

**The QDR in Perspective:
Meeting America's National Security
Needs In the 21st Century**

*The Final Report of the
Quadrennial Defense Review
Independent Panel*

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INTRODUCTION

Congress has required by law that every four years the Department of Defense conduct what would outside of government simply be called a “strategic review” of its existing plans and programs. The Department calls this process the “Quadrennial Defense Review” or the “QDR” for short.

The modern QDR originated in 1990 at the end of the Cold War when the Chairman of the Joint Chiefs of Staff undertook in the “Base Force” study to reconsider the strategy underpinning the military establishment. Then in 1993, building on his own work as the chairman of the House Armed Services Committee, Secretary of Defense Les Aspin decided to conduct what he called a Bottom-up Review - an examination, with emphasis on the long term of the risks which America was likely to face, the capabilities necessary to meet them, and the various options for developing those capabilities. As originally conceived, the process was supposed to be free ranging, with the initiative and analysis proceeding from within the DOD and flowing upwards. The point was to free the Department from the constraints of existing assumptions and refresh the intellectual capital of the top political leadership in Congress as well as the Executive branch.

The initial Bottom-up Review was considered a success. Of course there was much debate about the conclusions, but Congress thought the process was worthwhile and mandated that it be repeated every four years. Unfortunately, once the idea became statutory, it became part of the bureaucratic routine. The natural tendency of bureaucracy is to plan short term, operate from the top down, think within existing parameters, and affirm the correctness of existing plans and programs of record.

That is exactly what happened to the QDR process. Instead of unconstrained, long term analysis by planners who were encouraged to challenge preexisting thinking, the QDRs became explanations and justifications, often with marginal changes, of established decisions and plans.

This latest QDR continues the trend of the last 15 years. It is a wartime QDR, prepared by a Department that is focused – understandably and appropriately – on responding to the threats America now faces and winning the wars in which America is now engaged. Undoubtedly the QDR is of value in helping Congress review and advance the current vital missions of the

Department. But for the reasons already stated, it is not the kind of long term planning document which the statute envisions.

Congress constituted our Independent Panel to review the QDR, assess the long term threats facing America, and produce recommendations regarding the capabilities which will be necessary to meet those threats. We have deliberated for over five months, in the process reviewing a mass of documents (both classified and unclassified), interviewing dozens of witnesses from the Department, and consulting a number of outside experts.

This resulting unanimous Report is divided into five parts.

Our Report first conducts a brief survey of foreign policy, with special emphasis on the missions that America's military has been called on to perform since the fall of the Berlin Wall. From the strategic habits of American presidents over the last century, and especially since 1945 – habits which have showed a remarkable degree of bipartisan consistency – we deduce four enduring national interests which will continue to transcend political differences and animate American policy in the future. We also discuss the five gravest potential threats to those interests which are likely to arise over the next generation.

In the next two chapters, we turn to the capabilities which our government must develop and sustain in order to protect those enduring interests. We first discuss the civilian elements of national power – what Secretary Gates has called the “tools of soft power.” Our government is just coming to understand the importance of these vital, but neglected, tools. We make a number of recommendations for the structural and cultural changes in both the Executive and Legislative branches which will be necessary if these elements of national power are to play their role in protecting America's enduring interests.

We then turn to the condition of America's military. We note that there is a significant and growing gap between the “force structure” of the military – its size and its inventory of equipment – and the missions it will be called on to perform in the future. As required by Congress, we propose an alternative force structure with emphasis on increasing the size of the Navy. We also review the urgent necessity of recapitalizing and modernizing the weapons and equipment inventory of all the services; we assess the adequacy of the budget with that need in view; and we make recommendations for increasing the Department's ability to contribute to homeland defense and deal with asymmetric threats such as cyber attack.

In this third chapter, we also review the military's personnel policies. We conclude that while the volunteer military has been an unqualified success, there are trends that threaten its sustainability. We recommend a number of changes in retention, promotion, compensation, and professional military education policies, which we believe will serve the interests of America's servicemembers and strengthen the volunteer force.

The fourth chapter of our Report takes on the issue of acquisition reform. We commend Secretary Gates for his emphasis on reducing both the cost of new programs and the time it takes to develop them. But we are concerned that the typical direction of past reforms – increasing the process involved in making procurement decisions – may detract from the clear authority and accountability that alone can reduce cost and increase efficiency. We offer several recommendations to Congress in this area.

Finally, the fifth chapter of our Report deals with the QDR process itself. We review the history of QDRs and analyze the strengths and weaknesses of the idea in concept and practice. We very much approve the impulse behind the QDR – the desire to step back from the flow of daily events and think creatively about the future – and we suggest methods superior to the current process for Congress and the Executive to work together in planning our nation’s defense.

The issues raised in the body of this Report are sufficiently serious that we believe an explicit warning is appropriate. The aging of the inventories and equipment used by the services, the decline in the size of the Navy, escalating personnel entitlements, overhead and procurement costs, and the growing stress on the force means that a train wreck is coming in the areas of personnel, acquisition, and force structure. In addition, our nation needs to build greater civil operational capacity to deploy civilians alongside our military and to partner with international bodies, the private sector, and non-governmental organizations in dealing with failed and failing states.

The potential consequences for the United States of a “business as usual” attitude towards the concerns in this Report are not acceptable. We are confident that the trendlines can be reversed, but it will require an ongoing, bipartisan concentration of political will in support of decisive action. A good start would be to replace the existing national security planning process with something more up to date, more comprehensive, and more effective.

In conclusion, we wish to acknowledge the cooperation of the Department in the preparation of this Report -- and to express our unanimous and undying gratitude to the men and women of America’s military, and their families, whose sacrifice and dedication continue to inspire and humble us.

COMPILATION OF FINDINGS AND RECOMMENDATIONS

The Panel's findings and recommendations are as follows:

Chapter 1: The Prospects for 21st Century Conflict

- 1.** America has for most of the last century pursued four enduring security interests:
 - a.** The defense of the American homeland
 - b.** Assured access to the sea, air, space, and cyberspace
 - c.** The preservation of a favorable balance of power across Eurasia that prevents authoritarian domination of that region
 - d.** Providing for the global “common good” through such actions as humanitarian aid, development assistance, and disaster relief.

- 2.** Five key global trends face the nation as it seeks to sustain its role as the leader of an international system that protects the interests outlined above:
 - a.** Radical Islamist extremism and the threat of terrorism
 - b.** The rise of new global great powers in Asia
 - c.** Continued struggle for power in the Persian Gulf and the greater Middle East
 - d.** An accelerating global competition for resources
 - e.** Persistent problems from failed and failing states.

- 3.** These five key global trends have framed a range of choices for the United States:
 - a.** These trends are likely to place an increased demand on American “hard power” to preserve regional balances; while diplomacy and development have important roles to play, the world’s first-order concerns will continue to be security concerns.
 - b.** The various tools of “smart power” – diplomacy, engagement, trade, targeted communications about American ideals and intentions, development of grassroots political and economic institutions – will be increasingly necessary to protect America’s national interests.
 - c.** Today’s world offers unique opportunities for international cooperation, but the United States needs to guide continued adaptation of existing international institutions and alliances and to support development of new institutions appropriate to the demands of the 21st century. This will not happen without global confidence in American leadership, its political, economic, and military strength, and steadfast national purpose.
 - d.** Finally, America cannot abandon a leadership role in support of its national interests. To do so will simply lead to an increasingly unstable and unfriendly global climate and eventually to conflicts America cannot ignore, which we must then prosecute with limited choices under unfavorable circumstances -- and with stakes that are higher than anyone would like.

Chapter Two: The Comprehensive Approach

1. Legislative Branch: National Security reform effort

- a. Finding:** The Panel acknowledges Congress’s crucial role in providing for national defense with both authorities and appropriations. However, the Panel notes with extreme concern that our current federal government structures – both executive and legislative, and in particular those related to security – were fashioned in the 1940s and, at best, they work imperfectly today. The U.S. defense framework adopted after World War II was structured to address the Soviet Union in a bipolar world. The threats of today are much different. A new approach is needed.
- b. Recommendation:** The Panel recommends a legislative reform package containing the following elements:
 - i.** Review and restructure Title 10, Title 22, Title 32, and Title 50 authorities to enhance integration of effort while clarifying the individual responsibilities and authorities of the Department of State, State/AID, the Intelligence Community, and all components of the Department of Defense.
 - ii.** Review and rewrite other authorities to create and expand deployable capabilities of civilian departments, agencies, and institutions (particularly State, State/AID, Treasury, Energy, Justice, DHS, Agriculture, Health and Human Services, and Transportation).
 - iii.** Establish authority for a consortium of existing U.S. government schools to develop and provide a common professional national security education curriculum. This new authority should also establish an interagency assignment exchange program for national security officials.
 - iv.** Create a system of incentives for Executive branch personnel to work in designated “whole of government” assignments (including but not limited to participating in the exchange program described above).
 - v.** Reconvene the Joint Committee on the Organization of Congress, which was established in 1945 and has convened two other times since then, the most recent being in 1993. The Joint Committee on the Organization of Congress has the established precedent and authority to examine and make recommendations to improve the organization and oversight of Congress. Additional detail on the Joint Committee on the Organization of Congress and draft terms of reference for its tasks are provided at Appendix 1.

- vi. Recommend that the Joint Committee on the Organization of Congress examine the current organization of Congress, including the committee structure, the structure of national security authorities, appropriations, and oversight, with the intent of recommending changes to make Congress a more effective body in performing its role to “provide for the common defense.” As part of this effort Congress should:
 - 1. Establish a single national security appropriations subcommittee for Defense, State, State/AID, and the Intelligence Community
 - 2. In parallel, establish an authorization process that coordinates Congressional authorization actions on national security across these departments and agencies.

2. Executive Branch: Integrate national security efforts across the “whole of government”

- a. **Finding:** Just as Congress has a responsibility to improve our national security performance, so does the Executive branch. The Panel finds that the Executive branch lacks an effective “whole of government” capacity that integrates the planning and execution capabilities of the many federal departments and agencies that have national security responsibilities.
- b. **Recommendation:** Executive branch reform should begin with an Executive Order or directive signed by the President that clarifies interagency roles and responsibilities for “whole of government” missions. This directive should:
 - i. Establish a consolidated budget line for national security that encompasses, at a minimum, Defense, State, State/AID, and the Intelligence Community.
 - ii. Task both the Office of Management and Budget (OMB) and the National Security Council (NSC) to develop a mechanism to track implementation of the various budgets that support the Comprehensive Approach.
 - iii. Identify lead and supporting departments and agencies and their associated responsibilities for notional national security missions. This Executive Order or Presidential directive should also establish a process to define interagency roles and responsibilities for missions not specifically addressed therein.
 - iv. Establish standing interagency teams with capabilities to plan for and exercise, in an integrated way, departmental and agency responsibilities in predefined mission scenarios before a crisis occurs.

3. Enhanced civilian “whole of government” capacity

- a. **Finding:** Today civilian department and agencies lack the capacity to provide the array of capabilities required for effective support to the Department of Defense in stability and reconstruction operations in unstable host nations. In many cases, even pre-conflict and certainly post-conflict, our civilians will be deployed in situations of “security insecurity” and thus will have to be able to operate in an integrated way with security forces [whether with indigenous forces (especially in a pre-conflict, failing state case), with international peacekeepers, or with U.S. forces (especially in post-conflict situations)].
- b. **Recommendation:** Congress and the President should establish a National Commission on Building the Civil Force of the Future. The purpose of the commission would be to develop recommendations and a blueprint for increasing the capability and capacity of our civilian departments and agencies to move promptly overseas and cooperate effectively with military forces in insecure security environments. Attached at Appendix 2 is a proposed TOR for the work of this commission.
 - i. The U.S. government should be encouraging and helping to develop similar capabilities among its international partners and in international institutions to supplement or substitute where required for American civilian capability and capacity.
 - ii. Until these capabilities and capacities are developed, at least in U.S. civilian institutions (and perhaps even after), stabilization will continue to be a military mission and must be adequately resourced (as part of the U.S. military strategy for ending operations such as in Iraq and Afghanistan).
 - iii. To develop and support these capabilities, relevant civilian agencies need to develop credible internal requirements as well as development/ budgeting and execution processes to create confidence that they can perform these missions.
 - iv. The Department of Defense needs to contribute to training and exercising these civilian forces with U.S. military forces so that they will be able to operate effectively together.
 - v. The Defense Department and relevant civilian agencies need to conduct a biennial (every other year) exercise involving both the international community and the national agencies integrating the Comprehensive Approach in addressing particular scenarios or contingencies.

4. International Security and Assistance reform

a. Finding: The final element of reform involves changes to International Security Assistance and cooperation programs. The realities of today's security challenges have revealed the institutional weaknesses of the existing security assistance programs and framework. If unchanged, the United States will fail in its efforts to shape and sustain an international environment supportive of its interests.

b. Recommendation: Specifically, appropriate departments or agencies should:

- i.** Include selected allies/partners, select international organizations, and, when possible, Non-Governmental and Private Voluntary Organizations (NGO/PVO) as part of U.S. government efforts to define roles and missions for the Comprehensive Approach. If successful, this effort could be expanded to include the development of improved unity of command and/or unity of effort arrangements and operating procedures among U.S. government and allied governments, international organizations, and participating NGO/PVOs.
- ii.** Document and institutionalize training of U.S., allied governments, and NGO/PVO roles, missions, and operating procedures in support of the Comprehensive Approach.
- iii.** Coordinate and implement the development and acquisition of selected capabilities (e.g., communications, support, coordination, etc.) that support the Comprehensive Approach with key allies and partners. Expand this effort to willing international organizations and NGO/PVOs.
- iv.** Seek authority to establish pooled funding mechanisms for selected national security missions that would benefit from the Comprehensive Approach, including security capacity building, stabilization, and conflict prevention.
- v.** Develop a cost profile for different missions requiring a Comprehensive Approach that identifies the major cost elements and alternative funding arrangements (national, multinational, shared) for providing the needed resources. Seek authority for and conclude agreements to share selected mission costs with key allies and partners.
- vi.** Designate an Assistant Secretary level official to oversee and standardize management of contractors in contingencies, increase the number and improve training of contracting officers, integrate contractors and contractor-provided tasks into contingency plans, and integrate contractor roles into pre-deployment training and exercises. Improve education and training requirements for contractors, particularly those supporting

complex contingencies abroad. U.S. government departments and agencies should also improve their oversight and accountability of contractors who perform security-related tasks under their direction to ensure they are legally as accountable for their conduct as are deployed service or diplomatic members.

- vii.** Continue efforts at Building Partnership Capacity, recognizing that these efforts have several complementary aspects.
 - 1.** Low-end institution building in post-conflict/failing states
 - 2.** Developing high-end capacity of our traditional allies [which entails not only security assistance reform but also, as part of acquisition reform, to build in sharing our defense products with our allies from the outset (requiring export control reform and national disclosure policy reform)]. Put another way, we need a “build to share” policy from the outset.
 - 3.** Viewing rising powers as potential partners that offer us opportunities for collaboration as well as potential challenges.
- viii.** Ensure the integration of lessons learned from the current wars within the programs of instruction of Department of Defense education and training institutions.

Chapter Three: Force Structure and Personnel

1. Force Structure

- a.** Secretary Gates is correct to focus all the necessary resources of American national security on the success of U.S. forces in Iraq and Afghanistan.
- b.** The QDR should reflect that, but it must also plan effectively for threats that are likely to rise over the next 20 years. The legal mandate to the Panel is to submit to Congress “an assessment of the [QDR], including the recommendations of the review, the stated and implied assumptions incorporated in the review, and the vulnerabilities of the strategy and force structure underlying the review.”
- c.** Consistent with its mandate, the Panel found the following:
 - i.** A force-planning construct is a powerful lever that the Secretary of Defense can use to shape the Defense Department. It also represents a useful tool for explaining the defense program to Congress. The absence

of a clear force-planning construct in the 2010 QDR represents a missed opportunity.

- ii.** The force structure in the Asia-Pacific area needs to be increased. In order to preserve U.S. interests, the United States will need to retain the ability to transit freely the areas of the Western Pacific for security and economic reasons. The United States must be fully present in the Asia-Pacific region to protect American lives and territory, ensure the free flow of commerce, maintain stability, and defend our allies in the region. A robust U.S. force structure, one that is largely rooted in maritime strategy and includes other necessary capabilities, will be essential.
 - iii.** Absent improved capabilities from “whole of government” Executive branch departments and agencies, U.S. ground forces will continue with post-conflict stability operations, consuming critical force structure resources. Civilian agencies that are properly resourced and staffed can contribute significantly in stability operations, and they may be able to enhance military readiness by removing tasks more appropriately performed by civilian professionals.
 - iv.** The QDR force structure will not provide sufficient capacity to respond to a domestic catastrophe that might occur during a period of ongoing contingency operations abroad. The role of reserve components needs to be reviewed, with an eye to ensuring that a portion of the National Guard be dedicated to and funded for homeland defense.
 - v.** The expanding cyber mission also needs to be examined. The Department of Defense should be prepared to assist civil authorities in defending cyberspace – beyond the Department’s current role.
 - vi.** The force structure needs to be increased in a number of areas to counter anti-access challenges, strengthen homeland defense (including defense against cyber threats), and conduct post-conflict stabilization missions. It must also be modernized. The Department can achieve cost savings on acquisition and overhead, but substantial additional resources will be required to modernize the force. Although there is a cost to recapitalizing the military, there is also a potential price to be paid for not recapitalizing, one that in the long run would be much greater.
- d.** To compete effectively, the U.S. military must continue to develop new conceptual approaches to dealing with the operational challenges we face. A prime example of such an approach is the Capstone Concept for Joint Operations (CCJO). The Secretary of Defense has directed the Navy and Air Force to

develop an Air-Sea Battle concept. This is one example of a joint approach to deal with the growing anti-access challenge. We believe the Chief of Naval Operations and the Chief of Staff of the Air Force deserve support in this effort and recommend that the other services be brought into the concept as soon as appropriate.

- e. Meeting the force structure challenges of the next 20 years, and creating the financial wherewithal for these capabilities, will not happen if the Department of Defense and Congress maintain the status quo on managing fiscal resources. To reap savings that may be reinvested within defense, and justify additional resources for force structure and equipment modernization, the Department and Congress should reestablish tools that restore fiscal responsibility to the budget process lost when balanced budget rules were abandoned and restore fiscal responsibility to the budget process.

2. Personnel

- a. Although the pay and benefits afforded to U.S. military personnel can never adequately compensate for their sacrifice and the burdens placed upon their families, the recent and dramatic growth in the cost of the All-Volunteer Force cannot be sustained for the long term. A failure to address the increasing costs of the All-Volunteer Force will likely result in a reduction in the force structure, a reduction in benefits, or a compromised All-Volunteer Force.
- b. To accomplish the QDR's goal of preserving and enhancing the All-Volunteer Force and to develop future military leaders, major changes will be necessary in the military personnel system:
 - i. Greater differentiation in assignments and compensation between one or two terms of service and a career
 - ii. A change in military compensation, emphasizing cash in hand instead of deferred or in-kind benefits to enhance recruiting for those serving less than an entire career
 - iii. The use of bonuses and credential pay to attract, retain, and reward critical specialties and outstanding performance
 - iv. Instituting a continuum-of-service model that allows service members to move fluidly between the active and reserve components and between the military, private sector, civil service, and other employment

- v. Current limitations on the length of service provide insufficient time for the education, training, and experiences necessary for 21st century warfare. To gain the best return on investment and experience, and because of improvements in health and longevity, it is necessary to modify career paths to permit the educational and assignment experiences required to meet the challenges the military faces in the 21st century.
- vi. To ensure a healthy All-Volunteer Force for the next two decades, the military's personnel management system should be revised to include modifying the up-or-out career progression, lengthening career opportunities to forty years, instituting 360-degree officer evaluations, and broadening educational experiences both in formal schooling and career experiences for officers heading toward flag rank.
- vii. Modify TriCare for Life to identify solutions that make it more affordable over the long term, including phasing in higher contributions while ensuring these remain below market rates, and adjusting contributions on the basis of ability to pay.
- viii. The Department of Defense and Congress should establish a new National Commission on Military Personnel of the quality and stature of the 1970 Gates Commission, which formulated policies to end military conscription and replace it with an all-volunteer force. The purpose of this commission would be to develop political momentum and a roadmap for implementation of the changes proposed here, including recommendations to modernize the military personnel system, including compensation reform; adjust military career progression to allow for longer and more flexible military careers; rebalance the missions of active, guard and reserve, and mobilization forces; reduce overhead and staff duplication; and reform active, reserve, and retired military health care and retirement benefits to put their financing on a sustainable basis consistent with other national priorities. A proposed TOR is at Appendix 3.

3. Professional Military Education (PME)

- i. In order to attract more youth to military careers and recruit from the nation's top colleges, the services should offer full scholarships on a competitive basis, usable anywhere a student chooses to attend, in exchange for enlisted service in the reserves (and summer officer training) during schooling, and five years of service after graduation to include officer training school.
- ii. To attract and retain officers, and to broaden their experience, successful company grade or junior field grade officers should be offered fully funded civilian graduate degree programs in residence to study military affairs and

foreign cultures and languages, without specific connection to a follow-on assignment. Additionally, all officers selected for advanced promotion to O-4 should be required and funded to earn a graduate degree in residence at a top-tier civilian graduate school in a war-related discipline in the humanities and social sciences. Qualified career officers at these ranks should have available sabbatical assignments in the private sector, voluntary sector, or elsewhere in government, with the opportunity to drop back in year group so as not to fall behind their peers in the opportunity for promotion.

- iii.** Attendance at intermediate and senior service school should be by application, and require entrance examinations administered by the schools in cooperation with the service personnel offices. Too many officers are poorly prepared and/or motivated for post-graduate PME, many treating it largely as a requirement for promotion. The quality of the instruction, and the depth and rigor of staff and war colleges would be strengthened if students possessed the motivation and skills needed to make maximum use of the educational opportunity provided.
- iv.** Officers selected for senior service school should be obligated for at least five years of additional service after graduation.
- v.** Service on the teaching faculty somewhere in PME should be a requirement for promotion to flag rank. Such service should be considered equivalent to joint duty for the purposes of meeting the 4 year requirement for service in a joint billet. To facilitate this requirement, active duty officers should fill all ROTC instructor billets and a larger percentage of faculty billets at the service academies.
- vi.** Foreign language proficiency should be a requirement for commissioning from ROTC and the service academies.
- vii.** To strengthen the education of the officer corps in the profession of arms, the service academies and ROTC should expand and strengthen instruction in ethics, American history, military history, security studies, and related subjects, including the responsibilities of military officers under the Constitution of the United States. Changes to the curricula of these institutions in these subjects must be reported annually to Congress. To insure that pre-commissioning education provides the necessary introduction to the art of war, there can be no disciplinary or subject matter quotas or limits on cadet/midshipmen majors at the service academies or in ROTC.
- viii.** To align the military with best practices in the private sector and to strengthen the officer corps at every level, as well as identify officers for higher command early in their careers, Congress should mandate 360-degree officer evaluation systems for all of the armed services.

- ix. To provide PME the requisite proponentcy and influence in the Defense Department, there should be a Chief Learning Officer at the Assistant Secretary level in the office of the Undersecretary of Defense for Personnel and Readiness. In addition, a senior flag officer, perhaps most appropriately the Commander, U.S. Joint Forces Command, should be designated as “Chancellor” for all service PME institutions.

Chapter Four: Acquisition and Contracting

1. Lead acquisition roles:

- a. **Finding:** Accountability and authority for establishing need, and formulating, approving, and executing programs have become confused within the Department of Defense.
- b. **Recommendation:** The Secretary of Defense should clearly establish lead acquisition roles as follows:
 - i. For identifying gaps in capability - Combatant Commands supported by the force providers (services and defense agencies) and the Joint Staff
 - ii. For defining executable solutions to capability needs – the force providers
 - iii. For choosing and resourcing solutions – the Office of the Secretary of Defense supported by the force providers and the Joint Staff representing the Combatant Commands
 - iv. For delivering defined capabilities on schedule and within cost ceilings – the selected force provider. For multi-service/agency programs, there should be a lead service/agency clearly accountable.

2. Accountability and authority:

- a. **Finding:** Accountability and authority has been widely diffused in increasingly complex decision structures and processes.
- b. **Recommendation:** For each program, the Secretary of Defense or delegated authority should assign accountability and authority for defining and executing each program to an unbroken chain of line management within the force provider community. The Under Secretary of Defense (AT&L) and the Secretary/Deputy Secretary of Defense are in the line management chain. The Service Secretary/Defense Agency head can then hold the military line chain, the Program Executive Officer (PEO), the program manager, and the commensurate defense contractor line management accountable for defining executable programs and,

when the program is approved, delivering the defined increment of capability on schedule and within the cost ceiling. The roles of all other acquisition participants can be neither authoritative nor accountable and should be limited to roles such as advisory, assessment, and oversight of processes.

3. Program definition and delivery:

- a. **Finding:** Major programs to provide future capability are often formulated with a set of requirements and optimistic schedule and cost estimates that lead to delivery times of a decade or more. Programs with these long delivery times typically depend on the promise of technologies still immature at the outset of the program. The long delivery times also imply ability to forecast the demands of the future operating environment that are well beyond a reasonable expectation of accurate foresight. Examples of this are in the current acquisition program.
- b. **Recommendation:** With rare exceptions, increments of military capability should be defined and designed for delivery within 5 to 7 years with no more than moderate risk.

4. Addressing urgent needs:

- a. **Finding:** There is no defined regular process within the acquisition structure and process to address urgent needs in support of current combat operations.
- b. **Recommendation:** Urgent needs should be met using the same principles and processes as for programs to provide future capabilities. Adjustments to the formal process, including special processes and organizations, are appropriate for wartime response to urgent needs to ensure that an increment of capability can be delivered in weeks or months rather than years. The warfighting commander should have a seat at the table in defining and choosing the solution. The force provider remains accountable for ensuring that the proposed program is executable in cost, schedule, and performance.

5. Unforeseen challenges:

- a. **Finding:** Even with the most competent front-end planning and assessment, complex programs are likely to experience unforeseen technological, engineering, or production challenges.
- b. **Recommendation:** When such challenges place the schedule or cost at risk, performance must also be within the trade space. The force provider, to include the service component serving the Combatant Commander, is the proper source of credible operational experience and judgment to generate recommendations to USD (AT&L) for performance tradeoffs.

6. Dual source competition:

- a. **Finding:** During the dramatic post-Cold War defense cuts, most dual sources were dropped in favor of sole-source contracting. But as defense funding has returned and exceeded levels that supported dual sourcing, the contracting strategy has remained sole-source.
- b. **Recommendation:** OSD should return to a strategy requiring dual source competition for production programs in circumstances where this will produce real competition.

Chapter Five: The QDR and Beyond

1. Establishment of a New National Security Strategic Planning Process:

- a. **Finding:** The QDR process as presently constituted is not well suited to the holistic planning process needed.
 - i. Sufficient strategic guidance does not exist at the national level to allow the Department of Defense to provide to the military departments required missions, force structure, and risk assessment guidance. This is especially true for long-term planning.
 - ii. Such guidance documents as are produced are often unavailable in time and do not provide sufficient, detailed guidance and prioritization for the Department of Defense to use them effectively.
 - iii. The QDR's contemporary focus on current conflicts, parochial ownership of programs, daily requirements of current issues, and an increasingly staff and service-dominated process as opposed to a senior leadership run process are roadblocks to an unbiased, long term strategic review.
 - iv. The QDR process as presently constituted should be discontinued in favor of the normal Department of Defense planning, programming, budgeting, and execution process and the new National Security Strategic Planning Process recommended below.
- b. **Recommendation:** The United States needs a truly comprehensive National Security Strategic Planning Process that begins at the top and provides the requisite guidance, not only to the Department of Defense but to the other departments and agencies of the U.S. government that must work together to address the range of global threats confronting our nation.

- i.** The Executive and Legislative branches should jointly establish a standing Independent Strategic Review Panel of experienced and senior experts to review the strategic environment over the next 20 years and provide prioritized, goal and risk assessment recommendations for use by the U.S. government.
- ii.** Convene the panel in the fall of a presidential election year to enable the panel to begin work the following January, the month in which the new President takes office, so that the international strategic environment would be reviewed every four years beginning in the January immediately following any presidential election (or more frequently on the panel's own initiative in response to a major national security development that the panel believes calls into question the results of the most recent review).
- iii.** Charge the panel to:

 - Review and assess the existing national security environment, including challenges and opportunities
 - Review and assess the existing National Security Strategy and policies
 - Review and assess national security roles, missions, and organization of the departments and agencies
 - Assess the broad array of risks to the country and how they affect the national security challenges and opportunities
 - Provide recommendations and input to the National Security Strategic Planning Process and the national security department and agency planning and review processes.
- iv.** Six months after initiating its review, the panel would provide to the Congress and the President its assessment of the strategic environment (including in particular developments since its last review) and recommend to the President whether, in its view, those developments warrant significant changes in the National Security Strategy.
- v.** In its report, the panel would offer its assessment of the national security challenges and opportunities facing the nation and also offer any innovative ideas or recommendations for meeting those challenges/opportunities. A proposed TOR for this panel is included at Appendix 4.

- c.** As the coordinating and oversight body of the Executive branch, the National Security Council in its new formulation as the National Security Staff should take steps to increase its capabilities to fulfill its role and responsibilities in achieving a more comprehensive, “whole of government” approach. The NSC should prepare for the President’s signature an Executive Order or Presidential directive that at a minimum mandates the following:

 - i.** Using the assessment of the strategic environment prepared by the standing Independent Strategic Review Panel, develop a “grand strategy” for the United States that would be formalized as the National Security Strategy.
 - ii.** It is vital that strategy at this level be the President’s own strategy, constituting his direction to the government. The strategy is signed by the President, albeit developed for him by his National Security Advisor and Cabinet in what is a top down rather than a staff-driven process.
 - iii.** This strategy document would in turn drive reviews by the Executive branch departments involved primarily in national security (such as the State Department, State/AID, the Defense Department, Homeland Security, the Intelligence Community, etc.), as directed by the President and with the goal of deconflicting and integrating the results of these various reviews.
 - iv.** This strategy development process would identify and assess strategic requirements and U.S. government capabilities to plan, prepare, organize, and implement a clear and concise strategy for deploying limited resources – money, personnel, materiel – in pursuit of specific highest priority objectives.
 - v.** The resulting strategy would identify the “mission critical” elements which if ignored would endanger the United States.
 - vi.** The National Security Advisor will accomplish these tasks using his/her NSC staff, and if appropriate could appoint a small panel of outside advisors, and obtain such other assistance as required.
 - vii.** A draft of the Executive Order or directive establishing the new National Security Strategic Planning Process is attached at Appendix 5.

Prospects for 21st Century Conflict

In ordering the quadrennial defense reviews, Congress directed the Department of Defense to look two decades into the future, and appropriately so. The United States cannot determine the military forces it will need unless it makes a real attempt to envision the world—and the international challenges it will face—over the long term planning horizon. Unfortunately, because of the uncertainties involved in assessing the future and the lack of strategic clarity in America’s foreign policy in the aftermath of the Cold War, the current QDR—like others before it—focused too greatly on the short term.

In this report the Independent Review Panel sets forth the enduring national security interests of the United States and examines how emerging trends may affect those interests over the next 20 years. Our approach is less an effort to predict the future than it is to understand the choices the United States will face and how it might respond—for the United States remains far and away the most powerful nation in international affairs and thus will shape the international environment in significant ways.

There are great difficulties in doing defense planning during the post–Cold War era and there are challenges associated with setting requirements in the absence of a single threat. The past failure to define American strategy in a way that provided sufficient guidance to force planners resulted in the United States reacting with forces that struggled to adapt to a series of surprises.

In the last 15 years, America has too often been chasing the future rather than working to shape it. Nonetheless, we can discern the long-term patterns and habits of American strategy. Even if the United States has not as yet formulated a post–Cold War “grand strategy,” it has behaved in consistent ways, and today’s Department of Defense must prepare for the future within the context of the strategic legacy it has inherited. There is no blank slate, no beginning over.

Emerging trends will present challenges and opportunities for the United States. In this report we try to identify which trends will likely have the greatest impact on traditional American strategy

and demand a reconsideration of strategic ends, adjustments to military and other U.S. government means, or new ways of operating to better employ existing forces and other resources. We then try to frame some of the choices for military force planning.

Enduring security interests

Since the end of the Cold War, the United States has routinely failed to match capabilities to commitments. Many believed that the fall of the Berlin Wall and the collapse of the Soviet Union would lead to an era of lasting peace and a decline in American military commitments, but the opposite has proven to be true. In fact, the tempo of active American deployments over the last 20 years has far exceeded planning expectations.

Most obviously, the number, duration, and character of conflicts in the greater Middle East have been unanticipated. The conflict with Iraq has gone through at least five phases: the initial response to the invasion of Kuwait, Operation Desert Shield, defense of Saudi Arabia and its Gulf neighbors; Operation Desert Storm, ejection of Iraqi forces from Kuwait, and crippling Saddam Hussein's offensive capacity; the period of containment, including more than 100,000 "no-fly zone" sorties and the more-or-less permanent stationing of an Army brigade set of equipment in Kuwait, from 1991 through 2003; Operation Iraqi Freedom, the 2003 invasion and toppling of the Saddam regime; and the current and continuing post-invasion effort to build a viable Iraqi state, an effort that—if successful—will stretch indefinitely into an ongoing strategic partnership. But Iraq is neither the only example nor an anomaly: the American commitment to Afghanistan is in its ninth year and disengagement is likely to be many years away.

America's service members also have been busy outside the Middle East. American forces have engaged in a wide and growing variety of missions around the globe, requiring an unusual range of skills and capabilities. These have included deterring conflict over Taiwan and Korea; securing the Panama Canal; stopping genocide in the Balkans; fighting drug cartels in Asia and South America; countering piracy; delivering humanitarian aid in Indonesia and Haiti; supporting anti-terrorist operations, from Mali to the Philippines; and maintaining an American presence in unstable areas around the world.

Four different presidents initiated and continued these missions over the last 20 years. Even in an era of intense political divisions, the missions have, with very few exceptions, enjoyed broad bipartisan support. Of course no president is ever eager to put American troops in harm's way, but there has been a remarkable, albeit reluctant, degree of political unity about the need to do so—because of the often unarticulated but nevertheless clear belief that the missions were necessary to protect national interests that transcend party or politics.

At the root of the Department's force-planning problem is a failure of our political leadership to explicitly recognize and clearly define these essential strategic interests. To be sure, it would have been easier for the Department had post-Cold War presidents provided more specific guidance on this subject. But what presidents actually do with America's military, on a bipartisan basis and over time, indicates what they believe must be done to protect America. It is, therefore, possible to discern the strategic thinking that has guided our country from the strategic practices it has followed.

Since 1945, the United States has been the principal architect and remains the principal leader of a durable and desirable international system. American security rests on four principles: the defense of the American homeland; assured access to the sea, air, space, and cyberspace; the preservation of a favorable balance of power across Eurasia that prevents authoritarian domination of that region; and provision for the global "common good" through such actions as humanitarian aid, development assistance, and disaster relief.

The defense of the homeland and the surrounding region—North America, the Eastern Pacific, the Caribbean Basin, as well as the United States proper—must continue as the priority. The "commons" has traditionally referred to the oceans and airspace outside territorial waters, but it now includes near-Earth space and "cyberspace." Securing these common domains is both a peacetime mission—so the free movement of people, goods, and information can continue unimpeded—and a wartime imperative for force projection. But the ultimate success of American strategy has been to secure favorable geopolitical conditions in Europe, East Asia, and the greater Middle East, a broad region that now prominently includes parts of South Asia and the Persian Gulf region.

Key global trends

Having been successful for the better part of the 20th century, the traditional American strategy must now contend with significant changes in the 21st century. Five key global trends face the nation as it seeks to sustain its role as the leader of an international system that protects the interests outlined above:

Radical Islamist extremism and the threat of terrorism. Salafist *jihadi* movements, wedded to the use of violence and employing terror as their primary strategy, will remain both an international threat to the global system and a specific threat to America and its interests abroad. This remains true even as current al Qaeda leaders age and their goal of a restored caliphate becomes ever more impractical. Some “associated movements” will pursue lesser and more local goals, with the biggest danger to Pakistan, where the ruling elite (including the army and intelligence services that helped create—continue to tolerate and aid—such groups) is vulnerable to an Iranian-style revolution that Islamists would exploit. Some of these groups will set their sights on the United States, as recent attacks linked to Yemen prove. The greatest risk to the United States is that weapons of mass destruction or the materials and expertise to produce them will find their way into the hands of fanatical, murderous jihadists.

The rise of new global great powers in Asia. The increasing importance of China and India suggest an emerging “multi-polar” great-power balance. The rise of China and India also reflects and further foreshadows a shift in the geostrategic locus of power toward the Asia-Pacific region. While the United States will likely remain the preeminent power, its superiority (including its military superiority) relative to others is diminishing. At the same time, no rising power stands ready to assume the same global role played by the United States in maintaining a persistent and stabilizing forward presence in crisis or conflict.

Continued struggle for power in the Persian Gulf and the greater Middle East. Since the removal of the Saddam regime and its bid for regional hegemony, Iran and its allies (like Syria) and terrorist proxies (like Hezbollah) have emerged as an increasingly destabilizing force in this vital region. The Iranian regime’s drive to develop a nuclear capability seems first designed to deter American influence and intervention. But it may also embolden Tehran to increase its aggression through proxies, terrorism, and other forms of irregular warfare to undermine

neighboring governments, particularly the oil-rich Arab regimes. An Iranian threat, in turn, will compel these states to both accommodate Iran and consider their own nuclear and advanced conventional programs, particularly if there is doubt about U.S. capacity and commitment. This becomes a strong argument for continuing America's long-term commitment to and presence in the Middle East and the Persian Gulf.

An accelerating global competition for resources. The combination of the increasing demand for (particularly from a China and India on the rise) and diminishing supplies of hydrocarbons and the increasing global water scarcity will tend to link the two geopolitical trends above; that is, the turmoil in the greater Middle East will have ever-larger global consequences and attract increased interest from outside powers, both raising the potential for and perhaps the scope of instability and conflict. Indeed, as the QDR observed, and the Independent Panel agrees, “Climate change and energy are two key factors that will play a significant role in shaping the future security environment... Climate change may act as an accelerant of instability or conflict.” The links between these stressful trends and any specific political effect or military requirement are currently difficult to predict; nonetheless, they could be of critical importance. Indeed, concern over such issues may affect strategic choices: “Perceptions of a rapidly changing environment may cause nations to take unilateral actions to secure resources, territory and other interests.”¹

Persistent problems from failed and failing states. The gap between strong and weak states will likely continue to widen. The corrosive conditions common to failed states—criminality, havens for terrorists, piracy, extreme poverty, and lawlessness—only add to the complexity of regional security situations, and thus complicate the burden of maintaining the integrity of the international system. As states break down and are overwhelmed by conflict, the immediate consequences are to the people living within their borders. Historically, however, contagious diseases, refugees, poverty, civil war, and transnational criminal networks spread to neighboring countries. The ability of diverse groups to exploit state failure and readily available advanced technology will enable them to employ asymmetric methods in global attacks, further endangering a global system made more vulnerable by the interdependence of globalization.

¹ National Intelligence Council, *Global Trends 2025: A Transformed World*, U.S. Government Printing Office, Washington, D.C., 2008, p. 54.

Failures of governance now extend to the Americas, where savagely violent criminal cartels employ modern insurgent tactics and increasingly pose threats to the U.S. homeland. Coping with this challenge will require both increased international cooperation and greater “whole of government” civil capability on the part of the U.S. government.

A range of choices

These five trends frame a range of choices for U.S. government and Department of Defense planners. *First*, these trends are likely to place an increased demand on American “hard power” to preserve regional balances. While diplomacy and development have important roles to play, the world’s first-order problems will continue to be our security concerns; however, other agencies and elements have a critical role to play in failing or failed states, whose vulnerability to revolutionary Islam and criminal organizations is a strategic concern to the United States.

Second, the various tools of what Secretary Gates has called “smart power”—diplomacy, engagement, trade, targeted communications about American ideals and intentions, and the development of grassroots political and economic institutions—will be increasingly necessary to protect America’s national interests. Those tools are inherently civilian in nature and ought to reside in civilian agencies; but the burden of exercising them will continue to fall, by default, on the Department of Defense unless a sustained effort is made to reshape and appropriately fund the civilian elements of national influence.

Third, today’s world offers unique opportunities for international cooperation, but the United States needs to guide continued adaptation of existing international institutions and alliances and support the development of new institutions appropriate to the demands of the 21st century. This will not happen without global confidence in American leadership and its political, economic, and military strength and steadfast national purpose.

Fourth, there is a choice our planners do not have. As the last 20 years have shown, America does not have the option of abandoning a leadership role in support of its national interests. Those interests are vital to the security of the United States. Failure to anticipate and manage the conflicts that threaten those interests—to thoughtfully exploit the options we have set forth above in support of a purposeful global strategy—will not make those conflicts go away or make America’s interests any less important. It will simply lead to an increasingly unstable and

unfriendly global climate and, eventually, to conflicts America cannot ignore, which we must prosecute with limited choices under unfavorable circumstances—and with stakes that are higher than anyone would like.

The Comprehensive Approach

Clearly the future will require greatly increased cooperation among the various departments and agencies of the U.S. government, an integrated approach that goes beyond what is suggested in the Quadrennial Defense Review. As a government we need to take both a broader view, beyond the Department of Defense itself, to what we have called the “whole of government” approach to national security planning and execution and, beyond that, to the “Comprehensive Approach” we discuss below. At the same time, the Department of Defense needs to look past the QDR and its focus on today's conflicts and today's planning needs to the broader set of defense challenges our nation will face in the next 20 years. Most importantly, we need to pay attention to the substantial changes the Department needs to start making today (in force structure, personnel, benefits, acquisition, and so on) if we are going to be able to meet this broader set of defense challenges successfully within existing and projected resources.

The Comprehensive Approach in the 2010 QDR

Both the QDR and the recently released National Security Strategy (NSS) use the term “whole of government” to denote the integration of all tools of national power (defense, diplomacy, economic, development, democratic reform and human rights, homeland security, intelligence, strategic communications, and the American people and the private sector) in support of U.S. national security goals and objectives.

As inclusive as that definition is, “whole of government” remains limited in that it doesn't include the full range of capabilities that may be required to address the complexity of today's domestic and international security challenges. Additional capabilities include those of our allies and partners, non-governmental and private voluntary organizations, and international organizations, all working in partnership with U.S. government departments and agencies. In this report we use the term “Comprehensive Approach” to refer to efforts that include these non-

governmental or non-U.S. actors. On the other hand, “whole of government” is used to mean U.S. government departments and agencies only.

Success in military operations requires comprehensive planning and a commitment to train in the way we expect to operate. That simple principle is not reflected in the QDR discussion of these issues. As to “whole of government,” the QDR apparently did not separately address the issue of “whole of government” planning and execution. Indeed, the QDR in fact suggests that “whole of government” is something to be addressed when the tempo of combat operations in Iraq and Afghanistan abates.²

The panel also found that the QDR avoids any discussion of structural changes with regard to *how* the Department of Defense would approach its own objectives and missions in light of the recognized need for better integration and collaboration with the interagency and our international partners.

The defense strategy for tomorrow’s security environment as presented in the QDR is a combination of its four defense objectives and six mission sets. Those objectives are:

1. Prevail in today’s wars
2. Prevent and deter conflict
3. Prepare to defeat adversaries and succeed in a wide range of contingencies
4. Preserve and enhance the All-Volunteer Force.

The mission sets to meet these objectives include:

1. Defend the United States and support civil authorities
2. Achieve success in counterinsurgency, stability, and counterterrorism operations
3. Build the security capacity of partner states
4. Deter and defeat aggression in anti-access environments
5. Prevent proliferation and counter weapons of mass destruction

² QDR 2010, p. 1.

6. Operate effectively in cyberspace.³

These mission sets require the government to be more agile, flexible, and mobile. Of these missions, four (1, 2, 3, and 5) require a robust Comprehensive Approach involving other U.S. government departments and agencies and international partners. In many cases, the Department of Defense will *not* be the lead agency for operations conducted under these mission categories.

Indeed, the QDR recognizes the need for civilian leadership in some missions, including humanitarian assistance, development, and governance.⁴ The QDR also sees the need for defense capabilities to provide security and support to civil and local authorities. It states in part that the Department of Defense “supports the Department of Homeland Security and other federal civilian agencies as part of a “whole of government,” whole of nation approach to both domestic security and domestic incident response.” More comprehensive approaches are exclusively considered under the QDR’s “prevent and deter” objective, as it mentions that it will act “wherever possible as part of a “whole of government” approach and in concert with allies and partners.”⁵ At the same time the QDR does suggest, but without elaboration, the need for the Department of Defense and the government at large to invest more heavily in understanding comprehensive approaches beyond the “prevent and deter” objective. For example, it suggests that the lessons learned from the Provincial Reconstruction Teams (PRTs) in Afghanistan and Iraq can be used “toward improving a “whole of government” approach,”⁶ in this case in service of the “prevail in today’s wars” objective.

The problem is that the civilian government departments and agencies do not have the needed capability or capacity to adequately support needed “whole of government” and Comprehensive Approach strategies. All of the civilian departments and agencies involved in the “whole of government” effort face the need to adapt their internal cultures, processes, and structures to work comprehensively together to meet 21st century challenges. For instance, within the interagency process on national security, the State Department, State/AID, Department of Defense, the Intelligence Community, and the Department of Homeland Security (DHS) all have

³ “Quadrennial Defense Review: Report Addressed Many but Not All Required Items,” p. 12.

⁴ QDR 2010, p. 69.

⁵ QDR 2010, p. 44.

⁶ QDR 2010, p. 70.

important roles in protecting our nation from threats to our way of life. But each agency has its own perspective on national security challenges, its own methods of operation, its own personnel system, and its own culture. Enhancing “a whole of government” culture requires the development of shared attitudes, values, goals, and practices that both transcend and integrate the department and agency into this comprehensive perspective on national security.

The Panel notes the need to better define which U.S. government departments, agencies, and institutions, or portions thereof, should be included in a "whole of government" approach. The number and diversity of potential participants and their likely relationships suggest the complexity and scale of the challenge. Although, to an extent, this will be event-dependent, time can be saved by studying likely future contingencies in advance and identifying now the critical organizational participants and the appropriate relationships among them.

The Comprehensive Approach: What it is and why it matters

The need for enhanced “whole of government” capabilities will be driven by the complex operating conditions, strong potential for civilian interaction, and the need in many cases to work closely with the agencies of a foreign government. It is in the interest of the Department of Defense to work closely with the National Security Council, the State Department, State/AID, and DHS to develop support for more enhanced civilian capability and for putting into operation “whole of government” and Comprehensive Approach solutions to security challenges. As just one example, we need to strengthen our ability to improve governance of failing states so that we do not have to deploy our military because a failing state became a failed state that threatens our vital interests. But governance is a civilian function. We need to define the capabilities required for these kinds of missions and then draw together the civilian departments and agencies that have or need to develop these capabilities and ensure that they are organized for rapid deployment overseas. This is one example of how a “whole of government” approach could reduce our need to resort to our military.

In addition, coming in after a military operation with the whole range of civil skills required for post-conflict stabilization and reconstruction will contribute to reducing the duration of a military deployment and accelerating the point where the military can shift to a supporting role and

ultimately hand over security to either international peacekeeping or indigenous forces. Such an approach can ultimately shorten the duration of U.S. military deployments to these troubled regions.

As depicted in figure 1, the future operating environment is likely to comprise overlapping domains of the host nation; joint military engagement on the U.S. side; some variety of U.S. interagency civilian cooperation; combined actions with foreign military and civilian organizations; and a role for international organizations (as well as Non-Governmental Organizations (NGO) and Private Voluntary Organizations (PVO)).

The U.S. joint military dimension invariably attracts the most public attention, but the other five domains may include more assets and personnel and be more important in terms of achieving the desired end state, particularly over time.

The (Notional) Operational Environment

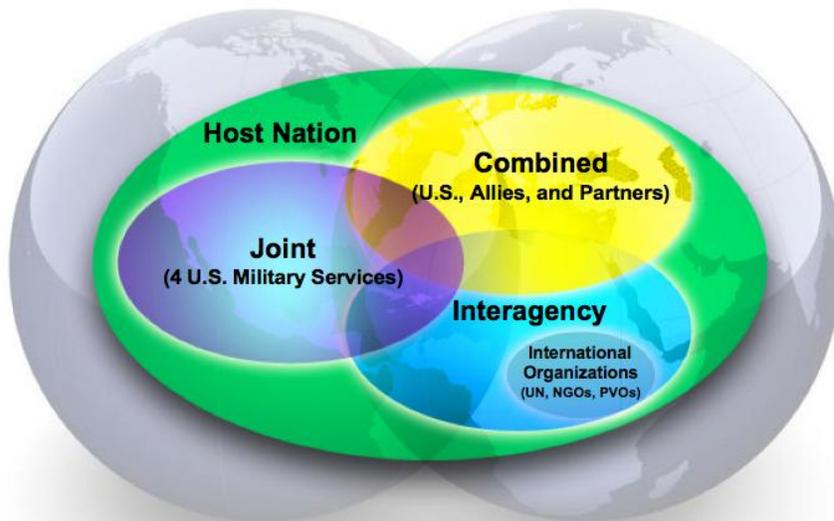


Figure 1: The Notional Operational Environment of the Comprehensive Approach

Before any type of contingency arises, U.S. governmental efforts typically rely on the U.S. State Department and other interagency interactions with the host nation on a day-to-day basis, including the military through the ongoing and routine activities of the Combatant Commands. This persistent engagement is required up to and through the end state of a contingency or crisis, and thereafter. A crisis or conflict will require the addition and integration of “whole of government” and Comprehensive Approach capabilities. Although civilian agencies have historically held the lead role in maintaining and developing international relationships, the need to deploy civilian and international personnel in settings of “security insecurity” (e.g., post-conflict states, failed states) requires a more integrated approach in terms of partnership with the military forces up to and through the end state of a crisis or conflict. This point is illustrated in figure 2’s depiction of the shifting degrees of civil and military levels of effort and responsibility before, during, and after a notional complex contingency.

The Comprehensive Approach: Relative Military vs. Civil Level of Effort

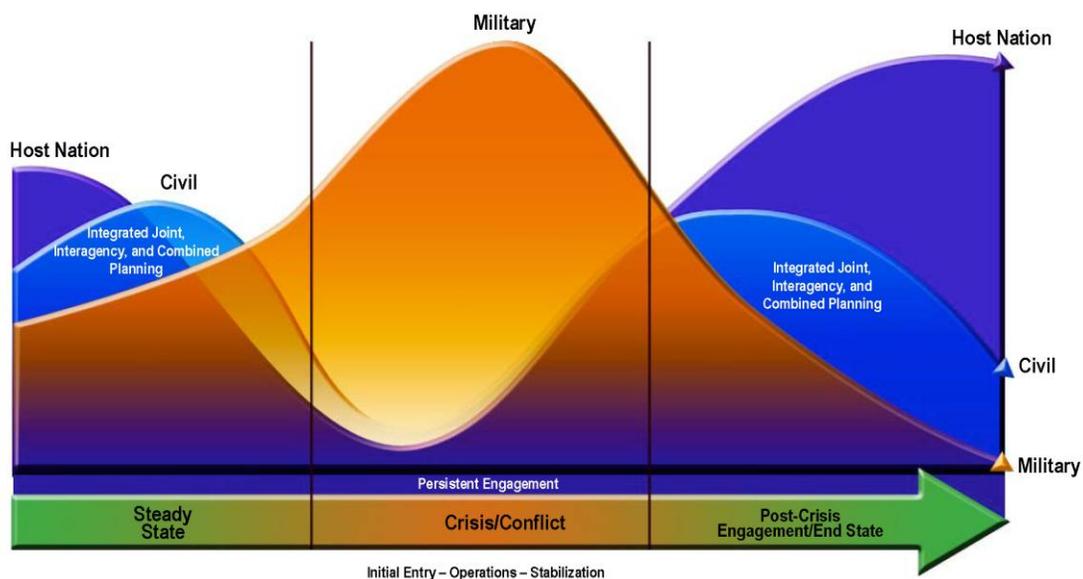


Figure 2: The Comprehensive Approach: Relative Military and Civil Levels of Effort as an Illustration

The Department of Defense's ability to work effectively with other departments and agencies as the focus of the U.S. government's efforts shifts over time depends greatly on the quality and degree of prior integrated planning and coordination. Integrated planning is done at three levels: joint, interagency, and combined. Several important principles apply to this process. First, an inclusive structure needs to be developed at every level, including all relevant participants organized towards the same end state. Second, consistent communication, outreach, and feedback are keys to building the partnership capacity that the Comprehensive Approach requires. Third, a cadre of national security professionals with perspective, experience, education, and training in the Comprehensive Approach must be developed.

The activities of a Comprehensive Approach need to be transparent to our international partners and allies, to all departments and agencies and levels of government, and to the private citizen. In addition, funding streams for a Comprehensive Approach must be flexible. Comprehensive contingency planning, where possible, is needed so that the government can respond more quickly to a crisis. Aligning funding with this planning is essential. Civilian agencies will need to develop more capabilities and a mindset more accepting of austere deployment, while both civilian and military cultures will need to adapt to a "whole of government" approach. To assist in transparency, clearly defined roles, missions, responsibilities, and authorities need to be communicated to each participating department, agency, and organization. Coordination and integration would be enhanced by the exchange of liaison personnel. The level and depth of integration has to be measurable and real. Oversight and accountability are essential to an effective Comprehensive Approach.

Finally, unity of command is a military concept ill-suited for defining interagency processes and relationships. Unity of effort is a more applicable concept for integrated activities where equal participation from the widest group provides the greatest benefit. A current example demonstrating successful unity of effort under difficult and often insecure circumstances is the Provincial Reconstruction Team. These integrated teams are hybrid civil-military organizations whose objective is to establish an environment that is secure and stable enough to permit U.S., allied, international, and host-nation civilian agencies to provide development support. It is the combination of civilian reconstruction and development agencies with military contingents that permits wide latitude in working with local populations in what would otherwise be non-secure

areas. In Africa, a U.S. Navy-led program, the Africa Partnership Station (APS) focuses on strengthening emerging partnerships in West and Central Africa to increase regional and maritime safety and security. APS is a unique venue to align the efforts being made by various agencies and nongovernmental organizations from Africa, the Americas, and Europe to improve maritime safety and security and help build prosperous African nations.

Key enablers for the Comprehensive Approach

Translating the above principles into an effective U.S. government capability that supports the Comprehensive Approach requires actions across the “whole of government” by participating departments, agencies, and organizations. Given our current national security structure and legal authorities, however, four key lines of effort, or enablers, stand out.

Improved interagency planning. Improved structures and processes for interagency strategic planning is a foundation for development of a coherent and integrated “whole of government” capability for national security responses. An important focus is to enhance awareness of different departments' authorities, roles and responsibilities, resources, and core competencies for national security matters. The key planning issue concerns which government department leads in a given event. The National Security Council, by virtue of its institutional position and authority, is best placed to resolve this issue. It is properly situated to settle disputes regarding prioritization, budget issues, agency responsibilities, or mission definition.

There may be value in more formally designating lead and supporting agency responsibilities and to establish more formal structures for interagency contingency planning. Another tool for inducing, if not forcing, improved interagency planning is to create a single national security budget in which accounts from the Department of State, State/AID, the Department of Defense, and the Intelligence Community that support the same or similar missions are presented and defended together but are then appropriated to their respective accounts.

Rebalancing civil and military capabilities. As stated in the QDR, “a strong and adequately resourced cadre of civilians organized and trained to operate alongside or in lieu of U.S. military personnel . . . is an important investment in the nation's security.”⁷ Rebalancing civilian and military capabilities, in part through developing an expeditionary civilian force to prevent or

⁷ QDR 2010, p. 69.

respond to overseas crises, is a key enabler for the Comprehensive Approach. This would require the development of personnel policies that promote a more mobile, deployable, and flexible workforce, among other things. Currently, the U.S. military is the only government institution with both the organizational capabilities and personnel policies to plan, execute, and support large deployments of personnel overseas. Civilian agencies operate under personnel policies that prevent some types of involuntary operational deployments and require a different pay structure and support system. Until these differences are addressed, the military will continue to fill the gap between civilian capacity and the requirements of stability operations, counterinsurgency, and building partnership capacity.⁸

Better management of contractors. Today, the Department of Defense spends more money on contractor services than on acquisition, and, in Iraq and Afghanistan, the ratio of contractors to military personnel is approaching if not exceeding one-to-one. Because contractors are not subject to limiting civilian personnel policies, they tend to be more deployable and hence provide a useful way of extending an agency's reach or influence in a contingency.

Contractors can and should have an important role in supporting the Comprehensive Approach, but better management and improved oversight is essential. In addition to the ongoing Department of Defense review of what constitutes inherently governmental tasks, better oversight should include designating an Assistant Secretary of Defense-level official to oversee and standardize management of contractors in contingencies; increasing the number and improving the training of contracting officers; integrating contractors and contractor-provided tasks into contingency plans; and integrating contractor roles into pre-deployment training and exercises. Improving education and training requirements for contractors, particularly those supporting complex contingencies abroad, is also essential. The Department of Defense should also improve its oversight and accountability of contractors who perform security-related tasks to ensure they are legally as accountable for their conduct as are deployed military service members. The State Department should make a comparable change.

⁸ One area of particular concern is the lack of civilian capacity to train civilian police and police trainers, especially in areas where civilian safety cannot be guaranteed. A civilian corps that is pre-designated, trained, and prepared to deploy overseas to train civilian police and police trainers is needed.

Security Assistance reform. As the QDR points out, a security assistance regime designed to support long-term relationships with technologically and politically developed allies and partners is ill suited to providing defense equipment or services immediately to a less-developed partner confronting immediate security challenges. The Department of Defense has initiated a number of important improvements in the management of security assistance, including streamlining the Foreign Military Sales (FMS) process in support of current operations, which must be continued. However, broader reforms to expand the scope and flexibility of our security assistance programs are essential. The Department of Defense has not yet increased its force structure dedicated to the security assistance mission despite the clear and increasing need for more capacity and capability to help our friends and allies defeat our common enemies. For example, building partnership capacity requires increased Department of Defense support to civilian bureaucracies that oversee foreign militaries, yet current security assistance authorities center on training and equipping foreign military organizations not their civilian overseers. In addition, the Department can and should play a central role in training counterterrorism security forces, but may be constrained from doing so if the trainee organizations are not part of a foreign military establishment. Finally, we need new approaches to funding U.S. security assistance programs. Examples include a unified national security budget and the establishment of pooled funding mechanisms, such as those recently proposed by Secretary Gates, to enable interagency collaboration for these and other missions.

Findings and Recommendations

The Panel's findings and recommendations on legislative reform, changes in Executive Branch roles and responsibilities, enhanced civilian "whole of government" capacity, and streamlined international security assistance programs are presented below.

Legislative Branch: National Security reform effort

Finding: The Panel acknowledges Congress's crucial role in providing for national defense with both authorities and appropriations. However, the Panel notes with extreme concern that our

current federal government structures – both executive and legislative, and in particular those related to security – were fashioned in the 1940s, and, at best, they work imperfectly today. The U.S. defense framework adopted after World War II was structured to address the Soviet Union in a bipolar world. The threats of today are much different. A new approach is needed.

Recommendation: The Panel recommends a legislative reform package containing the following elements:

- Review and restructure Title 10, Title 22, Title 32, and Title 50 authorities to enhance integration of effort while clarifying the individual responsibilities and authorities of the Department of State, State/AID, the Intelligence Community, and all components of the Department of Defense.
- Review and rewrite other authorities to create and expand deployable capabilities of civilian departments, agencies, and institutions (particularly State, State/AID, Treasury, Energy, Justice, DHS, Agriculture, Health and Human Services, and Transportation).
- Establish authority for a consortium of existing U.S. government schools to develop and provide a common professional national security education curriculum. This new authority should also establish an interagency assignment exchange program for national security officials.⁹
- Create a system of incentives for Executive branch personnel to work in designated “whole of government” assignments (including, but not limited to, participating in the exchange program described above).
- Reconvene the Joint Committee on the Organization of Congress, which was established in 1945 and has convened two other times since then, the most recent being in 1993. The Joint Committee on the Organization of Congress has the established precedent and authority to examine and make recommendations to improve the organization and oversight of Congress. Additional detail on the Joint Committee on the Organization of Congress and draft terms of reference for its tasks are provided at Appendix 1.

⁹ Alternatively, Congress could adapt the existing interagency personnel assignment (IPA) authority to facilitate such a program.

- Recommend that the Joint Committee on the Organization of Congress examine the current organization of Congress, including the committee structure, the structure of national security authorities, appropriations, and oversight, with the intent of recommending changes to make Congress a more effective body in performing its role to “provide for the common defense.” As part of this effort, Congress should:
 - Establish a single national security appropriations subcommittee for Defense, State, State/AID, and the Intelligence Community
 - In parallel, establish an authorization process that coordinates Congressional authorization actions on national security across these departments and agencies.

Executive Branch: Integrate national security efforts across the “whole of government”

Finding: Just as Congress has a responsibility to improve our national security performance, so does the Executive branch. The Panel finds that the Executive branch lacks an effective “whole of government” capacity that integrates the planning and execution capabilities of the many federal departments and agencies that have national security responsibilities.

Recommendation: Executive branch reform should begin with an Executive Order or directive signed by the President that clarifies interagency roles and responsibilities for “whole of government” missions. This directive should:

- Establish a consolidated budget line for national security that encompasses, at a minimum, the Department of Defense, Department of State, State/AID, and the Intelligence Community.¹⁰
- Task both the Office of Management and Budget (OMB) and the National Security Council (NSC) to develop a mechanism to track implementation of the various budgets that support the Comprehensive Approach.

¹⁰ As an interim measure, OMB should identify and “code” programs or appropriations from different departments and agencies that support or address the same mission or requirement, e.g., building foreign ministerial capacity, humanitarian assistance, etc., that are part of a Comprehensive Approach.

- Identify lead and supporting departments and agencies and their associated responsibilities for notional national security missions. This Executive Order or Presidential directive should also establish a process to define interagency roles and responsibilities for missions not specifically addressed therein.
- Establish standing interagency teams with capabilities to plan for and exercise, in an integrated way, departmental and agency responsibilities in predefined mission scenarios before a crisis occurs.

Enhanced civilian “whole of government” capacity

Finding: Today, civilian departments and agencies lack the capacity to provide the array of capabilities required for effective support to the Department of Defense in stability and reconstruction operations in unstable host-nation situations. In many cases, even pre-conflict and certainly post-conflict, our civilians will be deployed in situations of “security insecurity” and, thus, will have to be able to operate in an integrated way with security forces [whether with indigenous forces (especially in a pre-conflict, failing state case), with international peacekeepers, or with U.S. forces (especially in post-conflict situations)].

Recommendation: Congress and the President should establish a National Commission on Building the Civil Force of the Future. The purpose of the commission would be to develop recommendations and a blueprint for increasing the capability and capacity of our civilian departments and agencies to move promptly overseas and cooperate effectively with military forces in insecure security environments. Attached at Appendix 2 is a draft TOR for the work of this commission.

- The U.S. government should be encouraging and helping to develop similar capabilities among its international partners and in international institutions to supplement or substitute where required for American civilian capability and capacity.
- Until these capabilities and capacities are developed, at least in U.S. civilian institutions (and perhaps even after), stabilization will continue to be a military mission and must be

adequately resourced (as part of the U.S. military strategy for ending operations such as in Iraq and Afghanistan).

- To develop and support these capabilities, relevant civilian agencies need to develop credible internal requirements as well as development/budgeting and execution processes to create confidence that they can perform these missions.
- The Department of Defense needs to contribute to training and exercising these civilian forces with U.S. military forces so that they will be able to operate effectively together.
- The Defense Department and relevant civilian agencies need to conduct a biennial (every other year) exercise involving both the international community and the national agencies integrating the Comprehensive Approach in addressing particular scenarios or contingencies.

International Security and Assistance reform

Finding: The final element of reform involves changes to International Security Assistance and cooperation programs. The realities of today's security challenges have revealed the institutional weaknesses of the existing security assistance programs and framework. If unchanged, the United States will fail in its efforts to shape and sustain an international environment supportive of its interests.

Recommendation: Specifically, appropriate departments or agencies should:

- Include selected allies/partners, select international organizations, and, when possible, Non-Governmental and Private Voluntary Organizations (NGO/PVO) as part of U.S. government efforts to define roles and missions for the Comprehensive Approach. If successful, this effort could be expanded to include the development of improved unity of command and/or unity of effort arrangements and operating procedures among U.S. government and allied governments, international organizations and participating NGO/PVOs.
- Document and institutionalize training of U.S., allied governments, and NGO/PVO roles, missions, and operating procedures in support of the Comprehensive Approach.

- Coordinate and implement the development and acquisition of selected capabilities (e.g., communications, support, coordination, etc.) that support the Comprehensive Approach with key allies and partners. Expand this effort to willing international organizations and NGO/PVOs.
- Seek authority to establish pooled funding mechanisms for selected national security missions that would benefit from the Comprehensive Approach, including security capacity building, stabilization, and conflict prevention.
- Develop a cost profile for different missions requiring a Comprehensive Approach that identifies the major cost elements and alternative funding arrangements (national, multinational, shared) for providing the needed resources. Seek authority for and conclude agreements to share selected mission costs with key allies and partners.
- Designate an Assistant Secretary-level official to oversee and standardize management of contractors in contingencies, increase the number and improve training of contracting officers, integrate contractors and contractor-provided tasks into contingency plans, and integrate contractor roles into pre-deployment training and exercises. Improve education and training requirements for contractors, particularly those supporting complex contingencies abroad. U.S. government departments and agencies should also improve their oversight and accountability of contractors who perform security-related tasks under their direction to ensure they are legally as accountable for their conduct as are deployed service or diplomatic members.
- Continue efforts at Building Partnership Capacity, recognizing that these efforts have several complementary aspects.
 - Low-end institution building in post-conflict/failing states
 - Developing high-end capacity of our traditional allies [which entails not only Security Assistance reform but also, as part of acquisition reform, to build in sharing our defense products with our allies from the outset (requiring export control reform and national disclosure policy reform)]. Put another way, we need a “build to share” policy from the outset.

- Viewing rising powers as potential partners that offer us opportunities for collaboration as well as potential challenges.
- Ensure the integration of lessons learned from the current wars within the programs of instruction of Department of Defense education and training institutions.

Force Structure and Personnel

America has no choice but to play a strong international role. This requires a strong and vibrant economy, vigorous diplomacy rooted in our treaty alliances and partnerships with other nations, robust intelligence services, and the superb defense capabilities that have underpinned our nation's security since the end of the Cold War.

U.S. defense strategy for the near and long term must continue to shape the international environment to advance U.S. interests, maintain the capability to respond to the full spectrum of threats, and prepare for the threats and dangers of tomorrow. Underlying this strategy is the inescapable reality that, as a global power with global interests to protect, the United States must remain diplomatically, economically, and militarily engaged with the world. To do so requires confidence, both at home and abroad, that the United States can and will continue to play a leading role in world affairs and can and will defend its homeland; guarantee access to global commerce, freedom of the seas, international airspace, and space; and maintain a balance of power in Europe and Asia that protects America—all while preserving the peace and sustaining a climate conducive to global economic growth.

To do this our nation needs adequate military force levels. In the absence of a force planning construct indicating otherwise, the Panel recommends the force structure be sized, at a minimum, at the end strength outlined in the 1993 Bottom Up Review (BUR). We further recommend the Department's inventory be thoroughly recapitalized and modernized, and special emphasis be placed on continuing the improvements in cyber defense and the effective use of the reserve components in civil defense and to respond to an attack on the homeland.

21st Century strategy and force planning challenges

The Panel was assigned the responsibility of examining the force sizing construct used in the 2010 QDR to distinguish enhancements related to near-term threats, review the QDR process to determine necessary and enduring capability enhancements and the capacity of forces needed to meet long-term threats, and assess (against the current Department of Defense program) resource requirements for optional force-structure enhancements. In addition, the Panel was given the task of reviewing the All-Volunteer Force, including the cost growth in military personnel budget accounts, particularly military personnel elements, including accession, career progression, healthcare, family quality of life, and other entitlement benefits.

The panel conducted its work with the utmost respect for American military personnel serving around the world, particularly the members of the armed services who have been deployed in Iraq and Afghanistan over the course of almost 10 years. The professionalism of our military forces is a great resource to our country, and Secretary Gates is correct to focus all the necessary resources of American national security to the success of those forces in combat.

In performing this examination, the panel noted that, since World War II, a strong military has been necessary to secure America's safety and freedom. Although such a military benefits the rest of the world, its primary purpose is the protection of vital U.S. interests. These include the following:

- Defending the homeland. Protecting American lives and property is the most fundamental responsibility of the U.S. government. For most of its history, the United States has relied on the fact that it is girded by oceans and unthreatening neighbors to ensure threats would remain far from our shores. After World War II, we began stationing forces overseas to deter conflict and prevent threats from growing, but with the advent of intercontinental bombers, atomic weapons, and ballistic missiles, the United States faced dramatic new threats to the homeland. The September 11, 2001, attacks and subsequent terrorist plots demonstrated that foreign states no longer hold a monopoly on threats on the U.S. soil.
- Ensuring unimpeded access to the sea, air, space, and cyberspace. Since its founding, the U.S. military has acted to protect American lives and commerce abroad. Moreover, the military has defended freedom of navigation across the globe, especially since the close of

World War II. The continued global presence of the U.S. military underwrites stability and the free flow of travel, commerce, and ideas. Our military aircraft patrol the air and can dominate and protect airspace as needed. Together with the rest of the peaceful international community, the United States insists on the right to fly in international airspace to assure access and travel that is so important to our citizens and our commerce. In recent decades, space has become another indispensable venue for commerce and national security. The ability to use space for peaceful purposes provides us great benefit, and space is steadily increasing in importance to our military. To protect our citizens, our commerce, and our nation, we must continue to have unimpeded access to space, and to protect our assets in this most challenging area.

- Maintaining a favorable balance of power in Eurasia. For much of the past two decades, the center of gravity of American military activity has been in the Middle East and Southwest Asia. Since World War II, the United States has maintained a forward-stationed military to protect our nation and our allies from aggressors. During the Cold War, American leadership of NATO helped protect Western Europe against the Soviet Union and enabled Western Europe to recover from the ravages of war and grow in peace and prosperity. Similarly, our presence in the Pacific allowed the region to recover from war and stabilized it against historic regional rivalries. More recently, the United States has sought to prevent a single power from dominating the greater Middle East. For much of the past two decades, the center of gravity of American military activity has been in the Middle East and Southwest Asia.
- Providing for the common global good. The United States has acted as the nucleus of *international* action to support the global good. We have provided relief in the wake of natural disasters and alleviated human suffering in the face of genocide and starvation.

The possession of a strong military does not mean the United States should act in isolation. Although the United States faces governments and movements that are hostile to our vital interests, most of the world should be seen as potential allies, partners in particular initiatives, or peaceful competitors. For the foreseeable future, the ability of the United States to promote new alliances, assemble global support for its policies, and shape the international environment in which rising powers will make strategic choices will depend on sustaining the umbrella of American national security leadership.

Of course, military power is but one of the tools of American foreign policy. That foreign policy cannot be successful unless the United States also maintains effective intelligence, an integrated homeland defense, vigorous diplomacy, constructive exchanges with other nations, the ability to communicate effectively about American intentions and actions, and the ability to assist other peoples in building economic and political institutions that are a bulwark against violence, aggression, and extremism. But without strong and modern military capabilities, these important instruments of national power are less likely to be effective in securing American interests in the world.

Today the United States faces the most diverse range of security challenges. Although no one can predict the future with any certainty, three long-term challenges to our ability to protect our interests stand out: violent Islamist movements, regional aggressors, and the rise of new great powers that threaten to upset the balance of power or promote instability. Although the 2010 QDR was correct in emphasizing the crucial importance of winning the wars in Iraq and Afghanistan, we face these other challenges now and will continue to face them over the next two decades.

- Violent Islamist movements. Al Qaeda, Hezbollah, and other radical, violent Islamist movements will continue to threaten U.S. security, even after our forces complete current operations in Iraq and Afghanistan. For many years to come, we may neither be at peace nor fully mobilized for war. Because the protracted struggle with these movements spans the globe, we will have to continue to fight them in different regions. Quite apart from Iraq and Afghanistan, this prolonged conflict will generate significant demands for resources over the long term. It is also possible that this protracted conflict will evolve in ways that we cannot currently envision as our adversaries seek to challenge us with new forms of attack and in new theaters.
- Regional aggressors. Although we must expend every effort to bring regimes like those in Pyongyang and Tehran into compliance with their international obligations, we must also hedge against the probability that North Korea and Iran will continue to operate outside the norms of international behavior. These states, which possess (in the case of North Korea) or seek (in the case of Iran) nuclear weapons, have used terrorism as an instrument of their foreign policy. They threaten U.S. friends and allies as well as the

stability of key regions. Also of concern are non-state actors such as Hezbollah, which increasingly possess state-like capabilities that include highly accurate weapons and sophisticated logistics.

- Asia-Pacific. Looking across the Pacific and to Asia, the emerging powers of the previous decade are now key players and global economic powers. Asia, led by a dynamic China and India, has emerged to lead the global economic recovery; it will be essential for America to engage with Asia in all areas—economic, security, and energy. These relationships will lead to collaboration and partnership, but also exceptional diplomatic and political complexity.

In this remarkable period of change, global security will still depend upon an American presence capable of unimpeded access to all international areas of the Pacific region. In an environment of “anti-access strategies,” and assertions to create unique “economic and security zones of influence,” America’s rightful and historic presence will be critical. To preserve our interests, the United States will need to retain the ability to transit freely the areas of the Western Pacific for security and economic reasons. Our allies also depend on us to be fully present in the Asia-Pacific as a promoter of stability and to ensure the free flow of commerce. A robust U.S. force structure, largely rooted in maritime strategy but including other necessary capabilities, will be essential.

To compete effectively, the U.S. military must continue to develop new conceptual approaches to dealing with operational challenges, like the Capstone Concept for Joint Operations (CCJO). The Navy and Air Force’s effort to develop an Air-Sea Battle concept is one example of an approach to deal with the growing anti-access challenge. It will be necessary to invest in modernized capabilities to make this happen. The Chief of Naval Operations and Chief of Staff of the Air Force deserve support in this effort, and the Panel recommends the other military services be brought into the concept when appropriate.

As a general rule more attention should be devoted to avoiding the circumstance in which the United States has all too often found itself in the past few years—on the losing side of cost-imposing strategies employed by our adversaries. The United States should be seeking ways to

impose defense dilemmas on potential adversaries that cause them to invest in capabilities that do not threaten the United States or our allies and partners.

Force Structure

The Panel is concerned by what we see as a growing gap between our interests and our military capability to protect those interests in the face of a complex and challenging security environment.

Force structure trends

Over the last two decades, in the wake of the Cold War and the collapse of the Soviet Union, the size of the U.S. armed forces declined by roughly a third. In 1990, U.S. ground forces consisted of 28 active and reserve Army divisions and 4 active and reserve Marine Corps divisions. Today, the United States has 18 Army divisions, which are organized into brigade combat teams, and 4 Marine divisions. Similarly, in 1990 the Navy consisted of 566 ships and the Air Force comprised 37 tactical fighter wings. Today, the Navy consists of 282 ships, and the Air Force is organized into 10 air expeditionary forces. The ground forces have experienced some growth since September 11, 2001, due to the demands of current operations, but Navy and Air Force end strength has declined.

Each QDR has emphasized new missions for the U.S. armed forces. These missions include the need to counter the proliferation of weapons of mass destruction (WMD) and remediate their use, defend the homeland against a growing range of threats, respond to pandemics, and conduct stability operations. In some cases, these are genuinely new missions (such as the Bush and Obama administrations' emphasis on cyber defense issues). In other cases, they are a continuation or modification of an existing mission, and the QDRs have called for the fielding of new military organizations, ranging from the establishment of new Combatant Commands (such as U.S. Africa Command and U.S. Cyber Command) to the establishment of joint task forces (such as the 2010 QDR's call for a Joint Task Force headquarters to eliminate WMD) to new tactical formations. These new headquarters and specialized formations, while individually

reasonable, represent a considerable source of overhead that has limited military flexibility and versatility for the U.S. armed forces.

There is increased operational tempo for a force that is much smaller than it was during the years of the Cold War. In addition, the age of major military systems has increased within all the services, and that age has been magnified by wear and tear through intensified use. For example, the average age of Air Force tactical aircraft is more than 20 years, and the average for Navy and Marine Corps tactical aircraft is more than 15 years. Surface ships, bombers, and transport aircraft fleets are all aging, as are armored and mechanized forces. Notable exceptions to this overall trend include recent efforts to modernize some rotary wing aircraft and procure large numbers of UAVs. There are programs to replace these aging systems, but many programs have been delayed because of problems in the acquisition system. In addition, many systems and platforms have been used at an operational tempo that was never anticipated when they entered into service.

The Department of Defense now faces the urgent need to recapitalize large parts of the force. Although this is a long-standing problem, we believe the Department needs to come to grips with this requirement. The general trend has been to replace more with fewer more-capable systems. We are concerned that, beyond a certain point, quality cannot substitute for quantity.

The increased capability of our ground forces has not reduced the need for boots on the ground in combat zones, and the increased capability of our naval forces has not reduced the need for ships to demonstrate (in an unshrinking world) a U.S. presence abroad. We think it is time technology be used not to simply to increase performance (as important as that is), but to dramatically drive down cost so that we can increase quantity—perhaps even with more than a one-for-one replacement of some systems.

In still other areas, *the development of new systems and operational concepts has created new demands for personnel.* The increasing use of uninhabited systems, both for persistent surveillance and strike, has greatly improved military and intelligence capabilities. But the introduction of this new technology has also led to new and significant personnel requirements.

Evaluation of the 2010 QDR force structure

The 2010 QDR is a solid framework for current military activities. Secretary Gates has rightly emphasized the need for success in the wars in which we are currently engaged. As he has repeatedly noted, the costs of failing to do so would be considerable. He is also justifiably seeking a defense posture that strives for balance “between trying to prevail in current conflicts and preparing for other contingencies, between institutionalizing capabilities such as counterinsurgency and foreign military assistance and maintaining the United States' existing conventional and strategic technological edge against other military forces, and between retaining those cultural traits that have made the U.S. armed forces successful and shedding those that hamper their ability to do what needs to be done.”¹¹

The QDR should reflect current commitments, but it must also plan effectively for potential threats that could arise over the next 20 years. As described below in our alternative force structure, we believe the 2010 QDR did not accord sufficient priority to the need to counter anti-access challenges, strengthen homeland defense (including our defense against cyber threats), and conduct post-conflict stabilization missions.

In evaluating the QDR force structure, we were hampered by the lack of a clearly articulated force-planning construct that the military services and Congress can use to measure the adequacy of U.S. forces. Since the end of the Cold War, the United States has measured the adequacy of its force posture against the standard of defeating adversaries in two geographically separate theaters nearly simultaneously. Between 1993 and 2006, that requirement evolved from the desire to maintain the capability to defeat two conventionally armed aggressors to the need to conduct a campaign against a conventional adversary while also waging a long-duration irregular warfare campaign and protecting the homeland against attack. The 2010 QDR, however, did not endorse any metric for determining the size and shape of U.S. forces. Rather, it put diverse, overlapping scenarios, including long-duration stability operations and the defense of the homeland, on par with major regional conflicts when assessing the adequacy of U.S. forces.

¹¹ Robert M. Gates, “A Balanced Strategy: Reprogramming the Pentagon for a New Age,” *Foreign Affairs* (January/February 2009), 28.

A force-planning construct is a powerful lever the Secretary of Defense can use to shape the Department of Defense. It also would help explain the defense program to Congress. The absence of a clear force-planning construct in the 2010 QDR represents a missed opportunity.

The challenges outlined above should serve as the basis of force planning over the period under consideration for the QDR—that is, the next two decades. The United States will need agile forces capable of operating against the full range of potential contingencies. However, the need to deal with irregular and hybrid threats will tend to drive the size and shape of ground forces for years to come, whereas the need to continue to be fully present in Asia and the Pacific and other areas of interest will do the same for naval and air forces.

Maintaining a fully modern force that is sized with a rotation base sufficient to meet operational tempo has been the hallmark of the post–Cold War era. The Panel feels strongly that the Department of Defense must be fully resourced if it is to continue to protect American interests against the range of challenges we have outlined. We also feel strongly that we need to fully modernize the force. To do this, we will have to spend money better—making tradeoffs, reducing the number of headquarters, insisting on more accountability from contractors, and then investing substantial additional resources into modernization. A fully resourced military must begin with making better use of the dollars that are currently available, followed by expending the resources necessary for strategic reinvestment.

The current end strength of the active duty ground forces is close enough to being correct that adjustment to that number is not a top priority. However, we have long been living off the capital accumulated during the equipment investment of 30 years ago. The useful life of that equipment is running out; and, as a result, the inventory is old and in need of recapitalization. Because military power is a function of quantity as well as quality, numbers do matter. As the force modernizes, we will need to replace inventory on at least a one-for-one basis, with an upward adjustment in the number of naval vessels and certain air and space assets.

Alternative force structure

Several principles should be borne in mind in the planning of forces. First, we cannot ignore or underrate a risk because it is inconvenient to plan for it. The risk we don't anticipate is precisely the one most likely to be realized. We will most likely be challenged where we are least

prepared. Second, where we do need a capability, we should plan for sustaining that capability at a level that creates a high confidence we can accomplish whatever mission is undertaken.

Although overwhelming power may not be necessary, the Department should plan for a force structure that gives us a clear predominance of capability in a given situation. One purpose of force structure is to deter conflict, but that requires a level of capability that fosters a high confidence of success.

In the absence of a clear force-planning construct in the 2010 QDR, the Panel looked to past efforts to determine the minimum force structure needed to protect America's vital interests. These efforts included the 1993 Bottom Up Review and the 1997, 2001, and 2006 QDRs. In the end, we took as a baseline the force structure derived from the BUR. Although it may seem counterintuitive to look to a 17-year-old review for guidance for the future, the Panel decided to do so for two reasons. First, we take seriously the planning efforts of the past and the analytical work that underlay them. Second, given the stress on the force over the last 15 years and the increasing missions that the Department of Defense has assumed, it is unlikely that the United States can make do with less than it needed in the early 1990s, when Americans assumed the world would be much more peaceful post Cold War.

The Panel largely embraces the current *mix* of forces of all four services. We further believe both the current *size* and current *end strengths* of the Army and Marine Corps, should be retained. We do basically accept the BUR's *size* and *end strengths* for the Navy and Air Force, both of which are smaller than in the 1990s.

A comparison of the BUR force structure with that of the 2010 QDR appears in Figure 3-1, which shows the size of the Army and Marine Corps as roughly the same, but the projected size of the Navy and Air Force as smaller than was deemed wise in the 1990s. Moreover, the armed forces are operating at maximum operational tempo, wearing out people and equipment faster than expected, using the reserve component more than anticipated, and stressing active duty personnel in all the military services.

Force Structure Comparison Bottom Up Review and Quadrennial Defense Review

Bottom Up Review, October 1993		Quadrennial Defense Review, February 2010		
U.S. Force Structure-1999		Main Elements of U.S. Force Structure FY 2011-15		
	Comparable Aircraft	Personnel AC/RC	Comparable Aircraft	Personnel AC/RC
		1999		2010
Army	10 divisions (active) 5+ divisions (reserve)	1,042K	<ul style="list-style-type: none"> • 4 Corps HQ • 18 Div HQ • 73 BCT • 21 CAB • 15 Patriot Bn 	1,106K
Navy	11 aircraft carriers (active) 1 aircraft carrier (reserve/training) 45-55 attack submarines 346 ships	462K	<ul style="list-style-type: none"> • 10-11 Aircraft carriers • 126-171 ISR/EW land-based aircraft (manned & unmanned) • 53-55 attack submarines • 288-322 ships 	399K
Air Force	13 fighter wings (active) 72 aircraft per 7 fighter wings (reserve) 72 aircraft per Up to 184 bombers (B-52H, B-1, B-2)	539K	<ul style="list-style-type: none"> • 10-11 theater strike wing-equivalents (72 aircraft per wing) • 6 air superiority wing - equivalents (72 aircraft per wing) • 5 long range strike (bomber) wings with up to 96 aircraft • 8 ISR wing equivalents with up to 380 aircraft • 30-32 airlift/air refueling wing equivalents (33 aircraft per) • 3 command & control wings and 5 air & space operation centers with 27 total aircraft • 10 space and cyberspace wings 	1152-1224 96
Marine Corps	3 Marine Expeditionary Forces	216K	3 Marine Expeditionary Forces	243K
Strategic Nuclear Forces (by 2003)	500 Minuteman III ICBMs (single warhead) 18 ballistic missile submarines 20 B-2 bombers Up to 94 B-52H bombers	114	<ul style="list-style-type: none"> • Upper boundary of 1,550 deployed warheads • Up to 700 deployed ICBMs, deployed SLBMs and nuclear-capable heavy bombers • Up to 800 deployed/non-deployed ICBM & SLBM • Power and flexibility to determine composition of force. DoD baseline for planning is: <ul style="list-style-type: none"> --240 deployed SLBMs, distributed among 14 submarines, each with 20 launch tubes. --Up to 60 deployed heavy bombers, including all 18 operational B-2s. --Up to 420 deployed single-warhead Minuteman-3 ICBMs at current three missile bases. 	60
Special Operations Forces	Not specifically listed		<ul style="list-style-type: none"> • 660 SOF Teams (SF, SEAL, Marine, Air Force, Opnl Avn Dets) • 3 Ranger Bns • 165 tilt-rotar/fixed wing mobility & fire spt aircraft 	
Totals		1798	Totals	1308-1380
		2,259K		2,245K

Although we had neither the time nor the resources to conduct a detailed force-structure analysis, our assessment of America’s vital interests leads us to the alternative force that is illustrated in Figure 3-2. This alternative comprises an Army and Marine Corps of the same size as today, but suggests the Navy expand substantially toward its size under the BUR force—the reason being the potential challenges in Asia. Air Force end strength, while less than the BUR force, may be at about the right level or require only a modest increase (especially to meet the requirements of increased use of “uninhabited” aerial vehicles) and the current force structure mix is generally superior to that of the BUR force. At the same time, the Air Force’s need for an increased deep strike capability is a priority matter.

Alternative Force Structure
Army:
1,106,000 personnel
4 Corps HQ
18 Division HQ
<ul style="list-style-type: none"> 73 total brigade combat teams (BCTs) (45 Active Component & 28 Reserve Component).
21 combat aviation brigades (CABs) (13 AC and 8 RC)
15 Patriot battalions; 7 Terminal High Altitude Area Defense (THAAD) batteries
<ul style="list-style-type: none"> National Guard units for Homeland Defense
Navy:
~450,000 personnel
11 aircraft carriers and 10 carrier air wings
55 attack submarines and 4 guided missile submarines (Ohio-class SSGN follow-on)
346 ships
<ul style="list-style-type: none"> Increased long-range strike capability
Marine Corps:
243,000 personnel
3 Marine Expeditionary Forces
Air Force:
~500,000 personnel
~1200 tactical aircraft
180 bombers
8 ISR wing equivalents with up to 380 aircraft
30-32 airlift/air refueling wing equivalents (33 aircraft per)
3 command & control wings and 5 air & space operations centers with 27 total aircraft
10 space and cyberspace wings
<ul style="list-style-type: none"> Reserve/National Guard cyberspace wings
Special Operations Forces:
Approximately 660 special operations teams (includes Army Special Forces Operational Detachment-

Alpha[ODA] teams, Navy Sea, Air, and Land [SEAL] platoons, Marine special operations teams, Air Force special tactics teams, and operational aviation detachments [OADs])
3 Ranger battalions
165 tilt-rotor/fixed-wing mobility and fire support primary mission aircraft
Strategic Forces:
Upper boundary of 1,550 deployed warheads
Up to 700 deployed ICBMs, deployed SLBMs and nuclear-capable heavy bombers
Up to 800 deployed/non-deployed ICBM & SLBM launchers & heavy bombers equipped for nuclear armaments.
Power and flexibility to determine composition of force. DoD base line for planning is:
<ul style="list-style-type: none"> • 240 deployed SLBMs, distributed among 14 submarines, each with 20 launch tubes. • Up to 60 deployed heavy bombers, including all 18 operational B-2s. • Up to 420 deployed single-warhead Minuteman 3 ICBMs at current three missiles bases.

Figure 3-2

The greater difference between the QDR force and the force recommend by the Panel is more qualitative. First, the force we recommend is a fully modernized force. This includes current modernization programs as well as modernization in areas where modernization is needed but not currently planned for the short term—submarines, a next generation cruiser, a tanker and lift capability, and new ground combat vehicles. Second, the recommended force emphasizes long-range platforms to a greater extent than the current force. We believe this will allow the United States to protect its vital interests at low to moderate risk over the coming two decades. We emphasize that the current operational tempo will likely continue at least until 2015 and the force structure we recommend is vital for the Department to stabilize force rotations and dwell times at home in support of our troops and their families.

Strengthening the force

Force structure must be strengthened in a number of areas to address the need to counter anti-access challenges, strengthen homeland defense (including defense against cyber threats), and conduct post-conflict stabilization missions:

- First, as a Pacific power, the U.S. presence in Asia has underwritten the regional stability that has enabled India and China to emerge as rising economic powers. The United States should plan on continuing that role for the indefinite future. The Panel remains concerned that the QDR force structure may not be sufficient to assure others that the United States can meet its treaty commitments in the face of China’s increased military capabilities.

Therefore, we recommend an increased priority on defeating anti-access and area-denial threats. This will involve acquiring new capabilities, and, as Secretary Gates has urged, developing innovative concepts for their use. Specifically, we believe the United States must fully fund the modernization of its surface fleet. We also believe the United States must be able to deny an adversary sanctuary by providing persistent surveillance, tracking, and rapid engagement with high-volume precision strike. That is why the Panel supports an increase in investment in long-range strike systems and their associated sensors. In addition, U.S. forces must develop and demonstrate the ability to operate in an information-denied environment.

- Second, the Panel is concerned the QDR force structure provides insufficient capacity to defend the homeland during a period of ongoing contingency operations abroad. The Department of Defense must sustain a robust participation in the coordinated response with state and local officials in the event of a WMD attack against the homeland. We would also urge a timely review of reserve component roles and missions with an eye to ensuring that a portion of the National Guard be dedicated to and resourced for the homeland defense mission.

The Department of Defense must plan for contingencies in which it may be asked to perform a more expansive homeland defense mission on short notice. The Department needs to plan for and exercise a response to a major natural disaster or a catastrophic attack (such as a nuclear attack) in the United States that causes major loss of life. In such circumstances, the Department of Defense would almost inevitably move from a support role (following the lead of the Department of Homeland Security) to being in charge. The Department of Defense needs to be given the appropriate legal authority to assume this role and lead the planning and exercise effort. Whereas “whole-of-government” solutions are highly desirable, the Department of Defense is often the only agency with the mission, structure, organization, experience, and capability necessary to meet the challenges associated with a catastrophe.

- Third, as discussed above, the Panel applauds efforts to strengthen the non-military elements of the national security community. Nevertheless, we believe the Department of Defense must hedge against the possibility that it will remain the exclusive agent for

post-conflict stabilization. Absent improved capabilities from “whole of government” Executive Branch departments and agencies, U.S. ground forces will continue to fulfill major responsibilities for post-conflict stability operations, consuming critical force structure resources.

Modernizing the force

Modernization has suffered in the interest of sustaining readiness and carrying the cost of current operations; however, the modernization bill is coming due. The Department must fix its acquisition process to regain credibility, to be able to produce necessary platforms in a timely manner, and to be able to adjust more nimbly to changing technology. If those processes are fixed, there will be real savings, which should be captured and applied to the modernization effort. However, those savings will be insufficient for comprehensive modernization. We cannot reverse the decline of shipbuilding, buy enough naval aircraft, recapitalize Army equipment, modernize tactical aircraft (TACAIR), purchase a new aerial tanker, increase our deep-strike capability, and recapitalize the bomber fleet just by saving the \$10 billion–\$15 billion the Department hopes to save through acquisition reform—even if those savings can be achieved and even if they are left in the defense budget. Meeting the crucial requirements of modernization will require a substantial and immediate additional investment that is sustained through the long term.

A fully resourced military must begin with making better use of the available dollars, followed by expending the resources necessary for strategic reinvestment. Although there is a cost to recapitalizing the military, there is also a potential price associated with not recapitalizing—and in the long run, that cost is much greater.

Confronting the threat to Cyberspace

Cyber threats against the United States are increasing. The Panel is particularly concerned that the U.S. government remains poorly organized and prepared to defend against those threats. The United States lacks legal authorities for the information age, and capabilities and responsibilities are misaligned within the U.S. government. The United States must have the ability to actively

prevent cyber attacks on critical national networks, including our military information infrastructure.

In addition, more than 80 percent of the Department's logistics are transported by private companies; mission-critical systems are designed, built, and often maintained by our defense industrial base. The majority of our military's requirements are not neatly bounded by the .mil (dot mil) domain; they rely on private sector networks and capabilities. That is why the Panel believes it is vital that the Department of Defense ensure the networks of our private sector partners are secured.

Moreover, the Department of Defense faces a tension between supporting the warfighter in overseas contingencies and protecting the homeland with limited cyber resources. The Panel believes the Department's role in cyberspace must be fully resourced. Indeed, an increase in resources to the cyber mission is warranted. We also believe the Department of Defense should explore innovative ways to harness the enormous intellectual capital in the information realm in the service of the nation. The military services, for example, should explore standing up reserve component units for cyber missions in areas of the country where those skills are particularly plentiful, such as California's Silicon Valley, and perhaps even establish some form of mobilization capacity in this skill area.

Today, the U.S. military can defend its networks within and at their perimeter, yet it is less able to prevent attacks before they occur. The military is essentially limited to a reactive and forensic posture as opposed to a dynamic and preventive one. The Panel believes the United States must have the ability to defend its critical networks beyond the boundaries of its own infrastructure to forestall catastrophic cyber threats before our networks or the information they contain are damaged or destroyed. We need an active "immune system" with the capacity and authority to shut down an attack instantaneously at the point of origin. However, this defensive footing is more a matter of the proper authorities than of technology. We need to identify the kinds of attacks we can treat diplomatically as acts of war, and eliminate them.

An active immune system—an automatic, self-healing network—that protects our networks is in some ways a whole new paradigm. The capability should be predicated on a set of standing rules of engagement (SROE) that is sufficiently flexible to respond to myriad threats. These SROEs

must account for the expanded event horizon and compressed timeline that characterize operations in cyberspace. The mechanisms, means, and modes the Department uses to render assistance to other departments, agencies, or branches of government is unclear. The Department of Defense should be responsible for cyber security of the .mil domain, and it should be given clear authority to support the DHS for cyber security of both the .gov and .com domains so that DHS does not have to replicate the capabilities now resident in U.S. Cyber Command (USCYBERCOM) and the National Security Agency (NSA).

The Department of Defense needs to identify the networks that are essential for our military forces and ensure we have assured access to those networks. But the Department must also have the capability (in terms of training and equipment) to operate without access to either the .gov or .com domains, and actually exercise that capability. Indeed, we need to equip and train our troops to operate in the wake of a massive and successful cyber attack or C3I (command, control, communications, and intelligence) failure when

- the “radio is turned off” (and local units cannot communicate with headquarters)
- we lose the intelligence and communications we need for precision weapons
- we lose precision dominance (and have to rely on small units that can mass and disperse quickly)
- we lose our C3I systems as a result of a cyber attack (even with the most robust C3I systems as we can develop).

The establishment of USCYBERCOM is a significant step toward unifying and strengthening the Department’s ability to defend military networks and ensure effective integration of cyber operations; however, the key to achieving this capability will be the ability to recruit, train, and retain the right people in our military service cyber components. The National Initiative for Cybersecurity Education (NICE), which was designed by the Administration to enhance the recruitment, training and retention of cybersecurity professionals, is a good start. Currently, there is neither a holistic career management strategy for these cyber professionals in any military service or across the joint force, nor an adequate system of incentives to hold on to these critical individuals given the incredibly competitive marketplace for cyber expertise. To rectify this gap,

the Department of Defense should develop a joint career path for cyber professionals that enables effective recruitment and retention. In doing so, the Department should consider the Special Operations Command (SOCOM) model for developing special operations forces within each of the military services or other force-shaping models, like aviation or nuclear incentive and continuation pay programs.

Cyber communications is a critical enabler for all the instruments of national power, and one for which combined equities exist among various extant congressional committees, including Armed Services, Intelligence, Judiciary, and Homeland Security. Moreover the current oversight structure that separates the Title 10 warfighting activities and the Title 50 intelligence activities may not be optimal for a domain in which operational and intelligence activities are so integrally linked. Accordingly, Congress should consider forming a Joint Cybersecurity and Operations Committee to oversee whole-of-government cyberspace operations.

Additional force structure concerns

During the course of the Panel's investigation, we discovered a number of areas that are not receiving the necessary degree of attention. These include the need to think more seriously about the issues associated with mobilization and the loss of U.S. dominance in precision warfare.

- Mobilization. We are concerned in three areas specific to mobilization: (1) the ability to quickly and seamlessly activate and mobilize our existing National Guard and Reserve forces, (2) the ability to expand our forces if necessary to meet an unexpected requirement for a vastly larger force, and (3) the ability of our industrial base to support sudden increases in consumption or an increase in forces. The mobilization of the Guard and Reserve was not without issues in training and process, including equitable pay and benefits. This as an area in which the military has become more proficient due to the experience of mobilization of large numbers of reserve component personnel for service in Iraq and Afghanistan, but we want to ensure progress continues to be made. While a remote possibility, the Panel is concerned that an expansion of the force might be necessary in response to an unexpected attack; to support a longer term, more intensive combat circumstance than Iraq and Afghanistan; or perhaps operations on a third front.

While the nation has a Selective Service System, we don't see that it has a matching plan even in concept to train and equip an expansion of either conscripts or volunteers and recommend that such a concept plan be prepared. The industrial base has long been a concern and while we should not prop up businesses that cannot survive on their own, neither should we be without the ability to ramp up production in response to crisis. We believe that all three areas warrant further exploration.

- The Loss of Precision Dominance. The United States has been the leader in precision-guided weaponry for several decades. That competitive advantage has yielded benefits on the battlefield since the Vietnam War, but particularly beginning with the 1991 Gulf War. The ability to conduct precision warfare is rapidly diffusing, however, and it seems likely that the next adversary that the United States faces will be armed with precision weaponry, whether that adversary is a state or not. The Panel believes the Department of Defense has not sufficiently integrated this likelihood into its operational concepts and plans.
- Nuclear Infrastructure: The Nuclear Posture Review (NPR) states that the major threat from nuclear weapons today comes from nuclear proliferation and nuclear terrorism. That has led the Administration to work to secure international support for the steps needed to reduce nuclear dangers, while in the long term moving towards a world free of nuclear weapons. The Administration recognizes this objective cannot be achieved for many decades; it also has the objective of maintaining a reliable and effective nuclear deterrent for the foreseeable future. The NPR correctly defines the need to refurbish and renew the nuclear infrastructure and professional personnel, modernize our nuclear delivery systems, refurbish and (if necessary) replace our nuclear warheads so that we have confidence they are safe, secure, and effective.

Force structure findings and recommendations

Secretary Gates is correct to focus all the necessary resources of American national security on the success of U.S. forces in Iraq and Afghanistan. The QDR should reflect that, but it must also plan effectively for threats that are likely to arise over the next 20 years.

The legal mandate to the Panel is to submit to Congress “an assessment of the [QDR], including the recommendations of the review, the stated and implied assumptions incorporated in the review, and the vulnerabilities of the strategy and force structure underlying the review.”

Consistent with its mandate, the Panel found the following:

- A force-planning construct is a powerful lever that the Secretary of Defense can use to shape the Defense Department. It also represents a useful tool for explaining the defense program to Congress. The absence of a clear force-planning construct in the 2010 QDR represents a missed opportunity.
- The force structure in the Asia-Pacific needs to be increased. In order to preserve U.S. interests, the United States will need to retain the ability to transit freely the areas of the Western Pacific for security and economic reasons. The United States must be fully present in the Asia-Pacific region to protect American lives and territory, ensure the free flow of commerce, maintain stability, and defend our allies in the region. A robust U.S. force structure, one that is largely rooted in maritime strategy and includes other necessary capabilities, will be essential.
- Absent improved capabilities from “whole of government” Executive branch departments and agencies, U.S. ground forces will continue with post-conflict stability operations, consuming critical force structure resources. Civilian agencies that are properly resourced and staffed can contribute significantly in stability operations, and they may be able to enhance military readiness by removing tasks more appropriately performed by civilian professionals.
- The QDR force structure will not provide sufficient capacity to respond to a catastrophe that might occur during a period of ongoing contingency operations abroad. The role of reserve components needs to be reviewed, with an eye to ensuring a portion of the National Guard is dedicated to and funded for homeland defense.
- The expanding cyber mission also needs to be examined. The Department of Defense should be prepared to assist civil authorities in defending cyberspace—beyond the Department’s current role.

- The force structure needs to be increased in a number of areas to counter anti-access challenges, strengthen homeland defense (including defense against cyber threats), and conduct post-conflict stabilization missions. It must also be modernized. The Department can achieve cost savings on acquisition and overhead, but substantial additional resources will be required to modernize the force. Although there is a cost to recapitalizing the military, there is also a potential price to be paid for not re-capitalizing, one that in the long run would be much greater.
- To compete effectively, the U.S. military must continue to develop new conceptual approaches to dealing with the operational challenges we face. A prime example of such an approach is the Capstone Concept for Joint Operations (CCJO). The Secretary of Defense has directed the Navy and Air Force to develop an Air-Sea Battle concept. This is one example of a joint approach to deal with the growing anti-access challenge. We believe the Chief of Naval Operations and the Chief of Staff of the Air Force deserve support in this effort and recommend that the other services be brought into the concept as soon as appropriate.
- Meeting the force structure challenges of the next 20 years, and creating the financial wherewithal for these capabilities, will not happen if the Department of Defense and Congress maintain the status quo on managing fiscal resources. To reap savings that may be reinvested within defense, and to justify additional resources for force structure and equipment modernization, the Department and Congress should reestablish tools that were lost when balanced budget rules were abandoned and restore fiscal responsibility to the budget process.

Personnel

The men and women serving in America's military are without peer and comprise an indispensable element of American power. Our armed forces personnel and their families have borne a burden of protracted conflict few expected when the All-Volunteer Force (AVF) was established in 1973. The AVF has consistently filled the ranks with high-quality recruits, even

during sustained periods of strong economic growth and low unemployment, and recruiting and retention has remained remarkably robust. This is more notable considering less than 1 percent of Americans serve so that the entire population may be secure. However, there is reason to believe the All-Volunteer Force, including the families of those serving, are under stress from repeated deployments, inadequate time at home, and the character of combat in wars among civilian populations.

The military personnel system

A central goal of the 2010 QDR is to preserve and enhance the All-Volunteer Force. We pay tribute to the success of the AVF (reenlistment rates are highest among the deployed forces today, all four services are meeting their numbers and quality standards, and military medical care has never been better); however, there is no question the AVF is under stress, as are the families of those who serve. We applaud the QDR for making the sustainment and enhancement of the All-Volunteer Force one of its four major objectives.

To relieve heavy strains on the force caused by current operations, the QDR focuses almost exclusively on increasing at-home dwell time for service members between deployments, thus achieving sustainable rotation rates. While the Panel endorses this focus, there is reason to doubt that the military can attract and maintain the requisite numbers of recruits and maintain its high quality as the economy continues to improve and unemployment declines. It is a fact that over the past decade, despite limited job creation, the force has survived only through extraordinary efforts and at substantial additional costs¹²—and the cost per service member is growing much more than historical norms. While end strength levels have generally declined since 1991, personnel costs have grown drastically on a per capita basis, as shown in Figures 3-3 and 3-4.

¹² Efforts include raising the maximum enlistment age to 42; accepting more recruits without high school diplomas, with criminal records, and in Category IV on the Armed Forces Qualification Test; relying on increasing percentages of high reenlistment and retention rates; increasing the numbers of non-citizens serving; raising military pay to unprecedented levels; offering extraordinary enlistment and reenlistment bonuses with the former rising from \$594.1 billion in 2005 to \$1,159 billion in 2008; enacting a new GI Bill with substantial education and other benefits; tripling of growth in advertising costs since 1997 to roughly \$600 million annually; and increasing the numbers of military recruiters.

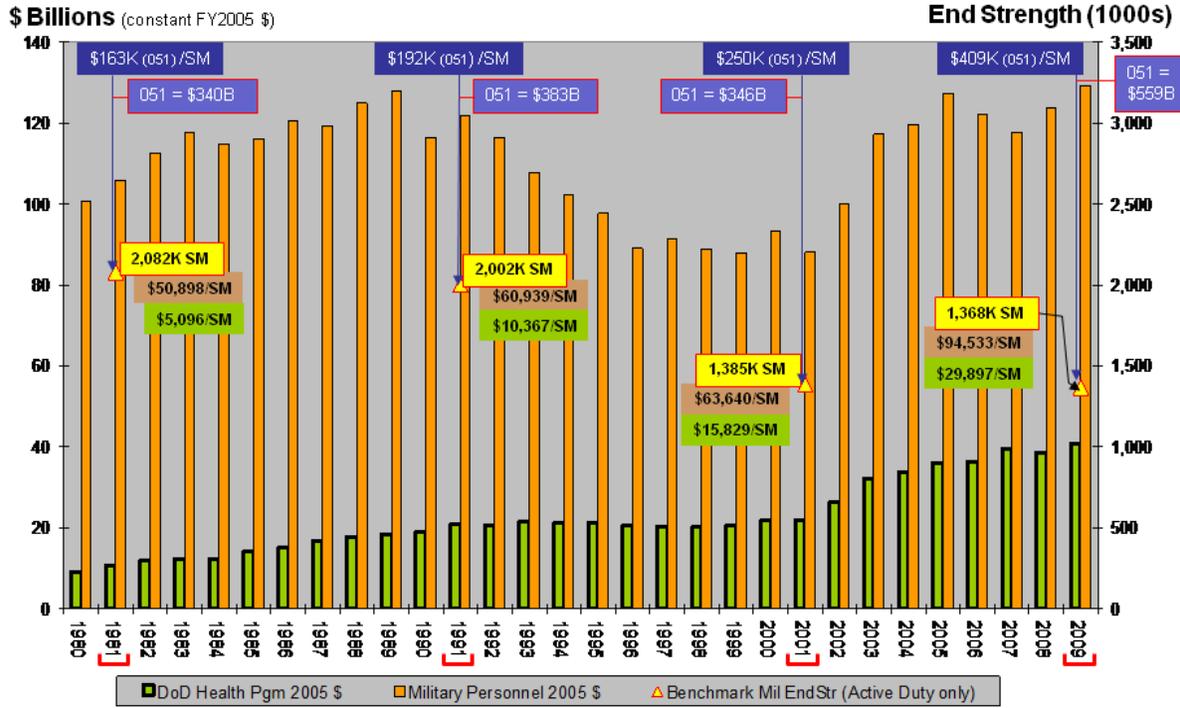
(Service Members: **Active Duty only**)

- SM** Mil End Strength (000s)
- \$/SM** Mil Personnel \$ Outlays per SM
- \$/SM** Health Pgm \$ Outlays per SM

DoD \$ Outlays compared to Military End Strength

- Military Personnel account
- Defense Health Program

\$ Sources: OMB historical tables
 -- Tbl 3.2 Outlays - 051 and Mil Pers
 -- Tbl 16.1 Outlays - DoD Health Pgm



Increased Outlays per SM, 1981 to 2009: +86% (Military Personnel \$/SM), +487% (Health Pgm \$/SM)

Figure 3-3

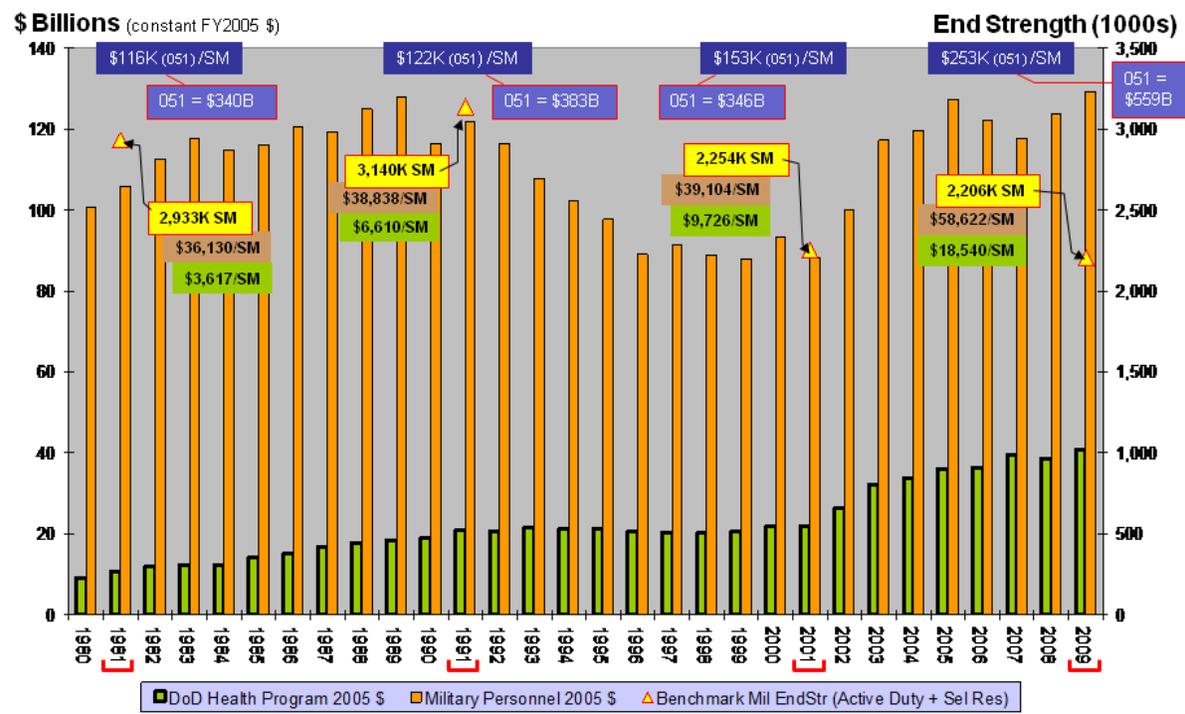
(Service Members: **Active Duty + Sel Res**)

SM Mil End Strength (000s)
\$/SM Mil Personnel \$ Outlays per SM
\$/SM Health Pgm \$ Outlays per SM

DoD \$ Outlays compared to Military End Strength

-- Military Personnel account
 -- Defense Health Program

\$ Sources: OMB historical tables
 -- Tbl 3.2 Outlays - 051 and Mil Pers
 -- Tbl 16.1 Outlays - DoD Health Pgm



Increased Outlays per SM, 1981 to 2009: +62% (Military Personnel \$/SM), +413% (Health Pgm \$/SM)

Figure 3-4

Recruiting and retention in some areas of the country and for some military specialties have become more challenging, and this is expected to continue. While the number of prime military-age youth will rise in the next four decades, more are choosing to attend college within a year of high school graduation. Those planning to continue education beyond high school already include 85 percent of youth today. In addition, numerous surveys reveal a decline in the propensity of youth to serve. More than 75 percent are ineligible for physical, mental, or educational reasons, or due to criminal records. The numbers of service “influencers”—people who influence our youth to enlist, which are overwhelmingly family members who are veterans—are also declining in the American population. The rising incidence of traumatic brain injuries, post-traumatic stress disorder, and associated behavioral problems may also lower the ability of the services to deploy soldiers repeatedly into combat zones, and even affect their

retention in uniform. The cost of medical care for these casualties, both to the Department of Defense and to the Veterans Administration, may far exceed present estimates.

A healthy force must maintain high standards. Recent analyses emphasize the need for officers who are even more agile, flexible, educated, skilled, and professional. Yet barely half of service academy graduates in recent years remain in service past 10 years. Thus, while the investment in academy and ROTC educational programs has substantially increased, the costs of the All-Volunteer Force in general are rising even more rapidly.

Medical expenses have greatly increased in recent years in part because they include costs for retirees and dependents as well as service members and their families, all of which are part of the Department's budget. Little or no contribution has been required from certain groups, including retirees, for the past 15 years. The Defense Health Program base budget (which includes retiree health care costs) has grown 151 percent in the past decade, increasing from \$16.6 billion in 2001 to \$41.7 billion in 2011 in constant dollars. Meanwhile, private sector benefits have decreased, leading many military retirees who are working to leave their civilian health care program in favor of TriCare.¹³

Improving personnel and compensation

To address these and other challenges facing the All-Volunteer Force, Congress, and the Department of Defense must consider major changes to the existing personnel and compensation systems. Managing the costs of updating the military compensation system to better meet the needs of today's highly mobile youth and their changing expectations of work and profession will be indispensable. Today, compensating young people in direct cash payments has proven more attractive than benefits and other non-cash compensation, the value of which is often less to the service member than its cost to the government.

¹³ TriCare is a health care program that provides health insurance for military personnel, military retirees, and their dependents, including some members of the reserve components. The program has a number of levels of care, ranging from zero enrollment fees for the lowest level (the patient pays annual deductible, coinsurance payments, and certain other out-of-pocket expenses) to higher level programs with enrollment fees for retirees and reservists, but not for active duty members and their dependents. The TriCare program includes pharmacy benefits and is used by many retirees for that reason, in addition to it being a zero or low fee program. TriCare for Life is a program instituted in 2001 to benefit Medicare-eligible recipients (retirees) that previously lost TriCare benefits once they qualified for Medicare and had to purchase Medicare supplemental benefit programs or pay the increased cost on their own. TriCare for Life is a free supplemental program designed to reimburse costs beyond Medicare payments, but in some cases it is the primary insurance. TriCare for Life participants are required to purchase Medicare Part B.

The QDR force structure, not including the additional increments the Panel believes necessary, will be unsustainable unless growth in defense entitlements, increases in overhead costs, and cost overruns of major acquisition programs are all brought under control. Bold solutions will be required in these areas to sustain the health and affordability of the All-Volunteer Force. Major changes must also be made in the personnel management policies governing the All-Volunteer Force.

Updating military compensation and redesigning some benefits does not necessitate cuts in pay or benefits for current service members. Moving toward more flexible compensation packages for future officers and enlisted would instead allow Congress to pay troops with more cash up front while grandfathering in those who are serving today. The compensation system should be dual-tracked: one path for those who serve one or two terms of enlistment, and another for those who intend or decide on a career in uniform. Compensation would be adjusted to meet the different needs of recruiting or retaining each group, and redistributed as required. Cash payments would make up a higher percentage of overall compensation for those seeking shorter lengths of service, when compared to deferred and in-kind benefits. For those who seek to serve longer terms of service, careers could be lengthened and the “up or out” system could be modified to extend the period of active service, reduce retirement costs, and gain the full benefit of investments in training, education, and experience.

The Department of Defense should also consider raising the bonus ceiling and offering an annual bonus for those with skills in high demand, regardless of rank or assignment. There should be bonuses for top achievers, greater choice for deployment or assignment for the service member (when such a choice is consistent with mission requirements), additional opportunities for professional development through broadening assignments outside of core positions including in the private sector, and opportunities for further higher education sponsored and financed by the services.

The AVF must move toward a continuum-of-service model that allows military members to move fluidly between the active and reserve components and between the military, private sector, civil service, and other employment. Such changes would make military service and its compensation system more flexible and offer intangible benefits that would be attractive.

- For career progression. Officer careers need to be lengthened by 10 years to accommodate increased education, joint assignments, and longer command tours; to take advantage of better health, increased longevity, and vastly more military specialties that lack the physical demands that necessitate youth; and to achieve the savings in retirement pay and leverage the investments in officer experience, training, and education.
- For retirement. The up-or-out personnel policy should be modified to allow service members the option of full working lives in the military and to provide the same enhanced return on the investment in training, education, experience, and demonstrated excellence. Modifications might include a competitive up-or-out system, with relatively high selection rates in the junior grades and increasing competition as careers progress; stringent selection into a more elite career force; severance pay and a retirement annuity that would start in the 60s age group for those who are not selected or who choose not to join the career force; longer tenure, more challenging jobs, and higher remuneration for those selected to join the career force; the opportunity for officers to serve longer in each assignment, and the opportunity to command more than once at the same level; more flexible compensation packages designed to motivate the best to stay; and pensions that reflect additional years of service, both through their size and through the age at which they start.
- For medical care. The rising cost of medical care is taking an ever increasing portion of the Defense Department budget. The nation must care for its service men and women, especially those who have been wounded, for whom no expense can be too great. However, the military must provide health care in an efficient and economical manner. Between 2000 and 2015 the Department's health care budget will increase by 179 percent (\$48.5 billion), with cost inflation amounting to 37 percent of that total increase and medical care to retirees amounting to 31 percent. These total costs, projected to exceed \$65 billion in 2015, show retirees as the fastest growing portion of the military medical budget since 2001, when the TriCare for Life program began. Unless retirees contribute more for their TriCare insurance, medical costs will not be brought under control and the national defense they served and for which they fought and sacrificed will be harmed.

- For force balance. The Defense Department must also look at the balance between the active and Guard/reserve forces. One consideration is whether more requirements and missions could be met by a mobilization model, because Guard and reserve forces—until brought in to active service—are dramatically less expensive than active duty forces. Our military has transitioned from a Cold War force designed to deter and prevent war (a large active duty contingency backed up by strategic reserve mobilization component) to a “force in being” that uses reserve components interchangeably with a smaller regular force on a more-or-less continuous basis. Whether the military establishment can revert to a force with an active component that relies more heavily on the Guard and reserve, and that rethinks the frequency of call-ups for their use appropriate to 21st century challenges, remains unclear. More importantly, the Panel believes the reserves are, in their own way, overstretched today. It seems unlikely they can function simultaneously as the primary military force for homeland defense and incidence management, as a strategic reserve for major war, and as an operational reserve to be rotated into overseas deployments on a regular and ongoing basis. Further attacks on the American homeland would stress the reserve force structure even more.
- For fiscal responsibility. To reap savings that may be reinvested within defense, Congress must restore the fiscal responsibility to the budget process that was lost after 2001. Operating under balanced budget rules helps prod policymakers to find offsets for unfunded entitlements and programs and avoid the lack of prioritization and budget dilemma facing defense leaders today. There are many innovative ideas which could dramatically reduce out-year costs yet and significantly bolster recruiting and targeted retention. But incremental change cannot accomplish what is needed. It is time for Congress to create a new National Commission on Military Personnel (one that is of the same stature, expertise, and comprehensiveness of the 1970 Gates Commission) to develop the changes needed in military personnel policy from recruiting to assignments, promotion, and career progression, and including military pay, benefits, other compensation, and medical care insurance for retired military members. The commission must also study and make recommendations for the force mix between active and reserve components, mobilization beyond those components, and the numbers and composition of the headquarters and staffs that have proliferated in the armed forces and the

Department of Defense since the end of the Cold War. This commission will want to consult with men and women in uniform to learn firsthand what attracts Americans to uniformed service and keeps them in the ranks.

Professional military education

The Panel commends the QDR for placing special emphasis on professional military education (PME). A repeated objective of the Secretary of Defense is to firmly institutionalize the lessons the U.S. armed forces have so painfully learned in our engagements in Iraq and Afghanistan over the past near decade. In a section on “developing future military leaders,” the QDR promises “to ensure that America’s cadre of commissioned and noncommissioned officers are prepared for the full range of complex missions that the future security environment will likely demand,” particularly by putting “stability operations, counterinsurgency, and building partner capacity skill sets in [the Defense Department’s] professional military education and career development policies.”

The Panel applauds this focus, but believes that larger, more structural changes in the officer personnel system will be required. Officers today must be prepared to wage war among civilian populations, to partner with contractors and civilian experts from our own and other societies in rebuilding shattered neighborhoods, to segregate local populations with confusing ethnic or religious rivalries, and to advise senior political leaders about how to avoid—as well as win—wars in ambiguous settings against unconventional and uncertain enemies. Yet the preparation and education for these likelihoods—the need for agility, innovation, originality beyond the operational—cannot be gained at the expense of training in regular military duties or proficiency in core military competencies. Senior leaders must be outstanding in operations and in strategy, management, and leadership.

An expanded, strengthened, and more diverse set of professional educational and assignment experiences is now required. The length of a military career must be stretched out to accommodate more diverse preparation and experience, and to gain the return on the investment in education and experience that officers must have to succeed in these new environments. Fortunately, thanks to gains in the last two generations in overall health and fitness, officers can serve for longer careers at the same or even increased levels of excellence.

- To attract more youth to military careers and recruit from the nation's top colleges, the services should offer full scholarships on a competitive basis, usable anywhere a student chooses to attend, in exchange for enlisted service in the reserves (and summer officer training) during schooling, and 5 years of service after graduation, to include officer training school.
- To attract and retain officers, and to broaden their experience, successful company grade or junior field grade officers should be offered fully funded civilian graduate degrees to study in residence military affairs and foreign cultures and languages, without specific connection to a follow-on assignment. In addition, all officers selected for advanced promotion to O-4 should be required and funded to earn a graduate degree in residence at a top-tier civilian graduate school in a war-related discipline in the humanities and social sciences. Finally, qualified career officers at these ranks should have available sabbatical assignments in the private sector, voluntary sector, or elsewhere in government, with the opportunity to drop back into their year group so as not to fall behind their peers in the opportunity for promotion.
- Attendance at intermediate and senior service schools should be by application, and require entrance examinations administered by the schools in cooperation with the service personnel offices. Too many officers are poorly prepared or motivated for post-graduate PME, many treating it largely as a requirement for promotion. The quality of the instruction, and the depth and rigor of staff and war colleges would be strengthened if students possessed the motivation and skills needed to make maximum use of the educational opportunity provided.
- Officers selected for senior service school should be obligated for at least 5 years of additional service after graduation.
- Service on the teaching faculty somewhere in PME should be a requirement for promotion to flag rank. Such service should be considered equivalent to joint duty for the purposes of meeting the 4 year requirement for service in a joint billet. To facilitate this requirement, active duty officers should fill all ROTC instructor billets and a larger percentage of faculty billets at the service academies.

- Foreign language proficiency should be a requirement for commissioning from ROTC and the service academies.
- To strengthen the education of the officer corps in the profession of arms, the service academies and ROTC should expand and strengthen instruction in ethics, American history, military history, security studies, and related subjects, including the responsibilities of military officers under the Constitution of the United States. Changes to the curricula of these institutions in these subjects must be reported to Congress annually. To ensure pre-commissioning education provides the necessary introduction to the art of war, there can be no disciplinary or subject matter quotas or limits on cadet/midshipmen majors at the service academies or in ROTC.
- To align the military with best practices in the private sector and to strengthen the officer corps at every level, as well as identify officers for higher command early in their careers, Congress should mandate 360-degree officer evaluation systems for all of the armed services.
- To provide PME the requisite proponentcy and influence in the Department of Defense, there should be a Chief Learning Officer at the assistant secretary level in the Office of the Undersecretary of Defense for Personnel and Readiness. In addition, a senior flag officer, perhaps most appropriately the Commander, U.S. Joint Forces Command, should be designated as “Chancellor” for all service PME institutions.

Personnel Findings and Recommendations

The All-Volunteer Force

Although the pay and benefits afforded to U.S. military personnel can never adequately compensate for their sacrifice and the burdens placed upon their families, the recent and dramatic growth in the cost of the All-Volunteer Force cannot be sustained for the long term. A failure to address the increasing costs of the AVF will likely result in a reduction in the force structure, a reduction in benefits, or a compromised All-Volunteer Force.

To accomplish the QDR's goal of preserving and enhancing the All-Volunteer Force and to develop future military leaders, major changes will be necessary in the military personnel system:

- Greater differentiation in assignments and compensation between one or two terms of service and a career
- A change in military compensation, emphasizing cash in hand instead of deferred or in-kind benefits to enhance recruiting for those serving less than an entire career
- The use of bonuses and credential pay to attract, retain, and reward critical specialties and outstanding performance
- Instituting a continuum-of-service model that allows service members to move fluidly between the active and reserve components and between the military, private sector, civil service, and other employment.

Current limitations on the length of service provide insufficient time for the education, training, and experiences necessary for 21st century warfare. To gain the best return on investment and experience, and because of improvements in health and longevity, it is necessary to modify career paths to permit the educational and assignment experiences required to meet the challenges the military faces in the 21st century.

To ensure a healthy All-Volunteer Force for the next two decades, the military's personnel management system should be revised to include modifying the up-or-out career progression, a lengthening of career opportunities to 40 years, instituting 360-degree officer evaluations, and broadening educational experiences both in formal schooling and career experiences for officers heading toward flag rank. Modify TriCare for Life to identify solutions that make it more affordable over the long term, including phasing in higher contributions while ensuring these remain below market rates, and adjusting contributions on the basis of ability to pay.

The Department of Defense and Congress should establish a new National Commission on Military Personnel of the quality and stature of the 1970 Gates Commission, which formulated policies to end military conscription and replace it with an all-volunteer force. The purpose of

this commission would be to develop political momentum and a roadmap for implementation of the changes proposed here, including recommendations to:

- Modernize the military personnel system and compensation system
- Adjust military career progression to allow for longer and more flexible military careers
- Rebalance the mix between active, Guard and reserve, and mobilization capacity
- Reduce overhead and staff duplication
- Reform active, reserve, and retired military health care and retirement benefits to put their financing on a sustainable basis consistent with other national priorities.

A proposed TOR for the Commission is at Appendix 3.

Professional military education

- In order to attract more youth to military careers and recruit from the nation's top colleges, the services should offer full scholarships on a competitive basis, usable anywhere a student chooses to attend, in exchange for enlisted service in the reserves (and summer officer training) during schooling, and five years of service after graduation to include officer training school.
- To attract and retain officers, and to broaden their experience, successful company grade or junior field grade officers should be offered fully funded civilian graduate degree programs in residence to study military affairs and foreign cultures and languages, without specific connection to a follow-on assignment.
- Additionally, all officers selected for advanced promotion to O-4 should be required and funded to earn a graduate degree in residence at a top-tier civilian graduate school in a war-related discipline in the humanities and social sciences. Qualified career officers at these ranks should have available sabbatical assignments in the private sector, voluntary

sector, or elsewhere in government, with the opportunity to drop back in year group so as not to fall behind their peers in the opportunity for promotion.

- Attendance at intermediate and senior service school should be by application, and require entrance examinations administered by the schools in cooperation with the service personnel offices. Too many officers are poorly prepared and/or motivated for post-graduate PME, many treating it largely as a requirement for promotion. The quality of the instruction, and the depth and rigor of staff and war colleges would be strengthened if students possessed the motivation and skills needed to make maximum use of the educational opportunity provided.
- Officers selected for senior service school should be obligated for at least 5 years of additional service after graduation.
- Service on the teaching faculty somewhere in PME should be a requirement for promotion to flag rank. Such service should be considered equivalent to joint duty for the purposes of meeting the 4 year requirement for service in a joint billet. To facilitate this requirement, active duty officers should fill all ROTC instructor billets and a larger percentage of faculty billets at the service academies.
- Foreign language proficiency should be a requirement for commissioning from ROTC and the service academies, and the service academies.
- To strengthen the education of the officers corps in the profession of arms, the service academies and ROTC programs should expand and strengthen instruction in ethics, American history, military history, security studies, and related subjects, including the responsibilities of military officers under the Constitution of the United States. Changes to the curricula of these institutions in these subjects must be reported to Congress annually. To insure that pre-commissioning education provides the necessary introduction to the art of war, there can be no disciplinary or subject matter quotas or limits on cadet/midshipmen majors at the service academies or in ROTC.
- To align the military with best practices in the private sector and to strengthen the officer corps at every level and identify officers for higher command early in their careers,

Congress should mandate 360-degree officer evaluation systems for all of the armed services.

- To provide PME the requisite proponentcy and influence in the Defense Department, there should be a Chief Learning Officer at the Assistant Secretary level in the office of the Undersecretary of Defense for Personnel and Readiness. In addition, a senior flag officer, perhaps most appropriately the Commander, U.S. Joint Forces Command, should be designated as “Chancellor” for all service PME institutions.

Force Structure and Personnel conclusions

The budget pressures facing the Department of Defense in the future are certain to be severe. If the long-term cost trends in the areas of personnel, operations and maintenance, and acquisition cannot be reversed or modified, the outcome will be stark and the consequences for U.S. national security will be enormous.

The Panel believes its recommendations on force structure and manpower levels are prudent and measured considering the variety and criticality of global challenges and threats. At the strategic level, it seems certain the Department of Defense will be called upon to respond to an increased number and variety of missions in the future.

The Panel agrees with the QDR that counterinsurgency, stability, and counterterrorist operations will constitute a major share of the actual “work” of the Department in the future. As the QDR points out, helping to build the capacities of partner nations, both in the security dimension and in more effective governance, will be a primary emphasis of U.S. forces and the “whole of government” in this century. The 2010 QDR makes a particularly valuable contribution by describing the diverse assortment of operations short of a major regional contingency that will likely be as demanding, and as important, as major conventional combat for sizing the American armed forces.

Acquisition and Contracting

A major foundational theme of the QDR is reforming the way the Pentagon does business, and the QDR makes several timely and sensible recommendations to bring important elements of defense business practices into line with today's rapidly changing, even fluid, security situation. The QDR rightly criticizes several areas as hidebound in their bureaucratic servitude to the mechanisms of the Cold War that remain unresponsive and outmoded in countering today's highly flexible and adaptive threats. Suggested reforms in Security Assistance, the antiquated export control system, and, in particular, the doddering and hugely costly acquisition process are both timely and responsible. We applaud the Department of Defense for calling out the need for reform in these pivotal areas. We also applaud Secretary Gates' recent initiative to overhaul costs by eliminating unneeded or redundant programs and activities and by conducting needed programs and activities more efficiently. In what follows we point to areas where we think the QDR and this most recent initiative do not go far enough in reforming the system.

The core issue

The Panel's examination of the QDR found that the Department of Defense has been in a near constant state of acquisition reform since the implementation of Goldwater-Nichols in 1986. These efforts have generally produced more structure and more process but have not produced notable improvement in delivering required capabilities when needed at the expected cost. Instead:

- Major acquisition programs deliver years late at far beyond the original cost estimates, sometimes at multiples of the original estimates.
- Urgent needs of the warfighting forces are often met only with the personal intervention of the most senior leadership in the Department of Defense.

- Foreign Military Sales programs are often unable to respond to the needs of allies in a timely fashion, especially those of less-developed partners confronting immediate security challenges.

The QDR assessment of current acquisition and contracting performance

The material in the QDR on *Reforming How We Buy* identified a number of root causes of the disappointing past performance of the Department of Defense in acquiring major systems. Among the causes identified are: pushing the limits of technology; the atrophy of the acquisition community in both numbers and expertise; overly optimistic cost and schedule estimates; and the increase in requirements during execution. Implied, but not explicitly identified, is the additional issue of reaching too far in defining the increment of increased military capability to be provided in a single step forward in a major acquisition program. The identified result of these attributes is that significant cost and schedule overruns have become the norm in major acquisition programs.

The QDR also describes a set of constructive actions to remedy identified deficiencies in existing acquisition activity. The Panel applauds the QDR for its attention to the issue. However, the actions suggested in the QDR, although praiseworthy in the abstract, will be effective only if they are implemented with accountability through a line management process as we urge in this report. In fact, if the QDR proposals are implemented by adding more process without accountability, they will be counterproductive.

Additional overarching issues from the independent review panel

The causes and consequences described in the QDR address *what* has happened, but they do not adequately address *why*.

The implementation of corrective action suggested in the QDR retains the current complex set of processes and activities to oversee the acquisition process from capability need to delivery. In fact, some of the corrective actions suggested would add more process and structure. Further, the first emphasis in providing a more adequate acquisition work force is on increasing its size, with early emphasis on contracts expertise. Increasing the size of the acquisition work force is no guarantee of increased competence. More people without increased competence could, instead, be counterproductive. More pertinent would be emphasis on systems engineering education,

experience, and stability to produce effective program managers and support, with particular attention to rebuilding the competence of those in the military departments and defense agencies (the force providers) who manage acquisition. Adding more people to oversee and monitor acquisition activities is not likely to be productive. The emphasis on contracts expertise could imply that more attention to writing contracts is at the top of the acquisition expertise priorities. More attention to contracts is useful but is not at the root of the problem in acquisition.

Meeting the twin goals of responsiveness to today's war needs and tomorrow's challenges

The QDR describes the need for both more responsiveness to support today's wars and better performance in defining and delivering capabilities to meet tomorrow's challenges. Neither of these goals can be met effectively with the current system. The Panel believes that the fundamental reason for the continued underperformance in acquisition activities is *fragmentation of authority and accountability for performance*, or lack of clarity regarding such authority and accountability. Fragmented authority and accountability exists at all levels of the process, including identifying needs, defining alternative solutions to meeting the need, choosing and resourcing the solution, and delivering the defined capability with discipline on the agreed schedule and within the agreed cost. In the current system, the complex set of processes and authorities so diffuses the accountability for defining executable programs intended to provide the needed increment of capability that neither objective is achievable—either rapid response to the demands of today's wars or meeting tomorrow's challenges.

Consequences of the current decision structure and process

An additional consequence of the current long, complex, process-driven approach is that, once a program runs the gauntlet of committees, boards, and reviews to become a "program of record," it becomes nearly immortal. We treat system performance as a given once approved by the Joint Requirements Oversight Committee (JROC). Subsequent increases in cost and schedule, due to all the causes identified in the QDR, are accepted. Performance is rarely traded off. Only the most egregious cases are candidates for cancellation.

As programs are stretched to accommodate poorly conceived front-end assessment and program formulation, the relevance of the program as defined can be adversely affected by subsequent technology development, experience in ongoing operations, and changes in the international environment and defense policy. As a result, in an attempt to maintain program relevance, requirements are added with further adverse impact on cost, schedule, and relevance to the changing operational environment.

Additional steps suggested by the independent review panel

As suggested earlier in these comments, the QDR describes a set of corrective actions that include developing our acquisition people, ensuring integrity in the acquisition process, bolstering cost analysis, and improving program execution. The Panel agrees with these recommendations provided they are implemented in a manner that is consistent with the spirit of our recommendations.

To address the most fundamental cause of disappointing acquisition performance, it will be necessary to replace the current diffused, fragmented assignment of responsibilities without accountability with authority and accountability vested in identified, authoritative individuals in line management. To repeat: the emphasis must be on individuals in line management. Although more competence in writing and negotiating contracts is desirable, the key to effective execution of any contract is not the quality of the contract, it is the quality of the program management responding to clear assignment of authority and accountability for each program.

Some experiences from the past may be useful examples. For the F-15, the Deputy Secretary of Defense made it clear that if the aircraft flyaway cost exceeded the established ceiling price, he would withdraw all support for the program. The F-15A was delivered at below the ceiling flyaway cost. Later, the Under Secretary of Defense for Research and Engineering [the predecessor to USD (AT&L)] made the F-117 a special-interest program to ensure that the Air Force management chain accorded the program the resources and other support needed to deliver this unique capability with the agreed performance on the agreed schedule. The aircraft was delivered on schedule at the forecast cost. For the B-1B, the intervention of Congress was

instrumental in the Department of Defense meeting its announced plan to deliver 100 aircraft for a program cost of \$20.4 billion with an initial operating capability date of September 1986.

Planning for responsiveness supporting current operations and preparing for the future

Past experience indicates that, with proper management authority and accountability, it is possible to deliver relevant military capabilities for current operations in weeks and months, and to deliver longer-term and broader increments of military capability in 5 to 7 years. The 5-to-7-year time span is consistent with the march of technology, changes in the operational environment, and changes in operational needs to shape and respond to that environment. For example, in the technology area, significantly longer delivery times produce three equally undesirable choices. Either the program must bet on immature technologies at the outset, the system must be delivered with technology in danger of rapid obsolescence, or the program must be restructured during execution to incorporate new technologies leading to delays and cost growth.

The F-15 and F-22 programs provide a useful contrast in approaches to providing needed capability. From source selection to first squadron initial operational capability (IOC) for the F-15A was 6 years. It is instructive that from source selection for the F-15A to IOC for the later model F-15E was almost 20 years. But for 14 of those years, the forces were employing the F-15, gaining operational knowledge of further needs that could be satisfied by added increments, and taking advantage of new technologies to meet those needs. The system had clear operational relevance to well beyond the 20-year span.

In contrast, from source selection to the first squadron IOC for the F-22A was more than 14 years. In effect, we did not field a true F-22A. Instead, we insisted that the first operational increment of the F-22 provide the full capability expected only in later models of the F-15 program. As a result, the schedule slipped, the cost ballooned, and the operational relevance was challenged soon after the F-22 was fielded. Further, some systems in the F-22 were approaching obsolescence on the first day of operation. So there will be no F-22C or E, and we will not reap the benefits of leveraging the investment in the initial increment of capability.

Permitting delivery times longer than a reasonably achievable standard is counterproductive to both the demand for responsiveness to current needs and tomorrow's challenges. For major programs for future forces, useful increments of military capability should be defined as what can be delivered within 5 to 7 years with no more than moderate risk. Although there are exceptions, reasons for each deviation should be well understood. Insisting on the shortest practical times to deliver a useful increment of capability would go far to reduce the appetite for pushing the limits of technology, overly optimistic cost and schedule estimates, and requirements increases during execution.

To meet urgent force needs, the same principles apply, but special organizations and processes are appropriate in wartime to ensure that capabilities can be delivered in weeks, not years. Further, the system should be somewhat more forgiving of cost estimates for urgent needs since the front-end work needed to establish confidence in cost may preclude timely delivery. Some ongoing activities in support of current combat operations illustrate special organizations and processes. All four services have instituted acquisition solutions to address urgent needs. One such example is the U.S. Army Rapid Equipping Force (REF), which was established to rapidly provide capabilities to Army forces through current and emerging technologies in order to improve operational effectiveness. The REF has successfully taken projects from requirement to delivery to the warfighter in 30 to 180 days. Another is the Joint Rapid Acquisition Cell (JRAC). The Under Secretary of Defense (AT&L) signed a memorandum addressing Acquisition Actions in Support of Joint Urgent Operational Needs (JUON) on 29 March 2010. The JRAC objective is to facilitate meeting the urgent needs of the Combatant Commanders. Its goal is a time frame from generation to sustainment between 2 to 24 months. In order to accomplish that objective, it balances operational and programmatic risks to provide a "good enough" capability.

Similar concepts should apply to Foreign Military Sales programs. That is, the increment of capability to be delivered should be well defined, agreed to, and accountability assigned. For these programs, special attention to logistics support is required for at least two reasons. Some recipients' normal logistics system may not be adequate to support the provided defense system. Further, export control rules and other limitations may create special obstacles to responsive

logistics support. The Department of Defense needs to pay special attention to these limitations and seek to remove obstacles to effective coalition partnerships.

With the practices and experiences of the past two decades, there may be skepticism over delivering an increment of capability in 5 to 7 years. It is true that providing the full set of potential capabilities with any platform will take longer than that time period. That is not the issue. The issue is how to progress to the full set of capabilities. The options are a giant leap or manageable increments. The F-16 provides a particularly powerful illustration of manageable increments. Source selection for the F-16A was in 1975. The aircraft entered operational service in 1980. The latest increment of capability embodied in the F-16 platform began delivery in 2005. The F-16 is to be in service in the U.S. Air Force through at least 2025; so the time frame to deliver the full set of capabilities for that platform has been some 30 years. But valuable increments of capability have been in operational service for 25 of those 30 years, and it is expected to remain operationally relevant for at least another 15 years. This approach provides for adaptability to the lessons of current operational experience, the march of technology, and the emerging operational environment. It would have been impossible to foresee either the possibility of or the need for an F-16 Block 50/52/60 when the Air Force embarked on development of the F-16A. Although the increment times vary, the same pattern of building new increments of capability into the platform applies to the DDG-51, Aegis cruiser, F-15, F-18, B-52, M-1 Tank, and, indeed, most of the cost-effective weapons systems that have contributed to combat operations in Iraq and Afghanistan.

Adjusting to real-world realities in program execution

Finally, in spite of the best organization, people, and processes to define, assess, and implement programs, there will be program challenges demanding program adjustments. There are two legitimate categories for trade-offs—schedule and cost, or performance. Note that schedule and cost is treated as a single category of trade-offs because an increase in cost is virtually an automatic companion of any increase in schedule. It is possible to provide increased funding, raising the cost, without stretching the schedule, although, in practice, that is rare because throwing money at a technological problem during the span of development of a defined increment of military capability is not likely to be the solution.

In an era of constrained resources, trading off performance in the defined increment of capability to contain cost and schedule, thus deferring that category of performance to the next increment, may be the preferable trade. Trading off performance requires operational and domain credibility. The only reliable sources of such credibility are the force providers. This is another compelling reason to vest authority and accountability for program execution in line management to and through the military services and defense agencies, with appropriate oversight from the Office of the Secretary of Defense.

Current practice sometimes accepts a third area for trade-off—increased program risk. Given that there is no need for trade-offs unless the program is experiencing challenges, accepting added risk as a trade-off is an egregious avoidance of responsibility.

Competition in production

History has shown that the only reliable source of price reduction through the life of a program is competition between dual sources.

In the 1980s, the U.S. Air Force and Navy worked together to qualify second sources for Sidewinder, Sparrow, Amraam, Maverick, Standard, Tomahawk, and Harm missiles. In all cases, the annual split buy brought the prices of every missile down dramatically. The same strategy was used for FFG-7 frigates, DDG-51 destroyers, Aegis cruisers, and attack submarines, with annual buys as low as one or two. In every case, the savings brought every ship in under budget.

An essential enabler of continuing competition in production through dual sourcing and in major weapons system development is a competitive industrial base. With the end of the Cold War and the decrease in procurement spending, the Department of Defense rightly encouraged consolidation in an industrial base with considerable excess capacity. Some 50 prime contractors were merged into only 6, resulting in material shrinkage of the industrial base. An unintended consequence of the extent of consolidation was the loss of competition in many procurement initiatives. With the continuing pace of modernization, the Department should encourage a return to an industrial base sized and structured to provide for the benefits of competition. The

cost savings from competition should far outweigh any added cost in what may, at times, be some excess capacity.

If the Panel recommendations to restore line authority and accountability are adopted along with the recommendation for adoption of a block upgrade approach to capability improvements, many, if not most, procurement programs will also benefit from dual-source competition.

Findings and Recommendations

Finding: Accountability and authority for establishing need, and formulating, approving, and executing programs have become confused within the Department of Defense.

Recommendation: The Secretary of Defense should clearly establish lead acquisition roles as follows:

- For identifying gaps in capability—Combatant Commands supported by the force providers (services and defense agencies) and the Joint Staff
- For defining executable solutions to capability needs—the force providers
- For choosing and resourcing solutions—the Office of the Secretary of Defense supported by the force providers and the Joint Staff representing the Combatant Commands
- For delivering defined capabilities on schedule and within cost ceilings—the selected force provider. For multi-service/agency programs, there should be a lead service/agency clearly accountable.

Finding: Accountability and authority have been widely diffused in increasingly complex decision structures and processes.

Recommendation: For each program, the Secretary of Defense or delegated authority should assign accountability and authority for defining and executing each program to an unbroken chain of line management within the force provider community. The Under Secretary of Defense

(AT&L) and the Secretary/Deputy Secretary of Defense are in the line management chain. The service Secretary/Defense Agency head can then hold the military line chain, the Program Executive Officer (PEO), and the program manager and the commensurate defense contractor line management accountable for defining executable programs and, when the program is approved, delivering the defined increment of capability on schedule and within the cost ceiling. The roles of all other acquisition participants can be neither authoritative nor accountable and should be limited to such roles as advisory, assessment, and oversight of processes.

Finding: Major programs to provide future capability are often formulated with a set of requirements and optimistic schedule and cost estimates that lead to delivery times of a decade or more. Programs with these long delivery times typically depend on the promise of technologies still immature at the outset of the program. The long delivery times also imply ability to forecast the demands of the future operating environment that are well beyond a reasonable expectation of accurate foresight. Examples of this are in the current acquisition program.

Recommendation: With rare exceptions, increments of military capability should be defined and designed for delivery within 5 to 7 years with no more than moderate risk.

Finding: There is no defined regular process within the acquisition structure and process to address urgent needs in support of current combat operations.

Recommendation: Urgent needs should be met using the same principles and processes as for programs to provide future capabilities. Adjustments to the formal process, including special processes and organizations, are appropriate for wartime response to urgent needs to ensure that an increment of capability can be delivered in weeks or months rather than years. The warfighter commander should have a seat at the table in defining and choosing the solution. The force provider remains accountable for ensuring that the proposed program is executable in cost, schedule, and performance.

Finding: Even with the most competent front-end planning and assessment, complex programs are likely to experience unforeseen technological, engineering, or production challenges.

Recommendation: When such challenges place the schedule or cost at risk, performance must also be within the trade space. The force provider, to include the service component serving the Combatant Commander, is the proper source of credible operational experience and judgment to generate recommendations to USD (AT&L) for performance tradeoffs.

Finding: During the dramatic post-Cold War defense cuts, most dual sources were dropped in favor of sole-source contracting. But, as defense funding has returned and exceeded levels that supported dual sourcing, the contracting strategy has remained sole-source.

Recommendation: OSD should return to a strategy requiring dual-source competition for production programs in circumstances where this will produce real competition.

The QDR and Beyond

The QDR was designed by Congress to be a fundamental and comprehensive examination of America's defense needs every four years to ensure defense programs are congruent with the intent of policy. The QDR is also intended to provide assessments of potential threats, strategy, force structure, readiness posture, military modernization programs, defense infrastructure, and other elements of the defense program. The Review is intended to be a blueprint for a balanced, affordable, and strategy-based defense program for the next 20 years.

The 2010 Quadrennial Defense Review (QDR) is the seventh comprehensive review of the U.S. military since the end of the Cold War, and the fourth QDR completed. The 1991 Base Force Review, the 1993 Bottom-Up Review (BUR), and the 1995 Commission on Roles and Missions of the Armed Forces (CORM) preceded the 1997, 2001, and 2006 QDRs. Congress created a continuing requirement for the Department of Defense to conduct a QDR every four years in the National Defense Authorization Act for FY 2000.

The 2010 QDR

The 2010 QDR report, dated February 1, 2010, used the 2008 National Defense Strategy as its starting point and was completed without the benefit of the latest National Security Strategy. The current Administration published the 2010 National Security Strategy in May of this year. The 2010 QDR has two foundational themes. The first is rebalancing American defense priorities to better support U.S. forces engaged in today's wars while building the capabilities needed to deal with future threats. The second theme is reforming the way the Pentagon does business, fixing the Defense institutions and processes to enable better support for the urgent needs of the warfighter. This means buying weapons that are usable,

affordable, and truly needed, and ensuring that taxpayer dollars are spent wisely and responsibly.

The QDR also provided four objectives:

- Prevail in today's wars
- Prevent and deter conflict
- Prepare to defeat adversaries and succeed in a wide range of contingencies
- Preserve and enhance the All-Volunteer Force.

Executive Branch implementation

From a validation point of view, the 2010 QDR did not meet the intent of the Congress because the document did not provide a long-range, 20-year assessment with a supporting force structure. Although this QDR did have a relatively short-term focus, it also identified some long-term issues, and, since completing the QDR, Secretary Gates has commissioned work as a priority matter on 8 such issues, several of which are identified in our Panel report as needing further attention. Nonetheless, the priorities of the report were to prevail in today's wars, and future planning was based on scenarios set 5 to 7 years in the future. The Panel's assessment is that the budget process and current operational requirements, driven by the staff process and service priorities, most likely shaped the QDR far more than the QDR will now shape processes and drive future budgets and program agendas.

Many of the issues facing the Department of Defense are driven by the fact that the United States is involved in active campaigns in Iraq and Afghanistan. At the same time, the Department remains prepared to handle large missions in support of Homeland Defense and disaster relief, both domestically and abroad. The U.S. military remains prepared as well for large nation-state conflicts that, in the past, have been the top priority of the Department of Defense.

With such large demands, the Department needs guidance to prioritize risk in its primary missions and in those other missions where it could accept more risk. A more specific, measurable strategic guidance is also required to make the force structure and budgetary decisions required of the QDR.

Balance between medium- and longer-term perspectives

Congressional direction was very specific that the QDR “establish a defense program for the next 20 years.” A review of past QDRs suggests that such reviews do not in fact present a consistent 20-year vision. They do, however, chronicle major changes in U.S. defense priorities. Department of Defense reviews since the late 1990s have directed U.S. strategic planning away from the large-scale conventional conflict anticipated during the Cold War, and actually fought in the Persian Gulf in 1991. By the 2006 QDR, and now further developed in the 2010 QDR, it had become clear that the United States faces a much wider array of security challenges than in the past and should no longer size its forces based on fighting two major regional contingencies. Beyond this general trend, and faced with the uncertainty of a wide diversity of threats, consistency of strategic vision is difficult at best. In fact, there appears to be a trend culminating in the 2010 QDR for these reports to become a mirror of the current budget process rather than a strategic guide to the future that drives the budget process.

Further evidence that the current budget and programming staff processes actually dominate the QDR rather than the other way around is revealed by the force structures envisioned in each successive QDR. With the exception of the 2006 QDR, which did not specify a force structure (nor did it change it), the other three QDRs simply validated the existing force structure.

Although the strategic nuclear strike capability has been continuously reduced, the rest of the force structure changed through internal tactical adaptations required by current operations, force employment, and the technology used. The net result has been a force structure that has not changed dramatically even though vision and missions have.

The Panel finds this paradoxical, for it means either that the basic force structure will always be able to manage risk for all future situations, or that the QDR process is simply incapable of formulating an alternative 20-year defense program.

If, in fact, the current force structure is always the right answer for risk management despite changes in technology, mission, and threat, then a Congressionally mandated QDR is unnecessary—at least in its current form. The Department of Defense’s requirements to face current and emerging threats, justify its budget, and improve its technological base would then become paramount and could most responsively be handled through the regular budgeting and programming system. A QDR-like review would still be useful to validate the Department’s force structure but only in response to a major shift in the national security environment, such as the fall of the Soviet Union or 9/11.

If, on the other hand, the current process cannot inform and describe a force structure 20 years hence, then Congressional guidance to the Department of Defense should be revised. Understanding what forces are necessary in the world described in, for instance, the National Intelligence Council’s 2025 assessment is important because the Department is procuring much of that force structure today. The nation cannot fail to procure or retain the right force, nor can it afford to retain forces that are irrelevant for future challenges. Congress only need ask: What should be the force structure in 2032, why, and how should it be phased in beginning in 2012? But that question should be asked when Congress reviews the FY 2011 budget request and other future budget requests and need not wait for the four-year QDR cycle.

Balance between strategy and programs

The challenge for both Congress and the Department of Defense is lack of meaningful strategic guidance. Past and current National Security Strategies have been so broad in their focus, so general in their approaches, and consider so many issues as equal priorities that the document cannot provide a basis for priorities in defense missions and capabilities. Both Congress and the Department of Defense must base their respective prioritization and investment decisions on appropriate risk guidance derived from realistic future intelligence

assessments and presidential guidance. Because a national security strategy with both proactive (“what do I want to accomplish?”) and risk acceptance (“what am I willing to risk?”) guidance does not exist (and perhaps cannot be expected), one cannot clearly assess the balance of the Department’s programs except against reality as it unfolds—which adds to the possibility of strategic surprise facing the military and the nation.

Timelines for developing the QDR

The original intent of the quadrennial review was to couple a long-range strategy with a change in presidential administration, for a change of administration produces turbulence exceeded only by significant shifts in the international environment. Accordingly, and to improve long-range planning within the Department of Defense, the Congress recommended a comprehensive strategy and force review at the start of each new administration. Specific timing is critical, because, to institute change, a review must occur early in an administration. This fact also reduces the utility of a QDR prepared for the second term of a two-term president.

Integration with related reviews

The Department of Defense has tried to work cooperatively with such other department reviews as the Quadrennial Homeland Security Review (QHSR) and the State Department’s Quadrennial Diplomatic and Development Review (QDDR). The Department of Defense has also aligned both the Nuclear Posture Review and Ballistic Missile Defense Review to coincide with the QDR cycle to ensure consistency. What is lacking from today’s process is a “whole of government” national security planning process similar to what the Commission on Roles and Missions of the Armed Forces (CORM) recommended in 1995: “a comprehensive strategy and force review at the start of each new administration—a Quadrennial Strategy Review (QSR).” The framers of the CORM recognized that the uncertain security situation that began at the end of the Cold War rendered the normal defense planning process, and special ad hoc efforts in that regard, inadequate, confused, and disjointed. In recommending a Quadrennial Strategy Review, the CORM stipulated that “this review should be an interagency activity directed by the National Security Council. The

Office of the Secretary of Defense and the Joint Staff should lead the Defense Department effort.”

Today’s security challenges have turned out to be as diverse and fragmented as the CORM framers predicted. Today we need a new National Security Strategic Planning Process more than ever. The concept of using “all elements of national power” and “whole of government” approaches to support national security objectives dictates that development and resourcing of national security budgets and military force structures should be approached in the holistic manner recommended nearly 15 years ago by the CORM.

Key Findings and Recommendations:

Establishment of a new National Security Strategic Planning Process

Finding: The QDR process as presently constituted is not well suited to the holistic planning process needed.

- Sufficient strategic guidance does not exist at the national level to allow the Department of Defense to provide to the military departments required missions, force structure, and risk assessment guidance. This is especially true for long-term planning.
- Such guidance documents as are produced are often unavailable in time and do not provide sufficient, detailed guidance and prioritization for the Department of Defense to use effectively.
- The QDR’s contemporary focus on current conflicts, parochial ownership of programs, daily requirements of current issues, and an increasingly staff and service-dominated process as opposed to a senior leadership run process are roadblocks to an unbiased, long-term strategic review.

- The QDR process as presently constituted should be discontinued in favor of the normal Department of Defense planning, programming, budgeting, and execution process and the new National Security Strategic Planning Process recommended below.

Recommendation: The United States needs a truly comprehensive National Security Strategic Planning Process that begins at the top and provides the requisite guidance, not only to the Department of Defense but to the other departments and agencies of the U.S. government that must work together to address the range of global threats confronting our nation.

- The Executive and Legislative branches should jointly establish a standing Independent Strategic Review Panel of experienced and senior experts to review the strategic environment over the next 20 years and provide prioritized, goal and risk assessment recommendations for use by the U.S. government.
 - Convene the panel in the fall of a presidential election year to enable the panel to begin work the following January, the month in which the new President takes office, so that the international strategic environment would be reviewed every four years beginning in the January immediately following any presidential election (or more frequently on the panel's own initiative in response to a major national security development that the panel believes calls into question the results of the most recent review).
 - Charge the panel to:
 - Review and assess the existing national security environment, including challenges and opportunities
 - Review and assess the existing National Security Strategy and policies
 - Review and assess national security roles, missions, and organizations of the departments and agencies
 - Assess the broad array of risks to the country and how they affect the national security challenges and opportunities

- Provide recommendations and input to the National Security Strategic Planning Process and the national security department and agency planning and review processes.
 - Six months after initiating its review, the panel would provide to the Congress and the President its assessment of the strategic environment (including in particular developments since its last review) and recommend to the President whether, in its view, those developments warrant significant changes in the National Security Strategy.
 - In its report, the panel would offer its assessment of the national security challenges and opportunities facing the nation and also offer any innovative ideas or recommendations for meeting those challenges/opportunities. A proposed TOR for the Independent Strategic Review Panel is included at Appendix 4.
- As the coordinating and oversight body of the Executive branch, the National Security Council in its new formulation as the National Security Staff should take steps to increase its capabilities to fulfill its role and responsibilities in achieving a more comprehensive, “whole of government” approach. The NSC should prepare for the President’s signature an Executive Order or Presidential directive that at a minimum mandates the following:
 - Using the assessment of the strategic environment prepared by the standing Independent Strategic Review Panel, develop a “grand strategy” for the United States that would be formalized as the National Security Strategy.
 - It is vital that strategy at this level be the President’s own strategy, constituting his direction to the government. The strategy is signed by the President, albeit developed for him by his National Security Advisor and Cabinet in what is a top down rather than a staff-driven process.

- This strategy document would in turn drive reviews by the Executive branch departments involved primarily in national security (such as the State Department, State/AID, the Department of Defense, Homeland Security, the Intelligence Community, etc.), as directed by the President and with the goal of deconflicting and integrating the results of these various reviews.
- This strategy development process would identify and assess strategic requirements and U.S. government capabilities to plan, prepare, organize, and implement a clear and concise strategy for deploying limited resources—money, personnel, materiel—in pursuit of specific highest priority objectives.
- The resulting strategy would identify the “mission critical” elements which if ignored would endanger the United States.
- The National Security Advisor will accomplish these tasks using his or her NSC staff and, if appropriate, could appoint a small panel of outside advisors and obtain such other assistance as required.
- A draft of the Executive Order or directive establishing the new National Security Strategic Planning Process is attached at Appendix 5.

Appendix 1

Joint Committee on the Organization of Congress

I. BACKGROUND AND DEFINITION

Following the end of World War II, members of Congress concluded the committee structure of the time was outdated with over-lapping jurisdiction, inefficient, and ill-equipped to meet the challenges facing the country. As such, Congress passed S. Con. Res. 23, 78th Congress, which created the Joint Committee on the Organization of Congress to study and make proposals to improve the organization and the effectiveness of Congress.¹⁴

The Joint Committee on the Organization of Congress has convened two other times, most recently in 1993. The following is a historical overview of the Joint Committee on the Organization of Congress from the 1993 Final Report:

The initial congressional response to the changing environment of the 1930s was to defer to presidential leadership; vast delegations of authority were made to the executive agencies. Yet when the country became fully engaged in World War II and a massive government apparatus was put in place, the Congress began to rethink this executive deference, and question its future place in the constitutional scheme. As California Democrat Jerry Voorhis asserted in 1942, "I believe Congress must realize that only Congress can restore Congress to its proper place." At the same time, a chorus of criticism of the Congress by scholars, reporters, commentators, and Members themselves arose. The critics saw a tradition-bound institution incapable of governing in the second half of the 20th century.

These external and internal pressures caused Congress to take an introspective look at itself. A host of reform proposals were introduced; ultimately the Congress passed legislation that established in 1945 the Joint Committee on the Organization of Congress. Subsequently, the Congress enacted the Legislative Reorganization Act of 1946, which is widely regarded as the blueprint of the contemporary Congress. The most far-reaching organizational restructuring since the First Congress, the Act systematized and reorganized the committee system in the House and Senate, as well as increased congressional access to technical information, increased staffing (including authorizing, for the first time, permanent professional and clerical staff for all standing committees), removed certain categories of activities from the workload of Congress, improved control over the budget, increased Members' pay, and required lobbyists to register with the House and Senate. The massive institutional changes wrought by the 1946 Act heralded the modern era of Congress.

¹⁴ U.S. Congress. Joint Committee on the Organization of Congress. *Final Report of the Joint Committee on the Organization of Congress*. 103rd Cong. 1st sess. 1993

The 1946 Act was the first, and still the most ambitious, effort to restructure the standing committee system. Since the origin of the system, committees were established, dissolved, or consolidated in a nonsystematic fashion, and were retained long after their need. The 1946 Act changed this haphazard system into a simple, rational design; in this transformational process, the number of standing committees in the House decreased from 48 to 19, and in the Senate they likewise decreased from 33 to 15. Jurisdictions were for the first time codified and made part of Chamber rules. Committees were eliminated, others were consolidated, and jurisdictional conflicts were minimized.¹⁵

One of the first major pieces of legislation passed after Legislative Reorganization Act of 1946 was the National Security Act of 1947, which was landmark legislation that reorganized and modernized the Armed Forces and the intelligence community and restructured the U.S. foreign policy apparatus to adjust to the looming threat of the Soviet Union and the ensuing Cold War.

Similar action is needed today.

II. QDR INDEPENDENT PANEL RECOMMENDATION

The QDR Independent Panel recommends that to address the national security and homeland defense challenges of the 21st century, the Joint Committee on the Organization of Congress should reconvene to examine the current organization of Congress, including the committee structure, the structure of national security and homeland defense authorities, appropriations, and oversight, with the intent of recommending changes to make Congress a more effective body in performing its role to "provide for the common defense."

The Joint Committee on the Organization of Congress may want to consider the following:

- Establish for, at a minimum Defense, State, State/AID, Homeland Security, and the Intelligence Community, a single national security appropriations subcommittee,
- In parallel, establish an authorization process that allows for considering a mechanism to coordinate Congressional authorization actions on national security across these departments and agencies

¹⁵ U.S. Congress. Joint Committee on the Organization of Congress. *Final Report of the Joint Committee on the Organization of Congress*. 103rd Cong. 1st sess. 1993

Appendix 2

NATIONAL COMMISSION ON BUILDING THE CIVIL FORCE OF THE FUTURE

I. BACKGROUND AND DEFINITION

As part of the Quadrennial Defense Review (QDR) Independent Panel review process, a sub-panel on the comprehensive approach to national security examined how those U.S. government departments and agencies involved in issues of national and international security currently approach the task of working together in an integrated way (the so-called “*whole of government*” challenge).

When discussing “whole of government” issues, the panel observed that the term was limiting in that it did not connote the full range of capabilities, which may be required to address today’s domestic and international security challenges. These capabilities include those of our allies and partners, indigenous governments and associated forces, non-governmental organizations, and international organizations, as well as U.S. government agencies. Accordingly, the panel agreed to use the term Comprehensive Approach to refer to efforts that also involve participation of these non-governmental or non-U.S. actors.

Our civilian departments and agencies lack the needed capability and capacity to adequately support needed “whole of government” and Comprehensive Approach strategies and this poses a major problem to the nation’s ability to protect and secure its interests. The key challenge is how to create and expand our civilian capacity and capability to provide the array of capabilities required for effective civil activity, working alongside military forces in stability, reconstruction, and other operations in unstable overseas situations.

II. QDR INDEPENDENT PANEL FINDINGS

WHEREAS, the QDR Independent Panel finds that the U.S. military is the only government institution with both the resources and personnel policies to plan, execute, and support mass deployments of personnel overseas;

WHEREAS, the QDR Independent Panel notes that the QDR states, "a strong and adequately resourced cadre of civilians organized and trained to operate alongside or in lieu of U.S. military personnel ... is an important investment in the nation's security,"¹⁶ and;

WHEREAS, the QDR Independent Panel finds that creating a deployment capability for civilian departments, agencies, and institutions to prevent or respond to overseas crises would likely involve the development of a deployment mindset and more flexible personnel policies, among other things,

III. MISSION STATEMENT

THEREFORE, the QDR Independent Panel proposes that the President and Congress establish a commission to develop recommendations and a blueprint for increasing the capability and capacity of our civilian departments and agencies to move promptly overseas and cooperate effectively with military forces in insecure security environments.

IV. TERMS OF REFERENCE

The Commission's product should address ways to improve U.S. civil government capabilities that support the Comprehensive Approach. The commission should address, among other things, the following proposals:

- a. Identify changes to existing statutory authorities to enhance cooperation and integration of roles and missions among State, State/AID, the intelligence community (IC), and the Department of Defense; and to enhance the ability of other government departments, agencies, and institutions (particularly Treasury, Justice, Department of Homeland Security, Energy, Agriculture, Health and Human Services and Transportation) to support "whole of government" missions abroad.
- b. Develop personnel, pay, and other policies and procedures that promote and support a more mobile, deployable, and flexible civilian workforce for civil departments, agencies, and institutions (particularly State, State/AID, Treasury,

¹⁶ QDR 2010, p. 69.

Justice, Department of Homeland Security, Agriculture, Energy, Health and Human Services, and Transportation);

- c. Develop measures to encourage and facilitate training and exercising these civilian elements with our military forces so that they will be able to operate effectively together.

V. MEMBERS

The Commission shall be an expert panel composed of not more than 18 members who shall be selected as follows:

- a. 10 members appointed by the President,
- b. 2 members selected by the Majority Leader of the Senate,
- c. 2 members selected by the Speaker of the House of Representatives,
- d. 2 members selected by the Minority Leader of the Senate,
- e. 2 members selected by the Minority Leader of the House of Representatives,
- f. Co-Chairs. From among the appointees, the President shall designate two members, who shall not be of the same political party, to serve as Co-Chairs of the Commission.

VI. REPORTS

- a. No later than 9 months from the start of the Commission, the members shall vote on the approval of a final report containing a set of recommendations to achieve the mission.
- b. The issuance of a final report of the Commission shall require the approval of not less than 14 of the 18 members of the Commission, although the Commission should strive for a unanimous report.

VII. ADMINISTRATION

- a. Members of the Commission shall serve without any additional compensation, but shall be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law for persons serving intermittently in Government service (5 U.S.C. 5701-5707), consistent with the availability of funds.
- b. The Commission shall have a staff headed by an Executive Director.
- c. The Commission shall be provided \$1 million for operational and administrative costs.

VIII. GENERAL

- a. The Commission shall terminate 30 days after submitting its final report.

Appendix 3

NATIONAL COMMISSION ON MILITARY PERSONNEL

I. BACKGROUND AND DEFINITION

As part of the 2010 Quadrennial Defense Review (QDR) Independent Panel review process, a sub-panel on Force Structure and Personnel examined the future of the All-Volunteer Force. The obstacles to sustaining the force are far greater than the QDR expressed.

Given the size and scope of the varied challenges confronting the All-Volunteer Force, the Independent Panel recommends that a National Commission on Military Personnel comprised of former legislators, former senior national security and military officials, and subject matter experts be assembled to develop a roadmap for implementing the recommendations made by the Panel on this subject (and such additional recommendations as the Commission may make) in order to modernize the U.S. military personnel management policies, laws, and systems, including by addressing:

- Compensation reform, including military pay and deferred and in-kind benefits;
- “Continuum-of-service” model allowing service members to move fluidly between the active and reserve components and between the military, the private sector, civil service, and other employment, thereby offering varied levels of participation over the course of a military career;
- Military career progression adjustment including promotion rates, officer development timelines, length and flexibility of careers, and retirement ages;
- Active-Reserve force mix rebalancing, and mobilization beyond those components;
- Active, reserve and retired military health care, and retiree benefits to put their financing on a sustainable basis consistent with other national priorities; and
- The reduction of the numbers and composition of the headquarters and staffs.

The purpose of this Commission would be to assure that in the future, during times of a strong domestic economy and low unemployment as well during downturns, the armed forces may recruit and retain the required number of high quality men and women at an affordable price.

The Commission should consult with the men and women in uniform in order to learn firsthand what will make military service more attractive to them and their families.

II. QDR INDEPENDENT PANEL FINDINGS

WHEREAS, the QDR recognizes the need to preserve and enhance the All-Volunteer Force as one of four priorities of defense planning for the next two decades, and the QDR Independent Panel believes that it will be essential that the Department of Defense be able to recruit and retain high quality personnel in numbers equal to those today, even when unemployment falls in the coming years as the domestic economy continues to recover;

WHEREAS, while the pay and benefits afforded to U.S. military personnel can never adequately compensate for their sacrifice and those of their families, the QDR Independent Panel has reason to doubt that the military can attract and maintain the requisite numbers and maintain high quality as the economy improves and unemployment rates decline, and under the stresses of continuous deployments and a high operational tempo for the foreseeable future, growth in the cost of the All-Volunteer Force cannot be sustained for the long-term;

WHEREAS, in spite of limited job creation over the last decade, the force has maintained sufficient numbers of personnel at high quality only through extraordinary efforts and at substantial costs, that both these challenges and costs will continue into the indefinite future, and while the number of prime military age youth will rise in the next four decades, more are choosing to attend college within a year of high school graduation than in the past, and those planning to continue education beyond high school includes 85 percent of youth today;

WHEREAS, numerous surveys reveal a declining propensity of youth to serve, over 75 percent of American youth today are ineligible for serve due to physical, mental, or educational reasons or due to criminal records, and the numbers who “influence” youth to serve--mostly family members who are veterans--are decreasing in the United States;

WHEREAS, the cost per service member is growing much more quickly than historical norms, and while the overall end strength levels have declined since 1991 as a result of the end of the Cold War, personnel costs have grown dramatically; medical care expenses per servicemember are growing alongside the beneficiary pool (which includes retirees), but contributions are not keeping pace; and the Defense Health Program base budget, including retiree health care costs, has grown 151 percent in the past decade alone, increasing from \$16.6 billion in 2001 to \$41.7 billion in 2011 in constant dollars;

WHEREAS, to accomplish the QDR's goal of preserving and enhancing the All-Volunteer Force, major changes will be necessary in the military personnel system, including:

- Greater differentiation between service for one or two terms versus a career in pay, benefits, other compensation, and assignments;
- Restructuring military compensation to emphasize cash in-hand instead of deferred or in-kind benefits to enhance recruiting for those likely to serve less than an entire career;
- The abandonment of a "one size fits all" approach in favor of varied pay for different duty, training, performance, and skills, including the use of credential pay and bonuses to attract, retain, and reward critical specialties and outstanding performance;
- Instituting a continuum-of-service model that allows servicemembers to move fluidly between the active and reserve components, and between the military, civil service, and private sector;
- Changing the officer personnel system to modify "up-or-out" career progression, lengthening career opportunities to forty years, instituting 360-degree officer evaluations, and broadening educational and professional experiences both in formal schooling and outside career experiences for officers on track for promotion to flag and general officer; and

WHEREAS, the QDR Independent Panel recognizes that overall compensation, pay, retirement benefits, medical care, educational and professional opportunities, assignments, career progression, bonuses, and the overall conditions of service are all intimately linked to recruiting and retention of uniformed personnel, and the Panel believes a distinguished Commission will be necessary to develop a roadmap for implementing the Panel's recommendations (and such additional recommendations as the Commission might have) so as to enhance and stabilize the All-Volunteer Force;

III. MISSION STATEMENT

NOW, THEREFORE, the QDR Independent Panel proposes that the President and Congress establish a Commission to develop a roadmap for implementing the Panel's recommendations (and such additional recommendations as the Commission might have) as will best assure the recruitment and retention of the necessary numbers of high quality personnel under all foreseeable conditions domestic and foreign in the next two decades.

IV. TERMS OF REFERENCE

The National Commission on Military Personnel will conduct a comprehensive review of personnel issues and challenges confronting members of the armed forces and develop an implementation roadmap for the policy and legislative changes required to maintain a healthy, robust, and affordable force for the 21st century.

V. OBJECTIVES AND SCOPE

In developing its implementation roadmap, the Commission should:

- A. Review and update where possible the studies and recommendations of the commission chaired by Thomas S. Gates, Jr., in 1969-1970 in light of recruiting and retention trends since the introduction of the All-Volunteer Force in 1973.
- B. Reconsider all legislation since 1945 pertaining to military personnel with recommendations for modernization, change, or elimination of policies, as well as the need for new initiatives.
- C. Identify any methods in addition to those recommended by the QDR Independent Panel to enhance recruiting and retention of enlisted and officer personnel during times of economic prosperity and low unemployment, and in all circumstances to attract youth from all sections of the country and demographic groups to maximize the congruence of the armed forces with the geographic, economic, religious, racial, ethnic, and cultural heterogeneity of the American people.
- D. Examine ways to extend the length of productive military careers for enlisted and officer personnel, as well as assignments, career progression, and preparation of officers for flag rank.
- E. Create procedures to implement a continuum-of-service model that allows military personnel to move fluidly between the active and reserve components and between the military, private sector, and civil service with a more flexible compensation system and in keeping with the needs of a highly-mobile 21st century workforce.
- F. Consider updating the military health care system to allow a shift to a defined-contribution plan allowing all employers to contribute to health care for serving and retired members of the armed forces.
- G. Recommend to the Congress changes that will maintain and strengthen both the numbers and quality of personnel attracted to the All-Volunteer Force, to include the Reserve Components, both for short-term service and careers, while at the same time containing personnel costs.

H. Develop appropriate recommendations for the active/reserve force mix and mobilization beyond those components.

I. Review and propose reductions to the numbers and size of headquarters and staffs.

VI. MEMBERS

The Commission shall be a panel composed of former members of Congress, senior national security and military officials, and subject matter experts, of not more than 16 members who shall be selected as follows:

- Eight Members appointed by the President, not more than half of whom shall be affiliated with the same political party;
- Two Members selected by the Majority Leader of the Senate;
- Two Members selected by the Speaker of the House of Representatives;
- Two Members selected by the Minority Leader of the Senate; and
- Two Members selected by the Minority Leader of the House of Representatives.
- Co-Chairs. From among the presidential appointees, the President shall designate two members, who shall not be of the same political party, to serve as Co-Chairs of the Commission.

VII. REPORTS

No later than 12 months from the start of the Commission, the members shall vote on the approval of a final report containing a set of recommendations to achieve the Commission's mission.

The issuance of a final report of the Commission shall require the approval of not less than 12 of the 16 members of the Commission. The Commission should strive for a unanimous report, including findings and recommendations, as the previous President's Commission on an All-Volunteer Armed Force achieved.

VIII. ADMINISTRATION

Members of the Commission shall serve on a volunteer basis but shall be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law for persons serving

intermittently in government service (5 U.S.C. 5701-5707), consistent with the availability of funds.

The Commission shall have a staff headed by an Executive Director.

The Commission shall be provided \$10 million to address costs, including visits to active and reserve installations around the world; hearings to examine issues and allow witness testimony; and research studies undertaken by staff or commissioned from Federally Funded Research and Development Centers, private research organizations, and/or the academic community.

IX. GENERAL

The Commission shall terminate no later than one year after submitting their report to the President and Congress.

Appendix 4

INDEPENDENT STRATEGIC REVIEW PANEL

I. BACKGROUND AND DEFINITION

The Quadrennial Defense Review (QDR) Independent Panel assessed the QDR's guidance for integrating policy and strategy into the plans and activities of the Department of Defense, to include how the Department of Defense would integrate and coordinate its efforts with other national security departments and agencies.

The Panel reviewed relevant national security strategy documents to see if they provided sufficient guidance to the Department for it to make the required mission, structure, and resource decisions.

Overall, the Panel finds that not enough top down guidance on priorities, roles, and missions has been issued to allow the Defense Department to effectively plan its missions, structure, or resources, or to develop integration and coordination with other departments and agencies.

II. QDR INDEPENDENT PANEL FINDINGS

The Panel assesses that the National Security Strategic Planning Process, of which the Quadrennial Review process is a part, is not designed to provide the holistic planning process needed by the nation or to address the issues and requirements necessary to create a "whole of government" capability.

The Panel finds that the United States needs a truly comprehensive National Security Strategic Planning Process that begins at the top and provides the requisite guidance not only to the Department of Defense but to other departments and agencies of the U.S. government that must work together to address the range of threats confronting our nation.

The Panel finds that as an input to that comprehensive National Security Strategic Planning Process there is a need for an independent outside assessment of the strategic environment of the next 20 years to provide prioritized goals and risk assessment recommendations to the U.S. government.

III. MISSION STATEMENT

THEREFORE, the QDR Independent Panel proposes the executive and legislative branches should jointly establish a standing, Independent Strategic Review Panel of experienced and senior experts to review the national security strategic environment of the next twenty (20) years and provide prioritized goal and risk assessment guidance for use by the United States Government.

IV. TERMS OF REFERENCE

- a. Recommend via legislative action:
- b. Establish a bipartisan, standing Executive and Legislative branch panel to review the national security strategic environment every four years or as required by significant changes in that environment.
- c. This Panel's work would include to:
 - i. Review and assess the existing national security environment, including challenges and opportunities
 - ii. Review and assess the existing national security strategy and policy
 - iii. Review and assess national security roles, missions, and organizations of the departments and agencies
 - iv. Assess the broad array of risks to the country and how they affect the national security challenges and opportunities
 - v. Provide recommendations and input to the National Security Strategic Planning Process and the national security department and agency planning and review processes

V. MEMBERS

The Panel shall be a senior and experienced expert panel composed of not more than 18 members who shall be selected as set out below. Members shall be reappointed or changed when any of the entities below has a new member assume the duties of the office.

- a. Ten members appointed by the President, of whom two not from the same political party, shall serve as Co-Chairs of the Panel;
- b. Two members selected by the Majority Leader of the Senate;
- c. Two members selected by the Speaker of the House of Representatives;
- d. Two members selected by the Minority Leader of the Senate; and
- e. Two members selected by the Minority Leader of the House of Representatives.

VI. REPORTS

- a. No later than six months from the January in which a new President assumes office, the Panel shall submit its report to the Congress and the President on matters specified in section IV of this Term of Reference. The report shall also include such recommendations on such other matters as the Panel considers appropriate.
- b. The Panel shall submit additional reports as requested by the Congress or the President, or when the Panel feels a significant change in the national security environment has occurred that would warrant new recommendations.

VII. ADMINISTRATION

- a. Members of the Panel shall serve without any additional compensation, but shall be allowed travel expenses, including per diem in lieu of subsistence, as authorized by law for persons serving intermittently in Government service (5 U.S.C. 5701-5707), consistent with the availability of funds.
- b. The Panel shall have a staff headed by an Executive Director. The staff shall not exceed ten (10) members in addition to the Executive Director.
- c. Congress shall annually appropriate \$1 million to the Panel for its operations and administration.

VIII. GENERAL

- a. The Panel shall be a standing panel unless appropriate legislation is rescinded.

Appendix 5

NATIONAL SECURITY STRATEGIC PLANNING PROCESS

SUBJECT: National Security Strategic Planning Process

Since the end of the Cold War, the United States has struggled with developing a truly comprehensive National Security Strategy. A strategy that provides sufficient guidance to enable the Executive branch and the Congress to efficiently plan and develop resources and capabilities, and make hard – yet well guided – decisions, is essential to the protection and security of the United States. A sound national security strategy should provide an analysis of our national security strategic environment, the goals we must achieve, the necessary resources, and guidance as to our methods to achieve those goals.

To facilitate the development of this strategy I hereby direct the following:

The National Security Advisor will take steps to increase the capabilities of the National Security Staff to achieve a comprehensive, whole-of-government approach to strategic planning. The National Security Advisor will accomplish this using the National Security Staff, and, if appropriate, may appoint a small panel of outside advisors to advise him and obtain other necessary resources. Departments and agencies will provide briefings, information, and assign personnel, as required, to this effort. The effort will use such other information as it deems appropriate, including such sources as the Independent Strategic Review Panel proposed by the 2010 Quadrennial Defense Review Independent Panel.

This strategy development will identify the interests of the United States, its strategic goals relative to those interests, the actions required to achieve them, and necessary resources. This strategy will be as forward-looking as possible but not less than 20 years. It will consider the attainment of these strategic goals in both a budget unconstrained and budget constrained environment. Additionally, the strategy will provide clear priorities and identify the lead federal department or agency for each priority. The strategy will provide enough detail for federal departments and agencies to understand their assigned missions, both as a lead actor and as a supporting actor, so that they may make the resource and personnel decisions necessary to ensure success. Where appropriate, the strategy shall also provide options for the attainment of our strategic goals and any follow-on steps once the goals have been attained.

The strategy will be submitted for my review and approval by _____, and when signed by me will set out strategic guidance for my administration.

This document, classified as appropriate to protect the United States' interests, will direct how it is to be used in the internal planning processes of relevant departments and agencies. Interagency leads and missions should be clearly identified to enable proper planning.

Appendix 6

Glossary

AC	Active Component
APS	Africa Partnership Station
AT&L	Acquisition, Technology, and Logistics
AVF	All-Volunteer Force
BCT	brigade combat team
BUR	Bottom-Up Review
CAB	combat aviation brigade
CCJO	Capstone Concept for Joint Operations
COIN	counter-insurgency
CORM	Commission on Roles and Missions of the Armed Forces
DHS	Department of Homeland Security
DOD	Department of Defense
FMS	Foreign Military Sales
IO	international organization
IOC	initial operational capability
ISR	intelligence, surveillance, and reconnaissance
JRAC	Joint Rapid Acquisition Cell
JROC	Joint Requirements Oversight Committee
JUON	Joint Urgent Operational Needs
NATO	North Atlantic Treaty Organization
NGO	non-governmental organization
NICE	National Initiative for Cybersecurity Education

NPR	Nuclear Posture Review
NSA	National Security Agency
NSC	National Security Council
NSS	National Security Strategy
OAD	operational aviation detachment
ODA	Operational Detachment-Alpha
OMB	Office of Management and Budget
OSD	Office of the Secretary of Defense
PEO	program executive officer
PME	professional military education
PRT	Provincial Reconstruction Team
PVO	private voluntary organization
QDDR	Quadrennial Diplomacy and Development Review
QDR	Quadrennial Defense Review
QHSR	Quadrennial Homeland Security Review
QICR	Quadrennial Intelligence Community Review
QSR	Quadrennial Strategy Review
REF	Rapid Equipping Force
RC	Reserve Component
ROTC	Reserve Officers' Training Corps
SOCOM	Special Operations Command
SROE	Standing Rules of Engagement
SSGN	nuclear-powered guided missile submarine
TACAIR	tactical air forces
THAAD	Terminal High Altitude Area Defense

TOR	terms of reference
UAV	Unmanned Aerial Vehicle
USCYBERCOM	U.S. Cyber Command
USAID	U.S. Agency for International Development
WMD	weapons of mass destruction

Appendix 7

Enabling Legislation

10 U.S.C. § 118 : US Code - Section 118: Quadrennial Defense Review

(a) Review Required. - The Secretary of Defense shall every four years, during a year following a year evenly divisible by four, conduct a comprehensive examination (to be known as a "quadrennial defense review") of the national defense strategy, force structure, force modernization plans, infrastructure, budget plan, and other elements of the defense program and policies of the United States with a view toward determining and expressing the defense strategy of the United States and establishing a defense program for the next 20 years. Each such quadrennial defense review shall be conducted in consultation with the Chairman of the Joint Chiefs of Staff.

(b) Conduct of Review. - Each quadrennial defense review shall be conducted so as -

(1) to delineate a national defense strategy consistent with the most recent National Security Strategy prescribed by the President pursuant to section 108 of the National Security Act of 1947 (50 U.S.C. 404a);

(2) to define sufficient force structure, force modernization plans, infrastructure, budget plan, and other elements of the defense program of the United States associated with that national defense strategy that would be required to execute successfully the full range of missions called for in that national defense strategy;

(3) to identify

(A) the budget plan that would be required to provide sufficient resources to execute successfully the full range of missions called for in that national defense strategy at a low-to-moderate level of risk, and

(B) any additional resources (beyond those programmed in the current future-years defense program) required to achieve such a level of risk; and

(4) to make recommendations that are not constrained to comply with the budget submitted to Congress by the President pursuant to section 1105 of title 31.

(c) Assessment of Risk. - The assessment of risk for the purposes of subsection (b) shall be undertaken by the Secretary of Defense in consultation with the Chairman of the Joint Chiefs of Staff. That assessment shall define the nature and magnitude of the political, strategic, and military risks associated with executing the missions called for under the national defense strategy.

(d) Submission of QDR to Congressional Committees. – The Secretary shall submit a report on each quadrennial defense review to the Committees on Armed Services of the Senate and the House of Representatives. The report shall be submitted in the year following the year in which the review is conducted, but not later than the date on which the President submits the budget for the next fiscal year to Congress under section 1105(a) of title 31. The report shall include the following:

(1) The results of the review, including a comprehensive discussion of the national defense strategy of the United States the strategic planning guidance, and the force structure best suited to implement that strategy at a low-to-moderate level of risk.

(2) The assumed or defined national security interests of the United States that inform the national defense strategy defined in the review.

(3) The threats to the assumed or defined national security interests of the United States that were examined for the purposes of the review and the scenarios developed in the examination of those threats.

(4) The assumptions used in the review, including assumptions relating to -

(A) the status of readiness of United States forces;

(B) the cooperation of allies, mission-sharing and additional benefits to and burdens on United States forces resulting from coalition operations;

(C) warning times;

(D) levels of engagement in operations other than war and smaller-scale contingencies and withdrawal from such operations and contingencies; and

(E) the intensity, duration, and military and political end-states of conflicts and smaller-scale contingencies.

(5) The effect on the force structure and on readiness for high-intensity combat of preparations for and participation in operations other than war and smaller-scale contingencies.

(6) The manpower and sustainment policies required under the national defense strategy to support engagement in conflicts lasting longer than 120 days.

- (7) The anticipated roles and missions of the reserve components in the national defense strategy and the strength, capabilities, and equipment necessary to assure that the reserve components can capably discharge those roles and missions.
- (8) The appropriate ratio of combat forces to support force (commonly referred to as the "tooth-to-tail" ratio) under the national defense strategy, including, in particular, the appropriate number and size of headquarters units and Defense Agencies for that purpose.
- (9) The specific capabilities, including the general number and type of specific military platforms, needed to achieve the strategic and warfighting objectives identified in the review.
- (10) The strategic and tactical air-lift, sea-lift, and ground transportation capabilities required to support the national defense strategy.
- (11) The forward presence, pre-positioning, and other anticipatory deployments necessary under the national defense strategy for conflict deterrence and adequate military response to anticipated conflicts.
- (12) The extent to which resources must be shifted among two or more theaters under the national defense strategy in the event of conflict in such theaters.
- (13) The advisability of revisions to the Unified Command Plan as a result of the national defense strategy.
- (14) The effect on force structure of the use by the armed forces of technologies anticipated to be available for the ensuing 20 years.
- (15) The national defense mission of the Coast Guard.
- (16) The homeland defense and support to civil authority missions of the active and reserve components, including the organization and capabilities required for the active and reserve components to discharge each such mission.
- (17) Any other matter the Secretary considers appropriate.

(e) *CJCS Review.* –

- (1) Upon the completion of each review under subsection (a), the Chairman of the Joint Chiefs of Staff shall prepare and submit to the Secretary of Defense the Chairman's assessment of the review, including the Chairman's assessment of risk and a description of the capabilities needed to address such risk.
- (2) The Chairman shall include as part of that assessment the Chairman's assessment of the assignment of functions (or roles and missions) to the armed forces, together with any recommendations for changes in assignment that the Chairman considers necessary to achieve maximum efficiency of the armed forces. In preparing the assessment under this paragraph, the Chairman shall consider (among other matters) the following:

- (A) Unnecessary duplication of effort among the armed forces.
- (B) Changes in technology that can be applied effectively to warfare.
- (3) The Chairman's assessment shall be submitted to the Secretary in time for the inclusion of the assessment in the report. The Secretary shall include the Chairman's assessment, together with the Secretary's comments, in the report in its entirety.

(f) *Independent Panel Assessment.* —

(1) Not later than six months before the date on which the report on a Quadrennial Defense Review is to be submitted under subsection (d), the Secretary of Defense shall establish a panel to conduct an assessment of the quadrennial defense review.

(2) Not later than three months after the date on which the report on a quadrennial defense review is submitted under subsection (d) to the congressional committees named in that subsection, the panel appointed under paragraph (1) shall submit to those committees an assessment of the review, including the recommendations of the review, the stated and implied assumptions incorporated in the review, and the vulnerabilities of the strategy and force structure underlying the review. The assessment of the panel shall include analyses of the trends, asymmetries, and concepts of operations that characterize the military balance with potential adversaries, focusing on the strategic approaches of possible opposing forces.

H.R. 2647, SEC. 1061. Additional Members and Duties for the Independent Panel to Assess the Quadrennial Defense Review

(a) *Additional Members.*—

(1) *In General.*—For purposes of conducting the assessment of the 2009 quadrennial defense review under section 118 of title 10, United States Code (in this section referred to as the “2009 QDR”), the independent panel established under subsection (f) of such section (in this section referred to as the “Panel”) shall include eight additional members as follows:

(A) Two appointed by the chairman of the Committee on Armed Services of the House of Representatives.

(B) Two appointed by the chairman of the Committee on Armed Services of the Senate.

(C) Two appointed by the ranking member of the Committee on Armed Services of the House of Representatives.

(D) Two appointed by the ranking member of the Committee on Armed Services of the Senate.

(2) *Period of Appointment; Vacancies.*—Members of the Panel appointed under paragraph (1) shall be appointed for the life of the Panel. Any vacancy in an appointment to the

H. R. 2647—279 Panel under paragraph (1) shall be filled in the same manner as the original appointment.

(b) *Additional Duties.*—In addition to the duties of the Panel under section 118(f) of title 10, United States Code, the Panel shall, with respect to the 2009 QDR— (1) review the Secretary of Defense’s terms of reference, and any other materials providing the basis for, or substantial inputs to, the work of the Department of Defense on the 2009 QDR;

(2) conduct an assessment of the assumptions, strategy, findings, and risks in the report of the Secretary of Defense on the 2009 QDR, with particular attention paid to the risks described in that report; (3) conduct an independent assessment of a variety of possible force structures for the Armed Forces, including the force structure identified in the report of the Secretary of Defense on the 2009 QDR; and (4) review the resource requirements identified in the 2009

QDR pursuant to section 118(b)(3) of title 10, United States Code, and, to the extent practicable, make a general comparison of such resource requirements with the resource requirements to support the forces contemplated under the force structures assessed under paragraph (3).

(c) *Reports.*—

(1) *Initial Report of Panel.*—The report on the 2009 QDR that is submitted to Congress pursuant to section 118(f)(2) of title 10, United States Code, shall include, in addition to any other matters required by such section, the interim findings of the Panel with respect to the matters specified in subsection (b).

(2) *Final Report of Panel.*—Not later than July 15, 2010, the Panel shall submit to the Secretary of Defense, and to the congressional defense committees, the final report of the

Panel on the matters specified in subsection (b). The report shall include such recommendations on such matters as the Panel considers appropriate.

(3) *Report of Secretary of Defense.*—Not later than August 15, 2010, the Secretary of Defense shall, after consultation with the Chairman of the Joint Chiefs of Staff, submit to the congressional defense committees a report setting forth the Secretary’s response to the final report of the Panel under paragraph (2).

(d) *Termination of Panel.*—The Panel shall terminate 45 days after the date on which the Panel submits its final report under subsection (c)(2).

Appendix 8

QDR Independent Panel Plenary Sessions Schedule

February 18, 2010

March 17, 2010

April 16, 2010

May 25, 2010

June 16, 2010

July 14, 2010

Appendix 9

Consultations

Current U.S. Administration Officials

Department of Defense/Military

Civilian:

Robert Gates	<i>Secretary of Defense</i>
William J. Lynn	<i>Deputy Secretary of Defense</i>
Michele Flournoy	<i>Under Secretary of Defense for Policy</i>
Ashton Carter	<i>Under Secretary of Defense for Acquisition, Technology and Logistics</i>
Clifford L. Stanley	<i>Under Secretary of Defense for Personnel and Readiness</i>
Robert J. Butler	<i>Deputy Assistant Secretary of Defense for Cyber Policy</i>
Katherine H. Canavan	<i>Civilian Deputy to the Commander and Foreign Policy Advisor, U.S. European Command</i>
Janine Davidson	<i>Deputy Assistant Secretary of Defense for Plans</i>
Thomas P. Dee	<i>Director, Joint Rapid Acquisition Cell and Director, Defense Biometrics, Office of the Under Secretary of Defense (AT&L)</i>
Amanda J. Dory	<i>Deputy Assistant Secretary of Defense for Strategy</i>
William A. Garland	<i>Deputy Project Manager, Rapid Equipping Force</i>
Richard Ginman	<i>Principal Deputy Director, Defense Procurement and Acquisition Policy, Office of the Under Secretary of Defense (AT&L)</i>
Skip Hawthorne	<i>Defense Procurement and Acquisition Policy, Office of the Under</i>

	<i>Secretary of Defense (AT&L)</i>
Kathleen Hicks	<i>Deputy Under Secretary of Defense for Strategy, Plans, and Forces</i>
Andrew Marshall	<i>Director of Net Assessment</i>
Mike McCord	<i>Principal Deputy Under Secretary of Defense (Comptroller)</i>
David A. Ochmanek	<i>Deputy Assistant Secretary of Defense for Force Development</i>
Garry Reid	<i>Deputy Assistant Secretary of Defense for Special Operations and Combating Terrorism</i>
Christine E. Wormuth	<i>Principal Deputy Assistant Secretary of Defense for Homeland Defense and Americas' Security Affairs</i>

Military:

General James Cartwright	<i>Vice Chairman, Joint Chiefs of Staff</i>
General George Casey	<i>United States Army Chief of Staff</i>
Admiral Gary Roughead	<i>Chief of Naval Operations</i>
General Norton Schwartz	<i>Chief of Staff, U.S. Air Force</i>
General James N. Mattis	<i>Commander, U.S. Joint Forces Command</i>
Admiral Robert Willard	<i>Commander, U.S. Pacific Command</i>
General Keith B. Alexander	<i>Commander, U.S. Cyber Command</i>
Captain Michael Ford	<i>Chief, Requirements Management Division, Joint Staff, J-8</i>

Department of Homeland Security

Alan Cohn	<i>Deputy Assistant Secretary for Policy (Strategic Plans)</i>
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Department of State

Anne-Marie Slaughter

Director of Policy Planning

National Intelligence Council

John Landry

National Intelligence Officer for Military Issues

National Security Council

Ben Rhodes

*Deputy National Security Advisor for Strategic
Communications*

Other Experts

Gordon Adams

Stimson Center

James Dobbins

RAND Corporation

Appendix 10

QDR Independent Panel

Member Biographies

William J. Perry – *Co-Chairman*

William J. Perry is the Michael and Barbara Berberian Professor at Stanford University, with a joint appointment at FSI and the School of Engineering. He is a senior fellow at FSI and serves as co-director of the Preventive Defense Project, a research collaboration of Stanford and Harvard Universities. He is an expert in U.S. foreign policy, national security and arms control. He was the co-director of CISAC from 1988 to 1993, during which time he was also a professor (half time) at Stanford. He was a part-time lecturer in the Department of Mathematics at Santa Clara University from 1971 to 1977.

Perry was the 19th secretary of defense for the United States, serving from February 1994 to January 1997. He previously served as deputy secretary of defense (1993-1994) and as under secretary of defense for research and engineering (1977-1981). He is on the board of directors of LGS Bell Labs Innovations and several emerging high-tech companies and is chairman of Global Technology Partners. His previous business experience includes serving as a laboratory director for General Telephone and Electronics (1954-1964); founder and president of ESL Inc. (1964-1977); executive vice-president of Hambrecht & Quist Inc. (1981-1985); and founder and chairman of Technology Strategies & Alliances (1985-1993). He is a member of the National Academy of Engineering and a fellow of the American Academy of Arts and Sciences.

From 1946 to 1947, Perry was an enlisted man in the Army Corps of Engineers, and served in the Army of Occupation in Japan. He joined the Reserve Officer Training Corps in 1948 and was a second lieutenant in the Army Reserves from 1950 to 1955. He has received a number of awards, including the Presidential Medal of Freedom (1997), the Department of Defense Distinguished Service Medal (1980 and 1981), and Outstanding Civilian Service Medals from the Army (1962 and 1997), the Air Force (1997), the Navy (1997), the Defense Intelligence Agency (1977 and 1997), NASA (1981) and the Coast Guard (1997). He received the American Electronic Association's Medal of Achievement (1980), the Eisenhower Award (1996), the Marshall Award (1997), the Forrestal Medal (1994), and the Henry Stimson Medal (1994). The National Academy of Engineering selected him for the Arthur Bueche Medal in 1996. He has received awards from the enlisted personnel of the Army, Navy, and the Air Force. He has received decorations from the governments of Albania, Bahrain, France, Germany, Hungary, Japan, Korea, Poland, Slovenia, Ukraine, and the United Kingdom. He received a BS and MS from Stanford University and a PhD from Penn State, all in mathematics.

Stephen J. Hadley – *Co-Chairman*

Stephen J. Hadley completed four years as the Assistant to the President for National Security Affairs on January 20, 2009. In that capacity he was the principal White House foreign policy advisor to then President George W. Bush, directed the National Security Council staff, and ran the interagency national security policy development and execution process.

From January 20, 2001 to January 20, 2005, Hadley was the Assistant to the President and Deputy National Security Advisor, serving under then National Security Advisor Condoleezza Rice. In addition to covering the full range of national security issues, Hadley had special responsibilities in several specific areas including U.S. relations with Russia, the Israeli disengagement from Gaza, developing a strategic relationship with India, and ballistic missile defense.

From 1993 to 2001, Hadley was both a partner in the Washington D.C. law firm of Shea and Gardner (now part of Goodwin Procter) and a principal in The Scowcroft Group (a strategic consulting firm headed by former National Security Advisor Brent Scowcroft). In his law practice, he was administrative partner of the firm. Hadley represented a range of corporate clients in transactional matters and in certain of the international aspects of their business – including export controls, foreign investment in U.S. national security companies, and the national security responsibilities of U.S. information technology companies. In his consulting practice, Hadley represented U.S. corporate clients seeking to invest and do business overseas.

From 1989 to 1993, Hadley served as the Assistant Secretary of Defense for International Security Policy under then Secretary of Defense Dick Cheney. He represented the Defense Department on arms control matters, including negotiations with the Soviet Union and then Russia, on matters involving NATO and Western Europe, on ballistic missile defense, and on export and technology control matters. Prior to this position, Hadley alternated between government service and law practice with Shea & Gardner. He was counsel to the Tower Commission in 1987, as it investigated U.S. arms sales to Iran, and served on the National Security Council under President Ford from 1974 to 1977.

During his professional career, Hadley has served on a number of corporate and advisory boards, including: the National Security Advisory Panel to the Director of Central Intelligence, the Department of Defense Policy Board, the Board of Directors of the U.S. Institute of Peace, as a trustee of the Carnegie Endowment for International Peace, and as a trustee of ANSER (Analytical Services, Inc.), a public service research corporation.

Hadley graduated magna cum laude and Phi Beta Kappa from Cornell University in Ithaca, New York, in 1969. In 1972, he received his J.D. degree from Yale Law School in New Haven, Connecticut, where he was Note and Comment Editor of the Yale Law Journal.

Richard L. Armitage – *Member*

Richard L. Armitage is currently the President of Armitage International. Previously, Armitage served as Deputy Secretary of State from March 2001 until February 2005. From May 1993 until March 2001, he served as President of Armitage Associates L.C.

From March 1992 until his departure from public service in May 1993, Armitage directed U.S. assistance to the new independent states (NIS) of the former Soviet Union. Between 1989 through 1992, he filled key diplomatic positions as Presidential Special Negotiator for the Philippines Military Bases Agreement and Special Mediator for Water in the Middle East. During the 1991 Gulf War, President Bush sent him as a Special Emissary to Jordan's King Hussein.

From June 1983 to May 1989, Armitage served as Assistant Secretary of Defense for International Security Affairs and from 1981 until June 1983 he was Deputy Assistant Secretary of Defense for East Asia and Pacific Affairs in the Office of the Secretary of Defense. In the 1980 Reagan campaign, he was senior advisor to the Interim Foreign Policy Advisory board, which prepared the President-Elect for major international policy issues confronting the new administration. Following two years in the private sector, he took the position as Administrative Assistant to Senator Robert Dole of Kansas in 1978. Between 1975 and 1976, Armitage was posted in Tehran, Iran as a Pentagon consultant.

Armitage graduated in 1967 from the U.S. Naval Academy and completed three combat tours in Vietnam.

J.D. Crouch – *Member*

J.D. Crouch is currently the President of Technology Solutions Group at QinetiQ North America. Previously, Crouch served as Assistant to the President and Deputy National Security Advisor from 2005 until 2007 and as the U.S. Ambassador to Romania from 2003 to 2004.

Prior to becoming Ambassador to Romania, Crouch served as Assistant Secretary of Defense for International Security Policy from August 2001 until October 2003. He was the principal advisor to the Secretary of Defense on the formulation and coordination of policy for NATO, Europe, Russia, the Central Asian Republics, the Caucasus and the Balkans, nuclear forces, missile defense, technology security policy, counterproliferation, and arms control. Prior to serving in the Bush Administration in these capacities, Crouch was an associate professor of Defense and Strategic Studies at Southwest Missouri State University.

From 1990 to 1992, Crouch was the principal deputy assistant secretary of defense for international security policy in the first Bush Administration. From 1986 to 1990, he was the military legislative assistant to Senator Malcolm Wallop (R-Wyoming) and served as the

senator's staff designee on the Senate Armed Services Committee. From 1984 to 1986, he worked for the Assistant Director for Strategic Programs in the U.S. Arms Control and Disarmament Agency and was an advisor to the U.S. Delegation on Nuclear and Space Arms Talks with the former Soviet Union.

Crouch received his bachelor's degree, master's degree, and his Ph.D. in International Relations from the University of Southern California.

Charles B. Curtis – Member

Charles B. Curtis is currently President Emeritus and Board Member of the Nuclear Threat Initiative (NTI). Previously, Curtis served for nine years as President and Chief Executive Officer of NTI. Before joining NTI, Curtis served as the Executive Vice President and Chief Operating Officer of the United Nations Foundation (UNF) and was a partner in Hogan & Hartson, a Washington-based law firm with domestic and international offices.

Curtis served as Under Secretary and, later, Deputy Secretary of the U.S. Department of Energy from February 1994 to May 1997. He was Chief Operating Officer of the Department and, among other duties, had direct programmatic responsibility for all of the Department's energy, science, technology and national security programs.

Curtis is a lawyer with over 15 years' practice experience and more than 18 years in government service. He was a founding partner of the Washington law firm Van Ness Feldman. Curtis served as Chairman of the Federal Energy Regulatory Commission from 1977 to 1981 and has held positions on the staff of the U.S. House of Representatives, the U.S. Treasury Department, and the Securities and Exchange Commission. He is a current member of the Council on Foreign Relations.

Rudy F. deLeon – Member

Rudy F. deLeon is the Senior Vice President of National Security and International Policy at the Center for American Progress in Washington, D.C. He serves on several nonprofit boards and is a part-time college instructor. deLeon is also a former senior U.S. Department of Defense official, staff director on Capitol Hill, and retired corporate executive.

Mr. deLeon's government career concluded in 2001 after his tenure as deputy secretary of defense, where he was a member of the Deputies Committee of the National Security Council and the National Partnership Council. In earlier Pentagon assignments, deLeon served as undersecretary of defense for personnel and readiness from 1997 to 2000, and as undersecretary of the Air Force from 1994 to 1997. From November 1985 through 1993, deLeon served on the

Committee on Armed Services in the U.S. House of Representatives as a member of the professional staff and as staff director. In 1986, deLeon participated in the debate and passage of the 1986 Goldwater-Nichols Act. Mr. deLeon began his career in the federal government in 1975, holding various staff positions in the U.S. Senate and U.S. House of Representatives. For five years, beginning in 2001, he served as a senior vice president for the Boeing Company.

Mr. deLeon earned a bachelor's degree from Loyola Marymount University in 1974, and in 1984, he completed the executive program in national and international security at the John F. Kennedy School of Government at Harvard University.

Joan A. Dempsey – *Member*

Joan A. Dempsey is a senior Vice President at Booz Allen Hamilton where she leads the firm's intelligence business in Central Maryland. Previously, she led the firm's intelligence business in the Department of Homeland Security and the Office of the Director of National Intelligence.

During her 25 years in the federal government, Dempsey held two political appointments: she served as the Deputy Director of Central Intelligence for Community Management during the Clinton Administration and as the Executive Director of the President's Foreign Intelligence Advisory Board in the Bush Administration.

Dempsey also spent 17 years as a senior civilian in the Department of Defense as Deputy Director of Intelligence at the Defense Intelligence Agency, as Director of the General Defense Intelligence Program, and as the Deputy Assistant Secretary of Defense for Intelligence and Security. She began her federal civilian service in 1983 as a Presidential Management Intern in the Office of Naval Intelligence. She also served for 25 years as a naval reserve intelligence officer and was on active duty as a U.S. Navy cryptologic technician.

Dempsey is a Special Advisor to the U.S. Strategic Command and chairs the Intelligence, Reconnaissance and Surveillance Panel of the Command's Strategic Advisory Committee.

Eric S. Edelman – *Member*

Eric S. Edelman is currently a Distinguished Fellow at the Center for Strategic and Budgetary Assessments. He retired as a Career Minister from the U.S. Foreign Service on May 1, 2009.

Edelman has served in senior positions at the Departments of State and Defense as well as the White House where he led organizations providing analysis, strategy, policy development, security services, trade advocacy, public outreach, citizen services and congressional relations. As the Under Secretary of Defense for Policy (August 2005-January 2009) he oversaw strategy development as the Department's senior policy official with global responsibility for bilateral

defense relations, war plans, special operations forces, homeland defense, missile defense, nuclear weapons and arms control policies, counter-proliferation, counter-narcotics, counter-terrorism, arms sales, and defense trade controls.

Edelman served as U.S. Ambassador to the Republics of Finland and Turkey in the Clinton and Bush Administrations and was Principal Deputy Assistant to the Vice President for National Security Affairs. In other assignments, he has been Chief of Staff to Deputy Secretary of State Strobe Talbott, special assistant to Under Secretary of State for Political Affairs Robert Kimmitt and special assistant to Secretary of State George Shultz. His other assignments include the State Department Operations Center, Prague, Moscow, and Tel Aviv, where he was a member of the U.S. Middle East Delegation to the West Bank/Gaza Autonomy Talks.

Edelman is a visiting scholar at the Philip Merrill Center for Strategic Studies at the Johns Hopkins University and a senior associate of the International Security Program at the Belfer Center for Science and International Affairs at Harvard University. He received a B.A. in History and Government from Cornell University and a Ph.D. in U.S. Diplomatic History from Yale University.

Sherri Goodman – *Member*

Sherri Goodman is Senior Vice President, General Counsel and Corporate Secretary of CNA. Goodman has been recognized for her work creating and overseeing a landmark project in her role as Executive Director of the CNA Military Advisory Board for projects on *National Security and the Threat of Climate Change* and *Powering America's Defense: Energy & the Risks to National Security*.

From 1993 to 2001, Goodman served as Deputy Undersecretary of Defense (Environmental Security). As the chief environmental, safety, and occupational health officer for the Department of Defense (DoD), she was responsible for over \$5 billion in annual defense spending. She established the first environmental, safety and health performance metrics for the department and, as the nation's largest energy user, directed its energy efficiency and climate change efforts. Overseeing the President's plan for revitalizing base closure communities, she ensured that 80% of base closure property became available for transfer and reuse. Goodman twice received the DoD medal for Distinguished Public Service, the Gold Medal from the National Defense Industrial Association, and the EPA's Climate Change Award.

Goodman served on the staff of the Senate Armed Services Committee for Committee Chairman Senator Sam Nunn. She has practiced law at Goodwin Procter, and has worked at RAND and SAIC.

Goodman serves on the boards of the Atlantic Council of the U.S., including its Executive Committee, Blue Star Families, Marshall Legacy Institute, National Academy of Sciences' Energy and Environmental Systems Board, and the Woods Hole Oceanographic Institution. She is a life member of the Council on Foreign Relations and serves on the Board of its *Center for Preventive Action*. Goodman also serves on the *Joint Ocean Commission Leadership Council*, and the Task Force on *Stabilizing Fragile States: Building Partnership Security Capacity* at the Bipartisan Policy Center.

Goodman has testified before numerous committees of the U.S. Congress, and conducted many interviews with print, television, radio and online media. She has published widely in various print and on line media and in legal and scholarly journals on national security, energy, and environmental security. She has been an Adjunct Lecturer in International Affairs and Security at the Kennedy School of Government and was an Adjunct Research Fellow at the School's Center for Science and International Affairs.

Goodman received a J.D. from the Harvard Law School and a Masters in Public Policy from Harvard's John F. Kennedy School of Government. She received her Bachelor of Arts from Amherst College.

David E. Jeremiah – Member

Prior to retiring from the Navy in February 1994, David E. Jeremiah served four years as Vice Chairman of the Joint Chiefs of Staff under Generals Powell and Shalikashvili and in that capacity served as a member of the Deputies Committee of the National Security Council. Previously, he was Commander in Chief of the Pacific Fleet, commanded a three carrier task force in combat operations off Libya, directed the capture of the Achille Lauro hijackers and commanded a battle group, destroyer squadron and guided missile destroyer. Ashore, he earned a reputation as an authority on strategic planning, financial management and the policy implications of advanced technology.

In his subsequent civilian career, Jeremiah was President, CEO and later Chairman of Technology Strategies and Alliances; chair or member of a number of public, private and not-for-profit boards; and a member of a number of national security commissions, panels and boards including the President's Intelligence Advisory Board. He is currently Chairman of the WSI board of directors and a member of the ManTech International and In-Q-Tel boards.

Jeremiah earned a number of U.S. and foreign awards including the Presidential Citizens Awards presented by President George H. W. Bush for service during the first Gulf War, the Defense Distinguished Service Medal, five Navy Distinguished Service Medals, the Grand Cordon of the Rising Sun (Japan), the first Order of Australia (Military Division) awarded to a foreign recipient and the University of Oregon Pioneer Award for distinguished graduates.

Jeremiah earned a bachelor's degree in Business Administration from the University of Oregon and a master's degree in Financial Management from George Washington University. He completed the Program for Management Development at Harvard University.

George A. Joulwan – *Member*

George A. Joulwan retired from the Army in 1997 after having served as Supreme Allied Commander Europe (SACEUR) for four years. While in the Army, Joulwan served as the Commander-in-Chief for the United States European Command and held a variety of command and staff positions during two combat tours in Vietnam, two tours in Washington, D.C, and five tours in Europe.

Prior to his appointment as Commander-in-Chief for U.S. European Command, Joulwan served as Commander-in-Chief of the U.S. Southern Command (Panama) until October 1993. From 1988 until 1990, he commanded the 3rd Armored Division and V Corps during the collapse of the Berlin Wall and the fall of the Iron Curtain. During his 17 years in Europe, Joulwan commanded U.S. forces at every level in Germany to include platoon leader, company commander, battalion commander, brigade commander, division commander and corps commander. Between 1973 and 1975 he served in Washington as Special Assistant to the President of the United States and to the Supreme Allied Commander, Europe at Supreme Headquarters Allied Powers, Europe.

In Vietnam, Joulwan was a company commander and the operations officer in the 1st Battalion, 26th Infantry, 1st Infantry Division. He also served as a brigade operations officer and deputy division operations officer of the 101st Airborne Division (Air Assault).

During his Washington assignment, Joulwan was the Executive Officer to the chairman of the Joint Chiefs of Staff. Prior to this, he served as Director of Force Requirements in the Office of the Deputy Chief of Staff for Operations and Plans in the Department of the Army.

Joulwan graduated from the U.S. Military Academy at West Point in 1961 and was commissioned a second lieutenant in the Infantry. He received a Master of Arts degree in political science from Loyola University in Chicago. Joulwan's military education includes the Infantry Officer Basic Course, the Armor officer Advanced Course, the Command and General Staff College and the Army War College.

John Keane – Member

John Keane is a senior partner at SCP Partners, (venture capital). He is president, GSI, LLC (consulting). He is a director of several public corporations and an advisor or board member to numerous nonprofit organizations, foundations and charities to include two organizations assisting our veterans: Welcome Back Veterans and American Corporate Partners. He is also a member of the Secretary of Defense's Policy Board.

Keane, a four-star general, completed 37 years in public service in December 2003, culminating as acting Chief of Staff and Vice Chief of Staff of the US Army. As the chief operating officer of the Army, Keane was in the Pentagon on 9/11 and provided oversight and support for the wars in Afghanistan and Iraq. Since 2004, Keane conducted frequent trips to Iraq for senior defense officials having completed multiple visits during the surge period. He played a key role in recommending the surge strategy in Iraq. Still active in national security, Keane continues to advise senior government officials on the war in Iraq and Afghanistan and on national security in general.

Keane is a career paratrooper, a combat veteran of Vietnam, decorated for valor, who spent much of his military life in operational commands where his units were employed in Somalia, Haiti, Bosnia and Kosovo. He commanded the famed 101st Airborne Division (Air Assault) and the legendary 18th Airborne Corps, the Army's largest war fighting organization. Keane graduated from Fordham University with a Bachelor of Science degree in Accounting and a Master of Arts degree in Philosophy from Western Kentucky University. He is a graduate of the Army War College and the Command and General Staff College. Keane and his wife Theresa, who have been married for over 45 years, have two adult sons Matthew and Daniel.

Richard H. Kohn – Member

Richard H. Kohn is currently Professor of History and Adjunct Professor of Peace, War, and Defense at the University of North Carolina (UNC) at Chapel Hill. He has served on the faculties of the City College of New York, Rutgers University-New Brunswick, and the Army and National War Colleges. From 1981 to 1991, he was Chief of Air Force History and Chief Historian of the USAF. Kohn headed the Triangle Institute of Security Studies at UNC from 1992 until 2000 and chaired the Curriculum in Peace, War, and Defense from 1992 until 2006.

In 2003 and 2004, Kohn was a consultant for the Smithsonian's National Museum of American History on its "Price of Freedom" permanent exhibit on the American military experience. Prior to this, he has been a two term president of the Society for Military History (1989-1993), served on the Advisory Board of the US Air Force's Gulf War Air Power Survey and the Air University Board of Visitors, chaired the research and collections management advisory committee of the Smithsonian's National Air and Space Museum and the Board of Directors of the National

Coordinating Committee for the Promotion of History, and was a member of the National Security Study Group (the Hart-Rudman Commission).

Kohn's most recent book is an edited volume with Peter D. Feaver, *Soldiers and Civilians: The Civil-Military Gap and American National Security* (2001). His recent writings have focused on contemporary civil-military relations, including "The Erosion of Civilian Control of the Military in the United States Today," which won the 2002 Edward S. Miller History Prize of the *Naval War College Review*, "The Danger of Militarization in an Endless 'War' on Terrorism," *Journal of Military History*, 73(Jan. 2009): 177-208, "Tarnished Brass: Is the U.S. Military Profession in Decline?" *World Affairs*, 171(Spring 2009):73-83, and "Building Trust: Civil-Military Behaviors for Effective National Security," chapter 13 in Suzanne Nielsen and Don Snider, eds., *American Civil-Military Relations: Realities and Challenges in the New Era* (Baltimore: Johns Hopkins University Press, 2009), 264-289.

Born and raised in Chicago, Kohn was educated at Harvard (A.B. magna cum laude, 1962) and the University of Wisconsin (M.S. 1964, Ph.D. 1968).

John F. Lehman, Jr. – Member

John F. Lehman, Jr. is a founding partner and chairman of J.F. Lehman & Company. Before forming the firm, Lehman spent three years as a Managing Director in Corporate Finance at PaineWebber, Inc. where he led the firm's aerospace and defense advisory practice. Lehman is also a director of Ball Corporation, ISO Inc. and EnerSys, Inc. He is also Chairman of the Princess Grace Foundation and an Overseer of the School of Engineering at the University of Pennsylvania.

Lehman served 25 years as a reserve naval aviator including temporary active duty in Vietnam, the Middle East and Europe.

From 1981 to 1987, Lehman served as Secretary of the United States Navy. As the chief executive of the U.S. Navy, Lehman was responsible for the management of 1.2 million people, an annual budget of approximately \$100 billion and total assets equivalent to those of the seven largest Fortune 500 corporations combined. Prior to serving as Secretary of the Navy, Lehman was President of the aerospace consulting firm Abington Corporation and served as a delegate to the Mutual Balanced Force Reductions negotiations.

Lehman has served as staff member to Dr. Henry Kissinger on the National Security Council and as Deputy Director of the U.S. Arms Control and Disarmament Agency. He is a member of the National Commission on Terrorist Attacks Upon the United States (the "9/11 Commission).

Lehman holds a B.S. degree from St. Joseph's University, B.A. and M.A. degrees from Cambridge University and a Ph.D. from the University of Pennsylvania.

Alice C. Maroni – Member

Alice C. Maroni is the Chief Financial Officer of the Smithsonian Institution, a position she has held since November 2000. She has authority and responsibility for the financial integrity of the Institution, including budgeting, accounting, financial reporting, contracting, and treasury functions. She has more than 30 years of experience in budgeting and public and non-profit finance.

Maroni came to the Smithsonian from the Department of Defense, where she served as the Principal Deputy Under Secretary of Defense (Comptroller) since 1993. She twice served as the acting Under Secretary of Defense (Comptroller) prior to the appointment of the Department of Defense Comptroller. Before moving to the Pentagon in November 1992, Maroni was a professional staff member of the House Armed Services Committee.

Maroni is the author of “The Economic and Budgetary Implications of a U.S. Troop Withdrawal from Europe,” a chapter in the 1989 SIPRI publication *Europe without America*; “The Defense Budget,” a chapter in *Presidential Leadership and National Security: Style, Institutions, and Politics*, edited by Sam C. Sarkesian, Westview Press, Boulder, Colorado, 1984; and numerous issue briefs on the national defense budget debate printed by the Congressional Research Service at the Library of Congress.

Maroni was the 2001 recipient of the Distinguished Federal Leadership Award awarded by Association of Government Accountants, a three-time recipient of the DOD Distinguished Public Service Award awarded by Secretary of Defense, and a recipient of the Joint Distinguished Civilian Service Award awarded by Chairman of the Joint Chiefs of Staff.

Born in Washington, D.C., Maroni graduated Phi Beta Kappa from Mount Holyoke College in 1975 and was awarded a master's degree from the Fletcher School of Law and Diplomacy at Tufts University in 1978. She is a graduate of the National War College (1989) and Harvard University's Program for Senior Executives in National and International Security (1991).

John Nagl – Member

John Nagl is the President of the Center for a New American Security. He is also a member of the Defense Policy Board, a Visiting Professor in the War Studies Department at Kings College of London, a life member of the Council on Foreign Relations and the Veterans of Foreign Wars, and a member of the International Institute of Strategic Studies. He is a member of the *Joint*

Force Quarterly Advisory Committee and of the Advisory Board of the *Journal of the Royal United Services Institute*, a former Young Leader of the French-American Foundation and the American Council on Germany, and a member of the American Association of Rhodes Scholars.

Nagl's last military assignment was as commander of the 1st Battalion, 34th Armor at Fort Riley, Kansas, training Transition Teams that embed with Iraqi and Afghan units. He led a tank platoon in Operation Desert Storm and served as the operations officer of a tank battalion task force in Operation Iraqi Freedom. He was awarded the Combat Action Badge by General James Mattis of the United States Marine Corps, under whose leadership he fought in Al Anbar in 2004.

Nagl has taught national security studies at West Point's Department of Social Sciences and in Georgetown University's Security Studies Program. He served as a Military Assistant to two Deputy Secretaries of Defense and later worked as a Senior Fellow at the Center for a New American Security.

Nagl is the author of *Learning to Eat Soup with a Knife: Counterinsurgency Lessons from Malaya and Vietnam* and was on the writing team that produced the U.S. Army/Marine Corps *Counterinsurgency Field Manual*. His writings have also been published in *The New York Times*, *Washington Post*, *The Wall Street Journal*, *Foreign Policy*, *Parameters*, *Military Review*, *Joint Force Quarterly*, *Armed Forces Journal*, *The Washington Quarterly*, and *Democracy*, among others. He was also profiled in the *Wall Street Journal* and *The New York Times Magazine*. He has appeared on *The Jim Lehrer News Hour*, *National Public Radio*, *60 Minutes*, *Washington Journal*, and *The Daily Show with Jon Stewart*.

Nagl was a Distinguished Graduate of the United States Military Academy Class of 1988 and served as an armor officer in the U.S. Army for 20 years, retiring with the rank of Lieutenant Colonel. He earned a Master of the Military Arts and Sciences Degree from the Command and General Staff College, where he received the George C. Marshall Award as the top graduate. Nagl earned his doctorate from Oxford University as a Rhodes Scholar.

Robert H. Scales, Jr. – Member

Robert H. Scales is currently president of Colgen, LP, a consulting firm specializing in issues relating to landpower, wargaming and strategic leadership. Prior to joining the private sector, Scales served over thirty years in the Army, retiring as a Major General. He commanded two units in Vietnam, winning the Silver Star for action during the battles around Dong Ap Bia (Hamburger Hill) during the summer of 1969. Subsequently, he served in command and staff positions in the United States, Germany, and Korea and ended his military career as Commandant of the United States Army War College. In 1995 he created the Army After Next program, which was the Army's first attempt to build a strategic game and operational concept for future land warfare.

Scales has written and lectured on warfare to academic, government, military, and business groups in the United States, Australia, Asia, the Middle East, Europe, and South America. He is the author of two books on military history: *Certain Victory*, the official account of the Army in the Gulf War and *Firepower in Limited War*, a history of the evolution of firepower doctrine since the end of the Korean War. Scales has written two books on the theory of warfare: *Future Warfare*, a strategic anthology on America's wars to come and *Yellow Smoke: the Future of Land Warfare for America's Military*. His latest work, *The Iraq War: a Military History*, written with Williamson Murray, has been reviewed very favorably by the New York Times, Atlantic and Foreign Affairs.

Scales is a frequent consultant with the senior leadership of every service in the Department of Defense as well as many allied militaries. He is senior military analyst for The BBC, National Public Radio and Fox News Network. He has appeared as a commentator on The History Channel, The Discovery Channel, PBS, TLC and Star Television. His commentary is carried frequently on all major television outlets in the Peoples Republic of China. Scales has written for and been frequently quoted in The New York Post, The Wall Street Journal, The Washington Times, Time Magazine, Newsweek, Roll Call and virtually every service defense periodical and media network on issues relating to military history and defense policy.

Scales is a graduate of West Point and earned his PhD in history from Duke University.

James Talent – Member

James Talent is a Distinguished Fellow at The Heritage Foundation, where he specializes in military readiness and welfare reform issues. Talent also recently served as the vice-chairman of the WMD Commission.

Talent's political career began in 1984, when he was elected to the Missouri House of Representatives. In 1988, he was chosen unanimously by colleagues to be the Minority Leader, the highest-ranking Republican position in the Missouri House. He served in that role until 1992, when he was elected to Congress representing Missouri's 2nd District. While serving in the U.S. House of Representatives, Talent served on the House Armed Services Committee. In 1993, he formed a special congressional panel in the U.S. House of Representatives to address the decline in the readiness of the armed forces. In 1994, he introduced the Real Welfare Reform Act of 1994. This proposal subsequently became the basis for the bipartisan reforms enacted as the Personal Responsibility and Work Opportunity Act of 1996.

As a senator, Talent introduced the Compassion and Personal Responsibility Act of 2003 to build on the success of the 1996 welfare reform package. Talent also was Chairman of the House Committee on Small Business and served as a member of the Senate Armed Services Committee and chaired the Sea Power Subcommittee for four years.

Talent was born and raised in Des Peres, Mo. He is a 1978 graduate of Washington University in St. Louis, where he received the Arnold J. Lien Prize for most outstanding political science student. He graduated Order of the Coif from University of Chicago Law School in 1981 and then clerked for Judge Richard Posner of the U.S. Court of Appeals for two years.

Paul K. Van Riper – *Member*

Paul K. Van Riper retired from the United States Marine Corps on 1 October 1997 after more than 41 years of commissioned and enlisted service. In those years, he served in a variety of command and staff billets at posts and stations around the world. In the course of seven tours in the Fleet Marine Force, he saw duty in each of the three active divisions, commanding at every level from infantry platoon to division. He experienced combat during five of these tours.

Van Riper participated in or observed combat operations during five tours. As a second lieutenant, he commanded a platoon in Santo Domingo during the Dominican Republic crisis. As a first lieutenant, he was an advisor to the Republic of Vietnam's Marine Corps. As a captain, he led a rifle company in Vietnam. As a major, he was a United Nations Observer in the Sinai Desert and southern Lebanon. As a brigadier general, he served with I Marine Expeditionary Force in Operation Desert Storm.

Van Riper also commanded a Marine Barracks, was Director of Marine Corps Command and Staff College, served as the first President of Marine Corps University, was Assistant Chief of Staff for Command and Control and Director of Intelligence at Headquarters Marine Corps, and in his last tour was Commanding General of Marine Corps Combat Development Command at Quantico.

Van Riper is a graduate of Marine Corps Amphibious Warfare School, College of Naval Command and Staff, Army War College, and Army Airborne and Ranger Schools. His personal decorations include the Distinguished Service Medal, Silver Star Medal with gold star in lieu of a second award, Legion of Merit, Bronze Star Medal with Combat "V," Purple Heart, Meritorious Service Medal, Joint Service Commendation Medal, Army Commendation Medal, Navy Achievement Medal, and the Combat Action Ribbon with gold star.

Since retirement, Van Riper has served at various times as a member of a number of defense and service advisory boards and panels, including the National Defense University Board of Visitors, the National Research Council's Naval Studies Board, and the Army Science Board. He served as the Chairman of the Board of Directors for the Marine Corps Heritage Foundation from 2001 to 2007. He has held the Bren Chair at Marine Corps University since 2005.

Van Riper continues to participate in an array of defense and security related war games, seminars and conferences, both in the United States and overseas, and he lectures frequently at military colleges. He also consults on national security issues for several U.S. Government

organizations and agencies as well as commercial firms. A student of military history, he spends his leisure hours reading and visiting battlefields. In addition, he writes for pleasure and publication.

Larry D. Welch – *Member*

Larry D. Welch most recently served as the President and CEO of the Institute for Defense Analyses (IDA) from September 2006 until late 2008. Previously, Welch served as a senior fellow at IDA after serving as its President and CEO for a decade beginning after his retirement from the U.S. Air Force in 1990.

Welch is the former Chief of Staff of the U.S. Air Force. During his thirty-nine years in the Air Force, Welch served in operational and staff assignments in training organizations and tactical fighter units worldwide, including in Vietnam in combat. Within USAF, he was the Commander of the Tactical Air Command within the Air Force Central command and 9th Air Force, the Deputy Chief of Staff of Programs & Resources, the Vice Chief of Staff, and the Commander of the Strategic Air Command, prior to becoming Chief of Staff. As Chief of Staff, he was responsible for organizing, equipping, and executive direction of the U.S. Air Force. He was a member of the Joint Chiefs of Staff and served as military advisor to the Secretary of Defense and the President of the U.S. on national security matters.

Welch is also a Director of the Aerospace Education Foundation, the Air Force Academy Foundation, the Sandia National Laboratory, and the CACI International Corporation. He is Chairman of the Joint Committee on Nuclear Weapons Surety, the AF Space Command Independent Strategic Advisory Group, the US Strategic Command Strategic Advisory Group, and the Missile Defense White Team.

Welch received a Bachelor of Science in Business Administration from the University of Maryland and an MS in International Relations from George Washington University. He is also a graduate of the Armed Forces Staff College within the National War College.

Appendix 11

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