate, but the chairperson of the review seemed to endorse this estimate which was derived by Business Executives for National Security. DoD Special News Briefing on Financial Management Study, July 10, 2001.

170 "Roles" are defined as "broad enduring purposes for which the services were established by Congress." Missions are the "tasks assigned by the President or Secretary of Defense to the combatant Commanders-in-Chief." A related term is functions, defined as "specific responsibilities assigned by the President or Secretary of Defense to enable the services to fulfill their legally established roles." (*CJCS Report on the Roles, Missions, and Functions of the Armed Forces of the United States*, February 1993).

171 Andrew Koch and Michael Sirak, "USAF, USN Justify Separate Programmes, *Jane's Defence Weekly*, July 25, 2001.

- 172 The allocation of missions and functions in turn dictates the force structure and size because missions and functions drive the entire military establishment – personnel levels and budgets; equipment types and quantities (research, development and procurement); equipment maintenance, modernization, and replacement costs; the number, type, and locations of posts, camps and stations (infrastructure), etc.
- 173 Richards, *A Swift, Elusive Sword*, p. 37.
- 174 Richards, *A Swift, Elusive Sword*, p. 38.
- 175 Richards, *A Swift, Elusive Sword*, p. 46.
- 176 Adm. Bill Owens, USN (Ret.), *Lifting the Fog of War*. New York: Farrar Straus Giroux, 2000 (p. 173).
- 177 *An Assessment of Joint Doctrine* by Thomas Baines, a background paper prepared for the Center for Defense Information, March 2001.
- 178 This section draws heavily from *An Assessment of Joint Doctrine* by Thomas Baines, a background paper prepared for the Center for Defense Information, March 2001.
- 179 *New World Coming: American Security in the 21st Century*, Phase One Report. The United States Commission on National Security/21st Century, September 15, 1999. [“The Hart-Rudman Report”]
- 180 Hereinafter, these sorts of missions are called “Stabilization Missions.”
- 181 A term which includes the Joint Chiefs, the Joint Staff, the Operations Deputies of the JCS, the Deputy Operations Deputies, the Commanders and Staffs at the Unified Commands, and the various Joint Staff and Operations Colleges.
- 182 Here, the NCA is interpreted to consist of the President and the Secretary of Defense, with the Joint Chiefs and National Security Council in advisory roles. The importance of the NSC and Secretary of State in military matters has varied widely among administrations.
- 183 See the section, “Current Doctrine and Processes,” in the background paper by Thomas Baines, *An Assessment of Joint Doctrine* for a discussion of those problems.
- 184 This section draws heavily from *Reforming the Marketplace – The Industrial Component of National Defense* by Chester W. Richards, a background paper prepared for the Center for Defense Information, January 2001.
- 185 Programmed cost reductions, that is, from the original bid and not including learning curve effects, must average \$62 million per aircraft. Average unit cost of the F-15E was \$46 million. See NSIAD-00-178, “Recent F-22 Cost Estimates Exceeded Congressional Limitation,” dated August 2000. Available on the GAO web site.
- 186 Franklin C. Spinney, *Defense Death Spiral*, available on <www.d-n-i.net>.
- 187 For descriptions the alternative evolutionary paths of the defense and commercial industries, see the background paper *Reforming the Marketplace – The Industrial Component of National Defense*.

- 188 *Reforming the Marketplace – The Industrial Component of National Defense* by Chester W. Richards, a background paper prepared for the Center for Defense Information, January 2001.
- 189 Changes to our political system are beyond the scope of a paper on industrial policy. For a set of recommendations that could restrict front-loading and political engineering but would not require amending the Constitution, see Section VI, Reform: Back to Fundamentals, in *Defense Power Games*, 1990, rev. 1998, by Franklin C. Spinney, originally published by the Fund for Constitutional Government and available at <www.d-n-i.net>.



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